D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

JAN 0 4 2008

RONNY LOWDER
EMERALD INC
PO BOX 3050
SUMTER SC 29151

Re: **Notice to Proceed-Groundwater Sampling**
Bid # SB-27496-03/08/05; PO# 574989

Dear Mr. Lowder:

Based on the award of the referenced bid package, enclosed are the information packets to conduct eight (8) groundwater-sampling events. The packets contain all necessary information for work to begin. The facility has been assigned an individual Cost Agreement (CA) number as listed below. Please reference the CA number and Purchase Order #574989 on the appropriate invoice submitted for payment against the facility.

UST Permit #	Facility	County	# wells	UST Project Manager	Sampling Due Date	Parameters-Groundwater	PACE CA#	EMERALD CA#	
06797	Santee State Park	Orangeburg	2	R. Miner	02/08/08	BTEXMN, DCA & EDB	31281	31282	7
00120	Four Seasons	Aiken	23	R. Miner	02/08/08	BTEXMN, DCA, EDB, & Oxygenates	31420	31421	1
11543	Green's Amoco	Bamberg	4	R. Miner	02/08/08	BTEXMN, DCA, & Oxygenates	31328	31329	17
12417	Calvin's Quick Lube	Bamberg	4	R. Miner	02/08/08	BTEXMN & DCA	31319	31320	2
18212	Engels Store	Charleston	26	J. Skowronek	02/08/08	BTEXMN, EDB, & Lead	31391	31392	3
12805	Sommers 52	Beaufort	6	R. Miner	02/08/08	BTEXMN, DCA, & Oxygenates	31422	31423	1
14941	Village Store	Beaufort	10	R. Miner	02/08/08	BTEXMN & DCA	31416	31417	1
10628	Pantry 911	Jasper	20	M. Johnson	02/08/08	BTEXMN, DCA, EDB, & Lead	31397	31396	1

Emerald, Inc. will perform services at the sites on behalf of the site's responsible party (RP); however, payment will be made from the SUPERB Account. The site's RP has no obligation for payment for this scope of work. Please coordinate access to the facility with the property owner. Contact information has been provided in the information packet. The Bureau grants pre-approval for transportation of drums of groundwater from the referenced sites to a permitted treatment facility. The contaminated groundwater must be properly stored in labeled 55-gallon drums or equivalent containers. The contaminated groundwater must be accepted by the approved treatment facility. There can be no spillage or leakage in transport. A copy of the disposal manifest from the receiving facility that clearly designates the quantity received must be included with the final report. **Please note, the final report is due within 3 weeks from the date the site is sampled. If the site is not sampled by the specified due date or the report is not received in the specified time period, a late fee may be imposed.**

UST PROGRAM
DOCKETING # _____

Please contact me with the sampling schedule before commencing work at these facilities. If you have any questions or need further assistance, please contact me at (803) 896-6397 or thomadl@dhec.sc.gov.

Sincerely,

Debra L. Thoma

Debra L. Thoma, Hydrogeologist
Northeastern SC Corrective Action Section
Assessment & Corrective Action Division
Underground Storage Tank Program
Bureau of Land & Waste Management

enc: Information Packets
Approved Cost Agreements

cc: Kevin Herring, PACE Analytical, 9800 Kincey Ave. Ste. 100, Huntersville, NC, 28078 (w/ Approved CAs)
Technical Files (w/o. enc.)

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

February 22, 2008

Ms. Debra Thoma
SCDHEC
UST Program
2600 Bull Street
Columbia, SC 29201

RE: Project: PANTRY 911 10628/CA:31397
Pace Project No.: 9213650

Dear Ms. Thoma:
Enclosed are the analytical results for sample(s) received by the laboratory on February 15, 2008. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Inorganic Wet Chemistry and Metals analyses were performed at our Pace Asheville laboratory and Organic testing was performed at our Pace Huntersville laboratory unless otherwise footnoted. All Microbiological analyses were performed at the laboratory where the samples were received.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kevin Herring

kevin.herring@pacelabs.com
Project Manager

Enclosures

REPORT OF LABORATORY ANALYSIS

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: PANTRY 911 10628/CA:31397
Pace Project No.: 9213650

Charlotte Certification IDs
Florida/NELAP Certification Number: E87627
Kansas Certification Number: E-10364
Louisiana/LELAP Certification Number: 04034
North Carolina Drinking Water Certification Number: 37706
North Carolina Wastewater Certification Number: 12
North Carolina Field Services Certification Number: 5342
South Carolina Certification Number: 990060001
South Carolina Bioassay Certification Number: 990060003
Tennessee Certification Number: 04010
Virginia Certification Number: 00213

Asheville Certification IDs
Florida/NELAP Certification Number: E87648
Louisiana/LELAP Certification Number: 03095
New Jersey Certification Number: NC011
North Carolina Drinking Water Certification Number: 37712
North Carolina Wastewater Certification Number: 40
North Carolina Bioassay Certification Number: 9
Pennsylvania Certification Number: 68-03578
South Carolina Certification Number: 99030001
South Carolina Bioassay Certification Number: 99030002
Tennessee Certification Number: 2980
Virginia Certification Number: 00072

Eden Certification IDs
North Carolina Drinking Water Certification Number: 37738
Virginia Drinking Water Certification Number: 00424
North Carolina Wastewater Certification Number: 633

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 10628/CA:31397
Pace Project No.: 9213650

Sample: MW-9 **Lab ID: 9213650001** Collected: 02/14/08 12:00 Received: 02/15/08 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	02/16/08 00:00	02/19/08 10:29	106-93-4	
1-Chloro-2-bromopropane (S)	101	%	60-140	1	02/16/08 00:00	02/19/08 10:29	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Lead	ND	ug/L	5.0	1	02/18/08 11:55	02/19/08 05:10	7439-92-1	
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		02/17/08 14:22	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1		02/17/08 14:22	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1		02/17/08 14:22	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		02/17/08 14:22	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		02/17/08 14:22	91-20-3	
Toluene	ND	ug/L	5.0	1		02/17/08 14:22	108-88-3	
m&p-Xylene	ND	ug/L	10.0	1		02/17/08 14:22	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		02/17/08 14:22	95-47-6	
4-Bromofluorobenzene (S)	99	%	87-109	1		02/17/08 14:22	460-00-4	
Dibromofluoromethane (S)	101	%	85-115	1		02/17/08 14:22	1868-53-7	
1,2-Dichloroethane-d4 (S)	97	%	79-120	1		02/17/08 14:22	17060-07-0	
Toluene-d8 (S)	100	%	70-120	1		02/17/08 14:22	2037-26-5	

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 10628/CA:31397
Pace Project No.: 9213650

Sample: MW-7RR **Lab ID: 9213650002** Collected: 02/14/08 12:50 Received: 02/15/08 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011		Preparation Method: EPA 8011					
1,2-Dibromoethane (EDB)	**6.9**	ug/L	1.0	50	02/17/08 00:00	02/22/08 10:38	106-93-4	
1-Chloro-2-bromopropane (S)	0	%	60-140	50	02/17/08 00:00	02/22/08 10:38	301-79-56	S4
6010 MET ICP	Analytical Method: EPA 6010		Preparation Method: EPA 3010					
Lead	**110**	ug/L	5.0	1	02/18/08 11:55	02/19/08 05:20	7439-92-1	
8260 MSV	Analytical Method: EPA 8260							
Benzene	**20200**	ug/L	1250	250		02/21/08 21:11	71-43-2	
1,2-Dichloroethane	**1210**	ug/L	100	20		02/19/08 18:50	107-06-2	
Ethylbenzene	**1860**	ug/L	100	20		02/19/08 18:50	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	100	20		02/19/08 18:50	1634-04-4	
Naphthalene	**792**	ug/L	100	20		02/19/08 18:50	91-20-3	
Toluene	**26300**	ug/L	1250	250		02/21/08 21:11	108-88-3	
m&p-Xylene	**6360**	ug/L	200	20		02/19/08 18:50	1330-20-7	
o-Xylene	**3200**	ug/L	100	20		02/19/08 18:50	95-47-6	
4-Bromofluorobenzene (S)	98	%	87-109	20		02/19/08 18:50	460-00-4	
Dibromofluoromethane (S)	100	%	85-115	20		02/19/08 18:50	1868-53-7	
1,2-Dichloroethane-d4 (S)	96	%	79-120	20		02/19/08 18:50	17060-07-0	
Toluene-d8 (S)	100	%	70-120	20		02/19/08 18:50	2037-26-5	

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 10628/CA:31397
Pace Project No.: 9213650

Sample: MW-15 **Lab ID: 9213650003** Collected: 02/14/08 13:00 Received: 02/15/08 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	02/17/08 00:00	02/19/08 19:20	106-93-4	
1-Chloro-2-bromopropane (S)	97	%	60-140	1	02/17/08 00:00	02/19/08 19:20	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Lead	ND	ug/L	5.0	1	02/18/08 11:55	02/19/08 05:38	7439-92-1	
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		02/17/08 14:46	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1		02/17/08 14:46	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1		02/17/08 14:46	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		02/17/08 14:46	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		02/17/08 14:46	91-20-3	
Toluene	ND	ug/L	5.0	1		02/17/08 14:46	108-88-3	
m&p-Xylene	ND	ug/L	10.0	1		02/17/08 14:46	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		02/17/08 14:46	95-47-6	
4-Bromofluorobenzene (S)	100	%	87-109	1		02/17/08 14:46	460-00-4	
Dibromofluoromethane (S)	96	%	85-115	1		02/17/08 14:46	1868-53-7	
1,2-Dichloroethane-d4 (S)	98	%	79-120	1		02/17/08 14:46	17060-07-0	
Toluene-d8 (S)	99	%	70-120	1		02/17/08 14:46	2037-26-5	

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 10628/CA:31397
Pace Project No.: 9213650

Sample: MW-5R **Lab ID: 9213650004** Collected: 02/14/08 13:15 Received: 02/15/08 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	02/17/08 00:00	02/19/08 19:38	106-93-4	
1-Chloro-2-bromopropane (S)	78	%	60-140	1	02/17/08 00:00	02/19/08 19:38	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Lead	ND	ug/L	5.0	1	02/18/08 11:55	02/19/08 05:44	7439-92-1	
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		02/17/08 15:10	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1		02/17/08 15:10	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1		02/17/08 15:10	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		02/17/08 15:10	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		02/17/08 15:10	91-20-3	
Toluene	ND	ug/L	5.0	1		02/17/08 15:10	108-88-3	
m&p-Xylene	ND	ug/L	10.0	1		02/17/08 15:10	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		02/17/08 15:10	95-47-6	
4-Bromofluorobenzene (S)	100	%	87-109	1		02/17/08 15:10	460-00-4	
Dibromofluoromethane (S)	102	%	85-115	1		02/17/08 15:10	1868-53-7	
1,2-Dichloroethane-d4 (S)	97	%	79-120	1		02/17/08 15:10	17060-07-0	
Toluene-d8 (S)	98	%	70-120	1		02/17/08 15:10	2037-26-5	

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 10628/CA:31397
Pace Project No.: 9213650

Sample: MW-14 **Lab ID: 9213650005** Collected: 02/14/08 13:30 Received: 02/15/08 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	02/17/08 00:00	02/19/08 19:47	106-93-4	
1-Chloro-2-bromopropane (S)	81	%	60-140	1	02/17/08 00:00	02/19/08 19:47	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Lead	ND	ug/L	5.0	1	02/18/08 11:55	02/19/08 05:51	7439-92-1	
8260 MSV	Analytical Method: EPA 8260							
Benzene	**12700**	ug/L	1250	250		02/21/08 21:35	71-43-2	
1,2-Dichloroethane	ND	ug/L	250	50		02/19/08 20:24	107-06-2	
Ethylbenzene	**2250**	ug/L	250	50		02/19/08 20:24	100-41-4	
Methyl-tert-butyl ether	**4390**	ug/L	250	50		02/19/08 20:24	1634-04-4	
Naphthalene	**418**	ug/L	250	50		02/19/08 20:24	91-20-3	
Toluene	**16500**	ug/L	1250	250		02/21/08 21:35	108-88-3	
m&p-Xylene	**7920**	ug/L	500	50		02/19/08 20:24	1330-20-7	
o-Xylene	**2360**	ug/L	250	50		02/19/08 20:24	95-47-6	
4-Bromofluorobenzene (S)	101	%	87-109	50		02/19/08 20:24	460-00-4	
Dibromofluoromethane (S)	93	%	85-115	50		02/19/08 20:24	1868-53-7	
1,2-Dichloroethane-d4 (S)	94	%	79-120	50		02/19/08 20:24	17060-07-0	
Toluene-d8 (S)	100	%	70-120	50		02/19/08 20:24	2037-26-5	

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 10628/CA:31397
Pace Project No.: 9213650

Sample: PW-1R **Lab ID: 9213650006** Collected: 02/14/08 13:50 Received: 02/15/08 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	02/17/08 00:00	02/19/08 19:56	106-93-4	
1-Chloro-2-bromopropane (S)	94	%	60-140	1	02/17/08 00:00	02/19/08 19:56	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Lead	**24.1**	ug/L	5.0	1	02/18/08 11:55	02/19/08 05:58	7439-92-1	
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		02/17/08 15:33	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1		02/17/08 15:33	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1		02/17/08 15:33	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		02/17/08 15:33	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		02/17/08 15:33	91-20-3	
Toluene	ND	ug/L	5.0	1		02/17/08 15:33	108-88-3	
m&p-Xylene	ND	ug/L	10.0	1		02/17/08 15:33	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		02/17/08 15:33	95-47-6	
4-Bromofluorobenzene (S)	100	%	87-109	1		02/17/08 15:33	460-00-4	
Dibromofluoromethane (S)	98	%	85-115	1		02/17/08 15:33	1868-53-7	
1,2-Dichloroethane-d4 (S)	97	%	79-120	1		02/17/08 15:33	17060-07-0	
Toluene-d8 (S)	99	%	70-120	1		02/17/08 15:33	2037-26-5	

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 10628/CA:31397
Pace Project No.: 9213650

Sample: MW-4R **Lab ID: 9213650007** Collected: 02/14/08 14:20 Received: 02/15/08 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	02/17/08 00:00	02/19/08 20:04	106-93-4	
1-Chloro-2-bromopropane (S)	83	%	60-140	1	02/17/08 00:00	02/19/08 20:04	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Lead	ND	ug/L	5.0	1	02/18/08 11:55	02/19/08 06:02	7439-92-1	
8260 MSV	Analytical Method: EPA 8260							
Benzene	**4940**	ug/L	1250	250		02/21/08 21:58	71-43-2	
1,2-Dichloroethane	ND	ug/L	25.0	5		02/19/08 17:15	107-06-2	
Ethylbenzene	**977**	ug/L	25.0	5		02/19/08 17:15	100-41-4	
Methyl-tert-butyl ether	**27200**	ug/L	1250	250		02/21/08 21:58	1634-04-4	
Naphthalene	**113**	ug/L	25.0	5		02/19/08 17:15	91-20-3	
Toluene	**5350**	ug/L	1250	250		02/21/08 21:58	108-88-3	
m&p-Xylene	**1850**	ug/L	50.0	5		02/19/08 17:15	1330-20-7	
o-Xylene	**1740**	ug/L	1250	250		02/21/08 21:58	95-47-6	
4-Bromofluorobenzene (S)	99	%	87-109	5		02/19/08 17:15	460-00-4	
Dibromofluoromethane (S)	102	%	85-115	5		02/19/08 17:15	1868-53-7	
1,2-Dichloroethane-d4 (S)	93	%	79-120	5		02/19/08 17:15	17060-07-0	
Toluene-d8 (S)	99	%	70-120	5		02/19/08 17:15	2037-26-5	

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 10628/CA:31397
Pace Project No.: 9213650

Sample: MW-3R **Lab ID: 9213650008** Collected: 02/14/08 14:35 Received: 02/15/08 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	02/17/08 00:00	02/19/08 20:13	106-93-4	
1-Chloro-2-bromopropane (S)	0	%	60-140	1	02/17/08 00:00	02/19/08 20:13	301-79-56	1g
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Lead	**6.9**	ug/L	5.0	1	02/18/08 11:55	02/19/08 06:08	7439-92-1	
8260 MSV	Analytical Method: EPA 8260							
Benzene	**1790**	ug/L	50.0	10		02/19/08 17:39	71-43-2	
1,2-Dichloroethane	ND	ug/L	50.0	10		02/19/08 17:39	107-06-2	
Ethylbenzene	**633**	ug/L	50.0	10		02/19/08 17:39	100-41-4	
Methyl-tert-butyl ether	**1980**	ug/L	50.0	10		02/19/08 17:39	1634-04-4	
Naphthalene	**203**	ug/L	50.0	10		02/19/08 17:39	91-20-3	
Toluene	**6010**	ug/L	500	100		02/21/08 22:22	108-88-3	
m&p-Xylene	**3460**	ug/L	100	10		02/19/08 17:39	1330-20-7	
o-Xylene	**3000**	ug/L	500	100		02/21/08 22:22	95-47-6	
4-Bromofluorobenzene (S)	97	%	87-109	10		02/19/08 17:39	460-00-4	
Dibromofluoromethane (S)	99	%	85-115	10		02/19/08 17:39	1868-53-7	
1,2-Dichloroethane-d4 (S)	90	%	79-120	10		02/19/08 17:39	17060-07-0	
Toluene-d8 (S)	100	%	70-120	10		02/19/08 17:39	2037-26-5	

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 10628/CA:31397
Pace Project No.: 9213650

Sample: MW-2 **Lab ID: 9213650009** Collected: 02/14/08 14:55 Received: 02/15/08 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011		Preparation Method: EPA 8011					
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	02/17/08 00:00	02/19/08 20:22	106-93-4	
1-Chloro-2-bromopropane (S)	90	%	60-140	1	02/17/08 00:00	02/19/08 20:22	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010		Preparation Method: EPA 3010					
Lead	ND	ug/L	5.0	1	02/18/08 11:55	02/19/08 06:13	7439-92-1	
8260 MSV	Analytical Method: EPA 8260							
Benzene	**5.6**	ug/L	5.0	1		02/17/08 15:57	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1		02/17/08 15:57	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1		02/17/08 15:57	100-41-4	
Methyl-tert-butyl ether	**322**	ug/L	50.0	10		02/18/08 18:46	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		02/17/08 15:57	91-20-3	
Toluene	ND	ug/L	5.0	1		02/17/08 15:57	108-88-3	
m&p-Xylene	ND	ug/L	10.0	1		02/17/08 15:57	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		02/17/08 15:57	95-47-6	
4-Bromofluorobenzene (S)	101	%	87-109	1		02/17/08 15:57	460-00-4	
Dibromofluoromethane (S)	103	%	85-115	1		02/17/08 15:57	1868-53-7	
1,2-Dichloroethane-d4 (S)	100	%	79-120	1		02/17/08 15:57	17060-07-0	
Toluene-d8 (S)	99	%	70-120	1		02/17/08 15:57	2037-26-5	

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 10628/CA:31397
Pace Project No.: 9213650

Sample: MW-10 **Lab ID: 9213650010** Collected: 02/14/08 15:20 Received: 02/15/08 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011		Preparation Method: EPA 8011					
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	02/17/08 00:00	02/19/08 20:31	106-93-4	
1-Chloro-2-bromopropane (S)	86	%	60-140	1	02/17/08 00:00	02/19/08 20:31	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010		Preparation Method: EPA 3010					
Lead	**30.7**	ug/L	5.0	1	02/18/08 11:55	02/19/08 06:17	7439-92-1	
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		02/19/08 14:54	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1		02/19/08 14:54	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1		02/19/08 14:54	100-41-4	
Methyl-tert-butyl ether	**5.1**	ug/L	5.0	1		02/19/08 14:54	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		02/19/08 14:54	91-20-3	
Toluene	ND	ug/L	5.0	1		02/19/08 14:54	108-88-3	
m&p-Xylene	ND	ug/L	10.0	1		02/19/08 14:54	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		02/19/08 14:54	95-47-6	
4-Bromofluorobenzene (S)	99	%	87-109	1		02/19/08 14:54	460-00-4	
Dibromofluoromethane (S)	101	%	85-115	1		02/19/08 14:54	1868-53-7	
1,2-Dichloroethane-d4 (S)	86	%	79-120	1		02/19/08 14:54	17060-07-0	
Toluene-d8 (S)	99	%	70-120	1		02/19/08 14:54	2037-26-5	

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 10628/CA:31397
Pace Project No.: 9213650

QC Batch: OEXT/2449
QC Batch Method: EPA 8011
Analysis Method: EPA 8011
Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 9213650001

METHOD BLANK: 78133
Associated Lab Samples: 9213650001

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	
1-Chloro-2-bromopropane (S)	%	110	60-140	

LABORATORY CONTROL SAMPLE & LCSD: 78134 78135

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.29	0.26	0.27	92	96	60-140	4	20	
1-Chloro-2-bromopropane (S)	%				90	94	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 78136 78137

Parameter	Units	9213567015 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	.29	.29	0.29	0.29	102	102	60-140	0	
1-Chloro-2-bromopropane (S)	%						94	93	60-140		

SAMPLE DUPLICATE: 78138

Parameter	Units	9213567016 Result	Dup Result	RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND	0	
1-Chloro-2-bromopropane (S)	%		94	9	

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 10628/CA:31397
Pace Project No.: 9213650

QC Batch: MSV/2596 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 9213650001, 9213650003, 9213650004, 9213650006, 9213650009

METHOD BLANK: 78161
Associated Lab Samples: 9213650001, 9213650003, 9213650004, 9213650006, 9213650009

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	
Benzene	ug/L	ND	5.0	
Ethylbenzene	ug/L	ND	5.0	
m&p-Xylene	ug/L	ND	10.0	
Methyl-tert-butyl ether	ug/L	ND	5.0	
Naphthalene	ug/L	ND	5.0	
o-Xylene	ug/L	ND	5.0	
Toluene	ug/L	ND	5.0	
1,2-Dichloroethane-d4 (S)	%	94	79-120	
4-Bromofluorobenzene (S)	%	100	87-109	
Dibromofluoromethane (S)	%	103	85-115	
Toluene-d8 (S)	%	98	70-120	

LABORATORY CONTROL SAMPLE: 78162

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	58.4	117	72-126	
Benzene	ug/L	50	61.5	123	78-128	
Ethylbenzene	ug/L	50	62.1	124	80-127	
m&p-Xylene	ug/L	100	124	124	82-127	
Methyl-tert-butyl ether	ug/L	50	63.2	126	71-130	
Naphthalene	ug/L	50	66.2	132	52-136	
o-Xylene	ug/L	50	59.6	119	83-124	
Toluene	ug/L	50	62.3	125	76-126	
1,2-Dichloroethane-d4 (S)	%			100	79-120	
4-Bromofluorobenzene (S)	%			101	87-109	
Dibromofluoromethane (S)	%			101	85-115	
Toluene-d8 (S)	%			99	70-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 78163 78164

Parameter	Units	9213695001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Benzene	ug/L	ND	50	50	58.6	63.8	117	128	74-136	9	
Toluene	ug/L	ND	50	50	58.1	62.9	115	125	73-131	8	
1,2-Dichloroethane-d4 (S)	%						100	102	79-120		
4-Bromofluorobenzene (S)	%						99	98	87-109		
Dibromofluoromethane (S)	%						99	102	85-115		
Toluene-d8 (S)	%						99	100	70-120		

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 10628/CA:31397
Pace Project No.: 9213650

QC Batch: OEXT/2450 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 9213650002, 9213650003, 9213650004, 9213650005, 9213650006, 9213650007, 9213650008, 9213650009, 9213650010

METHOD BLANK: 78165

Associated Lab Samples: 9213650002, 9213650003, 9213650004, 9213650005, 9213650006, 9213650007, 9213650008, 9213650009, 9213650010

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	
1-Chloro-2-bromopropane (S)	%	82	60-140	

LABORATORY CONTROL SAMPLE & LCSD: 78166 78167

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.29	0.29	0.30	102	104	60-140	2	20	
1-Chloro-2-bromopropane (S)	%				92	93	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 78168 78169

Parameter	Units	9213650002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	6.9	.29	.29	4.6	4.8	-794	-704	60-140	5	2g
1-Chloro-2-bromopropane (S)	%						86	87	60-140		

SAMPLE DUPLICATE: 78170

Parameter	Units	9213650003 Result	Dup Result	RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND	0	
1-Chloro-2-bromopropane (S)	%		79	20	

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 10628/CA:31397
Pace Project No.: 9213650

QC Batch: MPRP/1886
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Associated Lab Samples: 9213650001, 9213650002, 9213650003, 9213650004, 9213650005, 9213650006, 9213650007, 9213650008, 9213650009, 9213650010

METHOD BLANK: 78203

Associated Lab Samples: 9213650001, 9213650002, 9213650003, 9213650004, 9213650005, 9213650006, 9213650007, 9213650008, 9213650009, 9213650010

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Lead	ug/L	ND	5.0	

LABORATORY CONTROL SAMPLE: 78204

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	500	519	104	80-120	

MATRIX SPIKE SAMPLE: 78205

Parameter	Units	9213650001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	ND	500	495	99	75-125	

SAMPLE DUPLICATE: 78206

Parameter	Units	9213650002 Result	Dup Result	RPD	Qualifiers
Lead	ug/L	110	113	3	

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 10628/CA:31397
Pace Project No.: 9213650

QC Batch: MSV/2606 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 9213650002, 9213650005, 9213650007, 9213650008, 9213650010

METHOD BLANK: 78518

Associated Lab Samples: 9213650002, 9213650005, 9213650007, 9213650008, 9213650010

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	
Benzene	ug/L	ND	5.0	
Ethylbenzene	ug/L	ND	5.0	
m&p-Xylene	ug/L	ND	10.0	
Methyl-tert-butyl ether	ug/L	ND	5.0	
Naphthalene	ug/L	ND	5.0	
o-Xylene	ug/L	ND	5.0	
Toluene	ug/L	ND	5.0	
1,2-Dichloroethane-d4 (S)	%	89	79-120	
4-Bromofluorobenzene (S)	%	102	87-109	
Dibromofluoromethane (S)	%	99	85-115	
Toluene-d8 (S)	%	99	70-120	

LABORATORY CONTROL SAMPLE: 78519

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	48.5	97	72-126	
Benzene	ug/L	50	51.5	103	78-128	
Ethylbenzene	ug/L	50	51.8	104	80-127	
m&p-Xylene	ug/L	100	104	104	82-127	
Methyl-tert-butyl ether	ug/L	50	48.1	96	71-130	
Naphthalene	ug/L	50	56.8	114	52-136	
o-Xylene	ug/L	50	50.3	101	83-124	
Toluene	ug/L	50	51.9	104	76-126	
1,2-Dichloroethane-d4 (S)	%			97	79-120	
4-Bromofluorobenzene (S)	%			101	87-109	
Dibromofluoromethane (S)	%			98	85-115	
Toluene-d8 (S)	%			100	70-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 78534 78535

Parameter	Units	9213650010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Benzene	ug/L	ND	50	50	60.3	56.5	120	112	74-136	7	
Toluene	ug/L	ND	50	50	58.5	55.5	114	108	73-131	5	
1,2-Dichloroethane-d4 (S)	%						93	94	79-120		
4-Bromofluorobenzene (S)	%						100	102	87-109		
Dibromofluoromethane (S)	%						102	103	85-115		
Toluene-d8 (S)	%						99	99	70-120		

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: PANTRY 911 10628/CA:31397
Pace Project No.: 9213650

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

ANALYTE QUALIFIERS

1g	The surrogate recovery was outside QC acceptance limits due to matrix interference.
2g	The spike recovery was outside acceptance limits for the MS and/or MSD due to high analyte concentration. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

1167930

Section A — **Required** Client Information:

Company: SCDHEC-UST
Address: 2600 Bull St.
Columbia, SC 29201
Email To:
Phone: 803.896.8240 Fax: 803.896.6245
Requested Due Date/TAT: 7 Days

Section B — **Required** Project Information:

Report To: D. Thomas
Copy To:
Purchase Order No.: 587465
Project Name: Pantry 911
Project Number: 10628/CA: 31397

Section C — Invoice Information:

Attention: Finance
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #: 849-1

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☒ UST ☐ RCRA ☐ OTHER

Site Location STATE: SC

Section D — **Required** Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE)

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: BTEX MTBE (8260B)	1,2 DCA (8260B)	EDB (8011) Lead	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-9	WT	G	2/14/08	1200	—	—	—	7			1	6					X	X	X	X	9213650
2	MW-7RR				1250	—	—	—														Strong odor
3	MW-15				1300	—	—	—														Mild odor
4	MW-5R				1315	—	—	—														
5	MW-14				1330	—	—	—														Strong odor
6	PW-1R				1350	—	—	—														
7	MW-4R				1420	—	—	—														Mild odor
8	MW-3R				1435	—	—	—														Strong odor
9	MW-2				1455	—	—	—														
10	MW-10	↓	↓	↓	1520	—	—	—	↓			↓	↓					↓	↓	↓	↓	
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	Dalton Raines	2/14/08	1800		02/15/08	920	5.2	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Dalton Raines
SIGNATURE of SAMPLER: Dalton Raines
DATE Signed (MM/DD/YY): 2/14/08

2

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

SITE ACTIVITY SUMMARY

UST PERMIT # 10628
FACILITY NAME Pantry 911
COUNTY Jasper
NAME OF SAMPLER Dalton Reaves

Sample ID	sampled?	Date	Time	Depth of Well	Depth to Water	Depth to Product	FP Thickness	# gal purged	comments
MW-9	Y	2/14/08	1200	20.00	5.52	—	—	—	—
MW-7RR	Y		1250	12'	6.27	—	—	—	Strong Odor
MW-15	Y		1300	12'	4.47	—	—	—	Mild Odor
MW-5R	Y		1315	15'	2.67	—	—	3.0	— Clear, No
MW-14	Y		1330	12'	2.29	—	—	—	Strong Odor
PW-1R	Y		1350	35'	3.88	—	—	5.0	Clear. No Sea Purge Sheet.
MW-4R	Y		1420	15'	3.97	—	—	~~3.0~~	~~6.0~~ 7 Mild Odor
MW-3R	Y		1435	12'	3.21	—	—	—	Strong odor
MW-2	Y		1455	13.05'	5.98	—	—	—	Needed Metal Detector,
MW-10	Y		1520	12'	3.86	—	—	—	—
MW-8	N								Found, but Stickup Destroyed
MW-6RR	N								Could not locate
MW-12	N								Found, but destroyed
MW-13	N								Not located
MW-11	N								Could not locate
MW-9R	N								Two large unrestrained
DW-1	N								ground dogs chased
MW-1RR	N								me from area & prevented
WSW-1	N								further sampling

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 2/14/08
Field Personnel: Dalton Reames
General Weather Conditions: Sunny / Nice

Ambient Air Temperature: ___ °C 59°F

Quality Assurance

pH Meter		Conductivity Meter	
serial no.	09642	serial no.	103631
pH=4.0	—	standard	—
pH=7.0	—	standard	—
pH=10.0	—	standard	—

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Robert Ross	2/14/08 1800		

Facility Name: Pantry 911
Site ID#: 10628 **Monitoring Well #** MW-5R
Water Supply Well **Public** ___ **Private** ___

Monitoring Well Diameter (D): 4 166 feet

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:	—	feet
Depth to Free Product (DFP)	—	feet
Depth to Ground Water (DGW)	2.67	feet
Total Well Depth (TWD)	15.00	feet
Length of the water column (LWC=TWD-DGW)	12.33	feet

1 casing volume (CV=LWC X C)= 12.33 X .166 = 2.0 gals
3 casing volume (3 X CV)= 6.0 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 3.0 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol 1.0	2nd Vol 1.0	3rd Vol 1.0	4th Vol	5th Vol	Post Sampling	
Time (military)	↓	1310	1312	1315				
pH (s.u.)		6.68	6.50	6.49				
Specific Conductivity (µmhos/cm)		645	643	643				
Water Temperature (°C)		18.9	18.8	18.8				
Dissolved Oxygen	N/A							
PID readings, if required	—							

Remarks: Clear - N/O. 1st Bailer full was very Turbid. Sampled @ 1315

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 2/14/08
Field Personnel: Dalton Reames
General Weather Conditions: Sunny / Nice

Ambient Air Temperature: ___ °C 60 °F

Quality Assurance

pH Meter
serial no. 09642
pH=4.0 —
pH=7.0 —
pH=10.0 —

Conductivity Meter
serial no. 103631
standard —
standard
standard

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
[signature]	2/14/08 1400		

Facility Name: Pantry 911
Site ID#: 10628 **Monitoring Well #** ~~MW-1~~ PW-1R
Water Supply Well **Public** ___ **Private** ___

Monitoring Well Diameter (D): .166 feet

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:	—	feet
Depth to Free Product (DFP)	—	feet
Depth to Ground Water (DGW)	3.88	feet
Total Well Depth (TWD)	35.00	feet
Length of the water column (LWC=TWD-DGW)	31.12	feet

1 casing volume (CV=LWC X C)= 31.12 X .166 = 5.25 gals
3 casing volume (3 X CV)= 15.75 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 5.0 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	2.0 1st Vol	2.0 2nd Vol	1.0 3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	"	1342	1346	1349				
pH (s.u.)	"	7.33	7.54	7.63				
Specific Conductivity (µmhos/cm)	"	280	262	259				
Water Temperature (°C)	↓	23.1	23.6	23.6				
Dissolved Oxygen	N/A							
PID readings, if required	—							

Remarks: Sampled for lead pre-purge; clear - N/O Sampled @ 1350
H2O fell in from casing; could not prevent due to how well was constructed.

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 2/14/08

Field Personnel: Dalton Reames

General Weather Conditions: Sunny/Nice

Ambient Air Temperature: _____ °C 62°F

Quality Assurance

pH Meter
serial no. 09642
pH=4.0 ✓
pH=7.0 ✓
pH=10.0 ✓

Conductivity Meter
serial no. 103631
standard ✓
standard
standard

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
Dalton	2/14/08 1520		

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** MW-4R

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): .166 feet

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:	—	feet
Depth to Free Product (DFP)	—	feet
Depth to Ground Water (DGW)	3.97	feet
Total Well Depth (TWD)	15.00	feet
Length of the water column (LWC=TWD-DGW)	11.03	feet

1 casing volume (CV=LWC X C)= 11.03 X .166 = 1.75 gals
3 casing volume (3 X CV)= 5.25 gals (standard purge volume)

Total Volume of Water Purged Before Sampling 3.0 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1.0 1st Vol	1.0 2nd Vol	1.0 3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	✓	1414	1417	1420				
pH (s.u.)	↓	5.72	5.60	5.50				
Specific Conductivity (µmhos/cm)	↓	288	270	269				
Water Temperature (°C)	✓	18.9	18.5	18.5				
Dissolved Oxygen	N/A							
PID readings, if required	—							

Remarks: slight odor Sampled @ 1420

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

JUN 0 4 2008

BRYAN SHANE
MIDLANDS ENVIRONMENTAL CONSULTANTS
PO BOX 854
LEXINGTON SC 29071

Re: **Notice to Proceed-Groundwater Sampling**
Bid # IFB-33335-3/11/08-EMW; PO# 719459

Dear Mr. Shane:

Based on the award of the referenced bid package, enclosed are the information packets to conduct two (2) groundwater-sampling events. The packets contain all necessary information for work to begin. The facility has been assigned an individual Cost Agreement (CA) number as listed below. Please reference the CA number and Purchase Order # 719459 on the appropriate invoice submitted for payment against the facility. MECI has one week upon receipt of this letter to mobilize to the site for sampling.

UST Permit #	Facility	County	# wells	UST Project Manager	Sampling Due Date	Parameters-Groundwater	PACE CA#	MECI CA#
15808	Ken's El Cheapo	Jasper	19	T. Jaspers	06/12/08	BTEXMN	32471	32470
10628	Pantry 911	Jasper	21	M. Johnson	06/12/08	BTEXMN, DCA, EDB, & total lead	32293	32294

MECI will perform services at the sites on behalf of the site's responsible party (RP); however, payment will be made from the SUPERB Account. The site's RP has no obligation for payment for this scope of work. Please coordinate access to the facility with the property owner. Contact information has been provided in the information packet. The Department grants pre-approval for transportation of virgin petroleum impacted soil and groundwater from the referenced site to a permitted treatment facility. There can be no spillage or leakage in transport. All investigation-derived waste (IDW) must be properly contained and labeled prior to disposal. A copy of the disposal manifest and/or acceptance letter from the receiving facility that clearly designates the quantity received must be included with the final report. The SUPERB Account will not reimburse for transportation or treatment of soil and/or groundwater with concentrations below RBSLs. **Please note, the final report is due within 3 weeks from the date the site is sampled. If the site is not sampled by the specified due date or the report is not received in the specified time period, a late fee may be imposed.**

UST DOCKET

3 tee

Please contact me with the sampling schedule before commencing work at these facilities. If you have any questions or need further assistance, please contact me at (803) 896-6397 or thomadl@dhec.sc.gov.

Sincerely,

Debra L. Thoma

Debra L. Thoma, Hydrogeologist
Northeastern SC Corrective Action Section
Assessment & Corrective Action Division
Underground Storage Tank Program
Bureau of Land & Waste Management

enc: Information Packets
Approved Cost Agreements

cc: Kevin Godwin, PACE Analytical, 9800 Kincey Ave. Ste. 100, Huntersville, NC, 28078 (w/ Approved CAs)
Technical Files (w/o. enc.)

Approved Cost Agreement 32293

Facility: 10628 PANTRY 911

JOHNSOMS

PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
11 ANALYSES						
	GW GROUNDWATER	A	BTEX+NAPTH+MTBE	21.0000	23.00	483.00
		E	LEAD	21.0000	7.00	147.00
		F	EDB	21.0000	27.00	567.00
				Total Amount		1,197.00

Approved Cost Agreement 32294

Facility: 10628 PANTRY 911
JOHNSOMS
PO Number:

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB					
		B PERSONNEL	2.0000	150.00	300.00
10 SAMPLE COLLECTION					
		A GROUND WATER	20.0000	12.00	240.00
		C WATER SUPPLY	1.0000	10.00	10.00
17 DISPOSAL					
		A1 WASTEWATER - PURGING/SAMPLING	30.0000	0.30	9.00
			Total Amount		559.00

Midlands Environmental Consultants, Inc.

June 9, 2008

Ms. Debra Thoma, Hydrogeologist
Northeastern SC Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Report of Groundwater Sampling
Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID Number 10628, CA # 32294
MECI Project Number 08-1661

Dear Ms. Thoma,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Report of Sampling for the referenced site.

On June 5, 2008, ten monitoring wells (MW-2, MW-3R, MW-4R, MW-5R, MW-9, MW-10, MW-11, MW-14, MW-15 and PW-1R) were sampled. One monitoring well (PW-1R) was purged prior to sampling. One monitoring well (MW-7RR) was gauged and determined to be contain product at the time of sampling. Eleven monitoring wells (MW-1R, MW-1RR, MW-3, MW-6R, MW-6RR, MW-7R, MW-8, MW-9R, MW-12, MW-13 and DW-1) were not located at the time of sampling. One water supply well (WSW-1) was out of service at the time of sampling. Groundwater samples obtained were transported to Pace Analytical Services, Inc. of Huntersville, NC for analysis.

Purge water produced by the purging process was treated on-site utilizing a granular activated carbon unit. A total of 5.0 gallons of purge water was disposed of in this manner. A disposal manifest for the referenced purge water is attached at the end of this report.

If you have any question or comments please feel free to contact us at 803-808-2043.

Sincerely,
Midlands Environmental Consultants, Inc.

Brandon T. Guiles
Staff Biologist

William C. McClary, P.G.
Senior Geologist

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

Site Activity Summary

UST Permit #: 10628
Facility Name: Pantry 911
County: Jasper
Field Personnel: Clark Baer, John Bryant

Midlands Environmental Consultants, Inc.
235-B Dooley Road, Lexington, SC 29073
(803) 808-2043 fax: 808-2048

Sample ID	Sampled?	Date	Time	Screened Interval	Depth to Product	Depth to Water	Product Thickness	# Gals. Purged	Comments
MW-1R	N	6/5/08	NL	5-15	NL	NL	NL	NL	Not Located
MW-1RR	N	6/5/08	NL	2-12	NL	NL	NL	NL	Not Located
MW-2	Y	6/5/08	14:53	3.05-13.05	***	9.77	**	**	Odor
MW-3	N	6/5/08	NL	3.10-13.10	NL	NL	NL	NL	Not Located
MW-3R	Y	6/5/08	15:09	2-12	***	4.85	***	***	Odor
MW-4R	Y	6/5/08	15:40	5-15	***	7.34	Dry	Dry	Odor
MW-5R	Y	6/5/08	13:43	5-15	***	6.45	***	***	No Odor
MW-6R	N	6/5/08	NL	8-18	NL	NL	NL	NL	Not Located
MW-6RR	N	6/5/08	NL	2-12	NL	NL	NL	NL	Not Located
MW-7R	N	6/5/08	NL	5-15	NL	NL	NL	NL	Not Located
MW-7RR	N	6/5/08	14:47	2-12	9.96	10.06	0.10	***	Product
MW-8	N	6/5/08	NL	8-18	NL	NL	NL	NL	Not Located
MW-9	Y	6/5/08	14:10	8-18	***	10.25	***	***	No Odor
MW-9R	N	6/5/08	NL	2-12	NL	NL	NL	NL	Not Located
MW-10	Y	6/5/08	14:33	2-12	***	7.72	***	***	No Odor
								0.0	**TOTAL GALLONS PURGED**

Site Activity Summary

UST Permit #: 10628
Facility Name: Pantry 911
County: Jasper
Field Personnel: Clark Baer, John Bryant

Midlands Environmental Consultants, Inc.
235-B Dooley Road, Lexington, SC 29073
(803) 808-2043 Fax: 808-2048

Sample ID	Sampled?	Date	Time	Screened Interval	Depth to Product	Depth to Water	Product Thickness	# Gals. Purged	Comments
MW-11	Y	6/5/08	13:35	2-12	***	5.13	***	***	No Odor
MW-12	N	6/5/08	NL	2-12	NL	NL	NL	NL	Not Located
MW-13	N	6/5/08	NL	2-12	NL	NL	NL	NL	Not Located
MW-14	Y	6/5/08	15:16	2-12	***	3.52	***	***	Odor
MW-15	Y	6/5/08	15:00	2-12	***	5.90	***	***	Odor
PW-1R	Y	6/5/08	15:45	30-35	***	4.86	***	5.00	No Odor, Dry at 5 gallons
DW-1	N	6/5/08	NL	30-35	NL	NL	NL	NL	Not Located
WSW-1	N	6/5/08	***	***	***	***	***	***	Out of Service
								5.0	**TOTAL GALLONS PURGED**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 6/5/2008
Field Personnel: Clark Baer, John Bryant
General Weather Conditions: Sunny

Ambient Air Temperature: 28.0 °C

Quality Assurance

pH Meter	YSI Model 550A	Conductivity Meter	
serial no.	02A0831	serial no.	02A0831
pH=4.0		standard	X
pH=7.0	X	standard	
pH=10.0		standard	

Chain of Custody

Relinquished by Date/Time Received by Date/Time

Facility Name: Pantry 911
Site ID#: 10628 **Monitoring Well #** PW-1R
Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	4.86			feet
Total Well Depth (TWD)	35			feet
Length of the water column (LWC=TWD-DGW)			30.14	feet
1 casing volume (CV=LWC X C)=		X 0.163	4.91282	gallons
3 casing volume (3 X CV)=		3	14.73846	gallons

Total Volume of Water Purged Before Sampling 5 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons) within screen	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	15:35	15:45						
pH (s.u.)	7.98	7.94						
Specific Conductivity (µmhos/cm)	266.6	230.5						
Water Temperature (°C)	26.7	26.4						
Dissolved Oxygen	0.47	1.74						
PID readings, if required								

Remarks: Sample Time: 15:45 Dry at 5 gallons

Midlands
Environmental
Consultants, Inc.

June 9, 2008

Re: Treatment of Purge Water
Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID Number 10628
MECI Project Number 08-1661

To Whom It May Concern;

Midlands Environmental Consultants, Inc. is providing the following letter as certification that treatment of the referenced purge water complied with the conditions of "Proposed Conditions for Use of Portable Activated Carbon Units for the Treatment of Small Volumes of Petroleum Hydrocarbon Contaminated Groundwater", as described in the following:

Applicability:

Groundwater treated was obtained as a result development of wells and sampling.

Conditions:

1. The worst-case well analysis was obtained before usage of the Activated Carbon Unit. The worst-case well analysis shows only petroleum hydrocarbon constituents in the purge/bail water with minimal, background concentrations of lead. The purge/bail water was containerized on site before treatment for less than 30 days prior to treatment.

2. No free-product was detected in any of the purge water drums.

3. Analytical results of from well sampling show average concentrations of petroleum hydrocarbon constituents less than 5000 parts per billion (ppb) Benzene and less than 20,000 ppb total BTEX.

4. The existing carbon pack will be replaced/reactivated every 5,000 gallons.

5. Record of usage is maintained by Contractor.

6. Any and all recommendations and conditions issued by the Manufacturer have been adhered to.

7. Any and all recommendations and conditions (even on a site by site basis) issued by the SCDHEC must be adhered to.

All purge waters were treated on-site using an up-flow treatment drum loaded with 30 pounds of activated carbon. Carbon will be loaded to a maximum of 3 pounds of total organic compounds or 5,000 gallons of development/purge water, whichever occurs first.

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

A total of 5.0 gallons were treated on June 5, 2008 at the referenced site.

Midlands Environmental also tracks cumulative organic compounds adsorbed on the activated carbon to ensure the capacity of carbon mass is not over-charged. This data is available upon request.

Should you have any questions or comments, please contact the undersigned.

Sincerely,
Midlands Environmental Consultants, Inc.

Brandon T. Guiles
Staff Biologist

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

June 12, 2008

Ms. Debra Thoma
SCDHEC
UST Program
2600 Bull Street
Columbia, SC 29201

RE: Project: PANTRY 911/10628
Pace Project No.: 9220999

Dear Ms. Thoma:
Enclosed are the analytical results for sample(s) received by the laboratory on June 06, 2008. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Inorganic Wet Chemistry and Metals analyses were performed at our Pace Asheville laboratory and Organic testing was performed at our Pace Huntersville laboratory unless otherwise footnoted. All Microbiological analyses were performed at the laboratory where the samples were received.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kevin Godwin

kevin.godwin@pacelabs.com
Project Manager

Enclosures

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: PANTRY 911/10628
Pace Project No.: 9220999

Charlotte Certification IDs
Florida/NELAP Certification Number: E87627
Kansas Certification Number: E-10364
Louisiana/LELAP Certification Number: 04034
North Carolina Drinking Water Certification Number: 37706
North Carolina Wastewater Certification Number: 12
North Carolina Field Services Certification Number: 5342
South Carolina Certification Number: 990060001
South Carolina Bioassay Certification Number: 990060003
Tennessee Certification Number: 04010
Virginia Certification Number: 00213

Asheville Certification IDs
Florida/NELAP Certification Number: E87648
Louisiana/LELAP Certification Number: 03095
New Jersey Certification Number: NC011
North Carolina Drinking Water Certification Number: 37712
North Carolina Wastewater Certification Number: 40
North Carolina Bioassay Certification Number: 9
Pennsylvania Certification Number: 68-03578
South Carolina Certification Number: 99030001
South Carolina Bioassay Certification Number: 99030002
Tennessee Certification Number: 2980
Virginia Certification Number: 00072

Eden Certification IDs
North Carolina Drinking Water Certification Number: 37738
Virginia Drinking Water Certification Number: 00424
North Carolina Wastewater Certification Number: 633

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911/10628
Pace Project No.: 9220999

Sample: MW-2 **Lab ID: 9220999001** Collected: 06/05/08 14:53 Received: 06/06/08 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	06/08/08 00:00	06/10/08 22:23	106-93-4	
1-Chloro-2-bromopropane (S)	86	%	60-140	1	06/08/08 00:00	06/10/08 22:23	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Lead	ND	ug/L	5.0	1	06/08/08 15:15	06/09/08 18:13	7439-92-1	
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/09/08 01:16	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1		06/09/08 01:16	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1		06/09/08 01:16	100-41-4	
Methyl-tert-butyl ether	**272**	ug/L	25.0	5		06/10/08 16:47	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		06/09/08 01:16	91-20-3	
Toluene	ND	ug/L	5.0	1		06/09/08 01:16	108-88-3	
Xylene (Total)	ND	ug/L	15.0	1		06/09/08 01:16	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		06/09/08 01:16	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		06/09/08 01:16	95-47-6	
4-Bromofluorobenzene (S)	95	%	87-109	1		06/09/08 01:16	460-00-4	
Dibromofluoromethane (S)	100	%	85-115	1		06/09/08 01:16	1868-53-7	
1,2-Dichloroethane-d4 (S)	100	%	79-120	1		06/09/08 01:16	17060-07-0	
Toluene-d8 (S)	100	%	70-120	1		06/09/08 01:16	2037-26-5	

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911/10628
Pace Project No.: 9220999

Sample: MW-3R **Lab ID: 9220999002** Collected: 06/05/08 15:09 Received: 06/06/08 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	06/08/08 00:00	06/10/08 22:58	106-93-4	
1-Chloro-2-bromopropane (S)	0	%	60-140	1	06/08/08 00:00	06/10/08 22:58	301-79-56	1g
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Lead	**19.3**	ug/L	5.0	1	06/08/08 15:15	06/09/08 18:21	7439-92-1	
8260 MSV	Analytical Method: EPA 8260							
Benzene	**3320**	ug/L	100	20		06/09/08 04:03	71-43-2	
1,2-Dichloroethane	ND	ug/L	100	20		06/09/08 04:03	107-06-2	
Ethylbenzene	**1110**	ug/L	100	20		06/09/08 04:03	100-41-4	
Methyl-tert-butyl ether	**3360**	ug/L	100	20		06/09/08 04:03	1634-04-4	
Naphthalene	**242**	ug/L	100	20		06/09/08 04:03	91-20-3	
Toluene	**5090**	ug/L	250	50		06/10/08 19:08	108-88-3	
Xylene (Total)	**6510**	ug/L	300	20		06/09/08 04:03	1330-20-7	
m&p-Xylene	**4480**	ug/L	200	20		06/09/08 04:03	1330-20-7	
o-Xylene	**2030**	ug/L	100	20		06/09/08 04:03	95-47-6	
4-Bromofluorobenzene (S)	95	%	87-109	20		06/09/08 04:03	460-00-4	
Dibromofluoromethane (S)	99	%	85-115	20		06/09/08 04:03	1868-53-7	
1,2-Dichloroethane-d4 (S)	98	%	79-120	20		06/09/08 04:03	17060-07-0	
Toluene-d8 (S)	99	%	70-120	20		06/09/08 04:03	2037-26-5	

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911/10628
Pace Project No.: 9220999

Sample: MW-4R **Lab ID: 9220999003** Collected: 06/05/08 15:40 Received: 06/06/08 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	06/08/08 00:00	06/10/08 23:21	106-93-4	
1-Chloro-2-bromopropane (S)	93	%	60-140	1	06/08/08 00:00	06/10/08 23:21	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Lead	ND	ug/L	5.0	1	06/08/08 15:15	06/09/08 18:36	7439-92-1	
8260 MSV	Analytical Method: EPA 8260							
Benzene	**6020**	ug/L	250	50		06/09/08 04:23	71-43-2	
1,2-Dichloroethane	ND	ug/L	250	50		06/09/08 04:23	107-06-2	
Ethylbenzene	**1870**	ug/L	250	50		06/09/08 04:23	100-41-4	
Methyl-tert-butyl ether	**32300**	ug/L	2500	500		06/10/08 15:46	1634-04-4	
Naphthalene	ND	ug/L	250	50		06/09/08 04:23	91-20-3	
Toluene	**8210**	ug/L	250	50		06/09/08 04:23	108-88-3	
Xylene (Total)	**5730**	ug/L	750	50		06/09/08 04:23	1330-20-7	
m&p-Xylene	**3780**	ug/L	500	50		06/09/08 04:23	1330-20-7	
o-Xylene	**1950**	ug/L	250	50		06/09/08 04:23	95-47-6	
4-Bromofluorobenzene (S)	93	%	87-109	50		06/09/08 04:23	460-00-4	
Dibromofluoromethane (S)	96	%	85-115	50		06/09/08 04:23	1868-53-7	
1,2-Dichloroethane-d4 (S)	94	%	79-120	50		06/09/08 04:23	17060-07-0	
Toluene-d8 (S)	99	%	70-120	50		06/09/08 04:23	2037-26-5	

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911/10628
Pace Project No.: 9220999

Sample: MW-5R **Lab ID: 9220999004** Collected: 06/05/08 13:43 Received: 06/06/08 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	06/08/08 00:00	06/10/08 23:32	106-93-4	
1-Chloro-2-bromopropane (S)	85	%	60-140	1	06/08/08 00:00	06/10/08 23:32	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Lead	ND	ug/L	5.0	1	06/08/08 15:15	06/09/08 18:44	7439-92-1	
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/09/08 01:32	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1		06/09/08 01:32	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1		06/09/08 01:32	100-41-4	
Methyl-tert-butyl ether	**13.0**	ug/L	5.0	1		06/09/08 01:32	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		06/09/08 01:32	91-20-3	
Toluene	ND	ug/L	5.0	1		06/09/08 01:32	108-88-3	
Xylene (Total)	ND	ug/L	15.0	1		06/09/08 01:32	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		06/09/08 01:32	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		06/09/08 01:32	95-47-6	
4-Bromofluorobenzene (S)	95	%	87-109	1		06/09/08 01:32	460-00-4	
Dibromofluoromethane (S)	100	%	85-115	1		06/09/08 01:32	1868-53-7	
1,2-Dichloroethane-d4 (S)	102	%	79-120	1		06/09/08 01:32	17060-07-0	
Toluene-d8 (S)	98	%	70-120	1		06/09/08 01:32	2037-26-5	

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911/10628
Pace Project No.: 9220999

Sample: MW-9 **Lab ID: 9220999005** Collected: 06/05/08 14:10 Received: 06/06/08 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	06/08/08 00:00	06/10/08 23:44	106-93-4	
1-Chloro-2-bromopropane (S)	85	%	60-140	1	06/08/08 00:00	06/10/08 23:44	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Lead	ND	ug/L	5.0	1	06/08/08 15:15	06/09/08 18:48	7439-92-1	
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/09/08 01:48	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1		06/09/08 01:48	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1		06/09/08 01:48	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		06/09/08 01:48	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		06/09/08 01:48	91-20-3	
Toluene	ND	ug/L	5.0	1		06/09/08 01:48	108-88-3	
Xylene (Total)	ND	ug/L	15.0	1		06/09/08 01:48	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		06/09/08 01:48	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		06/09/08 01:48	95-47-6	
4-Bromofluorobenzene (S)	94	%	87-109	1		06/09/08 01:48	460-00-4	
Dibromofluoromethane (S)	101	%	85-115	1		06/09/08 01:48	1868-53-7	
1,2-Dichloroethane-d4 (S)	101	%	79-120	1		06/09/08 01:48	17060-07-0	
Toluene-d8 (S)	97	%	70-120	1		06/09/08 01:48	2037-26-5	

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911/10628
Pace Project No.: 9220999

Sample: MW-10 **Lab ID: 9220999006** Collected: 06/05/08 14:33 Received: 06/06/08 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	06/08/08 00:00	06/10/08 23:55	106-93-4	
1-Chloro-2-bromopropane (S)	71	%	60-140	1	06/08/08 00:00	06/10/08 23:55	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Lead	ND	ug/L	5.0	1	06/08/08 15:15	06/09/08 18:52	7439-92-1	
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/11/08 15:49	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1		06/11/08 15:49	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1		06/11/08 15:49	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		06/11/08 15:49	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		06/11/08 15:49	91-20-3	
Toluene	ND	ug/L	5.0	1		06/11/08 15:49	108-88-3	
Xylene (Total)	ND	ug/L	15.0	1		06/11/08 15:49	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		06/11/08 15:49	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		06/11/08 15:49	95-47-6	
4-Bromofluorobenzene (S)	99	%	87-109	1		06/11/08 15:49	460-00-4	
Dibromofluoromethane (S)	100	%	85-115	1		06/11/08 15:49	1868-53-7	
1,2-Dichloroethane-d4 (S)	100	%	79-120	1		06/11/08 15:49	17060-07-0	
Toluene-d8 (S)	102	%	70-120	1		06/11/08 15:49	2037-26-5	

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911/10628
Pace Project No.: 9220999

Sample: MW-11 **Lab ID: 9220999007** Collected: 06/05/08 13:35 Received: 06/06/08 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	06/08/08 00:00	06/11/08 00:07	106-93-4	
1-Chloro-2-bromopropane (S)	92	%	60-140	1	06/08/08 00:00	06/11/08 00:07	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Lead	ND	ug/L	5.0	1	06/08/08 15:15	06/09/08 18:56	7439-92-1	
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/09/08 16:52	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1		06/09/08 16:52	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1		06/09/08 16:52	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		06/09/08 16:52	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		06/09/08 16:52	91-20-3	
Toluene	ND	ug/L	5.0	1		06/09/08 16:52	108-88-3	
Xylene (Total)	ND	ug/L	15.0	1		06/09/08 16:52	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		06/09/08 16:52	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		06/09/08 16:52	95-47-6	
4-Bromofluorobenzene (S)	98	%	87-109	1		06/09/08 16:52	460-00-4	
Dibromofluoromethane (S)	101	%	85-115	1		06/09/08 16:52	1868-53-7	
1,2-Dichloroethane-d4 (S)	102	%	79-120	1		06/09/08 16:52	17060-07-0	
Toluene-d8 (S)	101	%	70-120	1		06/09/08 16:52	2037-26-5	

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911/10628
Pace Project No.: 9220999

Sample: MW-14 **Lab ID: 9220999008** Collected: 06/05/08 15:16 Received: 06/06/08 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	06/08/08 00:00	06/11/08 00:18	106-93-4	
1-Chloro-2-bromopropane (S)	90	%	60-140	1	06/08/08 00:00	06/11/08 00:18	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Lead	ND	ug/L	5.0	1	06/08/08 15:15	06/09/08 19:01	7439-92-1	
8260 MSV	Analytical Method: EPA 8260							
Benzene	**12500**	ug/L	1250	250		06/11/08 17:34	71-43-2	
1,2-Dichloroethane	ND	ug/L	250	50		06/10/08 18:47	107-06-2	
Ethylbenzene	**2780**	ug/L	250	50		06/10/08 18:47	100-41-4	
Methyl-tert-butyl ether	**4840**	ug/L	250	50		06/10/08 18:47	1634-04-4	
Naphthalene	**2520**	ug/L	250	50		06/10/08 18:47	91-20-3	
Toluene	**18600**	ug/L	1250	250		06/11/08 17:34	108-88-3	
Xylene (Total)	**13600**	ug/L	750	50		06/10/08 18:47	1330-20-7	
m&p-Xylene	**10400**	ug/L	500	50		06/10/08 18:47	1330-20-7	
o-Xylene	**3220**	ug/L	250	50		06/10/08 18:47	95-47-6	
4-Bromofluorobenzene (S)	101	%	87-109	50		06/10/08 18:47	460-00-4	
Dibromofluoromethane (S)	96	%	85-115	50		06/10/08 18:47	1868-53-7	
1,2-Dichloroethane-d4 (S)	104	%	79-120	50		06/10/08 18:47	17060-07-0	
Toluene-d8 (S)	101	%	70-120	50		06/10/08 18:47	2037-26-5	

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911/10628
Pace Project No.: 9220999

Sample: MW-15 **Lab ID: 9220999009** Collected: 06/05/08 15:00 Received: 06/06/08 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	06/08/08 00:00	06/11/08 00:30	106-93-4	
1-Chloro-2-bromopropane (S)	94	%	60-140	1	06/08/08 00:00	06/11/08 00:30	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Lead	ND	ug/L	5.0	1	06/08/08 15:15	06/09/08 19:05	7439-92-1	
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/09/08 17:44	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1		06/09/08 17:44	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1		06/09/08 17:44	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		06/09/08 17:44	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		06/09/08 17:44	91-20-3	
Toluene	ND	ug/L	5.0	1		06/09/08 17:44	108-88-3	
Xylene (Total)	ND	ug/L	15.0	1		06/09/08 17:44	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		06/09/08 17:44	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		06/09/08 17:44	95-47-6	
4-Bromofluorobenzene (S)	101	%	87-109	1		06/09/08 17:44	460-00-4	
Dibromofluoromethane (S)	97	%	85-115	1		06/09/08 17:44	1868-53-7	
1,2-Dichloroethane-d4 (S)	98	%	79-120	1		06/09/08 17:44	17060-07-0	
Toluene-d8 (S)	100	%	70-120	1		06/09/08 17:44	2037-26-5	

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911/10628
Pace Project No.: 9220999

Sample: PW-1R **Lab ID: 9220999010** Collected: 06/05/08 15:45 Received: 06/06/08 16:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	1	06/08/08 00:00	06/11/08 00:41	106-93-4	
1-Chloro-2-bromopropane (S)	87	%	60-140	1	06/08/08 00:00	06/11/08 00:41	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Lead	ND	ug/L	5.0	1	06/08/08 15:15	06/09/08 19:10	7439-92-1	
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/09/08 18:02	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1		06/09/08 18:02	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1		06/09/08 18:02	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		06/09/08 18:02	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		06/09/08 18:02	91-20-3	
Toluene	ND	ug/L	5.0	1		06/09/08 18:02	108-88-3	
Xylene (Total)	ND	ug/L	15.0	1		06/09/08 18:02	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		06/09/08 18:02	1330-20-7	
o-Xylene	ND	ug/L	5.0	1		06/09/08 18:02	95-47-6	
4-Bromofluorobenzene (S)	102	%	87-109	1		06/09/08 18:02	460-00-4	
Dibromofluoromethane (S)	100	%	85-115	1		06/09/08 18:02	1868-53-7	
1,2-Dichloroethane-d4 (S)	107	%	79-120	1		06/09/08 18:02	17060-07-0	
Toluene-d8 (S)	101	%	70-120	1		06/09/08 18:02	2037-26-5	

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911/10628
Pace Project No.: 9220999

QC Batch: MSV/3669 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 9220999001, 9220999002, 9220999003, 9220999004, 9220999005

METHOD BLANK: 125426

Associated Lab Samples: 9220999001, 9220999002, 9220999003, 9220999004, 9220999005

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	
Benzene	ug/L	ND	5.0	
Ethylbenzene	ug/L	ND	5.0	
m&p-Xylene	ug/L	ND	10.0	
Methyl-tert-butyl ether	ug/L	ND	5.0	
Naphthalene	ug/L	ND	5.0	
o-Xylene	ug/L	ND	5.0	
Toluene	ug/L	ND	5.0	
Xylene (Total)	ug/L	ND	15.0	
1,2-Dichloroethane-d4 (S)	%	93	79-120	
4-Bromofluorobenzene (S)	%	98	87-109	
Dibromofluoromethane (S)	%	96	85-115	
Toluene-d8 (S)	%	99	70-120	

LABORATORY CONTROL SAMPLE: 125427

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	50.0	100	72-126	
Benzene	ug/L	50	51.0	102	78-128	
Ethylbenzene	ug/L	50	51.5	103	80-127	
m&p-Xylene	ug/L	100	102	102	82-127	
Methyl-tert-butyl ether	ug/L	50	54.9	110	71-130	
Naphthalene	ug/L	50	52.8	106	52-136	
o-Xylene	ug/L	50	49.9	100	83-124	
Toluene	ug/L	50	51.0	102	76-126	
Xylene (Total)	ug/L	150	152	102	83-125	
1,2-Dichloroethane-d4 (S)	%			95	79-120	
4-Bromofluorobenzene (S)	%			101	87-109	
Dibromofluoromethane (S)	%			98	85-115	
Toluene-d8 (S)	%			100	70-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 125470 125471

Parameter	Units	9220997014 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Benzene	ug/L	ND	50	50	34.2	41.7	68	83	74-136	20	M0
Toluene	ug/L	ND	50	50	33.0	40.2	66	80	73-131	20	M0
1,2-Dichloroethane-d4 (S)	%						98	98	79-120		
4-Bromofluorobenzene (S)	%						94	94	87-109		
Dibromofluoromethane (S)	%						98	98	85-115		

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911/10628
Pace Project No.: 9220999

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 125470 125471

Parameter	Units	9220997014 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Toluene-d8 (S)	%						100	99	70-120		

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911/10628
Pace Project No.: 9220999

QC Batch: OEXT/3456 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 9220999001, 9220999002, 9220999003, 9220999004, 9220999005, 9220999006, 9220999007, 9220999008, 9220999009, 9220999010

METHOD BLANK: 125474

Associated Lab Samples: 9220999001, 9220999002, 9220999003, 9220999004, 9220999005, 9220999006, 9220999007, 9220999008, 9220999009, 9220999010

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	
1-Chloro-2-bromopropane (S)	%	108	60-140	

LABORATORY CONTROL SAMPLE & LCSD: 125475 125476

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.29	0.24	0.23	84	80	60-140	5	20	
1-Chloro-2-bromopropane (S)	%				93	87	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 125477 125478

Parameter	Units	9220999001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	.29	.29	0.28	0.28	98	98	60-140	0	
1-Chloro-2-bromopropane (S)	%						104	106	60-140		

SAMPLE DUPLICATE: 125479

Parameter	Units	9220999002 Result	Dup Result	RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND	0	
1-Chloro-2-bromopropane (S)	%		0	0	1g

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911/10628
Pace Project No.: 9220999

QC Batch: MPRP/2493 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 9220999001, 9220999002, 9220999003, 9220999004, 9220999005, 9220999006, 9220999007, 9220999008, 9220999009, 9220999010

METHOD BLANK: 125518
Associated Lab Samples: 9220999001, 9220999002, 9220999003, 9220999004, 9220999005, 9220999006, 9220999007, 9220999008, 9220999009, 9220999010

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Lead	ug/L	ND	5.0	

LABORATORY CONTROL SAMPLE: 125519

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	500	447	89	80-120	

MATRIX SPIKE SAMPLE: 125520

Parameter	Units	9220999001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	ND	500	417	83	75-125	

SAMPLE DUPLICATE: 125521

Parameter	Units	9220999002 Result	Dup Result	RPD	Qualifiers
Lead	ug/L	19.3	18.2	6	

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911/10628
Pace Project No.: 9220999

QC Batch: MSV/3673 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 9220999006, 9220999007, 9220999009, 9220999010

METHOD BLANK: 125642

Associated Lab Samples: 9220999006, 9220999007, 9220999009, 9220999010

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	
Benzene	ug/L	ND	5.0	
Ethylbenzene	ug/L	ND	5.0	
m&p-Xylene	ug/L	ND	10.0	
Methyl-tert-butyl ether	ug/L	ND	5.0	
Naphthalene	ug/L	ND	5.0	
o-Xylene	ug/L	ND	5.0	
Toluene	ug/L	ND	5.0	
Xylene (Total)	ug/L	ND	15.0	
1,2-Dichloroethane-d4 (S)	%	101	79-120	
4-Bromofluorobenzene (S)	%	100	87-109	
Dibromofluoromethane (S)	%	98	85-115	
Toluene-d8 (S)	%	101	70-120	

LABORATORY CONTROL SAMPLE: 125643

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	51.4	103	72-126	
Benzene	ug/L	50	51.7	103	78-128	
Ethylbenzene	ug/L	50	51.6	103	80-127	
m&p-Xylene	ug/L	100	102	102	82-127	
Methyl-tert-butyl ether	ug/L	50	56.5	113	71-130	
Naphthalene	ug/L	50	60.6	121	52-136	
o-Xylene	ug/L	50	49.6	99	83-124	
Toluene	ug/L	50	50.9	102	76-126	
Xylene (Total)	ug/L	150	152	101	83-125	
1,2-Dichloroethane-d4 (S)	%			106	79-120	
4-Bromofluorobenzene (S)	%			99	87-109	
Dibromofluoromethane (S)	%			101	85-115	
Toluene-d8 (S)	%			99	70-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 125704 125705

Parameter	Units	9221007002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Benzene	ug/L	ND	50	50	48.6	49.4	97	99	74-136	1	
Toluene	ug/L	ND	50	50	46.8	47.4	94	95	73-131	1	
1,2-Dichloroethane-d4 (S)	%						102	104	79-120		
4-Bromofluorobenzene (S)	%						98	99	87-109		
Dibromofluoromethane (S)	%						102	98	85-115		

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911/10628
Pace Project No.: 9220999

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 125704 125705

Parameter	Units	9221007002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Toluene-d8 (S)	%						101	100	70-120		

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911/10628
Pace Project No.: 9220999

QC Batch: MSV/3689
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV
Associated Lab Samples: 9220999008

METHOD BLANK: 125874
Associated Lab Samples: 9220999008

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	
Benzene	ug/L	ND	5.0	
Ethylbenzene	ug/L	ND	5.0	
m&p-Xylene	ug/L	ND	10.0	
Methyl-tert-butyl ether	ug/L	ND	5.0	
Naphthalene	ug/L	ND	5.0	
o-Xylene	ug/L	ND	5.0	
Toluene	ug/L	ND	5.0	
Xylene (Total)	ug/L	ND	15.0	
1,2-Dichloroethane-d4 (S)	%	115	79-120	
4-Bromofluorobenzene (S)	%	105	87-109	
Dibromofluoromethane (S)	%	101	85-115	
Toluene-d8 (S)	%	101	70-120	

LABORATORY CONTROL SAMPLE: 125875

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	51.7	103	72-126	
Benzene	ug/L	50	50.1	100	78-128	
Ethylbenzene	ug/L	50	49.0	98	80-127	
m&p-Xylene	ug/L	100	97.2	97	82-127	
Methyl-tert-butyl ether	ug/L	50	58.1	116	71-130	
Naphthalene	ug/L	50	58.3	117	52-136	
o-Xylene	ug/L	50	49.2	98	83-124	
Toluene	ug/L	50	49.8	100	76-126	
Xylene (Total)	ug/L	150	146	98	83-125	
1,2-Dichloroethane-d4 (S)	%			106	79-120	
4-Bromofluorobenzene (S)	%			100	87-109	
Dibromofluoromethane (S)	%			100	85-115	
Toluene-d8 (S)	%			100	70-120	

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: PANTRY 911/10628
Pace Project No.: 9220999

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

ANALYTE QUALIFIERS

1g	Surrogate recovery outside of acceptance window confirmed as a matrix effect by the analysis of a duplicate or MS/MSD on this sample.
M0	Matrix spike recovery was outside laboratory control limits.

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 2

1171043

Section A Required Client Information:

Company:	SCDHEC UST
Address:	2600 Bull St. Columbia, SC 29201
Email To:	
Phone: 896-6240	Fax:
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	D. Thoma
Copy To:	
Purchase Order No.:	
Project Name:	Pantry 911
Project Number:	Permit #: 10628 PACE: 32293

Section C Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	K. Godwin
Pace Profile #:	849-1

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☒ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: SC

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes — MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analysis Test: 8260 B, btx, Naph, mtbe	1,2 DCA	EDB	Total Pb	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 9220099
1	mw-1R	WT	G			6/5			7			1	6						X	X	X		X		NL
2	mw-1RR																									NL
3	mw-2						2:53																			Pt odor 9220099
4	mw-3																									NL
5	mw-3R						3:09																			Pt odor 002
6	mw-4R						3:40																			Pt odor 003
7	mw-5R						1:43																			No Pt odor 004
8	mw-6R																									NL
9	mw-6RR																									NL
10	mw-7R																									NL
11	mw-7RR					↓						↓														Product
12	mw-8	WT	G			6/5			7			1	6						X	X	X		X			NL

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Ron Degalmo	6/6/08	11:45	Pace	6/6/08	11:45				
	Pace	6/6/08	16:01		6/6/08	1605	2.8	4	N	4

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: CLARK RAER

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 6/5/09

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 2 of 2

1171037

Section A
Required Client Information:

Company:	SCDHEC UST
Address:	2600 Bull St.
	Columbia SC 29201
Email To:	
Phone: 896-6240	Fax:
Requested Due Date/TAT:	

Section B
Required Project Information:

Report To:	D. Thoma
Copy To:	
Purchase Order No.:	
Project Name:	Pantry 911
Project Number:	Permit #: 10628 PACE #: 32293

Section C
Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	K. Godwin
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☒ UST ☐ RCRA ☐ OTHER ______

Site Location STATE: SC

Section D
Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes	MATRIX / CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

Requested Analysis Filtered (Y/N)

Pace Project No./ Lab I.D.: 9220999

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	Composite Start DATE	Composite Start TIME	Composite End/Grab DATE	Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	8260B, btex, Naph, mtbe	1,2 DCA	EDB	Total Pb	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	mw-9	WT	G			6/5	2:10		7			1	6						X	X	X	X		No odor 005
2	mw-9R																							NL
3	mw-10						8:33																	
4	mw-11						1:35																	NO odor 006
5	mw-12																							No odor 007
6	mw-13																							NL
7	mw-14						3:16																	NL
8	mw-15						3:00																	Pt odor 008
9	PW-1R						3:45																	Pt odor 009
10	DW-1																							No odor 010
11	WSW-1	WT	G			6/5			7			1	6											NL
12																			X	X	X	X		Plugged / Abandoned

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Roy Grant	6/6/8	11:45	[signature] / Pace	6/6/8	11:45				
	[signature] / Pace	6/6/8	16:05	[signature]	6/6/08	1605	2.8	Y	N	Y
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: CLARK BAER

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 6/5/08

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

AUG 12 2008

BRYAN SHANE
MIDLANDS ENVIRONMENTAL CONSULTANTS INC
P O BOX 854
LEXINGTON SC 29071

Re: Bid # IFB-34007-6/3/08-EMW; PO# 732429
Notice to Proceed

Dear Mr. Shane:

Based on the award of the referenced bid package, enclosed are the information packets to conduct assessments at several facilities. The packets contain the necessary approval for work to begin. The facilities have been assigned Cost Agreement (CA) numbers as listed below. Please reference the CA numbers and Purchase Order # 732429 on the appropriate invoices submitted for payment against the facilities. As specified in the referenced bid, **the completed invoice forms and associated reports (include contract certification number) are expected on or before the designated due date (see below).**

UST Permit#	Facility	County	Release #	Work Scope	Due Date*	CA #	Approved Amt
09423	Passmore's Grocery	York	1	Monitoring Well Installation	60 days	33244	$1,450.00
15813	Continental Machine Co.	Laurens	1	Monitoring Well Installation	60 days	33236	$6,040.00
19410	Former Wylie's Service Station	Chester	1	IGWA	60 days	33242	$250.00
10628	Pantry 911	Jasper	1	Monitoring Well Installion	60 days	33249	$3,262.00
19360	Pinckney Road Property	Chester	1	IGWA	60 days	33247	$250.00

*From receipt of letter

Midland's Environmental Consultants, Inc. will perform services at the sites on behalf of the site's UST owners; however, payments will be made from the SUPERB Account. The site's UST owners have no obligation for payment for this scope of work. **Please note, if there are any changes in the established cost agreement amounts (e.g., additional water supply wells sampled, additional well footage, etc.) contact the site's project manager for technical and/or financial approval. Failure to do so prior to submittal of invoice may result in delay of payment.**

UST DOCKET

The Bureau grants preapproval for transportation of drums of virgin petroleum contaminated soil and drums of groundwater from the referenced site to a permitted treatment facility. The contaminated soil and/or groundwater must be properly stored in labeled 55-gallon drums or equivalent containers. The contaminated soil and/or groundwater must be accepted by the approved treatment facility. There can be no spillage or leakage in transport. A copy of the disposal manifest from the receiving facility that clearly designates the quantity received must be included as an appendix to the final report. Please note, transportation of waste oil contaminated soil must receive preapproval from the Division of Waste Assessment & Emergency Response.

Please provide this office with a schedule of drilling dates and coordinate all work with me before commencing work at the facility. If you have any questions or need further assistance, please contact me at (803) 896-6633.

Sincerely,

Cathleen Ridgley, Hydrogeologist
Assessment Section
Assessment & Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc.: Monitoring Well Approvals (MWA)
Approved Cost Agreements (ACA)
Information Packets

cc: Cathleen Ridgley, UST Program (w/out enc)
Technical Files (w/ copy of MWA)

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

Monitoring Well Approval

Approval is hereby granted to: **Midlands Environmental Constulants**
Facility: **Pantry 911**
Hwy 170 & Hwy 170 Alternate
Hardeeville, SC
UST Permit Number: **10628**
County: **Jasper**

This approval is for the installation of three groundwater monitoring wells. The monitoring wells are to be installed in the approved locations. Monitoring wells are to be installed following the South Carolina Well Standards, R.61-71, and the applicable guidance documents. **Notification should be provided to the Project Manager two business days prior to installation.**

Please note that R.61-71 requires the following:

1. All wells shall be drilled, constructed, and abandoned by a South Carolina certified well driller per R.61-71.D.1.

2. All monitoring wells shall be labeled as required by R.61-71.H.2.c.

3. A Water Well Record Form or other form provided or approved by the Department shall be completed and submitted to the Department within 30 days after well completion or abandonment unless another schedule has been approved by the Department. The form should contain the "as-built" construction details and all other information required by R.61-71.H.1.f

4. All analytical data and water levels obtained from each monitoring well shall be submitted to the Department within 30 days of receipt of laboratory results unless another schedule has been approved by the Department as required by R.61-71.H.1.d.

5. If any of the information provided to the Department changes, notification to Minda Johnson the project manager (tel: (803) 896-6395 or e-mail: johnsoms@scdhec.sc.gov) shall be provided a minimum of twenty-four (24) hours prior to well construction as required by R.61-71.H.1.a.

6. All temporary monitoring wells shall be abandoned within 5 days of borehole completion using appropriate methods as required by R.61-71.H.4.c. All other wells shall be properly developed per R.61-71.H.2.d.

7. Departmental approval is required prior to abandonment of all monitoring wells as required by R.61-71.H.1.a.

This approval is pursuant to the provisions of Section 44-55-40 of the 1976 South Carolina Code of Laws and R.61-71 of the South Carolina Well Standards and Regulations, dated April 26, 2002. A copy of this approval should be on the site during well installation.

Date of Issuance: August 8, 2008 **Approval #:UMW-21921**

Minda Johnson, Hydrogeologist
Assessment Section
Division of Assessment and Corrective Action
Bureau of Land and Waste Management

Approved Cost Agreement 33249

Facility: 10628 PANTRY 911
JOHNSOMS
PO Number:

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB					
		A EQUIPMENT	1.0000	100.00	100.00
		B PERSONNEL	2.0000	100.00	200.00
09 WELL INSTALLATION					
		B WATER TABLE (DRILLED)	48.0000	20.00	960.00
10 SAMPLE COLLECTION					
		A GROUND WATER	4.0000	25.00	100.00
		D GROUNDWATER NO-PURGE	10.0000	25.00	250.00
11 ANALYSES					
	GW GROUNDWATER	A BTEX+NAPTH+MTBE	14.0000	30.00	420.00
		BB 1,2-DCA	14.0000	25.00	350.00
		E LEAD	14.0000	10.00	140.00
		F EDB	14.0000	28.00	392.00
16 SUBSEQUENT SURVEY					
		SUBSEQUENT SURVEY	1.0000	50.00	50.00
17 DISPOSAL					
		A1 WASTEWATER - PURGING/SAMPLING	3.0000	50.00	150.00
		C SOIL (TREATMENT/DISPOSAL)	3.0000	50.00	150.00
				Total Amount	3,262.00

Midlands Environmental Consultants, Inc.

January 30, 2009

Ms. Minda Johnson, Hydrogeologist
South Carolina Department of Health
and Environmental Control
Assessment Section
Assessment & Corrective Action Division
Underground Storage Tank Program
Bureau of Land & Waste Management
2600 Bull Street
Columbia, South Carolina 29201

Subject: Report of Assessment Activities
Pantry 911
Highway 170 & Highway 170 Alternate
Hardeeville, South Carolina
SCDHEC Site ID# 10628, CA # 33249
MECI Project Number 08-1835

Dear Ms. Johnson,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Report of Assessment Activities for the referenced site. This report describes assessment activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

Midlands Environmental appreciates the opportunity to offer our professional environmental services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Brendon P. Kelly
Staff Scientist

William C. McClary, P.G.
Senior Geologist

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

TABLE OF CONTENTS

1.0 PROJECT INFORMATION

The subject site (Pantry 911) is located at Highway 170 and Highway 170 Alternate outside of the town limits of Hardeeville, Jasper County, South Carolina (see Figure 1). The subject site consists of one structure that occupies the property and is currently being utilized as an active gas station. On-site surface covering is predominately concrete to the north and west and grass to the east and south of the structure. The site is bordered by S.C. Highway 170 to the northwest. Surrounding properties are primarily rural residential.

The subject site currently maintains three underground storage tanks (UST's) including: 3-10,000 gallon gasoline UST. A release of petroleum product was reported in April of 1995 and confirmed in March of 1996.

The above information is based on reports and correspondence obtained from SCDHEC files.

2.0 FIELD EXPLORATION

Field exploration conducted at the site included:

- Construction of groundwater monitoring wells;
- sampling of groundwater monitoring wells; and
- sampling of one nearby water supply well.

The monitoring well locations were selected based on SCDHEC instructions, existing site conditions, and drilling accessibility.

Following installation, the wells were surveyed by Construction Support Services of Columbia, SC (PLS # 14811). This survey was conducted to determine the vertical and horizontal position of each monitoring well and relevant structures.

2.1 MONITORING WELL INSTALLATION

On December 31, 2008 three single cased, water table bracketing monitoring wells were installed at the subject site. These wells were installed by Geologic Exploration, of Statesville, North Carolina (S.C. Driller Certification: James Hess #D 01929). These single cased, water table bracketing monitoring wells (MW-16, MW-17 & MW-18) were installed using a ATV-mounted drilling rig

employing 7.5-inch outer diameter hollow-stem augers to construct the borehole. Monitoring well MW-16 was installed to a depth of 17.0 feet BGS and screened from 7.0 feet BGS to 17.0 feet BGS. Monitoring well MW-17 was installed to depth of 13.0 feet BGS and screened from 3.0 feet BGS to 13.0 BGS. Monitoring well MW-18 was installed to a depth of 12.0 feet BGS and screened from 2.0 feet BGS to 12.0 feet BGS.

Drill cuttings were containerized and later transported to Waste Management/Richland Landfill, Elgin, SC. A total of 0.49 tons was disposed of in this manner. A disposal manifest for these soils is attached at the end of this report.

Following completion of the monitoring wells, the wells were developed by bailing until they were determined to be functioning properly and turbidity was reduced. Test Boring Records showing soil descriptions and monitoring well installation details are included in Appendix A. The drummed purge water was treated by MECI personnel using a granular activated carbon drum. A total of two (2) drums of purge/development water were disposed of in this manner. A disposal manifest for the drummed purge water is attached at the end of this report.

2.2 MONITORING WELL SAMPLING AND CHEMICAL ANALYSES

On January 8, 2009, monitoring wells, MW-3R, MW-4R, MW-5R, MW-7RR, MW-9, MW-10, MW-11, MW-14 though MW-18 and PW-1R were sampled. Monitoring wells MW-4R, MW-5R, MW-9, MW-11, MW-14, MW-16 though MW-18 and PW-1R were purged prior to sampling. These wells were purged by bailing at least three well volumes of water from each well or until all available water had been evacuated, whichever occurred first. Monitoring wells MW-3R, MW-7RR, MW-10 and MW-15 were gauged and sampled. The screens of these pre-existing monitoring wells bracketed the water-table at the time of sampling. Field measurements of pH, conductivity, temperature and dissolved oxygen were obtained before, during and after the well purging process. Field measurements of dissolved carbon dioxide were obtained before well purging. Table 1 presents the results of the field measurements obtained. The groundwater samples obtained were sent to Pace Analytical Services, Inc. of Huntersville, NC (SCDHEC Laboratory Certification #99006) for analysis.

Groundwater samples from monitoring wells MW-3R, MW-4R, MW-5R, MW-7RR, MW-9, MW-10, MW-11, MW-14 though MW-18 and PW-1R were analyzed for volatile organic compounds

including BTEX, naphthalene, methyl-tertiary butyl ether, 1,2-DCA (EPA Method 8260B), EDB (EPA Method 8011) and Total Lead (EPA Method 6010). The results of the laboratory analyses are discussed in Section 3.1, summarized in Table 2, and presented in Appendix B.

2.3 WATER SUPPLY WELL SAMPLING AND CHEMICAL ANALYSES

One nearby water supply well (WSW-1) was sampled on January 8, 2009. This water supply well is located approximately 340 feet west of MW-3R on the property of Emeril Jeffers (274 New River Road, Hardeeville, SC).

The samples collected from the nearby water supply well (WSW-1) were transported to Pace Analytical Services Inc. and tested for: benzene, toluene, ethylbenzene, xylenes (BTEX), methyl-tertiary butyl ether (MTBE), naphthalene (EPA Method 8260B). The results of the laboratory analyses are discussed in the following section, summarized in Table 2, and presented in Appendix B.

3.0 TEST RESULTS AND EVALUATION

The following sections discuss groundwater test results for the subject site.

3.1 GROUNDWATER ANALYTICAL RESULTS

As discussed in Section 2.2, groundwater samples obtained from the monitoring wells were analyzed for dissolved phase petroleum constituents. The analytical results indicate petroleum impact to the local groundwater with the highest concentrations detected immediately surrounding the UST basin. The analytical results indicate dissolved total BTEX concentrations ranging from levels below detection limits (BDL) to 52,950 micrograms per liter in MW-7RR. The analytical results indicate dissolved MTBE concentrations ranging from levels below detection limits (BDL) to 21,000 micrograms per liter in monitoring well MW-4R. The results of the analyses for each monitoring well and specific parameters are listed on Table 2, and the detection limit for each parameter is provided in the laboratory reports (Appendix B).

3.2 WATER SUPPLY WELL ANALYTICAL RESULTS

One nearby water supply well (WSW-1) was sampled. This water supply well is located approximately 340 feet west of MW-3R. Laboratory analysis of this sample indicated chemicals of concern are below detection limits. The results of the analyses are presented on Table 2 and sample

locations are presented on Figure 2. The detection limit for each parameter is provided in the laboratory reports (Appendix B).

4.0 COMMENTS

Groundwater elevation data for the January 8, 2009 gauging event was plotted, and points of equal elevation were interpolated between the monitoring wells. A groundwater contour map of the surficial aquifer was thus prepared and is presented on Figure 3. The concentrations of total BTEX (indicator of the dissolved phase plume) in the groundwater on and surrounding the site range from levels below detection limits (BDL) to 52,950 micrograms per liter in MW-7RR. Figure 4 depicts graphically the concentrations of Total BTEX (indicator for plume migration) dissolved in the groundwater at the site. The concentrations of MTBE in the groundwater on and surrounding the site range from levels below detection limits (BDL) to 21,000 micrograms per liter in MW-4R. Figure 5 depicts graphically the concentrations of MTBE dissolved in the groundwater at the site.

5.0 QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assessment are consistent with those normally employed in hydrogeological assessment and waste management projects of this type. Our evaluation of site conditions has been based on our understanding of the site, project information provided to us, and data obtained in our exploration. The general subsurface conditions utilized in our evaluation have been based on interpretation of subsurface data between borings. Contents of this report is intended for the sole use by the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

-oOo-

TABLES

TABLE 1
FIELD PARAMETERS
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1835
SCDHEC SITE ID NUMBER 10628

Well Number	Sample Date	Dissolved CO_2 (mg/l)	Dissolved Oxygen (mg/l)	Temperature (^{o} Celsius)	pH (Initial)	pH (Final)	Conductivity (Initial)	Conductivity (Final)	Screened Interval	Depth to Water (ft)	Well-head Elevation	Groundwater Elevation
MW-2	1/8/2009	NL	NL	NL	NL	NL	NL	NL	2-12	NL	NL	NL
MW-3R	1/8/2009	200+	1.13	18.9	3.17	NT	80.9	NT	2-12	3.02	94.56	91.54
MW-4R	1/8/2009	200+	0.89	21.2	4.62	4.50	230.1	214.4	5-15	4.29	93.75	89.46
MW-5R	1/8/2009	200+	0.94	18.0	4.16	4.53	46.4	491.0	5-15	3.00	91.70	88.70
MW-7RR	1/8/2009	200+	0.36	20.0	4.64	NT	437.9	NT	2-12	6.38	95.80	89.42
MW-9	1/8/2009	200+	1.26	17.6	2.30	2.31	420.1	445.1	8-18	6.09	96.73	90.64
MW-10	1/8/2009	200+	1.58	18.1	1.08	NT	388.5	NT	2-12	4.36	93.29	88.93
MW-11	1/8/2009	200+	2.11	17.7	2.54	3.86	429.8	476.0	2-12	1.45	91.62	90.17
MW-14	1/8/2009	200+	0.65	20.2	5.04	5.25	362.5	367.8	3.05-13.05	2.23	93.23	91.00
MW-15	1/8/2009	200+	1.10	19.6	5.27	NT	509.0	NT	2-12	4.50	96.12	91.62
MW-16	1/8/2009	200+	1.07	20.2	4.33	2.74	250.8	240.3	7-17	8.11	97.02	88.91
MW-17	1/8/2009	200+	1.49	18.7	3.08	3.48	279.8	270.5	3-13	5.88	94.96	89.08
MW-18	1/8/2009	200+	2.74	16.4	3.22	1.93	191.3	121.5	2-12	2.48	91.34	88.86
PW-1R	1/8/2009	200+	1.29	19.7	5.72	6.53	272.5	295.5	30-35	4.57	93.47	88.90

Notes:
1. mg/l = milligrams per liter.
2. Elevations are referenced to an assumed site datum .
3. Groundwater depths were measured from the top of the PVC riser pipe.
4. Groundwater levels measured 1/08/09.
5. NT = Not Tested.
6. Dissolved oxygen, dissolved carbon dioxide, initial pH, initial conductivity, and temperature measurements obtained on 1/08/09.

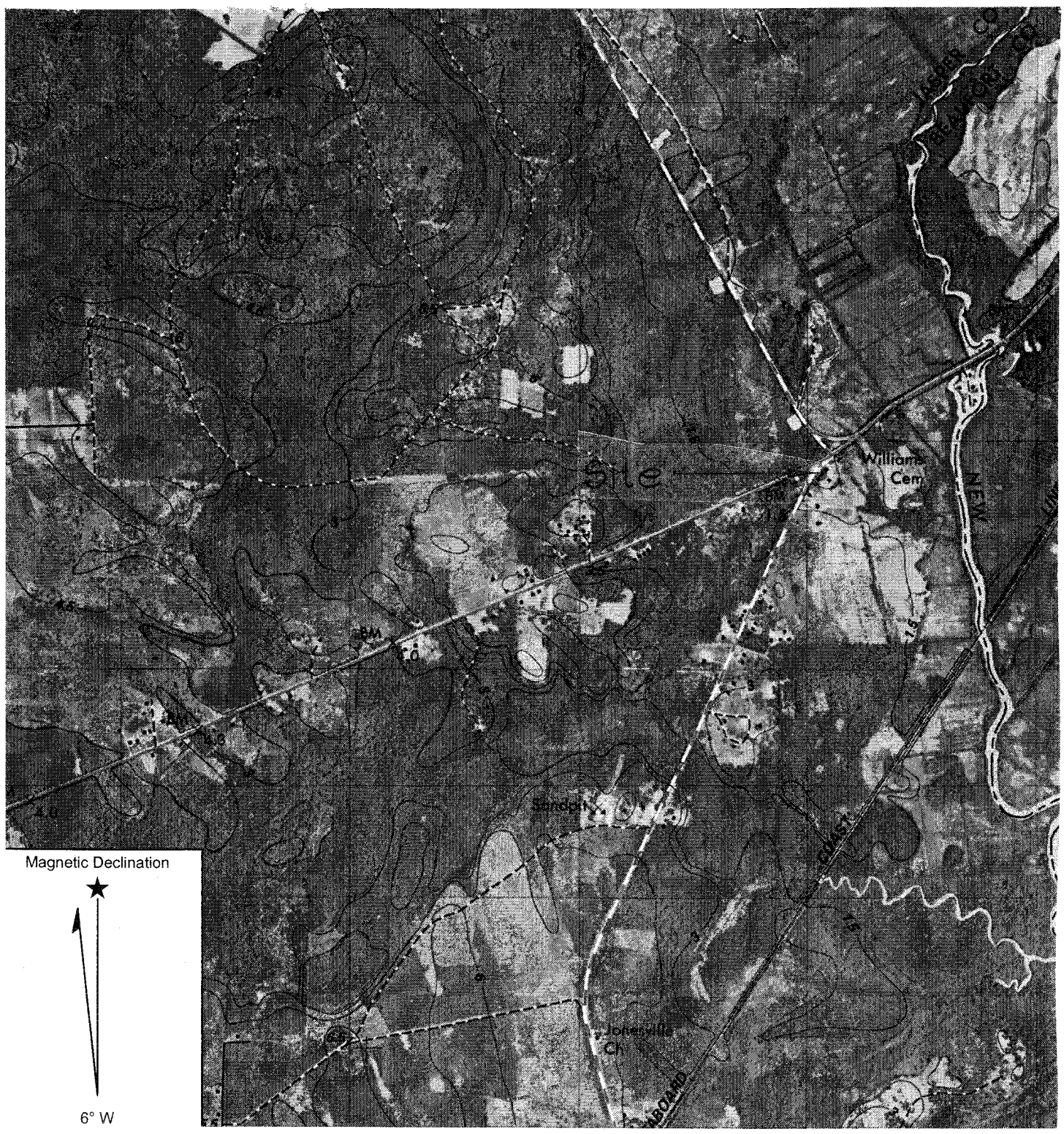
TABLE 2
GROUNDWATER ANALYTICAL RESULTS
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 08-1835
SCDHEC ID # 10628

Well Number	Sample Date	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	MTBE (µg/l)	EDB (µg/l)	Naphthalene (µg/l)	1,2 DCA (µg/l)	Total Lead (µg/l)
MW-2	1/8/2009	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW-3R	1/8/2009	**2,700**	**9,080**	**1,410**	**11,000**	**24,190**	**2,580**	<0.19	**748**	<250	<5.0
MW-4R	1/8/2009	**4,640**	**5,070**	**1,360**	**3,990**	**15,060**	**21,000**	<0.020	<1,000	<1,000	<5.0
MW-5R	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	**2.3J**	<0.020	<5.0	<5.0	<5.0
MW-7RR	1/8/2009	**17,500**	**22,700**	**1,850**	**10,900**	**52,950**	<1,000	**1.5**	<1,000	**731J**	**157**
MW-9	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<0.019	<5.0	<5.0	<5.0
MW-10	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	**3.8J**	<0.019	<5.0	<5.0	**11.6**
MW-11	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<0.019	<5.0	<5.0	<5.0
MW-14	1/8/2009	**11,800**	**13,700**	**2,420**	**11,000**	**38,920**	**4,020**	<0.020	<500	<500	<5.0
MW-15	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	**2.8J**	<0.019	<5.0	<5.0	<5.0
MW-16	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<0.021	<5.0	<5.0	<5.0
MW-17	1/8/2009	**39.1**	<5.0	<5.0	<10.0	**39.1**	<5.0	<0.023	<5.0	<5.0	<5.0
MW-18	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<0.023	<5.0	<5.0	<5.0
PW-1R	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<0.019	<5.0	<5.0	<5.0
WSW-1	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<0.019	<5.0	<5.0	NT

Notes:

1. BDL = Below Practical Quantitative Limits
2. µg/l = micrograms per liter
3. MTBE = Methyl-Tertiary-Butyl Ether
4. See Appendix B for Laboratory Detection Limits
5. EDB = Ethylene Dibromide
6. "J" Values included in Total BTEX Calculations.

FIGURES



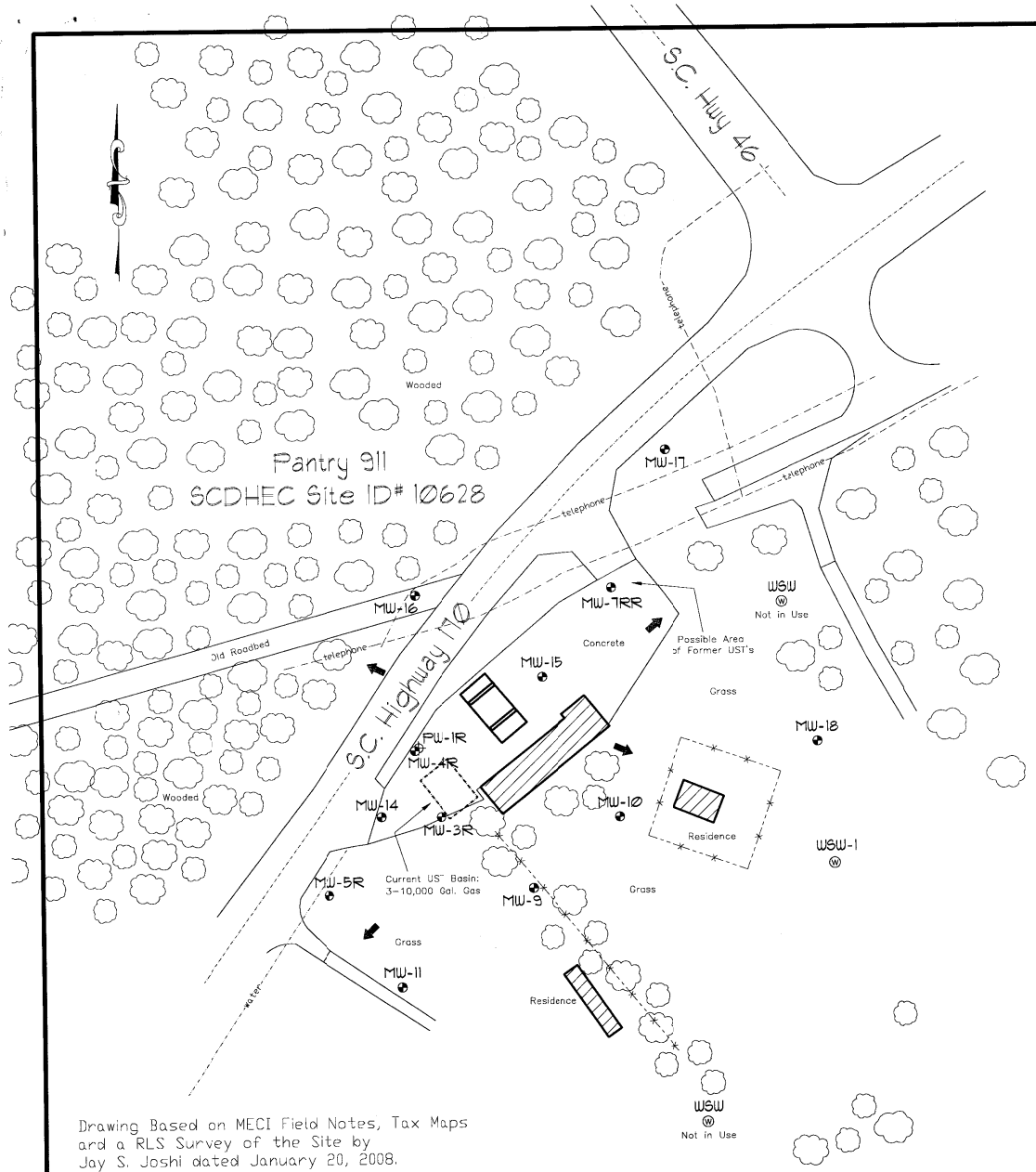
GRAPHIC SCALE

0 1000 2000 4000

1IN = 2000FT

Reference: Limehouse, South Carolina
Contour Interval = 1.5 Meters
USGS 7.5 Min. Quad

Midlands Environmental Consultants, Inc.	Site Location
Pantry 911 Hardeeville, SC SCDHEC Site ID# 10628	
Figure 1	MECI 08-1835



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Existing Underground Storage Tanks
- water — Buried Water Line
- telephone — Under Ground Telephone

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

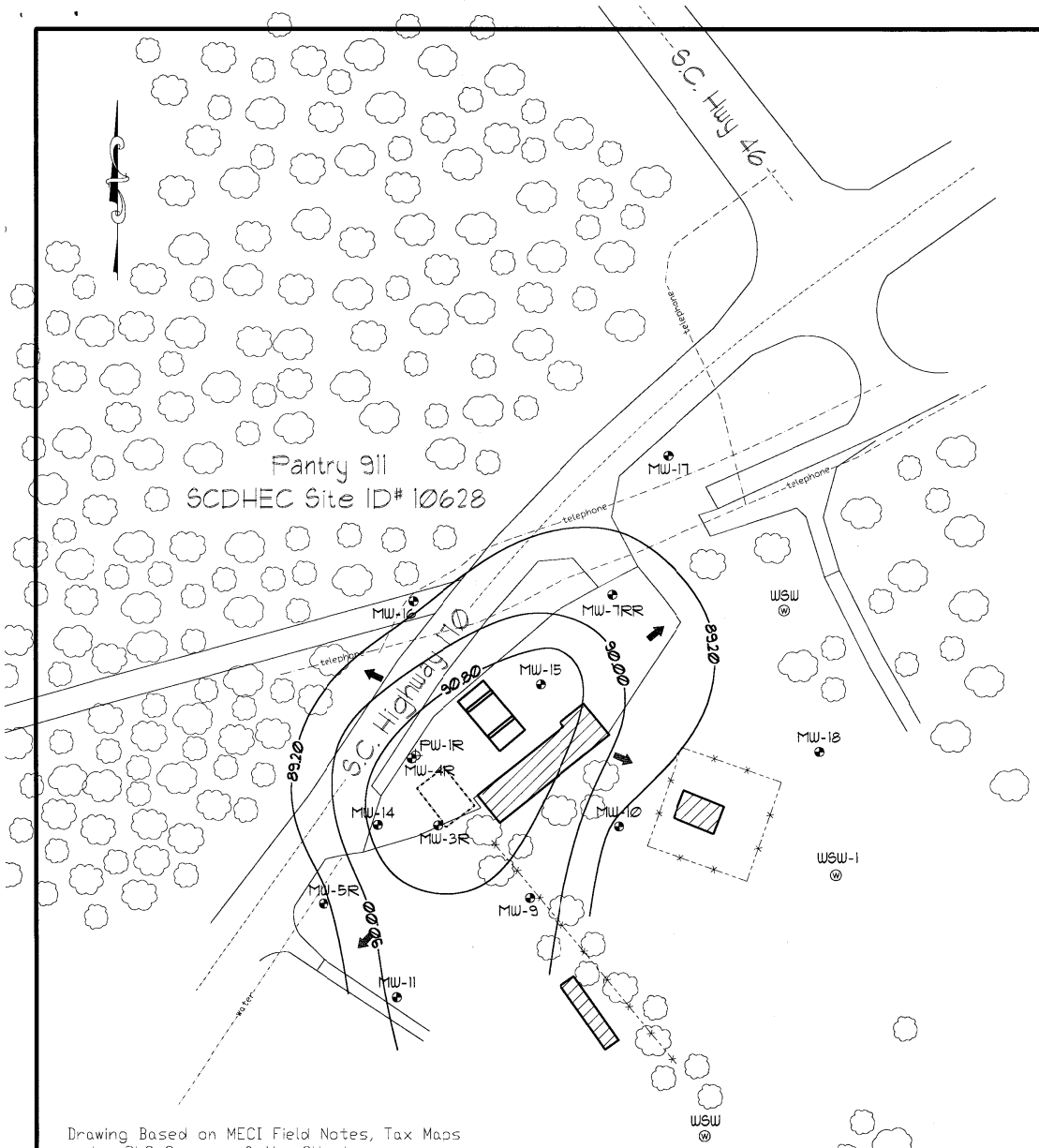
ALL LOCATIONS ARE APPROXIMATE

Site Features

Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 08-1835
DATE January 30, 2008
FIGURE 2



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Estimated Groundwater Flow Direction
- Location of Double Cased Monitoring Well
- Estimated Location of Existing Underground Storage Tanks
- Ground-Water Elevation Isopleth (feet)

Groundwater Elevation Data

Well *	Depth to Water (feet)	Well Head Elevation	Groundwater Elevation
MW-2	NL	NL	NL
MW-3R	3.02	94.56	91.54
MW-4R	4.29	93.75	89.46
MW-5R	3.00	91.70	88.70
MW-7RR	6.38	95.80	89.42
MW-9	6.09	96.73	90.64
MW-10	4.36	93.29	88.93
MW-11	1.45	91.62	90.17
MW-14	2.23	93.23	91.00
MW-15	4.50	96.12	91.62
MW-16	8.11	97.02	88.91
MW-17	5.88	94.96	89.08
MW-18	2.48	91.34	88.86
PW-1	4.57	93.47	88.90

Notes: Depth to groundwater measured on January 8, 2009.

Contour Interval = 0.80 Feet

MW-4R not used in Contouring

Double cased wells not used in contouring.

Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

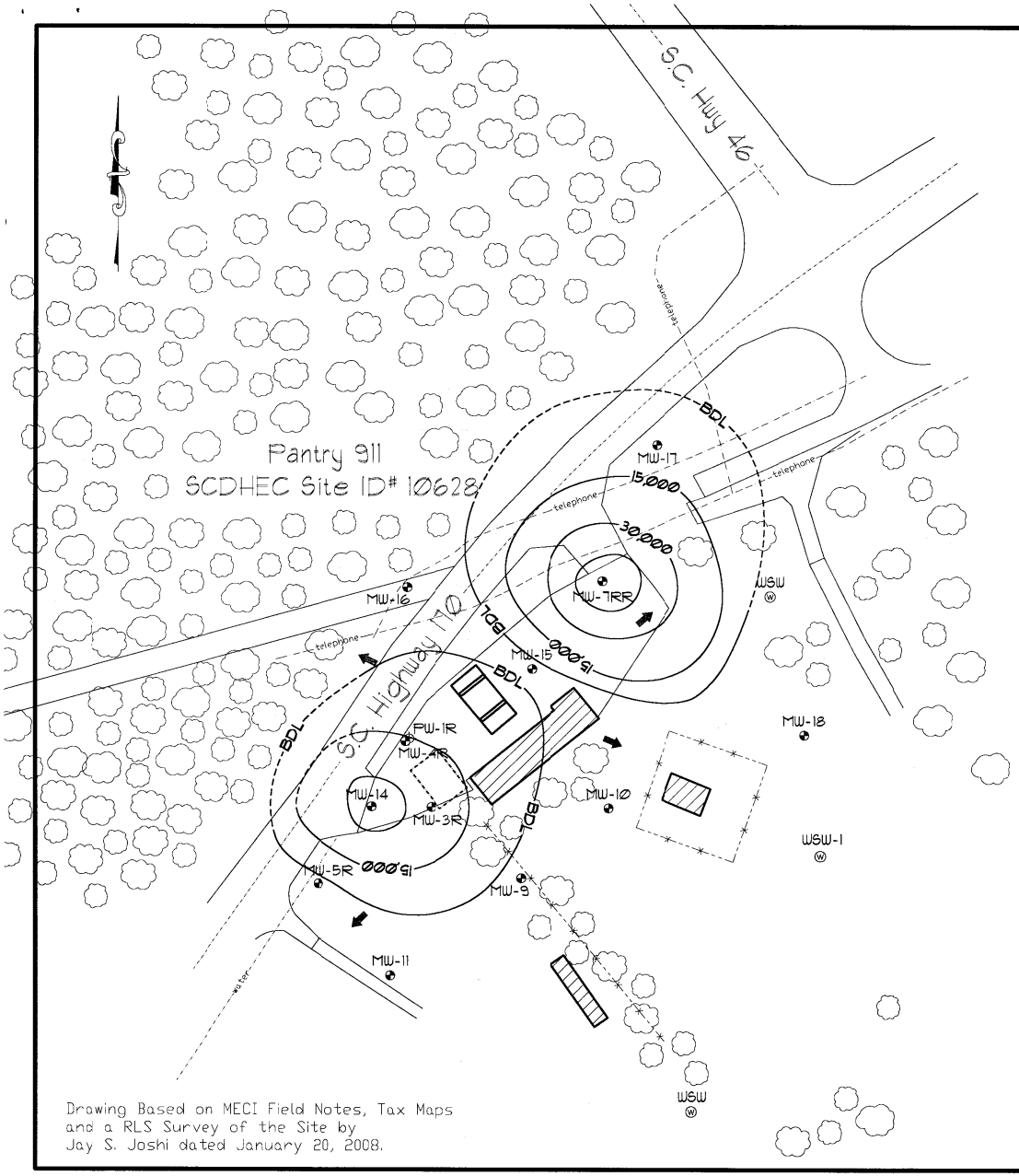
ALL LOCATIONS ARE APPROXIMATE

Groundwater Contour Map

Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 08-1835
DATE January 30, 2008
FIGURE 3



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Existing Underground Storage Tanks
- Total BTEX Concentration Isopleth (ug/l)

COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	MTBE (ug/l)	Naphthalene (ug/l)	EDB (ug/l)
MW-2	NL	NL	NL	NL	NL	NL	NL	NL
MW-3R	2,700	9,080	1,410	11,000	24,190	2,580	748	<0.19
MW-4R	4,640	5,070	1,360	3,990	15,060	21,000	<1,000	<0.020
MW-5R	<5.0	<5.0	<5.0	<10.0	BDL	2.3J	<5.0	<0.020
MW-7RR	17,500	22,700	1,850	10,900	52,950	<1,000	<1,000	1.5
MW-9	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<0.019
MW-10	<5.0	<5.0	<5.0	<10.0	BDL	3.8J	<5.0	<0.019
MW-11	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<0.019
MW-14	11,800	13,700	2,420	11,000	38,920	4,020	<500	<0.020
MW-15	<5.0	<5.0	<5.0	<10.0	BDL	2.8J	<5.0	<0.019
MW-16	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<0.021
MW-17	39.1	<5.0	<5.0	<10.0	39.1	<5.0	<5.0	<0.023
MW-18	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<0.023
PW-1R	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<0.019
WSW-1	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<0.019

Notes:
- Groundwater samples collected January 8, 2009.
- BDL = Below Detection Limits
- Contour Interval = 15,000 ug/l
- "J" Values included in Contouring
- Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE
0 50 100 150 200
1IN = 100FT

ALL LOCATIONS ARE APPROXIMATE

Total BTEX Isopleth Map

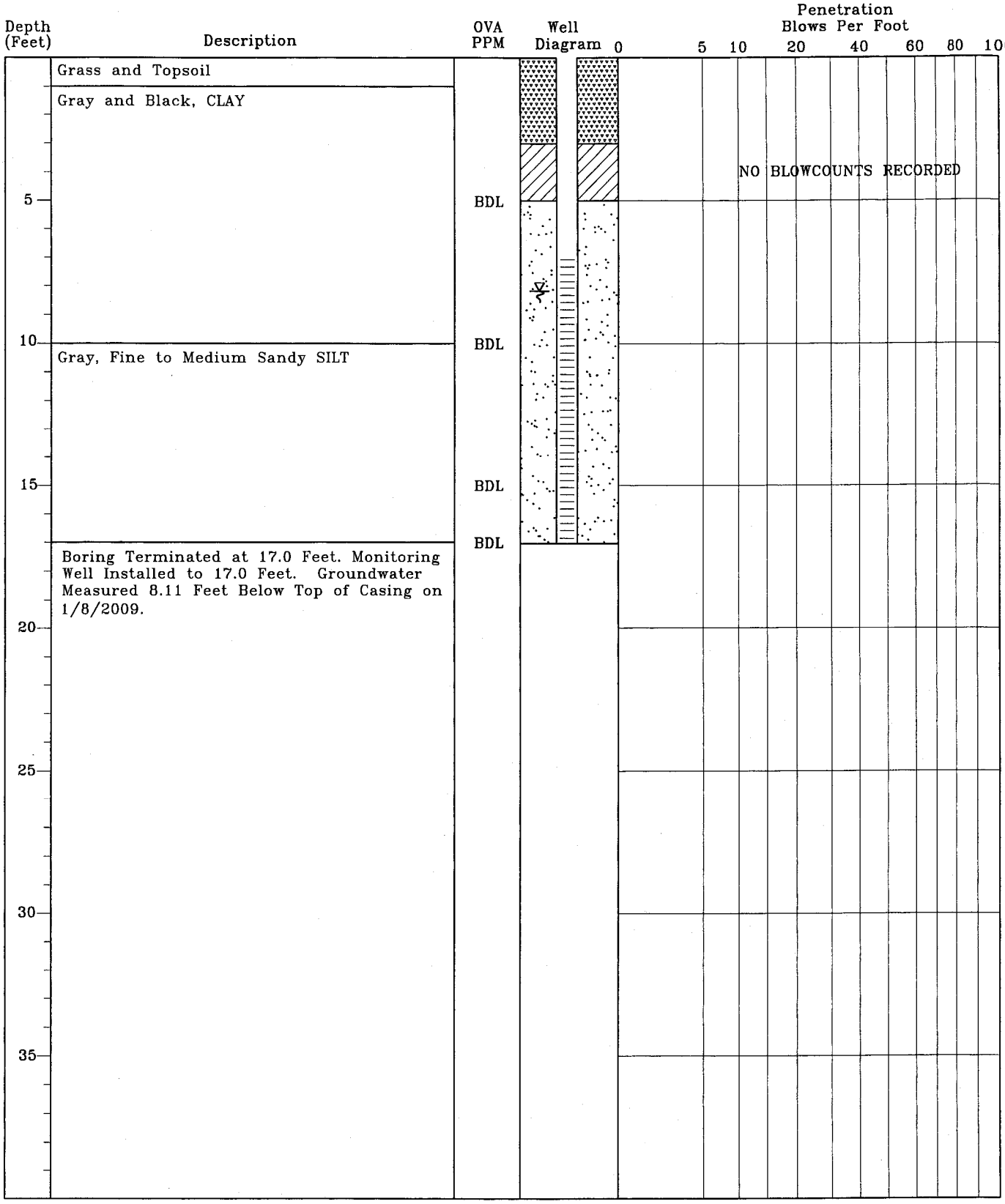
Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 08-1835
DATE January 30, 2008
FIGURE 4

APPENDIX A

TEST BORING AND MONITORING WELL INSTALLATION RECORDS



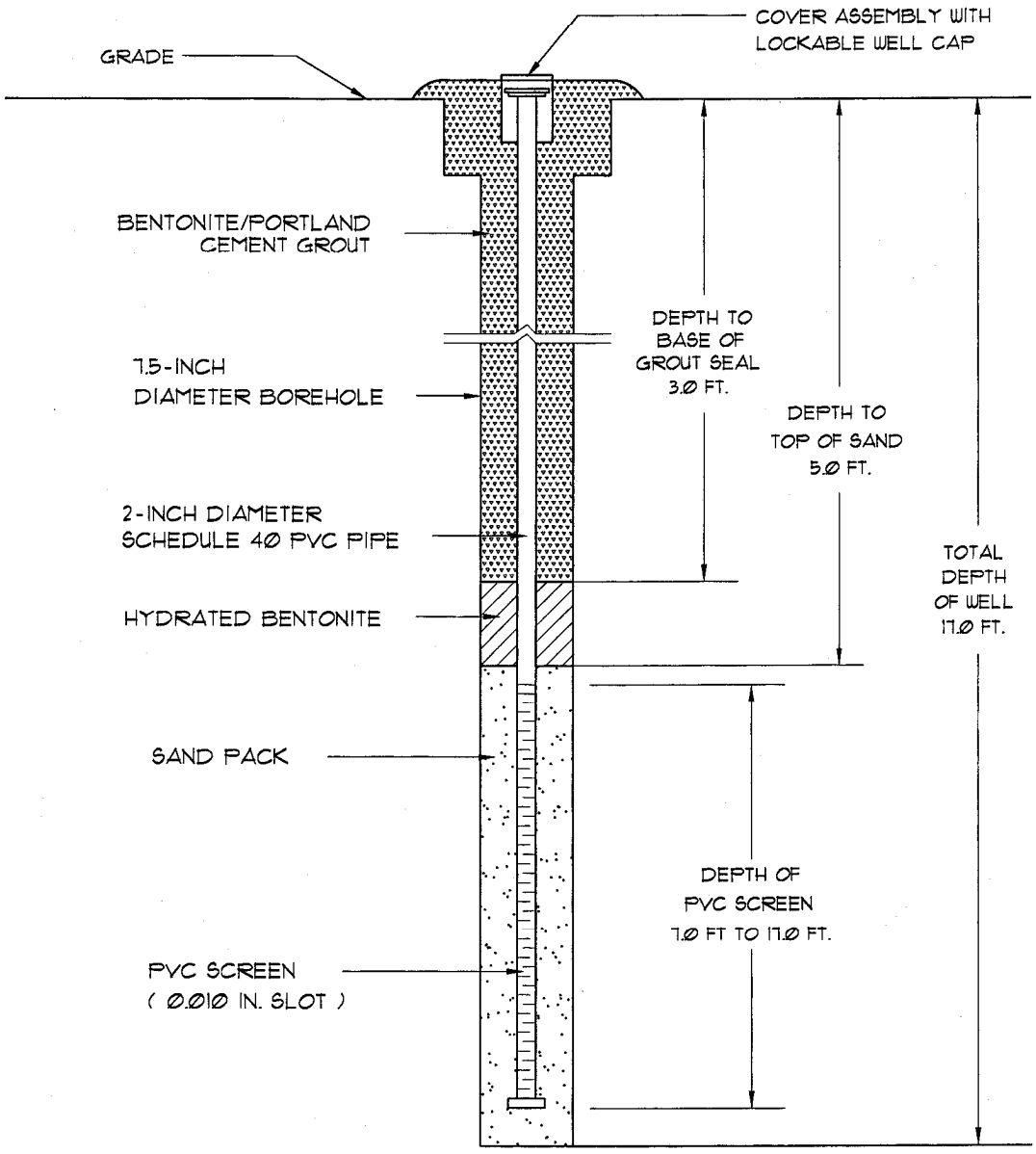
TEST BORING RECORD
Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID# 10628
MECI Project Number 08-1835

Boring Number:	MW-16
Date Drilled:	12/31/08
Drilled By:	Geologic Exploration Inc.
Logged By:	J. Coleman

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

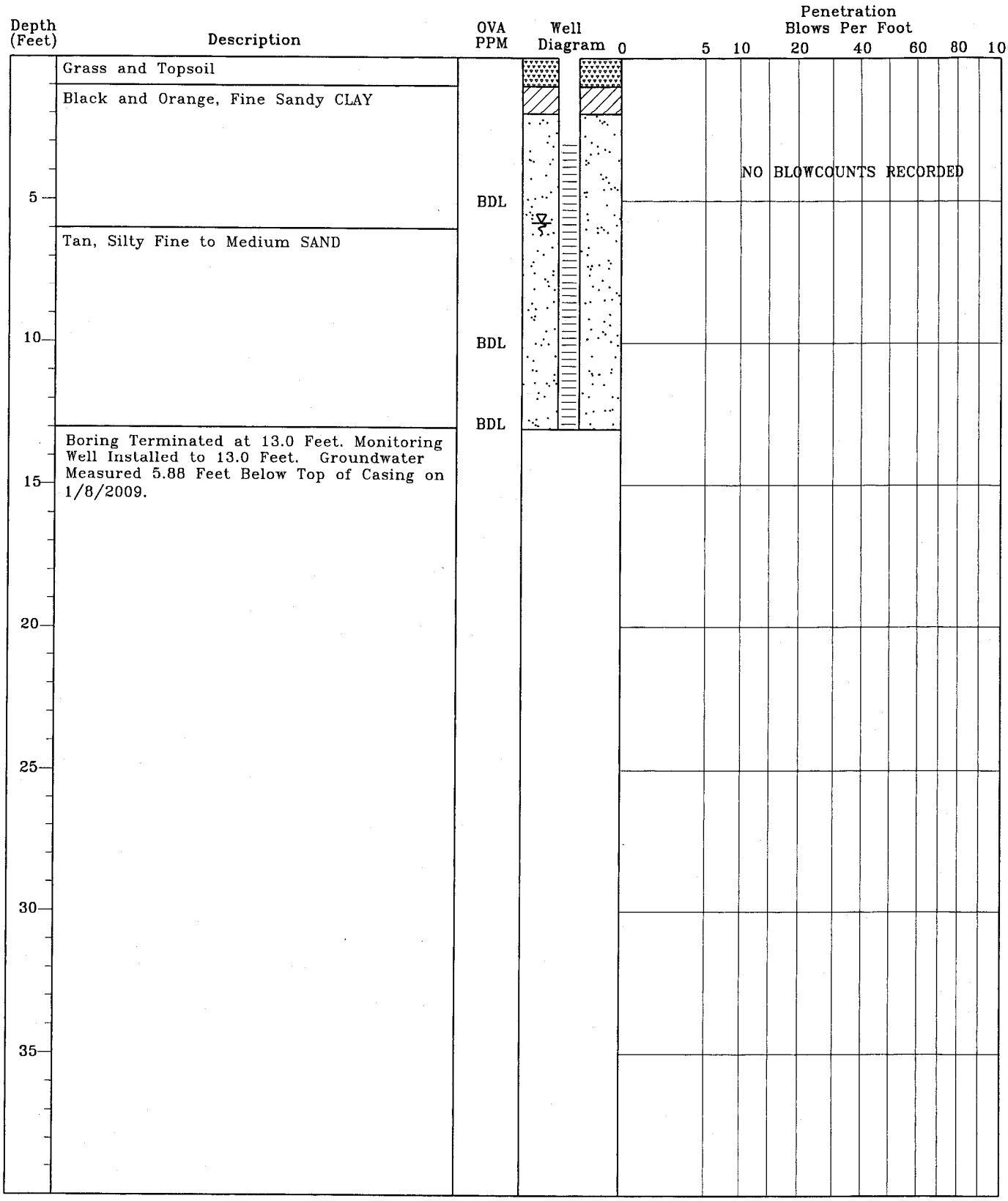
MONITORING WELL INSTALLATION RECORD

Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID# 10628
MECI Project Number 08-1835



Well Number:	MW-16
Date Drilled:	12/31/08
Drilled By:	Geologic Exploration Inc.
Driller: J. Hess	S.C. I.D. #: D 01929
Logged By:	J. Coleman

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



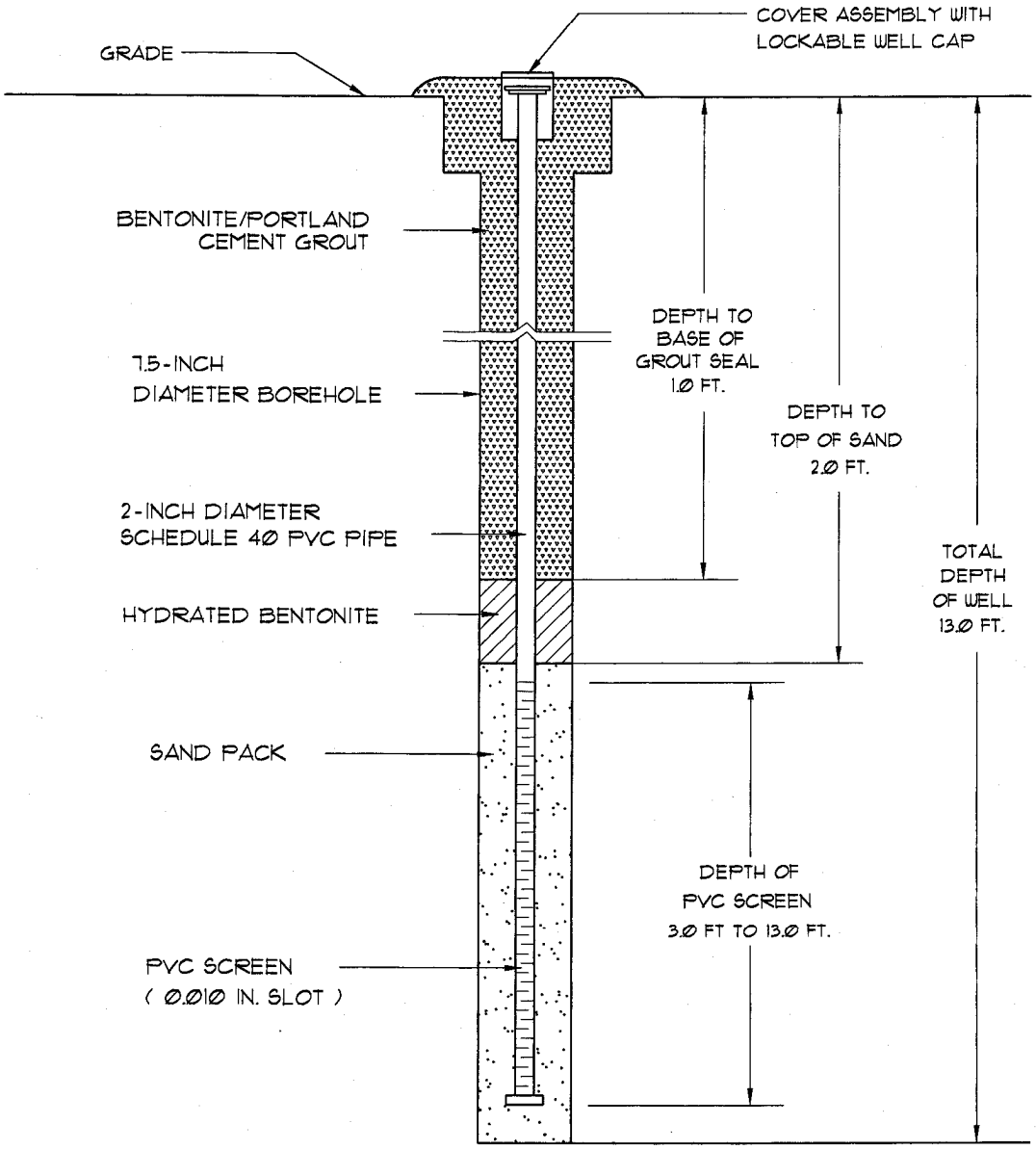
TEST BORING RECORD
Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID# 10628
MECI Project Number 08-1835

Boring Number:	MW-17
Date Drilled:	12/31/08
Drilled By:	Geologic Exploration Inc.
Logged By:	J. Coleman

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

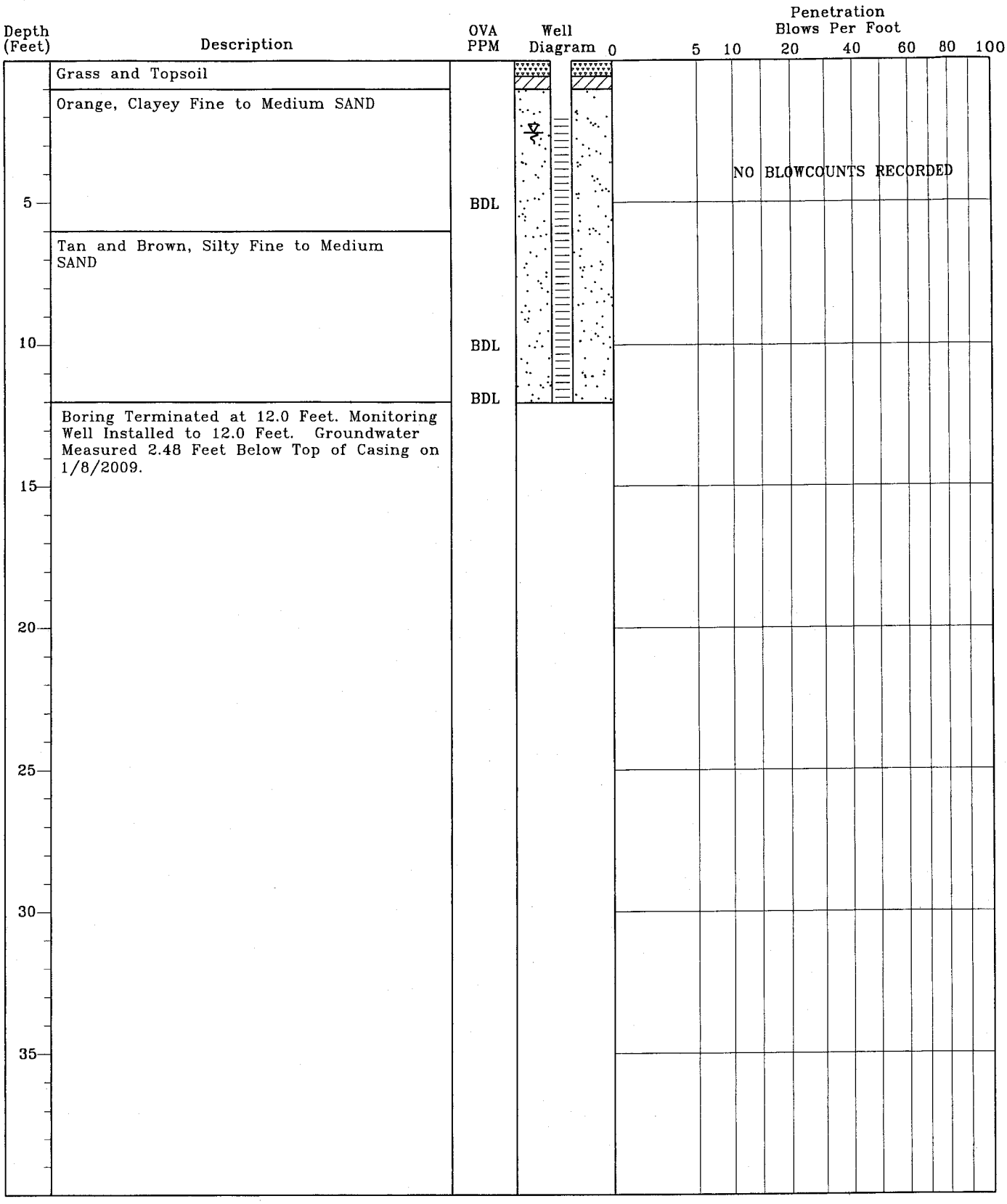
MONITORING WELL INSTALLATION RECORD

Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID# 10628
MECI Project Number 08-1835



Well Number:	MW-17
Date Drilled:	12/31/08
Drilled By:	Geologic Exploration Inc.
Driller: J. Hess	S.C. I.D. #: D 01929
Logged By:	J. Coleman

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 Fax: 808-2048



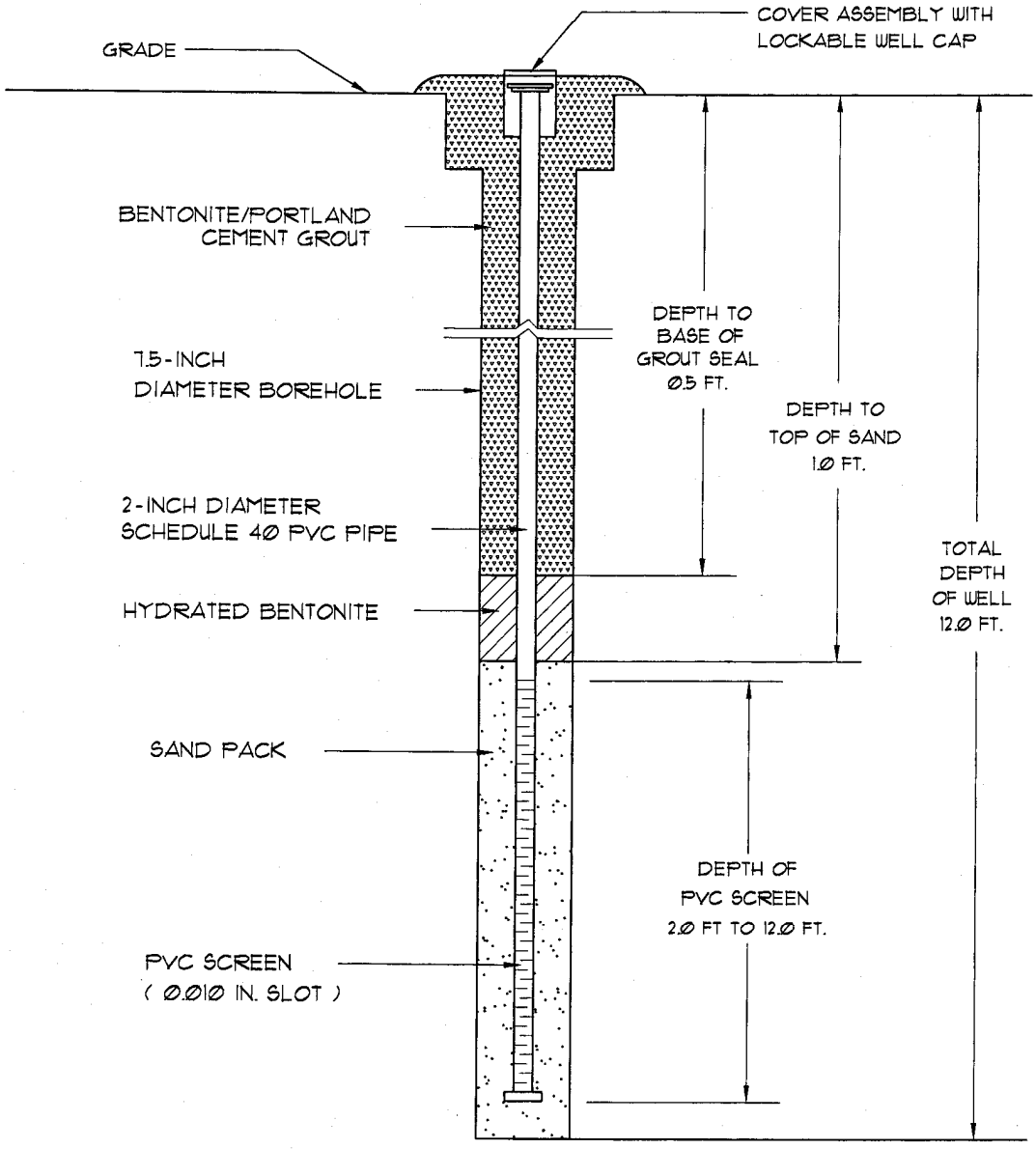
TEST BORING RECORD
Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID# 10628
MECI Project Number 08-1835

Boring Number:	MW-18
Date Drilled:	12/31/08
Drilled By:	Geologic Exploration Inc.
Logged By:	J. Coleman

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

MONITORING WELL INSTALLATION RECORD

Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID# 10628
MECI Project Number 08-1835



Well Number:	MW-18
Date Drilled:	12/31/08
Drilled By:	Geologic Exploration Inc.
Driller: J. Hess	S.C. I.D. #: D 01929
Logged By:	J. Coleman

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

08-1835

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDOT ENGINEERING DISTRICT 6 (last) (first)
Address: 150 EAST WOODLAWN STREET
City: RIDGELAND State: SC Zip: 29936
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** JASPER
Name: PANTRY #911
Street Address: HIGHWAY 170/HIGHWAY 170 AFT
City: HARDEEVILLE Zip: 29927
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
GRAY/BLACK CLAY	10.0	10.0
GRAY FINE SANDY SILT	7.0	17.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-16 BENTONITE SEAL FROM 3.0 TO 5.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE:
☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 17.0 ft. Date Started: 12/31/08 Date Completed: 12/31/08

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 7.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 10.0 FEET
Set Between: 7.0 ft. and 17.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 10.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 5.0 ft. to 17.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 3.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe ___ ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: JAMES HESS **CERT. NO.:** 01929
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☐ B ☐ C ☐ D ☑ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Signed: James T. Hess Jr. Well Driller Date: 01/06/09
If D Level Driller, provide supervising driller's name:
MARK GETTYS

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDOT ENGINEERING DISTRICT 6 (last) (first)
Address: 150 EAST WOODLAWN STREET
City: RIDGELAND State: SC Zip: 29936
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** JASPER
Name: PANTRY #911
Street Address: HIGHWAY 170/HIGHWAY 170 AFT
City: HARDEEVILLE Zip: 29927
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
BLACK/ORANGE FINE SANDY CLAY	5.0	5.0
TAN F/M SAND	5.0	10.0
GRAY FINE SAND	3.0	13.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-17 BENTONITE SEAL FROM 1.0 TO 2.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 13.0 ft. Date Started: 12/31/08 Date Completed: 12/31/08

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 3.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 10.0 FEET
Set Between: 3.0 ft. and 13.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 6.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 2.0 ft. to 13.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 1.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: JAMES HESS **CERT. NO.:** 01929
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☐ B ☐ C ☐ D ☑ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: James T. Hess Jr. Well Driller Date: 01/06/09

If D Level Driller, provide supervising driller's name:
MARK GETTYS

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE. PROTECT. PROSPER.

1. WELL OWNER INFORMATION:
Name: JEFFERS, EMERIL (last) (first)
Address: 274 NEW RIVER ROAD
City: HARDEEVILLE State: SC Zip: 29927
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** JASPER
Name: PANTRY #911
Street Address: HIGHWAY 170/HIGHWAY 170 AFT
City: HARDEEVILLE Zip: 29927
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
ORANGE CLAYEY F/M SAND	5.0	5.0
TAN/BROWN FINE SAND	7.0	12.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-18 BENTONITE SEAL FROM 0.5 TO 1.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE:
☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 12.0 ft. Date Started: 12/31/08 Date Completed: 12/31/08

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 2.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 2 INCH
Slot/Gauge: .010 Length: 10.0 FEET
Set Between: 2.0 ft. and 12.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 6.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 1.0 ft. to 12.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 0.5 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe ___ ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: JAMES HESS **CERT. NO.:** 01929
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☐ B ☐ C ☐ D ☑ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: James T. Hess Jr. (Well Driller) Date: 01/06/09

If D Level Driller, provide supervising driller's name:
MARK GETTYS

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

APPENDIX B

ANALYTICAL RESULTS

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

January 20, 2009

Mr. Bryan Shane
Midlands Environmental
PO Box 854
Lexington, SC 29071

RE: Project: PANTRY 911
Pace Project No.: 9235801

Dear Mr. Shane:
Enclosed are the analytical results for sample(s) received by the laboratory on January 09, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Inorganic Wet Chemistry and Metals analyses were performed at our Pace Asheville laboratory and Organic testing was performed at our Pace Huntersville laboratory unless otherwise footnoted. All Microbiological analyses were performed at the laboratory where the samples were received.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Renee Spencer

Renee Spencer

renee.spencer@pacelabs.com
Project Manager

Enclosures

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: PANTRY 911
Pace Project No.: 9235801

Charlotte Certification IDs
West Virginia Certification #: 357
Virginia Certification #: 00213
Tennessee Certification #: 04010
South Carolina Drinking Water Cert. #: 990060003
South Carolina Certification #: 990060001
Pennsylvania Certification #: 68-00784
North Carolina Wastewater Certification #: 12
North Carolina Field Services Certification #: 5342
North Carolina Drinking Water Certification #: 37706
New Jersey Certification #: NC012
Louisiana/LELAP Certification #: 04034
Kentucky UST Certification #: 84
Florida/NELAP Certification #: E87627
Connecticut Certification #: PH-0104

Asheville Certification IDs
West Virginia Certification #: 356
Virginia Certification #: 00072
Tennessee Certification #: 2980
South Carolina Certification #: 99030001
South Carolina Bioassay Certification #: 99030002
Pennsylvania Certification #: 68-03578
North Carolina Wastewater Certification #: 40
North Carolina Drinking Water Certification #: 37712
North Carolina Bioassay Certification #: 9
New Jersey Certification #: NC011
Massachusetts Certification #: M-NC030
Louisiana/LELAP Certification #: 03095
Florida/NELAP Certification #: E87648
Connecticut Certification #: PH-0106

Eden Certification IDs
Virginia Drinking Water Certification #: 00424
North Carolina Wastewater Certification #: 633
North Carolina Drinking Water Certification #: 37738

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: PANTRY 911
Pace Project No.: 9235801

Lab ID	Sample ID	Matrix	Date Collected	Date Received
9235801001	MW-3R	Water	01/08/09 12:07	01/09/09 16:00
9235801002	MW-4R	Water	01/08/09 12:25	01/09/09 16:00
9235801003	MW-5R	Water	01/08/09 10:41	01/09/09 16:00
9235801004	MW-7RR	Water	01/08/09 11:42	01/09/09 16:00
9235801005	MW-9	Water	01/08/09 10:52	01/09/09 16:00
9235801006	MW-10	Water	01/08/09 10:59	01/09/09 16:00
9235801007	MW-11	Water	01/08/09 10:29	01/09/09 16:00
9235801008	MW-14	Water	01/08/09 12:33	01/09/09 16:00
9235801009	MW-15	Water	01/08/09 12:00	01/09/09 16:00
9235801010	PW-1R	Water	01/08/09 12:16	01/09/09 16:00
9235801011	MW-16	Water	01/08/09 12:40	01/09/09 16:00
9235801012	MW-17	Water	01/08/09 11:35	01/09/09 16:00
9235801013	MW-18	Water	01/08/09 11:18	01/09/09 16:00
9235801014	WSW-1	Water	01/08/09 11:22	01/09/09 16:00

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: PANTRY 911
Pace Project No.: 9235801

Lab ID	Sample ID	Method	Analysts	Analytes Reported
9235801001	MW-3R	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	MCK	13
9235801002	MW-4R	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	MCK	13
9235801003	MW-5R	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	MCK	13
9235801004	MW-7RR	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	MCK	13
9235801005	MW-9	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	MCK	13
9235801006	MW-10	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	MCK	13
9235801007	MW-11	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	MCK	13
9235801008	MW-14	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	MCK	13
9235801009	MW-15	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	MCK	13
9235801010	PW-1R	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	MCK	13
9235801011	MW-16	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	MCK	13
9235801012	MW-17	EPA 6010	SHB	1
		EPA 8011	CAH	2
		EPA 8260	MCK	13
9235801013	MW-18	EPA 6010	SHB	1

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: PANTRY 911
Pace Project No.: 9235801

Lab ID	Sample ID	Method	Analysts	Analytes Reported
9235801014	WSW-1	EPA 8011	CAH	2
			MCK	13
		EPA 8260	CAH	2
		EPA 8011	MCK	13
		EPA 8260		

REPORT OF LABORATORY ANALYSIS

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911
Pace Project No.: 9235801

Sample: MW-3R **Lab ID: 9235801001** Collected: 01/08/09 12:07 Received: 01/09/09 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.19	0.19	10	01/14/09 15:48	01/18/09 13:57	106-93-4	D3
1-Chloro-2-bromopropane (S)	0	%	60-140		10	01/14/09 15:48	01/18/09 13:57	301-79-56	S4
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	01/12/09 11:30	01/14/09 02:27	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**2700**	ug/L	250	60.0	50		01/13/09 06:47	71-43-2	
1,2-Dichloroethane	ND	ug/L	250	65.0	50		01/13/09 06:47	107-06-2	
Ethylbenzene	**1410**	ug/L	250	55.0	50		01/13/09 06:47	100-41-4	
Methyl-tert-butyl ether	**2580**	ug/L	250	100	50		01/13/09 06:47	1634-04-4	
Naphthalene	**748**	ug/L	250	145	50		01/13/09 06:47	91-20-3	
Toluene	**9080**	ug/L	250	90.0	50		01/13/09 06:47	108-88-3	
Xylene (Total)	**11000**	ug/L	500	135	50		01/13/09 06:47	1330-20-7	
m&p-Xylene	**7330**	ug/L	500	135	50		01/13/09 06:47	1330-20-7	
o-Xylene	**3660**	ug/L	250	85.0	50		01/13/09 06:47	95-47-6	
4-Bromofluorobenzene (S)	107	%	87-109		50		01/13/09 06:47	460-00-4	
Dibromofluoromethane (S)	102	%	85-115		50		01/13/09 06:47	1868-53-7	
1,2-Dichloroethane-d4 (S)	104	%	79-120		50		01/13/09 06:47	17060-07-0	
Toluene-d8 (S)	100	%	70-120		50		01/13/09 06:47	2037-26-5	

Sample: MW-4R **Lab ID: 9235801002** Collected: 01/08/09 12:25 Received: 01/09/09 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	01/14/09 15:49	01/18/09 03:29	106-93-4	
1-Chloro-2-bromopropane (S)	107	%	60-140		1	01/14/09 15:49	01/18/09 03:29	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	01/12/09 11:30	01/14/09 02:32	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**4640**	ug/L	1000	240	200		01/12/09 15:44	71-43-2	
1,2-Dichloroethane	ND	ug/L	1000	260	200		01/12/09 15:44	107-06-2	
Ethylbenzene	**1360**	ug/L	1000	220	200		01/12/09 15:44	100-41-4	
Methyl-tert-butyl ether	**21000**	ug/L	1000	400	200		01/12/09 15:44	1634-04-4	
Naphthalene	ND	ug/L	1000	580	200		01/12/09 15:44	91-20-3	
Toluene	**5070**	ug/L	1000	360	200		01/12/09 15:44	108-88-3	
Xylene (Total)	**3990**	ug/L	2000	540	200		01/12/09 15:44	1330-20-7	
m&p-Xylene	**2570**	ug/L	2000	540	200		01/12/09 15:44	1330-20-7	
o-Xylene	**1420**	ug/L	1000	340	200		01/12/09 15:44	95-47-6	
4-Bromofluorobenzene (S)	102	%	87-109		200		01/12/09 15:44	460-00-4	
Dibromofluoromethane (S)	101	%	85-115		200		01/12/09 15:44	1868-53-7	

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911
Pace Project No.: 9235801

Sample: MW-4R **Lab ID: 9235801002** Collected: 01/08/09 12:25 Received: 01/09/09 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,2-Dichloroethane-d4 (S)	98	%	79-120		200		01/12/09 15:44	17060-07-0	
Toluene-d8 (S)	99	%	70-120		200		01/12/09 15:44	2037-26-5	

Sample: MW-5R **Lab ID: 9235801003** Collected: 01/08/09 10:41 Received: 01/09/09 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	01/14/09 15:49	01/18/09 11:01	106-93-4	
1-Chloro-2-bromopropane (S)	100	%	60-140		1	01/14/09 15:49	01/18/09 11:01	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	01/12/09 11:30	01/14/09 02:36	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		01/12/09 16:01	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		01/12/09 16:01	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		01/12/09 16:01	100-41-4	
Methyl-tert-butyl ether	**2.3J**	ug/L	5.0	2.0	1		01/12/09 16:01	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		01/12/09 16:01	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		01/12/09 16:01	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		01/12/09 16:01	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		01/12/09 16:01	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		01/12/09 16:01	95-47-6	
4-Bromofluorobenzene (S)	102	%	87-109		1		01/12/09 16:01	460-00-4	
Dibromofluoromethane (S)	101	%	85-115		1		01/12/09 16:01	1868-53-7	
1,2-Dichloroethane-d4 (S)	101	%	79-120		1		01/12/09 16:01	17060-07-0	
Toluene-d8 (S)	99	%	70-120		1		01/12/09 16:01	2037-26-5	

Sample: MW-7RR **Lab ID: 9235801004** Collected: 01/08/09 11:42 Received: 01/09/09 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**1.5**	ug/L	0.097	0.097	5	01/14/09 15:49	01/18/09 14:33	106-93-4	
1-Chloro-2-bromopropane (S)	74	%	60-140		1	01/14/09 15:49	01/18/09 11:13	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	**157**	ug/L	5.0	4.0	1	01/12/09 11:30	01/14/09 02:41	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**17500**	ug/L	1000	240	200		01/12/09 16:18	71-43-2	

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911
Pace Project No.: 9235801

Sample: MW-7RR **Lab ID: 9235801004** Collected: 01/08/09 11:42 Received: 01/09/09 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,2-Dichloroethane	**731J**	ug/L	1000	260	200		01/12/09 16:18	107-06-2	
Ethylbenzene	**1850**	ug/L	1000	220	200		01/12/09 16:18	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	1000	400	200		01/12/09 16:18	1634-04-4	
Naphthalene	ND	ug/L	1000	580	200		01/12/09 16:18	91-20-3	
Toluene	**22700**	ug/L	1000	360	200		01/12/09 16:18	108-88-3	
Xylene (Total)	**10900**	ug/L	2000	540	200		01/12/09 16:18	1330-20-7	
m&p-Xylene	**7470**	ug/L	2000	540	200		01/12/09 16:18	1330-20-7	
o-Xylene	**3480**	ug/L	1000	340	200		01/12/09 16:18	95-47-6	
4-Bromofluorobenzene (S)	102	%	87-109		200		01/12/09 16:18	460-00-4	
Dibromofluoromethane (S)	101	%	85-115		200		01/12/09 16:18	1868-53-7	
1,2-Dichloroethane-d4 (S)	102	%	79-120		200		01/12/09 16:18	17060-07-0	
Toluene-d8 (S)	100	%	70-120		200		01/12/09 16:18	2037-26-5	

Sample: MW-9 **Lab ID: 9235801005** Collected: 01/08/09 10:52 Received: 01/09/09 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	01/14/09 15:49	01/18/09 11:25	106-93-4	
1-Chloro-2-bromopropane (S)	98	%	60-140		1	01/14/09 15:49	01/18/09 11:25	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	01/12/09 11:30	01/14/09 02:45	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		01/12/09 16:36	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		01/12/09 16:36	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		01/12/09 16:36	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		01/12/09 16:36	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		01/12/09 16:36	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		01/12/09 16:36	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		01/12/09 16:36	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		01/12/09 16:36	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		01/12/09 16:36	95-47-6	
4-Bromofluorobenzene (S)	103	%	87-109		1		01/12/09 16:36	460-00-4	
Dibromofluoromethane (S)	103	%	85-115		1		01/12/09 16:36	1868-53-7	
1,2-Dichloroethane-d4 (S)	98	%	79-120		1		01/12/09 16:36	17060-07-0	
Toluene-d8 (S)	101	%	70-120		1		01/12/09 16:36	2037-26-5	

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911
Pace Project No.: 9235801

Sample: MW-10 **Lab ID: 9235801006** Collected: 01/08/09 10:59 Received: 01/09/09 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	01/14/09 16:04	01/18/09 15:45	106-93-4	
1-Chloro-2-bromopropane (S)	105	%	60-140		1	01/14/09 16:04	01/18/09 15:45	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	**11.6**	ug/L	5.0	4.0	1	01/12/09 11:30	01/14/09 02:50	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		01/12/09 16:53	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		01/12/09 16:53	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		01/12/09 16:53	100-41-4	
Methyl-tert-butyl ether	**3.8J**	ug/L	5.0	2.0	1		01/12/09 16:53	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		01/12/09 16:53	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		01/12/09 16:53	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		01/12/09 16:53	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		01/12/09 16:53	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		01/12/09 16:53	95-47-6	
4-Bromofluorobenzene (S)	102	%	87-109		1		01/12/09 16:53	460-00-4	
Dibromofluoromethane (S)	103	%	85-115		1		01/12/09 16:53	1868-53-7	
1,2-Dichloroethane-d4 (S)	100	%	79-120		1		01/12/09 16:53	17060-07-0	
Toluene-d8 (S)	100	%	70-120		1		01/12/09 16:53	2037-26-5	

Sample: MW-11 **Lab ID: 9235801007** Collected: 01/08/09 10:29 Received: 01/09/09 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	01/14/09 16:04	01/18/09 16:22	106-93-4	
1-Chloro-2-bromopropane (S)	104	%	60-140		1	01/14/09 16:04	01/18/09 16:22	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	01/12/09 11:30	01/14/09 02:54	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		01/12/09 17:10	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		01/12/09 17:10	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		01/12/09 17:10	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		01/12/09 17:10	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		01/12/09 17:10	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		01/12/09 17:10	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		01/12/09 17:10	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		01/12/09 17:10	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		01/12/09 17:10	95-47-6	
4-Bromofluorobenzene (S)	101	%	87-109		1		01/12/09 17:10	460-00-4	
Dibromofluoromethane (S)	102	%	85-115		1		01/12/09 17:10	1868-53-7	

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911
Pace Project No.: 9235801

Sample: MW-11 **Lab ID: 9235801007** Collected: 01/08/09 10:29 Received: 01/09/09 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,2-Dichloroethane-d4 (S)	101	%	79-120		1		01/12/09 17:10	17060-07-0	
Toluene-d8 (S)	100	%	70-120		1		01/12/09 17:10	2037-26-5	

Sample: MW-14 **Lab ID: 9235801008** Collected: 01/08/09 12:33 Received: 01/09/09 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	01/14/09 16:04	01/18/09 16:46	106-93-4	
1-Chloro-2-bromopropane (S)	110	%	60-140		1	01/14/09 16:04	01/18/09 16:46	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	01/12/09 11:30	01/14/09 03:10	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**11800**	ug/L	500	120	100		01/12/09 17:27	71-43-2	
1,2-Dichloroethane	ND	ug/L	500	130	100		01/12/09 17:27	107-06-2	
Ethylbenzene	**2420**	ug/L	500	110	100		01/12/09 17:27	100-41-4	
Methyl-tert-butyl ether	**4020**	ug/L	500	200	100		01/12/09 17:27	1634-04-4	
Naphthalene	ND	ug/L	500	290	100		01/12/09 17:27	91-20-3	
Toluene	**13700**	ug/L	500	180	100		01/12/09 17:27	108-88-3	
Xylene (Total)	**11000**	ug/L	1000	270	100		01/12/09 17:27	1330-20-7	
m&p-Xylene	**8780**	ug/L	1000	270	100		01/12/09 17:27	1330-20-7	
o-Xylene	**2240**	ug/L	500	170	100		01/12/09 17:27	95-47-6	
4-Bromofluorobenzene (S)	101	%	87-109		100		01/12/09 17:27	460-00-4	
Dibromofluoromethane (S)	101	%	85-115		100		01/12/09 17:27	1868-53-7	
1,2-Dichloroethane-d4 (S)	98	%	79-120		100		01/12/09 17:27	17060-07-0	
Toluene-d8 (S)	98	%	70-120		100		01/12/09 17:27	2037-26-5	

Sample: MW-15 **Lab ID: 9235801009** Collected: 01/08/09 12:00 Received: 01/09/09 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	01/14/09 16:04	01/18/09 16:58	106-93-4	
1-Chloro-2-bromopropane (S)	103	%	60-140		1	01/14/09 16:04	01/18/09 16:58	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	01/12/09 11:30	01/14/09 03:14	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		01/12/09 17:45	71-43-2	

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911
Pace Project No.: 9235801

Sample: MW-15 **Lab ID: 9235801009** Collected: 01/08/09 12:00 Received: 01/09/09 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		01/12/09 17:45	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		01/12/09 17:45	100-41-4	
Methyl-tert-butyl ether	**2.8J**	ug/L	5.0	2.0	1		01/12/09 17:45	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		01/12/09 17:45	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		01/12/09 17:45	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		01/12/09 17:45	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		01/12/09 17:45	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		01/12/09 17:45	95-47-6	
4-Bromofluorobenzene (S)	102	%	87-109		1		01/12/09 17:45	460-00-4	
Dibromofluoromethane (S)	104	%	85-115		1		01/12/09 17:45	1868-53-7	
1,2-Dichloroethane-d4 (S)	102	%	79-120		1		01/12/09 17:45	17060-07-0	
Toluene-d8 (S)	101	%	70-120		1		01/12/09 17:45	2037-26-5	

Sample: PW-1R **Lab ID: 9235801010** Collected: 01/08/09 12:16 Received: 01/09/09 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	01/14/09 16:05	01/18/09 17:10	106-93-4	
1-Chloro-2-bromopropane (S)	86	%	60-140		1	01/14/09 16:05	01/18/09 17:10	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	01/12/09 11:30	01/14/09 03:19	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		01/13/09 02:21	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		01/13/09 02:21	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		01/13/09 02:21	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		01/13/09 02:21	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		01/13/09 02:21	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		01/13/09 02:21	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		01/13/09 02:21	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		01/13/09 02:21	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		01/13/09 02:21	95-47-6	
4-Bromofluorobenzene (S)	99	%	87-109		1		01/13/09 02:21	460-00-4	
Dibromofluoromethane (S)	107	%	85-115		1		01/13/09 02:21	1868-53-7	
1,2-Dichloroethane-d4 (S)	107	%	79-120		1		01/13/09 02:21	17060-07-0	
Toluene-d8 (S)	100	%	70-120		1		01/13/09 02:21	2037-26-5	

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911
Pace Project No.: 9235801

Sample: MW-16 **Lab ID: 9235801011** Collected: 01/08/09 12:40 Received: 01/09/09 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.021	0.021	1	01/14/09 16:05	01/18/09 17:22	106-93-4	
1-Chloro-2-bromopropane (S)	99	%	60-140		1	01/14/09 16:05	01/18/09 17:22	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	01/12/09 11:30	01/14/09 03:23	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		01/13/09 02:39	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		01/13/09 02:39	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		01/13/09 02:39	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		01/13/09 02:39	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		01/13/09 02:39	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		01/13/09 02:39	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		01/13/09 02:39	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		01/13/09 02:39	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		01/13/09 02:39	95-47-6	
4-Bromofluorobenzene (S)	100	%	87-109		1		01/13/09 02:39	460-00-4	
Dibromofluoromethane (S)	108	%	85-115		1		01/13/09 02:39	1868-53-7	
1,2-Dichloroethane-d4 (S)	107	%	79-120		1		01/13/09 02:39	17060-07-0	
Toluene-d8 (S)	100	%	70-120		1		01/13/09 02:39	2037-26-5	

Sample: MW-17 **Lab ID: 9235801012** Collected: 01/08/09 11:35 Received: 01/09/09 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.023	0.023	1	01/14/09 16:05	01/18/09 17:34	106-93-4	
1-Chloro-2-bromopropane (S)	90	%	60-140		1	01/14/09 16:05	01/18/09 17:34	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	01/12/09 12:00	01/13/09 14:03	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**39.1**	ug/L	5.0	1.2	1		01/13/09 02:56	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		01/13/09 02:56	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		01/13/09 02:56	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		01/13/09 02:56	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		01/13/09 02:56	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		01/13/09 02:56	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		01/13/09 02:56	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		01/13/09 02:56	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		01/13/09 02:56	95-47-6	
4-Bromofluorobenzene (S)	100	%	87-109		1		01/13/09 02:56	460-00-4	
Dibromofluoromethane (S)	107	%	85-115		1		01/13/09 02:56	1868-53-7	

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911
Pace Project No.: 9235801

Sample: MW-17 **Lab ID: 9235801012** Collected: 01/08/09 11:35 Received: 01/09/09 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,2-Dichloroethane-d4 (S)	104	%	79-120		1		01/13/09 02:56	17060-07-0	
Toluene-d8 (S)	99	%	70-120		1		01/13/09 02:56	2037-26-5	

Sample: MW-18 **Lab ID: 9235801013** Collected: 01/08/09 11:18 Received: 01/09/09 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.023	0.023	1	01/14/09 16:05	01/18/09 17:46	106-93-4	
1-Chloro-2-bromopropane (S)	90	%	60-140		1	01/14/09 16:05	01/18/09 17:46	301-79-56	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Lead	ND	ug/L	5.0	4.0	1	01/12/09 12:00	01/13/09 14:12	7439-92-1	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		01/13/09 03:13	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		01/13/09 03:13	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		01/13/09 03:13	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		01/13/09 03:13	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.9	1		01/13/09 03:13	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		01/13/09 03:13	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		01/13/09 03:13	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		01/13/09 03:13	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		01/13/09 03:13	95-47-6	
4-Bromofluorobenzene (S)	100	%	87-109		1		01/13/09 03:13	460-00-4	
Dibromofluoromethane (S)	105	%	85-115		1		01/13/09 03:13	1868-53-7	
1,2-Dichloroethane-d4 (S)	105	%	79-120		1		01/13/09 03:13	17060-07-0	
Toluene-d8 (S)	99	%	70-120		1		01/13/09 03:13	2037-26-5	

Sample: WSW-1 **Lab ID: 9235801014** Collected: 01/08/09 11:22 Received: 01/09/09 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	01/14/09 16:05	01/18/09 17:58	106-93-4	
1-Chloro-2-bromopropane (S)	98	%	60-140		1	01/14/09 16:05	01/18/09 17:58	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
Benzene	ND	ug/L	5.0	1.2	1		01/13/09 03:30	71-43-2	
1,2-Dichloroethane	ND	ug/L	5.0	1.3	1		01/13/09 03:30	107-06-2	
Ethylbenzene	ND	ug/L	5.0	1.1	1		01/13/09 03:30	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	2.0	1		01/13/09 03:30	1634-04-4	

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911
Pace Project No.: 9235801

Sample: WSW-1 **Lab ID: 9235801014** Collected: 01/08/09 11:22 Received: 01/09/09 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Naphthalene	ND	ug/L	5.0	2.9	1		01/13/09 03:30	91-20-3	
Toluene	ND	ug/L	5.0	1.8	1		01/13/09 03:30	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		01/13/09 03:30	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	2.7	1		01/13/09 03:30	1330-20-7	
o-Xylene	ND	ug/L	5.0	1.7	1		01/13/09 03:30	95-47-6	
4-Bromofluorobenzene (S)	99	%	87-109		1		01/13/09 03:30	460-00-4	
Dibromofluoromethane (S)	103	%	85-115		1		01/13/09 03:30	1868-53-7	
1,2-Dichloroethane-d4 (S)	103	%	79-120		1		01/13/09 03:30	17060-07-0	
Toluene-d8 (S)	101	%	70-120		1		01/13/09 03:30	2037-26-5	

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911
Pace Project No.: 9235801

QC Batch: MPRP/3651 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 9235801001, 9235801002, 9235801003, 9235801004, 9235801005, 9235801006, 9235801007, 9235801008, 9235801009, 9235801010, 9235801011

METHOD BLANK: 221811 Matrix: Water
Associated Lab Samples: 9235801001, 9235801002, 9235801003, 9235801004, 9235801005, 9235801006, 9235801007, 9235801008, 9235801009, 9235801010, 9235801011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead	ug/L	ND	5.0	01/14/09 01:20	

LABORATORY CONTROL SAMPLE: 221812

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	500	433	87	80-120	

MATRIX SPIKE SAMPLE: 221813

Parameter	Units	9235439001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	ND	500	405	81	75-125	

SAMPLE DUPLICATE: 221814

Parameter	Units	9235738001 Result	Dup Result	RPD	Max RPD	Qualifiers
Lead	ug/L	264	271	3	20	

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911
Pace Project No.: 9235801

QC Batch: MPRP/3652
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Associated Lab Samples: 9235801012, 9235801013

METHOD BLANK: 221815 Matrix: Water
Associated Lab Samples: 9235801012, 9235801013

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead	ug/L	ND	5.0	01/13/09 13:54	

LABORATORY CONTROL SAMPLE: 221816

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	500	496	99	80-120	

MATRIX SPIKE SAMPLE: 221817

Parameter	Units	9235801012 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	ND	500	491	98	75-125	

SAMPLE DUPLICATE: 221818

Parameter	Units	9235801013 Result	Dup Result	RPD	Max RPD	Qualifiers
Lead	ug/L	ND	ND		20	

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911
Pace Project No.: 9235801

QC Batch: MSV/5836 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 9235801002, 9235801003, 9235801004, 9235801005, 9235801006, 9235801007, 9235801008, 9235801009

METHOD BLANK: 221901 Matrix: Water
Associated Lab Samples: 9235801002, 9235801003, 9235801004, 9235801005, 9235801006, 9235801007, 9235801008, 9235801009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	01/12/09 11:02	
Benzene	ug/L	ND	5.0	01/12/09 11:02	
Ethylbenzene	ug/L	ND	5.0	01/12/09 11:02	
m&p-Xylene	ug/L	ND	10.0	01/12/09 11:02	
Methyl-tert-butyl ether	ug/L	ND	5.0	01/12/09 11:02	
Naphthalene	ug/L	ND	5.0	01/12/09 11:02	
o-Xylene	ug/L	ND	5.0	01/12/09 11:02	
Toluene	ug/L	ND	5.0	01/12/09 11:02	
Xylene (Total)	ug/L	ND	10.0	01/12/09 11:02	
1,2-Dichloroethane-d4 (S)	%	98	79-120	01/12/09 11:02	
4-Bromofluorobenzene (S)	%	98	87-109	01/12/09 11:02	
Dibromofluoromethane (S)	%	102	85-115	01/12/09 11:02	
Toluene-d8 (S)	%	99	70-120	01/12/09 11:02	

LABORATORY CONTROL SAMPLE: 221902

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	49.0	98	72-126	
Benzene	ug/L	50	49.7	99	78-128	
Ethylbenzene	ug/L	50	48.8	98	80-127	
m&p-Xylene	ug/L	100	98.5	99	82-127	
Methyl-tert-butyl ether	ug/L	50	47.7	95	71-130	
Naphthalene	ug/L	50	63.5	127	52-136	
o-Xylene	ug/L	50	48.7	97	83-124	
Toluene	ug/L	50	48.5	97	76-126	
Xylene (Total)	ug/L	150	147	98	83-125	
1,2-Dichloroethane-d4 (S)	%			98	79-120	
4-Bromofluorobenzene (S)	%			102	87-109	
Dibromofluoromethane (S)	%			98	85-115	
Toluene-d8 (S)	%			100	70-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 221903 221904

Parameter	Units	9235806008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/L	ND	50	50	43.2	56.3	86	113	74-136	26	30	
Toluene	ug/L	ND	50	50	42.5	55.7	85	111	73-131	27	30	
1,2-Dichloroethane-d4 (S)	%						99	107	79-120			
4-Bromofluorobenzene (S)	%						101	101	87-109			
Dibromofluoromethane (S)	%						103	106	85-115			

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911
Pace Project No.: 9235801

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 221903 221904

Parameter	Units	9235806008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Toluene-d8 (S)	%						100	99	70-120			

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911
Pace Project No.: 9235801

QC Batch: MSV/5842 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 9235801010, 9235801011, 9235801012, 9235801013, 9235801014

METHOD BLANK: 222002 Matrix: Water
Associated Lab Samples: 9235801010, 9235801011, 9235801012, 9235801013, 9235801014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	01/12/09 22:55	
Benzene	ug/L	ND	5.0	01/12/09 22:55	
Ethylbenzene	ug/L	ND	5.0	01/12/09 22:55	
m&p-Xylene	ug/L	ND	10.0	01/12/09 22:55	
Methyl-tert-butyl ether	ug/L	ND	5.0	01/12/09 22:55	
Naphthalene	ug/L	ND	5.0	01/12/09 22:55	
o-Xylene	ug/L	ND	5.0	01/12/09 22:55	
Toluene	ug/L	ND	5.0	01/12/09 22:55	
Xylene (Total)	ug/L	ND	10.0	01/12/09 22:55	
1,2-Dichloroethane-d4 (S)	%	103	79-120	01/12/09 22:55	
4-Bromofluorobenzene (S)	%	101	87-109	01/12/09 22:55	
Dibromofluoromethane (S)	%	104	85-115	01/12/09 22:55	
Toluene-d8 (S)	%	99	70-120	01/12/09 22:55	

LABORATORY CONTROL SAMPLE: 222003

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	52.5	105	72-126	
Benzene	ug/L	50	51.9	104	78-128	
Ethylbenzene	ug/L	50	50.2	100	80-127	
m&p-Xylene	ug/L	100	99.5	100	82-127	
Methyl-tert-butyl ether	ug/L	50	52.4	105	71-130	
Naphthalene	ug/L	50	65.0	130	52-136	
o-Xylene	ug/L	50	50.6	101	83-124	
Toluene	ug/L	50	50.6	101	76-126	
Xylene (Total)	ug/L	150	150	100	83-125	
1,2-Dichloroethane-d4 (S)	%			105	79-120	
4-Bromofluorobenzene (S)	%			103	87-109	
Dibromofluoromethane (S)	%			101	85-115	
Toluene-d8 (S)	%			99	70-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 222004 222005

Parameter	Units	9235731011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/L	ND	50	50	54.9	56.1	110	112	74-136	2	30	
Toluene	ug/L	ND	50	50	55.5	56.7	111	113	73-131	2	30	
1,2-Dichloroethane-d4 (S)	%						102	106	79-120			
4-Bromofluorobenzene (S)	%						102	103	87-109			
Dibromofluoromethane (S)	%						103	105	85-115			

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911
Pace Project No.: 9235801

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 222004 222005

Parameter	Units	9235731011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Toluene-d8 (S)	%						98	100	70-120			

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911
Pace Project No.: 9235801

QC Batch: MSV/5843
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV
Associated Lab Samples: 9235801001

METHOD BLANK: 222006
Matrix: Water
Associated Lab Samples: 9235801001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	01/12/09 22:38	
Benzene	ug/L	ND	5.0	01/12/09 22:38	
Ethylbenzene	ug/L	ND	5.0	01/12/09 22:38	
m&p-Xylene	ug/L	ND	10.0	01/12/09 22:38	
Methyl-tert-butyl ether	ug/L	ND	5.0	01/12/09 22:38	
Naphthalene	ug/L	ND	5.0	01/12/09 22:38	
o-Xylene	ug/L	ND	5.0	01/12/09 22:38	
Toluene	ug/L	ND	5.0	01/12/09 22:38	
Xylene (Total)	ug/L	ND	10.0	01/12/09 22:38	
1,2-Dichloroethane-d4 (S)	%	101	79-120	01/12/09 22:38	
4-Bromofluorobenzene (S)	%	100	87-109	01/12/09 22:38	
Dibromofluoromethane (S)	%	103	85-115	01/12/09 22:38	
Toluene-d8 (S)	%	99	70-120	01/12/09 22:38	

LABORATORY CONTROL SAMPLE: 222007

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	52.5	105	72-126	
Benzene	ug/L	50	51.9	104	78-128	
Ethylbenzene	ug/L	50	50.2	100	80-127	
m&p-Xylene	ug/L	100	99.5	100	82-127	
Methyl-tert-butyl ether	ug/L	50	52.4	105	71-130	
Naphthalene	ug/L	50	65.0	130	52-136	
o-Xylene	ug/L	50	50.6	101	83-124	
Toluene	ug/L	50	50.6	101	76-126	
Xylene (Total)	ug/L	150	150	100	83-125	
1,2-Dichloroethane-d4 (S)	%			105	79-120	
4-Bromofluorobenzene (S)	%			103	87-109	
Dibromofluoromethane (S)	%			101	85-115	
Toluene-d8 (S)	%			99	70-120	

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911
Pace Project No.: 9235801

QC Batch: OEXT/5571 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 9235801001, 9235801002, 9235801003, 9235801004, 9235801005

METHOD BLANK: 222836 Matrix: Water
Associated Lab Samples: 9235801001, 9235801002, 9235801003, 9235801004, 9235801005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	01/17/09 23:04	
1-Chloro-2-bromopropane (S)	%	100	60-140	01/17/09 23:04	

LABORATORY CONTROL SAMPLE & LCSD: 222837 222838

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.28	0.29	0.28	106	100	60-140	5	20	
1-Chloro-2-bromopropane (S)	%				100	102	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 222839 222840

Parameter	Units	9235739018 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	.27	.27	0.28	0.29	102	106	60-140	4	20	
1-Chloro-2-bromopropane (S)	%						103	99	60-140			

SAMPLE DUPLICATE: 222841

Parameter	Units	9235739019 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%		98	.07		

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911
Pace Project No.: 9235801

QC Batch: OEXT/5572 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 9235801006, 9235801007, 9235801008, 9235801009, 9235801010, 9235801011, 9235801012, 9235801013, 9235801014

METHOD BLANK: 222843 Matrix: Water
Associated Lab Samples: 9235801006, 9235801007, 9235801008, 9235801009, 9235801010, 9235801011, 9235801012, 9235801013, 9235801014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.019	01/18/09 15:09	
1-Chloro-2-bromopropane (S)	%	104	60-140	01/18/09 15:09	

LABORATORY CONTROL SAMPLE & LCSD: 222844 222845

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.28	0.30	0.26	106	94	60-140	14	20	
1-Chloro-2-bromopropane (S)	%				104	100	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 222846 222847

Parameter	Units	9235801006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	.28	.28	0.29	0.29	104	104	60-140	0	20	
1-Chloro-2-bromopropane (S)	%						107	108	60-140			

SAMPLE DUPLICATE: 222848

Parameter	Units	9235801007 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%		101	2		

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: PANTRY 911
Pace Project No.: 9235801

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

ANALYTE QUALIFIERS

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: of

1164144

Section A
Required Client Information:

Company:	MECI
Address:	235B Dooley Rd, Lexington SC 29073
Email To:	wcm@meci.net
Phone:	Fax:
Requested Due Date/TAT:	

Section B
Required Project Information:

Report To:	B. Shane
Copy To:	
Purchase Order No.:	
Project Name:	Pantry 911
Project Number:	

Section C
Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	R. Spencer
Pace Profile #:	836-4

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER ______

Site Location STATE: SC

Section D
Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes
MATRIX / CODE
Drinking Water DW
Water WT
Waste Water WW
Product P
Soil/Solid SL
Oil OL
Wipe WP
Air AR
Tissue TS
Other OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	BTEX 8260B	Napth 8260B	MTBE 8260B	1,2 DCA 8260B	EDB 8011	Total Lead	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 9235801
1	MW-3R	WT	G			1/8	1207		7			1	6						X	X	X	X	X	X		001
2	MW-4R						1225																			002
3	MW-5R						1041																			003
4	MW-7RR						1142																			004
5	MW-9						1052																			005
6	MW-10						1059																			006
7	MW-11						1029																			007
8	MW-14						1233																			008
9	MW-15						1200																			009
10	PW-1R						1216																			010
11	MW-16						1240																			011
12	MW-17						1135																			012

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
MW-7RR sampled under sheen	MECI	1/9/09	9:45	Pace	1/9/9	9:45				
	Pace	1-9-9	9:45 / 1600	WindWaters	1/9/09	16:00	0.4	yes	no	yes

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: CLARK BAER

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 1/8/09

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page:	of
1164145	

Section A
Required Client Information:

Company:	MECI
Address:	235B Dooly Rd Lexington, SC 29073
Email To:	wm@meci.net
Phone:	Fax:
Requested Due Date/TAT:	

Section B
Required Project Information:

Report To:	B. Shane
Copy To:	
Purchase Order No.:	
Project Name:	Pantry 911
Project Number:	

Section C
Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	R. Spencer
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER ______

Site Location STATE: SC

Section D
Required Client Information

Matrix Codes
MATRIX / CODE
Drinking Water DW
Water WT
Waste Water WW
Product P
Soil/Solid SL
Oil OL
Wipe WP
Air AR
Tissue TS
Other OT

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	BTEX 8260B	Napth 8260B	MTBE 8260B	1,2 DCA 8260B	EDB 8011	Total lead	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 9235801
1	MW-19	WT	G			1/8	1118		7			1	1						X	X	X	X	X	X		003
2	VSW-1	↓	↓			↓	1122		6				↓						X	X	X	X	X			004
3																										
4																										
5																										
6																										
7																										
8																										
9																										
10																										
11																										
12																										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	Meganleland	1/9/09	7:45	[illegible] / Pace	1/9/9	9:45				
	[illegible] Pace	1-9-9	9:45 / 16:00	[illegible] Waters	1/9/09	16:00	0.4	yes	No	yes

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: CLARK BAEX
SIGNATURE of SAMPLER: [signature]
DATE Signed (MM/DD/YY): 1/8/09

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

WASTE DISPOSAL MANIFESTS

WASTE MANAGEMENT

Richland County LF
1047 Highway Church Road
Elgin, SC, 29045
Ph: (803) 788-3054

Original
Ticket# 938559

Customer Name MIDLANDSENVIRON MIDLANDS ENVI
Ticket Date 01/13/2009
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 0
Destination
PO
Profile VA2718 (SOIL FROM UST ASSESSMENT)
Generator 126-MIDLANDSENVIRONMENTAL MIDLANDS ENVIRONMENTAL

Carrier MIDLANDSENVIRON MIDLANDS ENVIRONMENT
Vehicle# 1
Container
Driver
Check#
Billing # 0000469
Gen EPA ID

Volume

	Time	Scale	ScaleMaster		
In	01/13/2009 14:03:39	Scale2	Devin	Gross	18380 lb
Out	01/13/2009 14:19:18	Scale1	Devin	Tare	10620 lb
				Net	7760 lb
				Tons	3.88

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	SOIL-Cont. Soil -	100	3.88	Tons				40-RICHLAN
2	FUEL-Fuel Surcharg	100		%				40-RICHLAN
3	ENV-ENVIRONMENTAL	100		%				40-RICHLAN

Total Fees
Total Ticket

SIGNATURE

Whedbees 1/2 / former Gulf 1/4 / Pantry 911 1/8 / Bobops 1/8

403WM

TICKET NO.# TONNAGE

RECEIVED BY

MANAGEMENT

SPECIAL WASTE MANIFEST

WASTE ID # VA2718

EXPIRATION DATE: November 14, 2009

RICHLAND LANDI
1047 Hwy Church Rd
Elgin, SC 29045
(803)788-3054
(803)736-0995 Fax

PREPARED BY CAROL WELDON (205)-652-8186

GENERATOR OF WASTE: M.E.I.C. (Midlands Environmental Consultants, Inc)

CUSTOMER ACCOUNT: MIDLANDS ENV/ 8220-469

LOCATION OF WASTE : 1144 Old Two Notch Road

PHONE # 803-808-2043 CONTACT: Bryan Shane

FAX # 803-808-2048

GENERATOR'S SIGNATURE B. Shane DATE: 1-13-09

TRANSPORTER OF WASTE John C. Bryant

DATE: 1-13-09 TRUCK NO. 1

DRIVER'S SIGNATURE J C B

**** TO BE COMPLETED BY RICHLAND LANDFILL ****

DISPOSAL SITE: RICHLAND LANDFILL ELGIN, SC

DESCRIPTION OF WASTE SOIL from UST Assessment Soil

TICKET NO.# 936559 TONNAGE 3.86

RECEIVED BY

Midlands Environmental Consultants, Inc.

January 30, 2009

Re: Treatment of Purge Water
Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID Number 10628
MECI Project Number 08-1835

To Whom it May Concern;

Midlands Environmental Consultants, Inc. is providing the following letter as certification that treatment of the referenced purge water complied with the conditions of "Proposed Conditions for Use of Portable Activated Carbon Units for the Treatment of Small Volumes of Petroleum Hydrocarbon Contaminated Groundwater", as described in the following:

Applicability:

Groundwater treated was obtained as a result development of wells and sampling.

Conditions:

1. The purge/bail water from all wells is mixed before usage of the Activated Carbon Unit.
2. No free-product was detected in any of the purge water drums.
3. Analytical results of from well sampling show average concentrations of petroleum hydrocarbon constituents less than 5000 parts per billion (ppb) Benzene and less than 20,000 ppb total BTEX.
4. The existing carbon pack will be replaced/reactivated every 5,000 gallons.
5. Record of usage is maintained by Contractor.
6. Any and all recommendations and conditions issued by the Manufacturer have been adhered to.
7. Any and all recommendations and conditions (even on a site by site basis) issued by the SCDHEC must be adhered to.

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

All purge waters were treated on-site using an up-flow treatment drum loaded with 30 pounds of activated carbon. Carbon will be loaded to a maximum of 3 pounds of total organic compounds or 5,000 gallons of development/purge water, whichever occurs first.

Two 55-gallon drums were treated on January 8, 2009 at the referenced site.

A total of two (2) 55-gallon drums were treated at the referenced site.

Midlands Environmental also tracks cumulative organic compounds adsorbed on the activated carbon to ensure the capacity of carbon mass is not over-charged. This data is available upon request.

Should you have any questions or comments, please contact the undersigned.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman for
Project Scientist

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

OCT 07 2009

MR BRENT PUZAK
PANTRY INC
PO BOX 1410
SANFORD NC 27330

Re: **Monitoring Report Review**
Pantry 911: Hwy 170 and 170-A, Hardeeville, SC
UST Permit # **10628**
Release Reported April 28, 1995
Assessment Report received on February 3, 2009
Jasper County

Dear Mr. Puzak:

The Underground Storage Tank (UST) Management Division has reviewed the referenced report. In order to further delineate the petroleum plume monitoring wells MW-16, MW-17, and MW-18 were installed. A copy of the report is enclosed for your information. The next scope of work is to perform four (4) Aggressive Fluid Vapor Recovery (AFVR) events. Two (2) events each will be performed on the following: MW-7RR and the group of MW-2R/MW-3R/MW14.

The UST Division will continue to coordinate site rehabilitation activities on behalf of Malphrus Enterprises. Future reports will be forwarded to you once they have been reviewed.

If you have any questions concerning this correspondence, please contact me by phone at (803) 896-6649, by fax at (803) 896-6245, or by email at koonjt@dhec.sc.gov.

Sincerely,

Justin Koon, EIT
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

enc: Assessment Report

cc: Technical File (w/out enc)

UST DOCKET 7 Feb

Domenico Model

UST # 10628
Site Name: Pantry 911
Modeler: Justin Koon
Date: 9/23/2009

Groundwater Flow Parameters

K	1205	ft/yr
dh/dx	0.0037	
θ	0.25	dec. %
v_x	91	ft/yr

Transport Parameters

x_{max}	120	ft
y_{max}	0	ft
z	0	ft
Source Width	30	ft
Source Thickness	15	ft
Plume Length	250	ft
α_x	12.52912	ft
α_y	1.252912	ft
α_z	1.00E-99	ft

Simulation Time

t_{sim} 22 yrs

Aquifer Characteristics

ρ_d	1.7	kg/L
f_{oc}	0.0002	

Modeled: MW7RR to MW17 using 2/9/2009 data

Source Area CoC Data

CoC	C_{source} (mg/L)	K_{oc} (L/kg)
Benzene		81
Toluene		133
Ethylbenzene		176
Xylenes		639
Naphthalene		1543
MtBE		11
EDB	0.0015	28
1,2-DCA	0.731	17.5

Retarded Velocity (ft/yr)

CoC	R	v_R
Benzene	1.110	81.97
Toluene	1.181	77.06
Ethylbenzene	1.239	73.42
Xylenes	1.869	48.69
Naphthalene	3.098	29.37
MtBE	1.015	89.66
EDB	1.038	87.66
1,2-DCA	1.024	88.88

Simulation Points for Breakthrough Curves

MW17		
x	120	ft
y	0	ft
z	0	ft

x		ft
y		ft
z		ft

$$C(x,y,z,t) = \left(\frac{C_0}{8}\right)\exp\left[\left(\frac{x}{2\alpha_x}\right)\left(1-\sqrt{1+\frac{4\lambda\alpha_x}{v}}\right)\right] erfc\left[\frac{x-vt\sqrt{1+\frac{4\lambda\alpha_x}{v}}}{2\sqrt{\alpha_x vt}}\right]\left\{erf\left[\frac{y+\frac{Y}{2}}{2\sqrt{\alpha_y x}}\right]-erf\left[\frac{y-\frac{Y}{2}}{2\sqrt{\alpha_y x}}\right]\right\}\left\{erf\left[\frac{z+Z}{2\sqrt{\alpha_z x}}\right]-erf\left[\frac{z-Z}{2\sqrt{\alpha_z x}}\right]\right\}$$

10628

UST DOCKET 8 tech

EDB Calibration

Spatial Calibration Data

(centerline)

x	C_{obs} (mg/L)	C_{sim} (mg/L)
0	0.0015	0.00150
12		0.00103
24		0.00068
36		0.00044
48		0.00028
60		0.00018
72		0.00012
84		0.00008
96		0.00005
108		0.00003
120	0.000023	0.00002

Temporal Calibration Data

	MW17		0	
t (yrs)	C_{obs} (mg/L)	C_{sim} (mg/L)	C_{obs} (mg/L)	C_{sim} (mg/L)
0		0.00000		0.00150
2.2		0.00002		0.00150
4.4		0.00002		0.00150
6.6		0.00002		0.00150
8.8		0.00002		0.00150
11		0.00002		0.00150
13.2		0.00002		0.00150
15.4		0.00002		0.00150
17.6		0.00002		0.00150
19.8		0.00002		0.00150
22	0.000023	0.00002		0.00150

Site ID 10628

Site Name Pantry 911

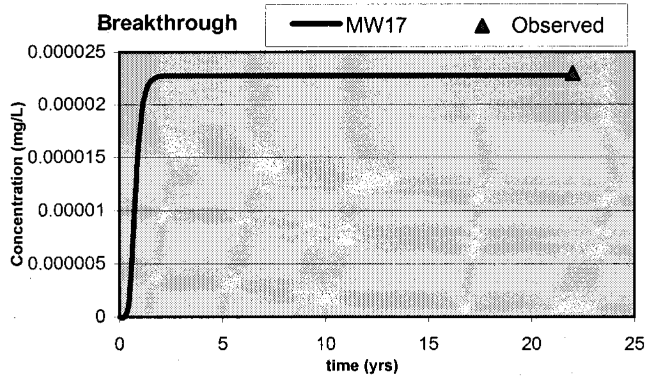
Model Calibration Parameters

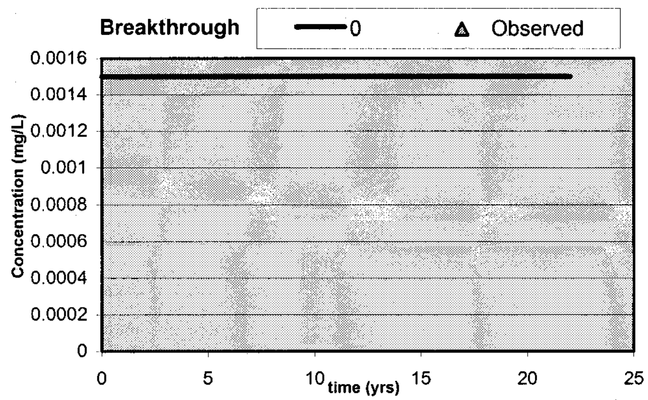
Parameter	Value	Unit
$t_{1/2}$	**0.185**	yrs
v_x	91	ft/yr
R	1.038	
v_R	87.662	ft/yr
L_p	250	ft
α_x	12.52912	ft
α_y	1.252912	ft
α_z	1E-99	ft

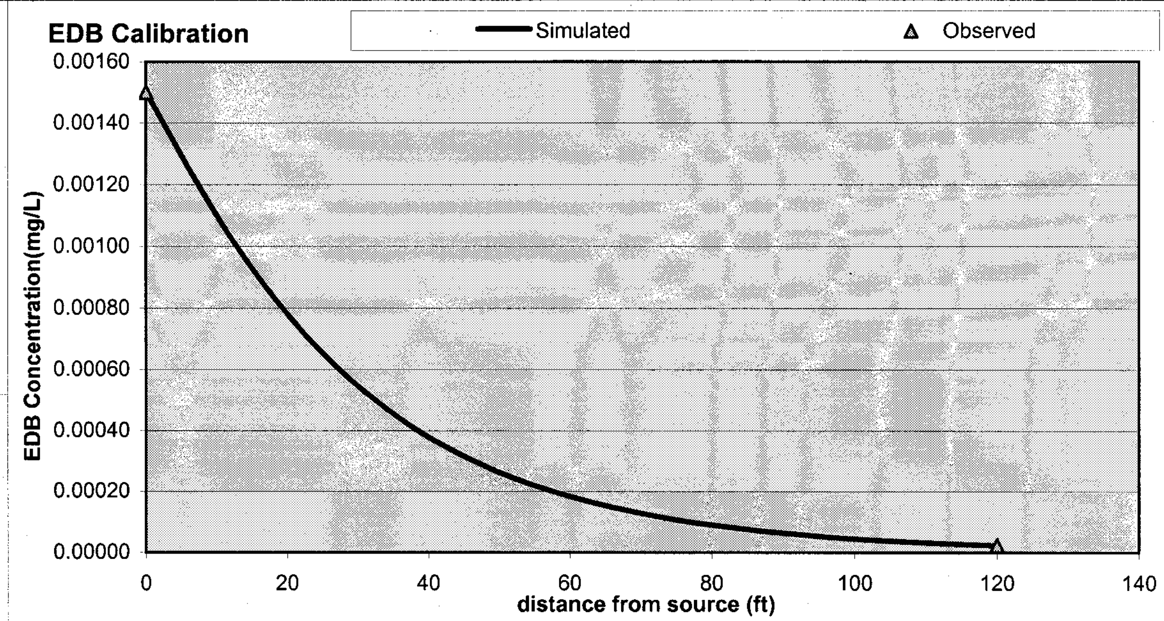
λ 3.74595 yr^{-1}

C_{source} 0.0015 mg/L

t_{sim} 22 yrs







Source	12	24	36	48	60	72	84	96	108	120
0	0.00102974	0.0006778	0.00043797	0.00028303	0.00018376	0.0001199	7.87E-05	5.18E-05	3.43E-05	2.28E-05
0	0.00102974	0.0006778	0.00043797	0.00028303	0.00018376	0.0001199	7.87E-05	5.18E-05	3.43E-05	2.28E-05
0	0.00102974	0.0006778	0.00043797	0.00028303	0.00018376	0.0001199	7.87E-05	5.18E-05	3.43E-05	2.28E-05
0	0.00102974	0.0006778	0.00043797	0.00028303	0.00018376	0.0001199	7.87E-05	5.18E-05	3.43E-05	2.28E-05
0	0.00102974	0.0006778	0.00043797	0.00028303	0.00018376	0.0001199	7.87E-05	5.18E-05	3.43E-05	2.28E-05

1,2-DCA Calibration

Spatial Calibration Data (centerline) x	C_{obs} (mg/L)	C_{sim} (mg/L)
0	0.731	0.731
12		0.464
24		0.282
36		0.169
48		0.101
60		0.060
72		0.036
84		0.022
96		0.013
108		0.008
120	0.005	0.005

Temporal Calibration Data	MW17		0	
t (yrs)	C_{obs} (mg/L)	C_{sim} (mg/L)	C_{obs} (mg/L)	C_{sim} (mg/L)
0		0		0.731
2.2		0.005		0.731
4.4		0.005		0.731
6.6		0.005		0.731
8.8		0.005		0.731
11		0.005		0.731
13.2		0.005		0.731
15.4		0.005		0.731
17.6		0.005		0.731
19.8		0.005		0.731
22	0.005	0.005		0.731

Site ID 10628
Site Name Pantry 911

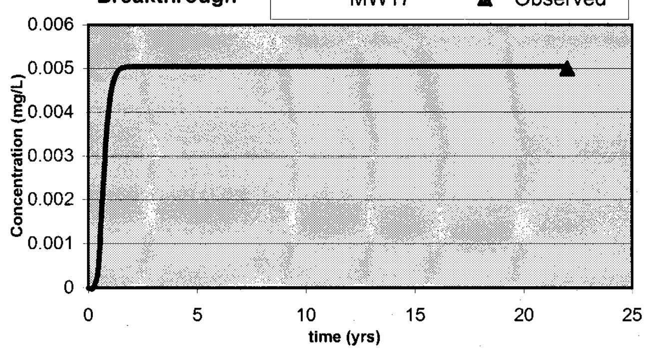
Model Calibration Parameters

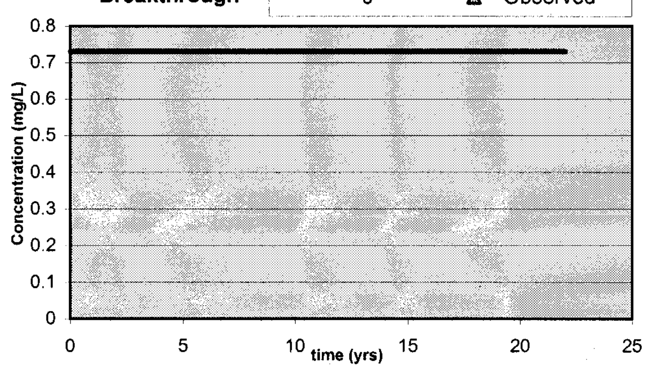
$t_{1/2}$	0.142	yrs
v_x	91	ft/yr
R	1.024	
v_R	88.885	ft/yr
L_p	250	ft
α_x	12.52912	ft
α_y	1.252912	ft
α_z	1E-99	ft

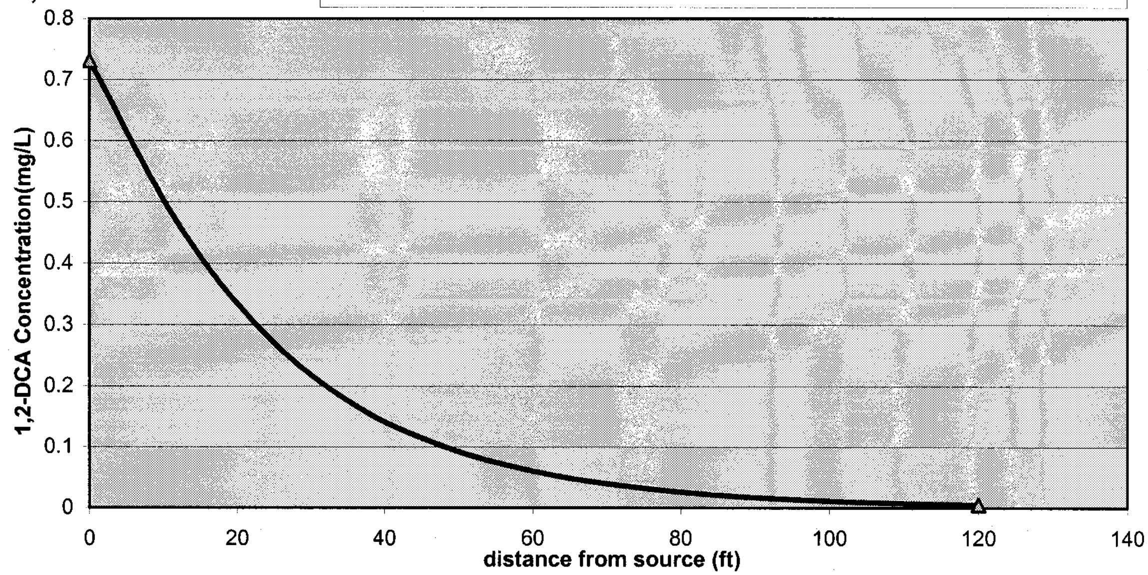
λ 4.88028 yr^{-1}

C_{source} 0.731 mg/L

t_{sim} 22 yrs







Source	12	24	36	48	60	72	84	96	108	120
0	0.46381424	0.28216982	0.1685165	0.1006525	0.06040076	0.0364398	0.022094	0.013454	0.008224	0.005044
0	0.46381424	0.28216982	0.1685165	0.1006525	0.06040076	0.0364398	0.022094	0.013454	0.008224	0.005044
0	0.46381424	0.28216982	0.1685165	0.1006525	0.06040076	0.0364398	0.022094	0.013454	0.008224	0.005044
0	0.46381424	0.28216982	0.1685165	0.1006525	0.06040076	0.0364398	0.022094	0.013454	0.008224	0.005044
0	0.46381424	0.28216982	0.1685165	0.1006525	0.06040076	0.0364398	0.022094	0.013454	0.008224	0.005044

SSTLs t 1000 yrs

UST Permit # 10628
Site Name: Pantry 911

SSTLs in mg/L		RBSLs (mg/L):								0.00005	0.005
MW #	x (ft)	y (ft)	z (ft)							EDB SSTL	1,2-DCA SSTL
MW7RR	140	0	0							0.00649	1.627
MW17	155	0	0							0.01074	2.971
MW4R	325	0	0							2.79867	2362.792
MW3R	330	0	0							3.28786	2868.403
MW14	375	0	0							13.95819	16362.027
			λ (yr^{-1}):							3.746	4.880
			R:							1.038	1.024
			Pure Substance Solubility:							4321	8520
			Effective Solubility:							1.9	3.7

receptor is the irrigation well, creek is intermittent and shallower than watertable

Domenico Model

UST # 10628
Site Name: Pantry 911
Modeler: Justin Koon
Date: 9/23/2009

Groundwater Flow Parameters

K	1205	ft/yr
dh/dx	0.0037	
θ	0.25	dec. %
v_x	91	ft/yr

Transport Parameters

x_{max}	55	ft
y_{max}	0	ft
z	0	ft
Source Width	30	ft
Source Thickness	15	ft
Plume Length	225	ft
α_x	11.80638	ft
α_y	1.180638	ft
α_z	1.00E-99	ft

Simulation Time

t_{sim} 22 yrs

Aquifer Characteristics

ρ_d	1.7	kg/L
f_{oc}	0.0002	

Modeled: MW14 to MW3 using 2/9/2009 data

Source Area CoC Data

CoC	C_{source} (mg/L)	K_{oc} (L/kg)
Benzene	11.8	81
Toluene	13.7	133
Ethylbenzene	2.42	176
Xylenes	11	639
Naphthalene		1543
MtBE		11
EDB		28
1,2-DCA		17.5

Retarded Velocity (ft/yr)

CoC	R	v_R
Benzene	1.110	81.97
Toluene	1.181	77.06
Ethylbenzene	1.239	73.42
Xylenes	1.869	48.69
Naphthalene	3.098	29.37
MtBE	1.015	89.66
EDB	1.038	87.66
1,2-DCA	1.024	88.88

Simulation Points for Breakthrough Curves

	MW4		
x	55	ft	
y	0	ft	
z	0	ft	

x		ft
y		ft
z		ft

$$C(x,y,z,t) = \left(\frac{C_0}{8}\right)\exp\left[\left(\frac{x}{2\alpha_x}\right)\left(1-\sqrt{1+\frac{4\lambda\alpha_x}{v}}\right)\right] erfc\left[\frac{x-vt\sqrt{1+\frac{4\lambda\alpha_x}{v}}}{2\sqrt{\alpha_x vt}}\right]\left\{erf\left[\frac{y+\frac{Y}{2}}{2\sqrt{\alpha_y x}}\right]-erf\left[\frac{y-\frac{Y}{2}}{2\sqrt{\alpha_y x}}\right]\right\}\left\{erf\left[\frac{z+Z}{2\sqrt{\alpha_z x}}\right]-erf\left[\frac{z-Z}{2\sqrt{\alpha_z x}}\right]\right\}$$

Benzene Calibration

Spatial Calibration Data (centerline)

x	C_{obs} (mg/L)	C_{sim} (mg/L)
0	11.8	11.8
5.5		10.974
11		10.174
16.5		9.339
22		8.499
27.5		7.697
33		6.956
38.5		6.282
44		5.674
49.5		5.129
55	4.64	4.640

Temporal Calibration Data

	MW4		0	
t (yrs)	C_{obs} (mg/L)	C_{sim} (mg/L)	C_{obs} (mg/L)	C_{sim} (mg/L)
0		0		11.8
2.2		4.628		11.800
4.4		4.640		11.800
6.6		4.640		11.800
8.8		4.640		11.800
11		4.640		11.800
13.2		4.640		11.800
15.4		4.640		11.800
17.6		4.640		11.800
19.8		4.640		11.800
22	4.64	4.640		11.800

Site ID 10628
Site Name Pantry 911

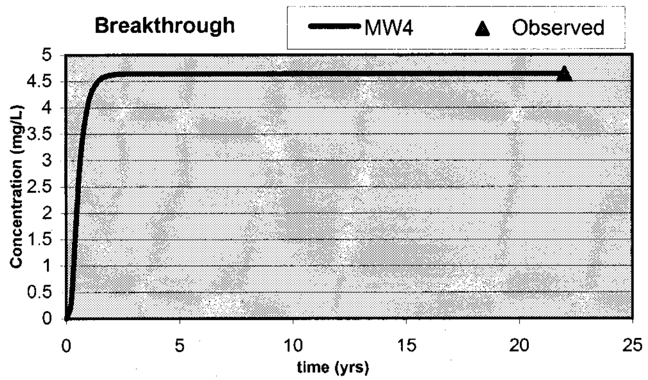
Model Calibration Parameters

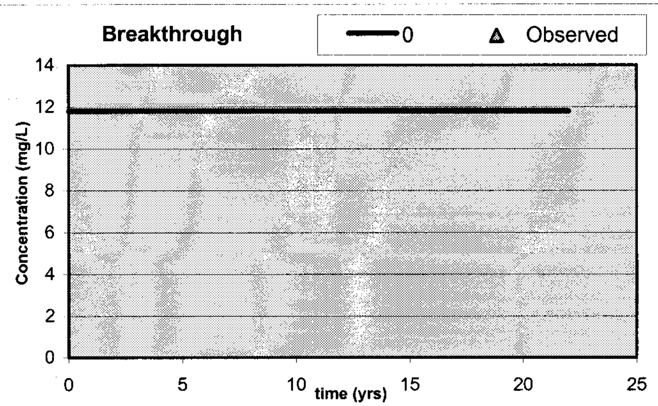
$t_{1/2}$	0.555	yrs
v_x	91	ft/yr
R	1.110	
v_R	81.970	ft/yr
L_p	225	ft
α_x	11.806382	ft
α_y	1.1806382	ft
α_z	1E-99	ft

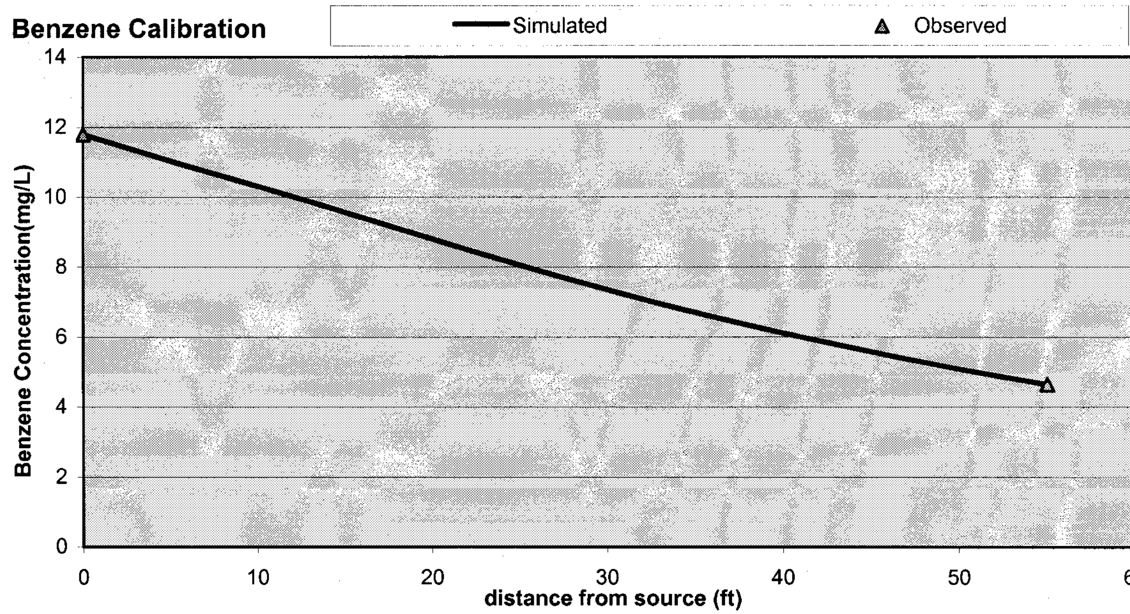
λ 1.24865 yr^{-1}

C_{source} 11.8 mg/L

t_{sim} 22 yrs







Source	5.5	11	16.5	22	27.5	33	38.5	44	49.5	55
0	10.9744455	10.1741357	9.33914227	8.49916797	7.69734431	6.9559662	6.281978	5.674464	5.129054	4.640143
0	10.9744455	10.1741357	9.33914227	8.49916797	7.69734431	6.9559662	6.281978	5.674464	5.129054	4.640143
0	10.9744455	10.1741357	9.33914227	8.49916797	7.69734431	6.9559662	6.281978	5.674464	5.129054	4.640143
0	10.9744455	10.1741357	9.33914227	8.49916797	7.69734431	6.9559662	6.281978	5.674464	5.129054	4.640143
0	10.9744455	10.1741357	9.33914227	8.49916797	7.69734431	6.9559662	6.281978	5.674464	5.129054	4.640143

Toluene Calibration

Spatial Calibration Data (centerline)

x	C_{obs} (mg/L)	C_{sim} (mg/L)
0	13.7	13.7
5.5		12.682
11		11.703
16.5		10.693
22		9.686
27.5		8.731
33		7.854
38.5		7.060
44		6.347
49.5		5.711
55	5.07	5.142

Temporal Calibration Data

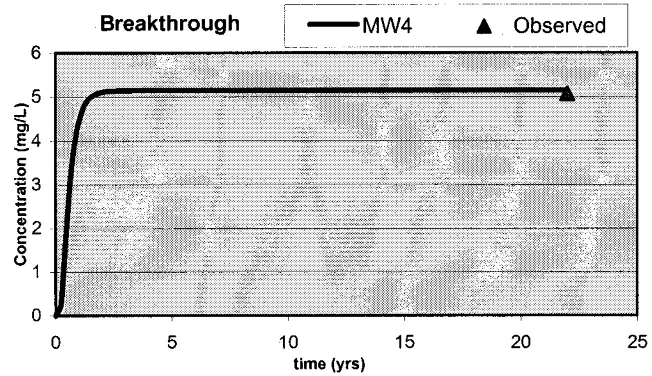
	MW4		0	
t (yrs)	C_{obs} (mg/L)	C_{sim} (mg/L)	C_{obs} (mg/L)	C_{sim} (mg/L)
0		0		13.7
2.2		5.124		13.700
4.4		5.142		13.700
6.6		5.142		13.700
8.8		5.142		13.700
11		5.142		13.700
13.2		5.142		13.700
15.4		5.142		13.700
17.6		5.142		13.700
19.8		5.142		13.700
22	5.07	5.142		13.700

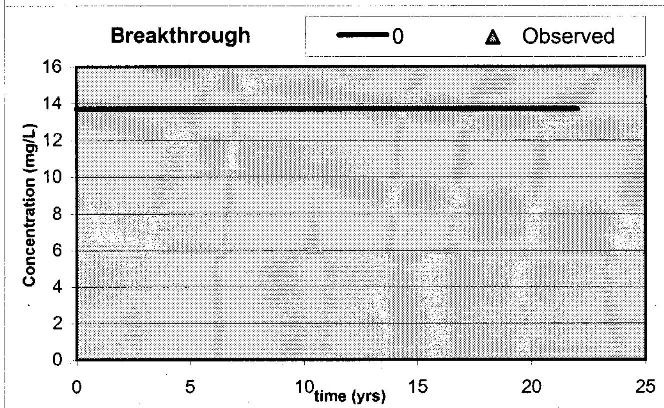
Site ID 10628

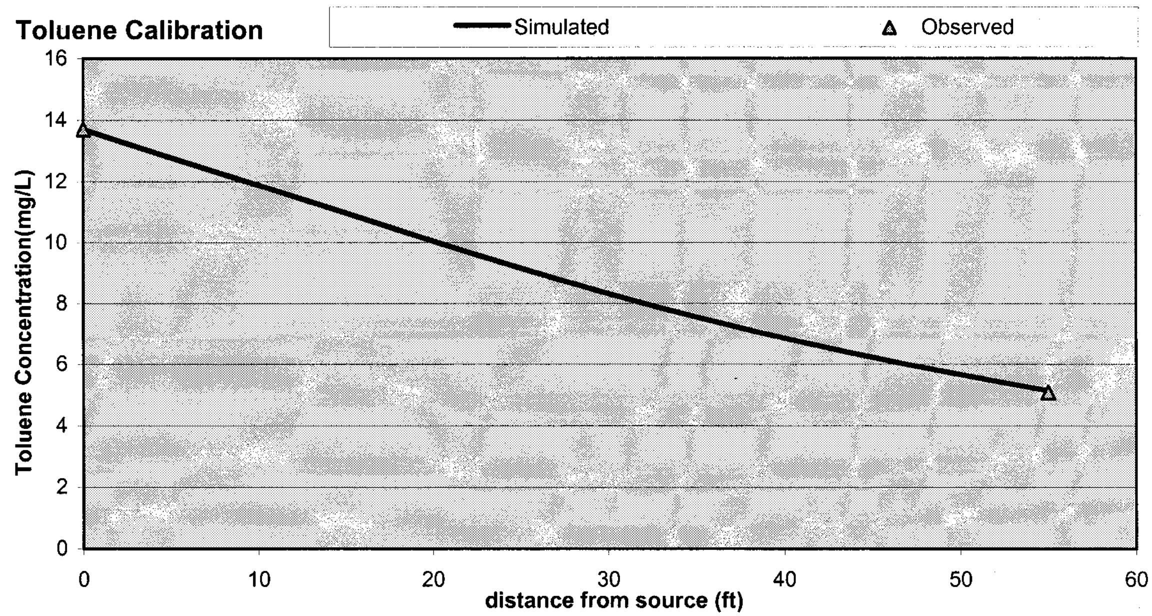
Site Name Pantry 911

Model Calibration Parameters

$t_{1/2}$	**0.55**	yrs	λ	1.26	yr^{-1}
v_x	91	ft/yr			
R	1.181				
v_R	77.061	ft/yr	C_{source}	13.7	mg/L
L_p	225	ft			
α_x	11.806382	ft	t_{sim}	22	yrs
α_y	1.1806382	ft			
α_z	1E-99	ft			







Source	5.5	11	16.5	22	27.5	33	38.5	44	49.5	55
0	12.6823733	11.7029368	10.6926096	9.6857336	8.73124968	7.8536645	7.059772	6.347438	5.710713	5.142375
0	12.6823733	11.7029368	10.6926096	9.6857336	8.73124968	7.8536645	7.059772	6.347438	5.710713	5.142375
0	12.6823733	11.7029368	10.6926096	9.6857336	8.73124968	7.8536645	7.059772	6.347438	5.710713	5.142375
0	12.6823733	11.7029368	10.6926096	9.6857336	8.73124968	7.8536645	7.059772	6.347438	5.710713	5.142375
0	12.6823733	11.7029368	10.6926096	9.6857336	8.73124968	7.8536645	7.059772	6.347438	5.710713	5.142375

Ethylbenzene Calibration

Spatial Calibration Data (centerline)

x	C_{obs} (mg/L)	C_{sim} (mg/L)
0	2.42	2.42
5.5		2.329
11		2.234
16.5		2.122
22		1.998
27.5		1.872
33		1.751
38.5		1.636
44		1.529
49.5		1.430
55	1.36	1.339

Temporal Calibration Data

	MW4		0	
t (yrs)	C_{obs} (mg/L)	C_{sim} (mg/L)	C_{obs} (mg/L)	C_{sim} (mg/L)
0		0		2.42
2.2		1.318		2.420
4.4		1.339		2.420
6.6		1.339		2.420
8.8		1.339		2.420
11		1.339		2.420
13.2		1.339		2.420
15.4		1.339		2.420
17.6		1.339		2.420
19.8		1.339		2.420
22	1.36	1.339		2.420

Site ID 10628
Site Name Pantry 911

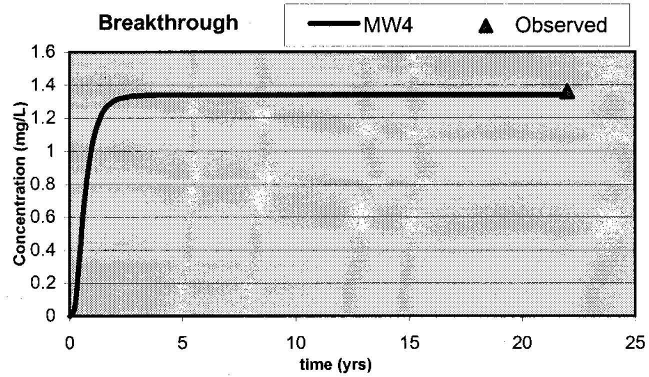
Model Calibration Parameters

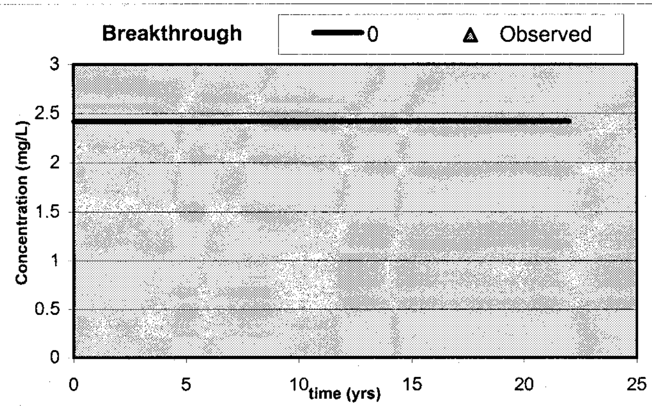
$t_{1/2}$	1.25	yrs
v_x	91	ft/yr
R	1.239	
v_R	73.425	ft/yr
L_p	225	ft
α_x	11.806382	ft
α_y	1.1806382	ft
α_z	1E-99	ft

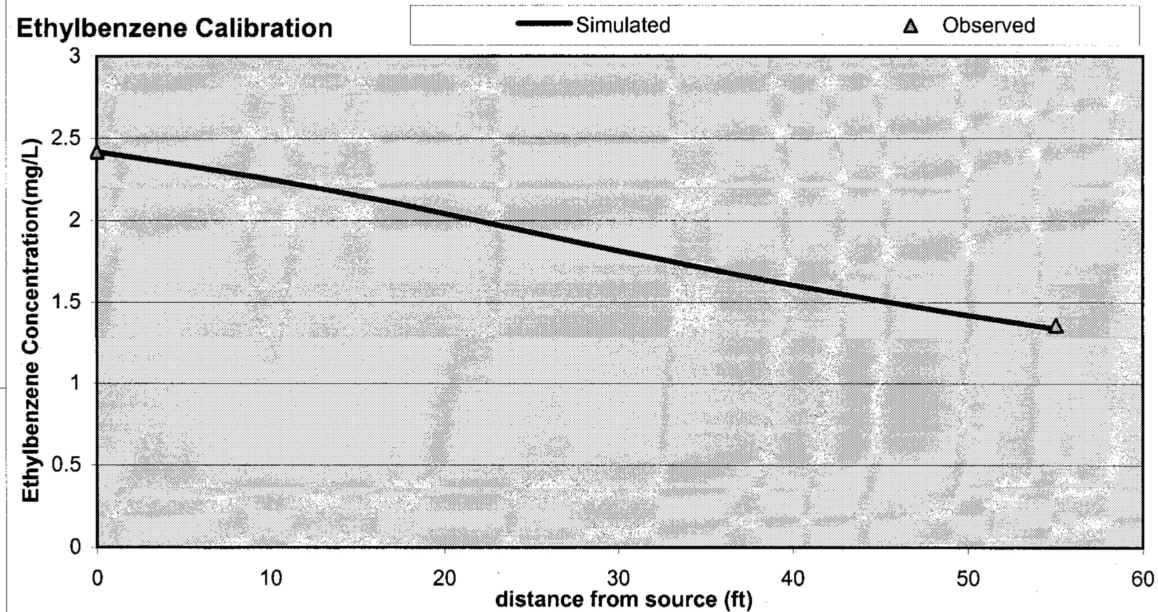
λ 0.5544 yr^{-1}

C_{source} 2.42 mg/L

t_{sim} 22 yrs







Source	5.5	11	16.5	22	27.5	33	38.5	44	49.5	55
0	2.32883465	2.2339647	2.12181971	1.99802359	1.87235339	1.7507619	1.63602	1.529114	1.430128	1.338726
0	2.32883465	2.2339647	2.12181971	1.99802359	1.87235339	1.7507619	1.63602	1.529114	1.430128	1.338726
0	2.32883465	2.2339647	2.12181971	1.99802359	1.87235339	1.7507619	1.63602	1.529114	1.430128	1.338726
0	2.32883465	2.2339647	2.12181971	1.99802359	1.87235339	1.7507619	1.63602	1.529114	1.430128	1.338726
0	2.32883465	2.2339647	2.12181971	1.99802359	1.87235339	1.7507619	1.63602	1.529114	1.430128	1.338726

Xylenes Calibration

Spatial Calibration Data

(centerline)

x	C_{obs} (mg/L)	C_{sim} (mg/L)
0	11	11
5.5		10.123
11		9.286
16.5		8.435
22		7.596
27.5		6.807
33		6.087
38.5		5.439
44		4.862
49.5		4.348
55	3.99	3.892

Temporal Calibration Data

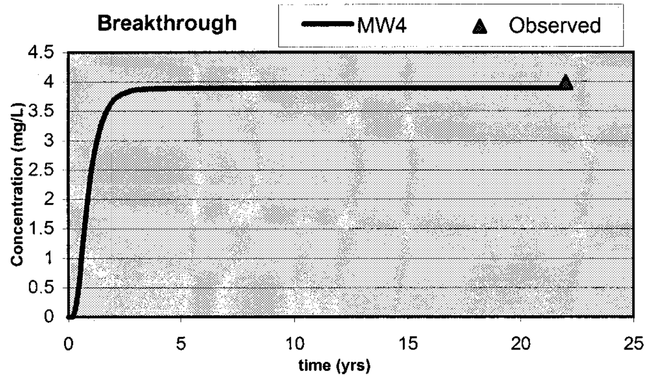
	MW4		0	
t (yrs)	C_{obs} (mg/L)	C_{sim} (mg/L)	C_{obs} (mg/L)	C_{sim} (mg/L)
0		0		11
2.2		3.751		11.000
4.4		3.891		11.000
6.6		3.892		11.000
8.8		3.892		11.000
11		3.892		11.000
13.2		3.892		11.000
15.4		3.892		11.000
17.6		3.892		11.000
19.8		3.892		11.000
22	3.99	3.892		11.000

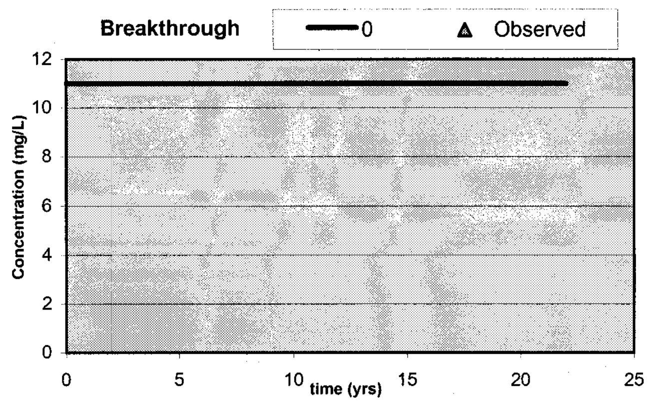
Site ID 10628

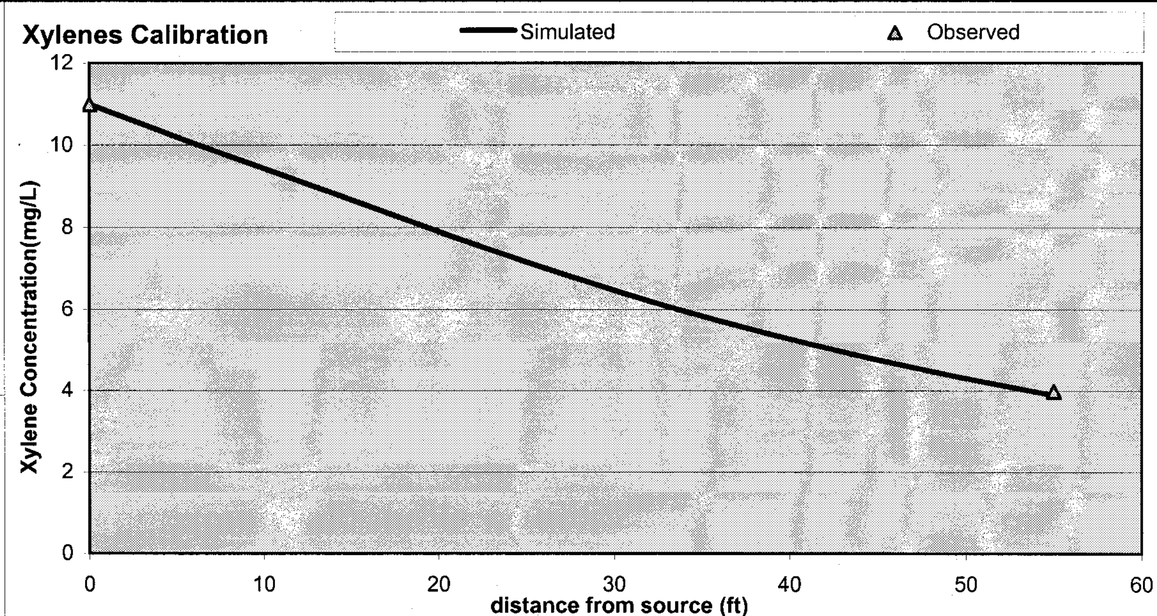
Site Name Pantry 911

Model Calibration Parameters

$t_{1/2}$	**0.8**	yrs	λ	0.86625	yr^{-1}
v_x	91	ft/yr			
R	1.869				
v_R	48.688	ft/yr	C_{source}	11	mg/L
L_p	225	ft			
α_x	11.806382	ft	t_{sim}	22	yrs
α_y	1.1806382	ft			
α_z	1E-99	ft			







Source	5.5	11	16.5	22	27.5	33	38.5	44	49.5	55
0	10.1230437	9.28632549	8.43473057	7.595537	6.80676619	6.0866066	5.439162	4.86159	4.348191	3.892427
0	10.1230437	9.28632549	8.43473057	7.595537	6.80676619	6.0866066	5.439162	4.86159	4.348191	3.892427
0	10.1230437	9.28632549	8.43473057	7.595537	6.80676619	6.0866066	5.439162	4.86159	4.348191	3.892427
0	10.1230437	9.28632549	8.43473057	7.595537	6.80676619	6.0866066	5.439162	4.86159	4.348191	3.892427
0	10.1230437	9.28632549	8.43473057	7.595537	6.80676619	6.0866066	5.439162	4.86159	4.348191	3.892427

SSTLs t 1000 yrs

UST Permit # 10628
Site Name: Pantry 911

SSTLs in mg/L			RBSLs (mg/L):	0.005	1.000	0.700	10.000				
MW #	x (ft)	y (ft)	z (ft)	Benzene SSTL	Toluene SSTL	Ethylbenzene SSTL	Xylenes SSTL				
MW7RR	140	0	0	0.054	12.066	3.147	140.210				
MW17	155	0	0	0.068	15.513	3.640	183.180				
MW4R	325	0	0	0.881	231.855	16.407	3285.333				
MW3R	330	0	0	0.947	250.428	17.107	3567.586				
MW14	375	0	0	1.817	499.074	24.823	7461.318				
			λ (yr^{-1}):	1.249	1.260	0.554	0.866				
			R:	1.110	1.181	1.239	1.869				
			Pure Substance Solubility:	1750	526	169	175				
			Effective Solubility:	44.39	26.54	3.7	21.68				

receptor is the irrigation well, creek is intermittent and shallower than watertable

Domenico Model

UST # 10628
Site Name: Pantry 911
Modeler: Justin Koon
Date: 9/23/2009

Groundwater Flow Parameters

K	1205	ft/yr
dh/dx	0.0037	
θ	0.25	dec. %
v_x	91	ft/yr

Transport Parameters

x_{max}	120	ft
y_{max}	0	ft
z	0	ft
Source Width	30	ft
Source Thickness	15	ft
Plume Length	250	ft
α_x	12.52912	ft
α_y	1.252912	ft
α_z	1.00E-99	ft

Simulation Time

t_{sim} 22 yrs

Aquifer Characteristics

ρ_d	1.7	kg/L
f_{oc}	0.0002	

Modeled: MW4R to MW15 using 2/9/2009 data

Source Area CoC Data

CoC	C_{source} (mg/L)	K_{oc} (L/kg)
Benzene		81
Toluene		133
Ethylbenzene		176
Xylenes		639
Naphthalene		1543
MtBE	21	11
EDB		28
1,2-DCA		17.5

Retarded Velocity (ft/yr)

CoC	R	v_R
Benzene	1.110	81.97
Toluene	1.181	77.06
Ethylbenzene	1.239	73.42
Xylenes	1.869	48.69
Naphthalene	3.098	29.37
MtBE	1.015	89.66
EDB	1.038	87.66
1,2-DCA	1.024	88.88

Simulation Points for Breakthrough Curves

	MW15		
x	120	ft	
y	0	ft	
z	0	ft	

x		ft
y		ft
z		ft

$$C(x,y,z,t) = \left(\frac{C_0}{8}\right)\exp\left[\left(\frac{x}{2\alpha_x}\right)\left(1-\sqrt{1+\frac{4\lambda\alpha_x}{v}}\right)\right] erfc\left[\frac{x-vt\sqrt{1+\frac{4\lambda\alpha_x}{v}}}{2\sqrt{\alpha_x vt}}\right]\left\{erf\left[\frac{y+\frac{Y}{2}}{2\sqrt{\alpha_y x}}\right]-erf\left[\frac{y-\frac{Y}{2}}{2\sqrt{\alpha_y x}}\right]\right\}\left\{erf\left[\frac{z+Z}{2\sqrt{\alpha_z x}}\right]-erf\left[\frac{z-Z}{2\sqrt{\alpha_z x}}\right]\right\}$$

MtBE Calibration

Spatial Calibration Data
(centerline)

x	C_{obs} (mg/L)	C_{sim} (mg/L)
0	21	21
12		8.981
24		3.683
36		1.482
48		0.597
60		0.241
72		0.098
84		0.040
96		0.016
108		0.007
120	0.0028	0.003

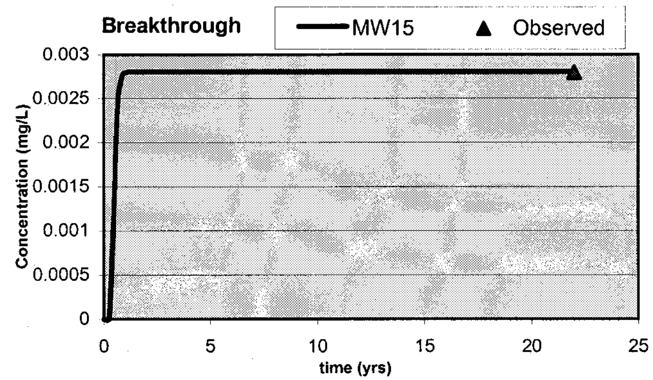
Temporal Calibration Data

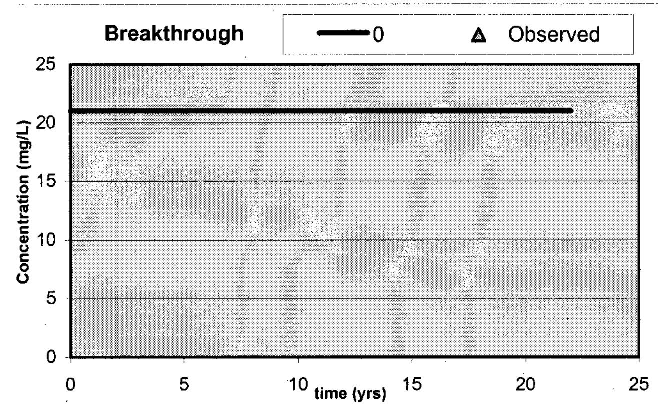
	MW15		0	
t (yrs)	C_{obs} (mg/L)	C_{sim} (mg/L)	C_{obs} (mg/L)	C_{sim} (mg/L)
0		0		21
2.2		0.003		21.000
4.4		0.003		21.000
6.6		0.003		21.000
8.8		0.003		21.000
11		0.003		21.000
13.2		0.003		21.000
15.4		0.003		21.000
17.6		0.003		21.000
19.8		0.003		21.000
22	0.0028	0.003		21.000

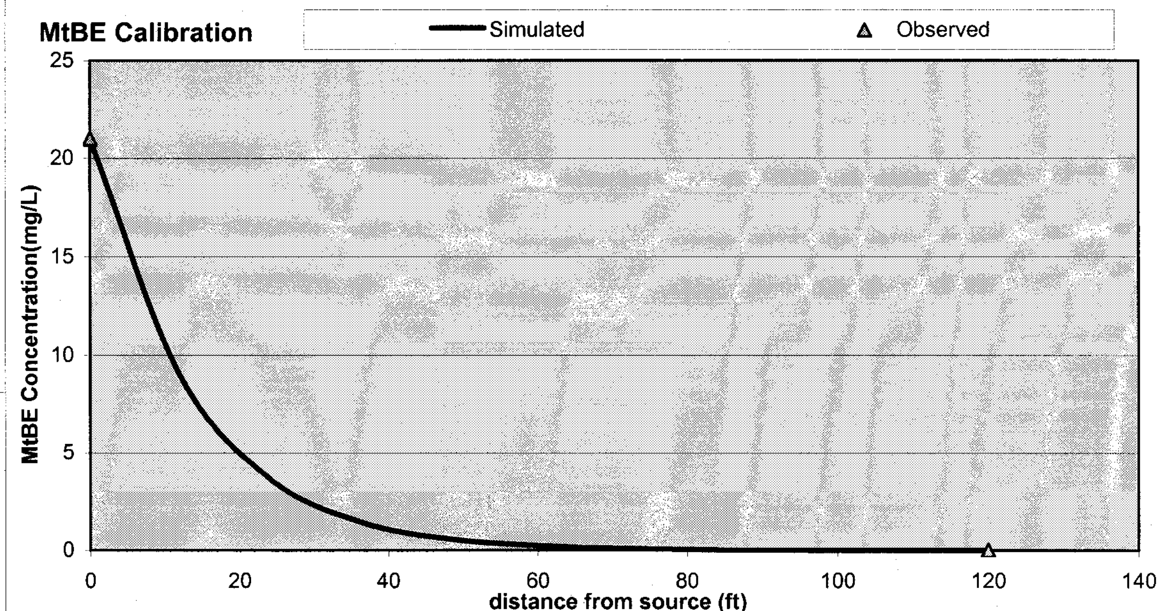
Site ID 10628
Site Name Pantry 911

Model Calibration Parameters

$t_{1/2}$	**0.0585**	yrs	λ	11.8462	yr^{-1}
v_x	91	ft/yr			
R	1.015				
v_R	89.659	ft/yr	C_{source}	21	mg/L
L_p	250	ft			
α_x	12.52912	ft	t_{sim}	22	yrs
α_y	1.252912	ft			
α_z	1E-99	ft			







Source	12	24	36	48	60	72	84	96	108	120
0	8.98077512	3.68254557	1.48234002	0.59675739	0.24137008	0.0981488	0.040109	0.016463	0.006783	0.002804
0	8.98077512	3.68254557	1.48234002	0.59675739	0.24137008	0.0981488	0.040109	0.016463	0.006783	0.002804
0	8.98077512	3.68254557	1.48234002	0.59675739	0.24137008	0.0981488	0.040109	0.016463	0.006783	0.002804
0	8.98077512	3.68254557	1.48234002	0.59675739	0.24137008	0.0981488	0.040109	0.016463	0.006783	0.002804
0	8.98077512	3.68254557	1.48234002	0.59675739	0.24137008	0.0981488	0.040109	0.016463	0.006783	0.002804

SSTLs t 1000 yrs

UST Permit # 10628
Site Name: Pantry 911

SSTLs in mg/L		RBSLs (mg/L):						0.040			
MW #	x (ft)	y (ft)	z (ft)					MtBE SSTL			
MW7RR	140	0	0					1298.019			
MW17	155	0	0					3881.361			
MW4R	325	0	0					>99999			
MW3R	330	0	0					>99999			
MW14	375	0	0					>99999			
			λ (yr^{-1}):					11.846			
			R:					1.015			
			Pure Substance Solubility:					5110			
			Effective Solubility:					173			

receptor is the irrigation well, creek is intermittent and shallower than watertable

D H E C

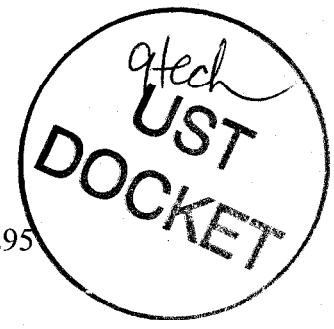
PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

OCT 2 1 2009

BRIAN SHANE
MIDLANDS ENVIRONMENTAL CONSULTANTS INC
P O BOX 854
LEXINGTON SC 29071-0854



Re: Bid # IBF-36815-8/27/09-EMW; PO # 782295
Notice to Proceed

Dear Mr. Shane:

Based on the award of the referenced bid package, enclosed are the information packets to conduct Free Product (FP) recovery using Aggressive Fluid Vapor Recovery (AFVR) or passive skimmers at several facilities. The packets contain the necessary approval for work to begin. You may commence with a site reconnaissance before the AFVR and/or passive skimmers installation. If monitoring wells do not contain measurable free phase product, contact the UST project manager for further instructions. The facilities have been assigned Cost Agreement (CA) numbers as listed below. Please reference the CA numbers and Purchase Order # 782295 on the appropriate invoices submitted for payment against the facilities. As specified in the referenced bid, the completed invoice forms and associated reports (include contract certification number) are expected on or before the designated due date (see below).

UST Permit #	Facility	County	Releas	Work Scope	Due Date*	CA #	Approved Amt.
10628	Pantry 911	Jasper	1	4 AFVR	60 days	37231	4,515.00
00849	Hilda Garage	Barnwell	1	2 AFVR	60 days	37349	2,295.00
11671	Randy's Auto Parts Exxon	Bamberg	1	2 AFVR	60 days	37386	2,295.00
07871	Constan	Richland	1	2 AFVR	60 days	37379	2,237.50
07871	Constan	Richland	2	2 AFVR	60 days	37380	2,237.50
06404	Mt. Carmel Section Shed	McCormick	1	2 AFVR	60 days	37430	2,295.00
00822	Neighborhood Grocery	Bamberg	1	2 AFVR	60 days	36962	2,295.00

*From receipt of letter

Midland's Environmental Consultants, Inc. will perform services at the sites on behalf of the site's UST owners; however, payments will be made from the SUPERB Account. The site's UST owners have no obligation for payment for this scope of work. Please note that Sections 44-2-110(4) and 44-2-130(B) of the SUPERB Statute state that no costs will be allowed (considered for payment) unless prior approval from the Department is obtained.

If for any reason there are changes in these cost agreements, any associated changes to this cost agreement must be pre-approved by this Department in order for Midlands Environmental Consultants to seek future cost compensation. Please contact the site's project manager for technical and/or financial approval. Any item(s) not clearly or completely addressed in the report (disposal manifest for generated ground water, etc.) WILL NOT be compensated by the SUPERB Account.

The Department grants pre-approval for transportation of free phase product and petroleum contaminated groundwater from the referenced site to a permitted treatment facility. The free product and contaminated groundwater must be accepted by the approved treatment facility. There can be no spillage or leakage in transport. A copy of the disposal manifest from the receiving facility that clearly designates the quantity received must be included as an appendix to the report.

If you have any questions concerning this correspondence or need further assistance, please contact me by phone at (803) 896-6664, by fax at (803) 896-6245 or by email at milenkmp@dhec.sc.gov.

Sincerely,

Maia Milenkova, Hydrogeologist
Assessment Section
UST Management Division
Bureau of Land and Waste Management

enc.: Approved Cost Agreements (ACA)
Information Packets
cc: Technical File (w/copy of ACA)

SCDHEC/UST/10/19/09/MPM

Approved Cost Agreement 37231

Facility: 10628 PANTRY 911
KOONJT
PO Number:

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB					
		A EQUIPMENT	4.0000	350.00	1,400.00
17 DISPOSAL					
		A2 WASTEWATER - PUMPING TEST	2,400.0000	0.10	240.00
23 EFR					
		A 8 HOUR EVENT	4.0000	600.00	2,400.00
		C OFF GAS TREATMENT	4.0000	100.00	400.00
		D SITE RECONNAISSANCE	1.0000	75.00	75.00
			Total Amount		4,515.00

Midlands
Environmental
Consultants, Inc.

December 30, 2009

Mr. Justin Koon, EIT, Hydrogeologist
Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health and
Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Aggressive Fluid Vapor Recovery Report
Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID # 10628; CA # 37231
MECI Project Number 09-2516B
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Koon,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Pantry 911 on December 17, 2009. The event was conducted on monitoring well MW-7RR to reduce dissolved CoC concentrations. Free phase petroleum was not detected in monitoring well MW-7RR prior to the AFVR event. The event was continuously conducted for eight hours by MECI personnel utilizing a vacuum extraction unit. Free phase petroleum product was not detected in the well immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well was 3.09pounds or approximately 0.53 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 0.39 pounds per hour. Concentrations of off gas produced during the event were recorded from 26.2 parts per million by volume (PPM) to 251 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a range of 10.0 to 15.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1B.

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2B. Monitoring well locations are depicted on attached Figure.

A total of 50 gallons of liquid was removed from MW-7RR during this event. Free phase petroleum product was not observed in the holding tank at the end of the event. The fluids produced were transported to Crandall Corporation of Lexington, S.C for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman
Project Scientist

Brandon P. Kelly
Project Scientist

Attachments:

TABLE 1B
AFVR MONITORING DATA
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 09-2516B
SCDHEC SITE ID NUMBER 10628

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW-7RR	12/17/09	5:30	0.50	10.0	32.1	3560	320.40	0.12	0.06
	12/17/09	6:00	0.50	10.0	33.4	3550	319.50	0.13	0.06
	12/17/09	6:30	0.50	10.0	28.1	3590	323.10	0.11	0.05
	12/17/09	7:00	0.50	10.0	26.2	3600	324.00	0.10	0.05
	12/17/09	7:30	0.50	12.0	50.8	3030	272.70	0.17	0.08
	12/17/09	8:00	0.50	12.0	52.1	3050	274.50	0.17	0.09
	12/17/09	8:30	0.50	13.0	118	2790	251.10	0.36	0.18
	12/17/09	9:00	0.50	13.0	132	2800	252.00	0.40	0.20
	12/17/09	9:30	0.50	13.0	110	2800	252.00	0.33	0.17
	12/17/09	10:00	0.50	13.0	85.7	2790	251.10	0.26	0.13
	12/17/09	10:30	0.50	15.0	206	2470	222.30	0.55	0.27
	12/17/09	11:00	0.50	15.0	198	2490	224.10	0.53	0.27
	12/17/09	11:30	0.50	15.0	200	2400	216.00	0.52	0.26
	12/17/09	12:00	0.50	15.0	201	2410	216.90	0.52	0.26
	12/17/09	12:30	0.50	15.0	226	2440	219.60	0.60	0.30
	12/17/09	13:00	0.50	15.0	248	2450	220.50	0.66	0.33
	12/17/09	13:30	0.50	15.0	251	2450	220.50	0.66	0.33
									TOTAL
									3.09

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-7RR	2"	2-12	***	4.89	***	***	4.50	***	-0.39

Vacuum Truck Information		Well ID	Stinger Depth
Subcontractor:	MECI	MW-7RR	4.00
Truck Operator:	B. Owen		
Stack I.D. (feet)	0.33 feet		

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	3.09	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	0.53	Equivilant Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	50	Gallons

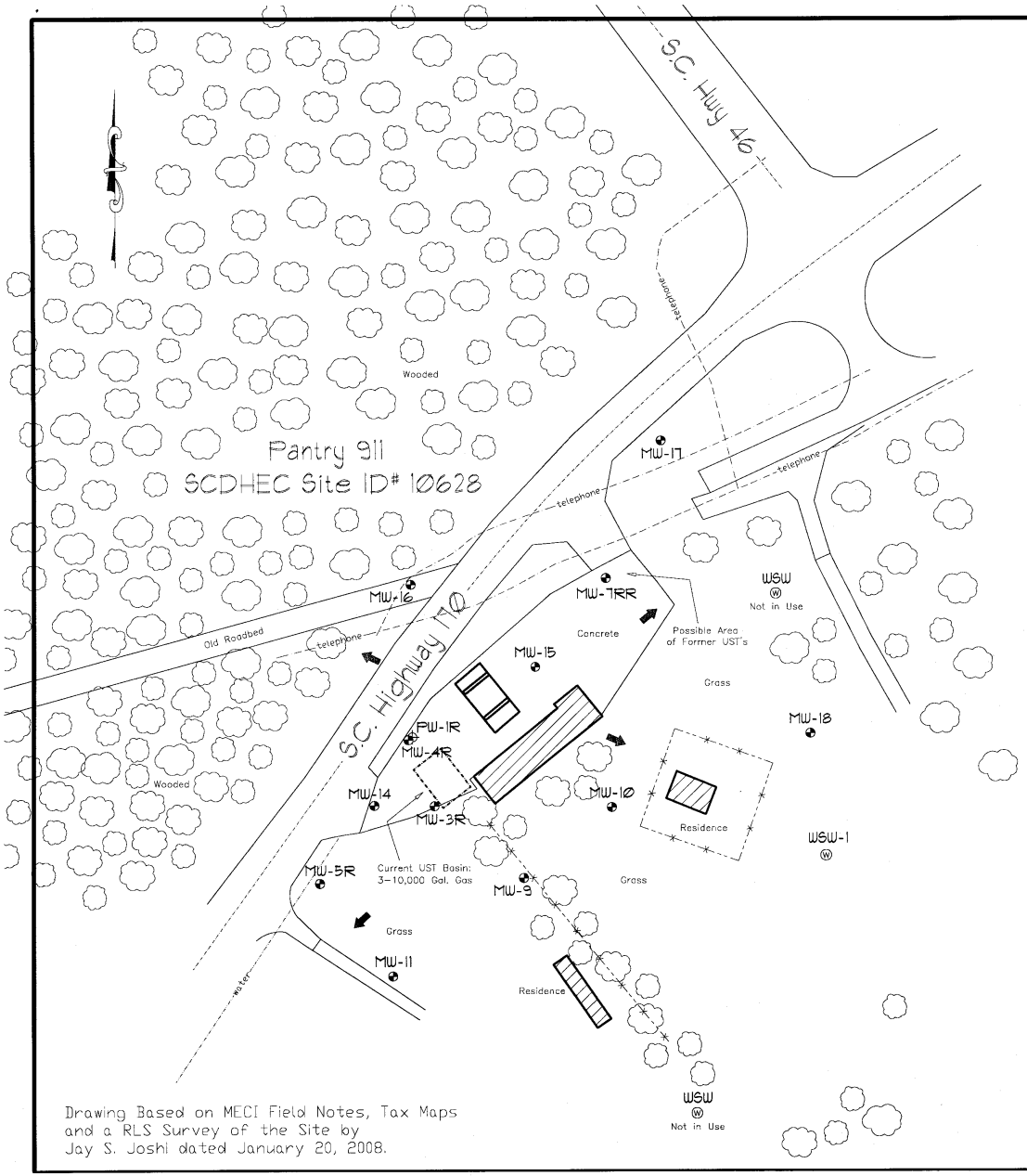
TABLE 2B
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 09-2516B
SCDHEC SITE ID NUMBER 10628

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		PW-1R	**MW-3R**	**MW-15**
Nearest Extraction Well:		MW-7RR	MW-7RR	MW-7RR
Approximate Distance:		215 ft	248 ft	98 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
5:30	0.0	0	0	0
6:00	0.5	0	0	0
6:30	1.0	0	0	0
7:00	1.5	0	0	0
7:30	2.0	0	0	0
8:00	2.5	0	0	0
8:30	3.0	0	0	0
9:00	3.5	0	0	0
9:30	4.0	0	0	0
10:00	4.5	0	0	0
10:30	5.0	0	0	0
11:00	5.5	0	0	0
11:30	6.0	0	0	0
12:00	6.5	0	0	0
12:30	7.0	0	0	0
13:00	7.5	0	0	0
13:30	8.0	0	0	0
Maximum Change:		**0**	**0**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		PW-1R	**MW-3R**	**MW-15**
Nearest Extraction Well:		MW-7RR	MW-7RR	MW-7RR
Approximate Distance:		215 ft	248 ft	98 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		2.99	2.41	4.67
9:30	4 hours	3.00	2.43	4.65
13:30	8 hours	3.01	2.38	4.66
Maximum Change:		-0.02	0.05	0.02



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Existing Underground Storage Tanks
- water — Buried Water Line
- telephone — Under Ground Telephone

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

ALL LOCATIONS ARE APPROXIMATE

Site Features

Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 08-1835
DATE January 30, 2008
FIGURE 2

Crandall

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. 48653 | 2. Page 1 of 1

3. Generator's Name and Mailing Address: Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073

4. Generator's Phone: (803) 808-2043

5. Transporter 1 Company Name: Crandall Corporation | 6. US EPA ID Number: SCD981864499 | A. Transporter's Phone: (803) 791-4800

7. Transporter 2 Company Name | 8. US EPA ID Number | B. Transporter's Phone

9. Designated Facility Name and Site Address:
Crandall Corporation
100 Rich-Lex Drive
Lexington, SC 29072

10. US EPA ID Number: SCD981864499 | C. Facility's Phone: (803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water Burrows-12487→225 Gal. Peleer Gas Mart-00480→200 Gal. Brown Brothers-04145→0 Gal. Pantry 911-10628→100 Gal. Pantry 911-10628→50 Gal. Breakers 1-12899→100 Gal. SCDOT Marion-04175→210 Gal. Refrig. Services-19337→175 Gal. Marilyns-17630→200 Gal. Pantry 3235-02872→325 Gal. Burtons-12299→155 Gal. Green Avenue-13084→160 Gal. Village Store-19941→200 Gal. Sweetwaters-17298→150 Gal. Newberry SCDOT-10492→300 Gal. Former Royal-19926→190 Gal. Newberry SCDOT-10492→150 Gal. Burrows-12487→160 Gal.	01	TNK	* 2690	G

D. Additional Descriptions for Materials Listed Above: FIELD SERVICE

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

Service Call ID: GL80148653

Emergency Response: Infotrac - 800-535-5053
Caller must ID Crandall as registrant

16. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name | Signature | Month | Day | Year

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Chad Justice | Signature: Chad Justice | Month: 12 | Day: 31 | Year: 09

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

19. Discrepancy Indication Space

* actual gallons - 3000

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19

Printed/Typed Name: Neil Cross | Signature | Month: 12 | Day: 31 | Year: 09

GENERATOR

TRANSPORTER

FACILITY

ORIGINAL TO OFFICE

Midlands
Environmental
Consultants, Inc.

December 30, 2009

Mr. Justin Koon, EIT, Hydrogeologist
Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health and
Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Aggressive Fluid Vapor Recovery Report
Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID # 10628; CA # 37231
MECI Project Number 09-2516A
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Koon,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

On December 11, 2009, MECI personnel conducted a site visit at Pantry 911 to locate/gauge monitoring wells and to evaluate current site conditions. MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Pantry 911 on December 16, 2009. The event was conducted on monitoring wells MW-3R, MW-4R, and MW-14 to reduce dissolved CoC concentrations. Free phase petroleum was not detected in monitoring wells MW-3R, MW-4R, and MW-14 prior to the AFVR event. The event was continuously conducted for eight hours by MECI personnel utilizing a vacuum extraction unit. Free phase petroleum product was not detected in the wells immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the wells was 1.08 pounds or approximately 0.19 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 0.14 pounds per hour. Concentrations of off gas produced during the event were recorded from 13.3 parts per million by volume (PPM) to 105.1 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a range of 10.0 to 13.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1A.

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2A. Monitoring well locations are depicted on attached Figure.

A total of 100 gallons of liquid was removed from MW-3R, MW-4R, and MW-14 during this event. Free phase petroleum product was not observed in the holding tank at the end of the event. The fluids produced were transported to Crandall Corporation of Lexington, S.C for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman
Project Scientist

Brendon P. Kelly
Project Scientist

Attachments:

TABLE 1A
AFVR MONITORING DATA
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 09-2516A
SCDHEC SITE ID NUMBER 10628

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW-3R	12/16/09	10:30	0.50	10.0	99.7	3510	315.90	0.38	0.19
MW-4R	12/16/09	11:00	0.50	10.0	101.6	3500	315.00	0.38	0.19
MW-14	12/16/09	11:30	0.50	10.0	105.1	3490	314.10	0.40	0.20
	12/16/09	12:00	0.50	10.0	42.2	3530	317.70	0.16	0.08
	12/16/09	12:30	0.50	10.0	28.7	3550	319.50	0.11	0.06
	12/16/09	13:00	0.50	10.0	24.5	3440	309.60	0.09	0.05
	12/16/09	13:30	0.50	10.0	20.1	3270	294.30	0.07	0.04
	12/16/09	14:00	0.50	12.0	19.9	3130	281.70	0.07	0.03
	12/16/09	14:30	0.50	12.0	19.7	3120	280.80	0.07	0.03
	12/16/09	15:00	0.50	12.0	19.3	3090	278.10	0.06	0.03
	12/16/09	15:30	0.50	12.0	18.7	3100	279.00	0.06	0.03
	12/16/09	16:00	0.50	13.0	15.3	2900	261.00	0.05	0.02
	12/16/09	16:30	0.50	13.0	13.3	2910	261.90	0.04	0.02
	12/16/09	17:00	0.50	13.0	16.5	2900	261.00	0.05	0.03
	12/16/09	17:30	0.50	13.0	18.2	2900	261.00	0.06	0.03
	12/16/09	18:00	0.50	13.0	17.5	2900	261.00	0.05	0.03
	12/16/09	18:30	0.50	13.0	16.9	2910	261.90	0.05	0.03
									TOTAL **1.08**

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-3R	2"	2-12	***	2.34	***	***	2.69	***	0.35
MW-4R	2"	5-15	***	2.77	***	***	2.74	***	-0.03
MW-14	2"	3.05-13.05	***	1.66	***	***	1.94	***	0.28

Vacuum Truck Information		Well ID	Stinger Depth
Subcontractor:	MECI	MW-3R	1.50
Truck Operator:	B. Owen	MW-4R	2.00
Stack I.D. (feet)	0.33 feet	MW-14	1.00

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	1.08	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	0.19	Equivilant Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	100	Gallons

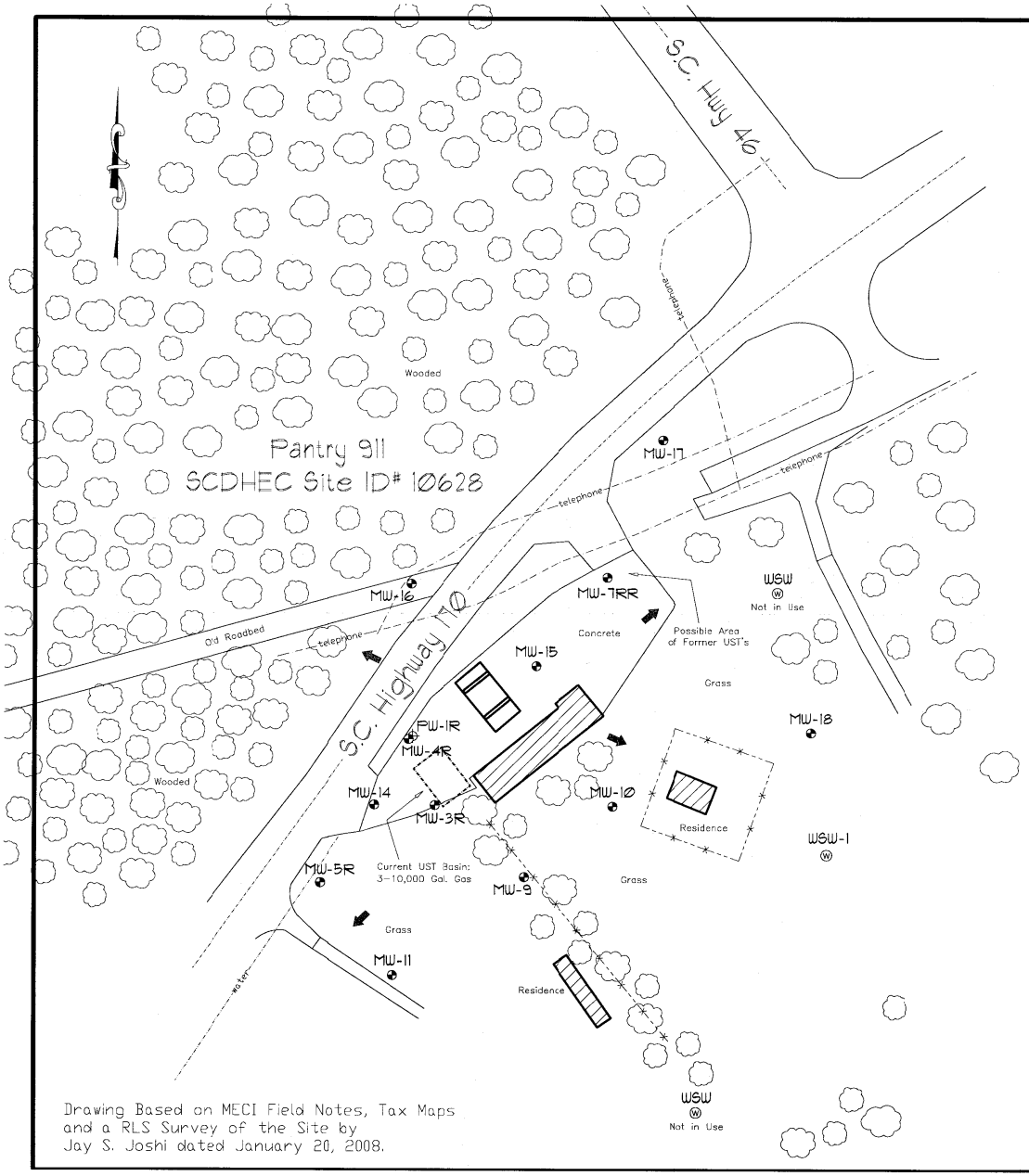
TABLE 2A
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 09-2516A
SCDHEC SITE ID NUMBER 10628

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		PW-1R	MW-5R	MW-15
Nearest Extraction Well:		MW-4R	MW-14	MW-4R
Approximate Distance:		5 ft	82 ft	128 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
10:30	0.0	0	0	0
11:00	0.5	0	0	0
11:30	1.0	0	0	0
12:00	1.5	0	0	0
12:30	2.0	0	0	0
13:00	2.5	0	0	0
13:30	3.0	0	0	0
14:00	3.5	0	0	0
14:30	4.0	0	0	0
15:00	4.5	0	0	0
15:30	5.0	0	0	0
16:00	5.5	0	0	0
16:30	6.0	0	0	0
17:00	6.5	0	0	0
17:30	7.0	0	0	0
18:00	7.5	0	0	0
18:30	8.0	0	0	0
Maximum Change:		**0**	**0**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		PW-1R	MW-5R	MW-15
Nearest Extraction Well:		MW-4R	MW-14	MW-4R
Approximate Distance:		5 ft	82 ft	128 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		3.23	1.10	4.65
14:30	4 hours	3.26	0.92	4.68
18:30	8 hours	2.96	0.94	4.68
Maximum Change:		0.27	0.18	-0.03



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Existing Underground Storage Tanks
- water — Buried Water Line
- telephone — Under Ground Telephone

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

ALL LOCATIONS ARE APPROXIMATE

Site Features

Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 08-1835
DATE January 30, 2008
FIGURE 2

Crandall

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No. 48653	2. Page 1 of 1

GENERATOR

3. Generator's Name and Mailing Address: Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073

4. Generator's Phone: (803) 808-2043

TRANSPORTER

5. Transporter 1 Company Name: Crandall Corporation
6. US EPA ID Number: SCD981864499
A. Transporter's Phone: (803) 791-4800

7. Transporter 2 Company Name:
8. US EPA ID Number:
B. Transporter's Phone:

FACILITY

9. Designated Facility Name and Site Address: Crandall Corporation
100 Rich-Lex Drive
Lexington, SC 29072
10. US EPA ID Number: SCD981864499
C. Facility's Phone: (803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water	01	TT	*2690	G

Burrows-12487→225 Gal.
Pelzer Gas Mart-00480→200 Gal.
Brown Brothers-04145→0 Gal.
Pantry 911-10628→100 Gal.
Pantry 911-10628→50 Gal.
Breakers 1-12899→100 Gal.
SCDOT Marion-04175→210 Gal.
Refrig. Services-19337→175 Gal.
Marilyns-17650→200 Gal.
Pantry 3235-02872→325 Gal.
Barbers-12299→155 Gal.
Green Avenue-13084→160 Gal.
Village Store-14941→200 Gal.
Sweetwaters-17299→150 Gal.
Newberry SCDOT-10492→300 Gal.
Former Royal-19926→190 Gal.
Newberry SCDOT-10492→150 Gal.
Burrows-12487→160 Gal.

D. Additional Descriptions for Materials Listed Above: FIELD SERVICE

E. Handling Codes for Wastes Listed Above:

15. Special Handling Instructions and Additional Information

Service Call ID: GLB0148653

Emergency Response: Infotrac - 800-535-5053
Caller must ID Crandall as registrant

16. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Chad Justice	Chad Justice	12	31	09

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space: * actual gallons - 3000

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year
Neil Cross		12	31	09

ORIGINAL TO OFFICE

Midlands
Environmental
Consultants, Inc.

February 22, 2010

Mr. Justin Koon, EIT, Hydrogeologist
Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health and
Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Aggressive Fluid Vapor Recovery Report
Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID # 10628; CA # 37231
MECI Project Number 09-2516C
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Koon,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Pantry 911 on February 11, 2010. The event was conducted on monitoring well MW-7RR to remove free phase petroleum product. Free phase petroleum was detected in monitoring well MW-7RR prior to the AFVR event at a thickness of 0.01 feet. The event was continuously conducted for eight hours by MECI personnel utilizing a vacuum extraction unit. Free phase petroleum product was not detected in the well immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well was 9.30 pounds or approximately 1.61 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 1.16 pounds per hour. Concentrations of off gas produced during the event were recorded from 30.1 parts per million by volume (PPM) to 5,739 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a range of 8.0 to 21.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1C.

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2C. Monitoring well locations are depicted on attached Figure.

A total of 100 gallons of liquid was removed from MW-7RR during this event. Free phase petroleum product was not observed in the holding tank at the end of the event. The fluids produced were transported to Crandall Corporation of Lexington, S.C for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman
Project Scientist

Brendon P. Kelly
Project Scientist

Attachments:

TABLE 1C
AFVR MONITORING DATA
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 09-2516C
SCDHEC SITE ID NUMBER 10628

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW-7RR	02/11/10	11:30	0.50	8.0	36.7	2,300	207.00	0.09	0.05
	02/11/10	12:00	0.50	8.0	30.1	2,320	208.80	0.08	0.04
	02/11/10	12:30	0.50	10.0	37.9	2,130	191.70	0.09	0.04
	02/11/10	13:00	0.50	10.0	35.1	2,150	193.50	0.08	0.04
	02/11/10	13:30	0.50	12.0	78.2	1,860	167.40	0.16	0.08
	02/11/10	14:00	0.50	14.0	120	1,600	144.00	0.21	0.10
	02/11/10	14:30	0.50	15.0	146	1,490	134.10	0.23	0.12
	02/11/10	15:00	0.50	17.0	1,105	1,030	92.70	1.23	0.61
	02/11/10	15:30	0.50	19.0	1,678	980	88.20	1.78	0.89
	02/11/10	16:00	0.50	19.0	1,669	980	88.20	1.77	0.88
	02/11/10	16:30	0.50	20.0	2,003	810	72.90	1.75	0.88
	02/11/10	17:00	0.50	20.0	1,955	810	72.90	1.71	0.86
	02/11/10	17:30	0.50	20.0	1,821	750	67.50	1.48	0.74
	02/11/10	18:00	0.50	21.0	1,629	770	69.30	1.35	0.68
	02/11/10	18:30	0.50	21.0	1,526	700	63.00	1.15	0.58
	02/11/10	19:00	0.50	21.0	1,607	680	61.20	1.18	0.59
	02/11/10	19:30	0.50	21.0	5,739	690	62.10	4.28	2.14
									TOTAL
									9.30

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-7RR	2"	2-12	4.49	4.50	0.01	***	6.12	***	1.63

Vacuum Truck Information		Well ID	Stinger Depth
Subcontractor:	MECI	MW-7RR	5.00
Truck Operator:	R. Ariail		
Stack I.D. (feet)	0.33 feet		
Corrected depth to water is MW-7RR prior to event =			4.49

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	9.30	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	1.61	Equivilant Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	100	Gallons

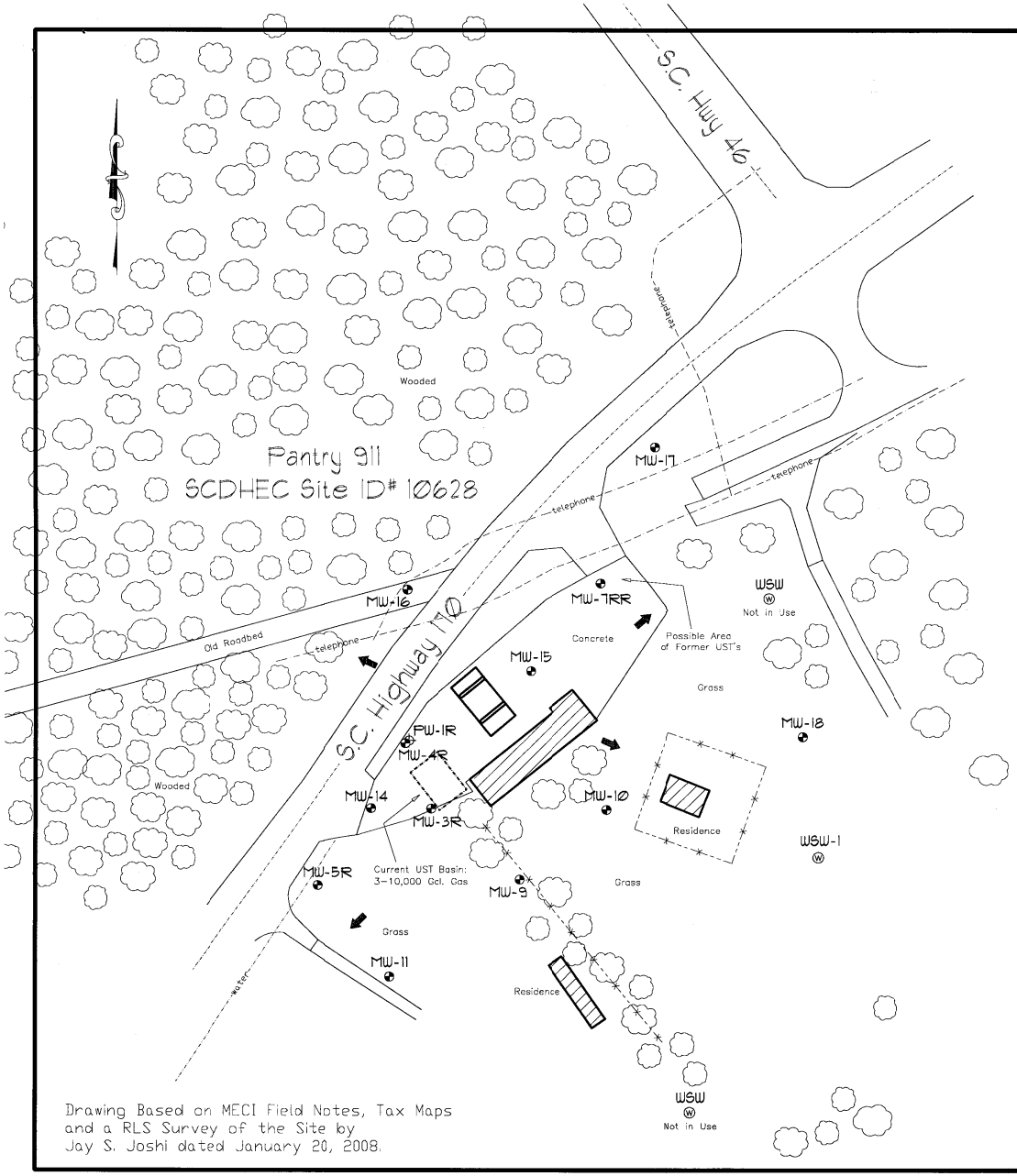
TABLE 2C
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 09-2516C
SCDHEC SITE ID NUMBER 10628

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-15	**MW-16**	**MW-17**
Nearest Extraction Well:		MW-7RR	MW-7RR	MW-7RR
Approximate Distance:		98 ft	168 ft	126 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
11:30	0.0	0	0	0
12:00	0.5	0	0	0
12:30	1.0	0	0	0
13:00	1.5	0	0	0
13:30	2.0	0	0	0
14:00	2.5	0	0	0
14:30	3.0	0	0	0
15:00	3.5	0	0	0
15:30	4.0	0	0	0
16:00	4.5	0	0	0
16:30	5.0	0	0	0
17:00	5.5	0	0	0
17:30	6.0	0	0	0
18:00	6.5	0	0	0
18:30	7.0	0	0	0
19:00	7.5	0	0	0
19:30	8.0	0	0	0
Maximum Change:		**0**	**0**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-15	**MW-16**	**MW-17**
Nearest Extraction Well:		MW-7RR	MW-7RR	MW-7RR
Approximate Distance:		98 ft	168 ft	126 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		3.63	6.77	3.91
15:30	4 hours	3.64	6.23	3.61
19:30	8 hours	3.64	6.24	3.64
Maximum Change:		-0.01	0.54	0.30



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Existing Underground Storage Tanks
- water — Buried Water Line
- telephone — Under Ground Telephone

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

ALL LOCATIONS ARE APPROXIMATE

Site Features

Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 06-1835
DATE January 30, 2008
FIGURE 2

C 159763

Crandall

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: . . . . . | Manifest Document No.: 50722 | 2. Page 1 of 1

3. Generator's Name and Mailing Address: Midlands Environmental
1144 Old Two Notch
Lexington, SC 29072

4. Generator's Phone ( ): (803) 808-2043

5. Transporter 1 Company Name: Crandall Corporation
6. US EPA ID Number: SCD981864499
A. Transporter's Phone: (803) 791-4800

7. Transporter 2 Company Name:
8. US EPA ID Number:
B. Transporter's Phone:

9. Designated Facility Name and Site Address:
Crandall Corporation
100 Rich-Lex Drive
Lexington, SC 29072
10. US EPA ID Number: SCD981864499
C. Facility's Phone: (803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water Smithfield-14212-110 Burton's BP-12299-140 Tillman Johnson-08484-75 Southern Oaks-03913-205 Pantry 911-10128-108 Heath Self Serve-08832-305 Brazeles-08983-150 Coopers-18009-225 Beaverdam-00715-40 Service Station-08479-140 Greenwave A-12097-75 Greenwave B-12097-50 Refrigeration Services-19337-30 Glovers-06994-175 Hand's Exxon-00304-140 One Stop-14346-130 Constein-07971-140 PO 71-6	001	TT	2 300 GAL 2.875	G

D. Additional Descriptions for Materials Listed Above: FIELD SERVICE

E. Handling Codes for Wastes Listed Above:

15. Special Handling Instructions and Additional Information

Service Call ID: GLB0150722

Emergency Response: Infotrac - 800-535-5053
Caller must ID Crandall as registrant

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
T. Backman (for Midlands Env.)		02	22	10

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Troy Backman		02	22	10

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR COPY

Midlands
Environmental
Consultants, Inc.

March 8, 2010

Mr. Justin Koon, EIT, Hydrogeologist
Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health and
Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Aggressive Fluid Vapor Recovery Report
Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID # 10628; CA # 37231
MECI Project Number 09-2516D
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Koon,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Pantry 911 on February 23, 2010 the event was conducted on monitoring wells MW-3R, MW-4R, and MW-14 to reduce dissolved CoC concentrations. Free phase petroleum was not detected in monitoring wells MW-3R, MW-4R, and MW-14 prior to the AFVR event. The event was continuously conducted for eight hours by MECI personnel utilizing a vacuum extraction unit. Free phase petroleum product was not detected in the wells immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the wells was 0.88 pounds or approximately 0.15 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 0.11 pounds per hour. Concentrations of off gas produced during the event were recorded from 36.8 parts per million by volume (PPM) to 120 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a range of 10.0 to 14.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1D.

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2D. Monitoring well locations are depicted on attached Figure.

A total of 10 gallons of liquid was removed from MW-3R, MW-4R, and MW-14 during this event. Free phase petroleum product was not observed in the holding tank at the end of the event. The fluids produced were transported to Crandall Corporation of Lexington, S.C for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Courtney M. Sanders
Staff Biologist

Brendon P. Kelly
Project Scientist

Attachments:

TABLE 1D
AFVR MONITORING DATA
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 09-2516D
SCDHEC SITE ID NUMBER 10628

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW-3R	02/23/10	10:00	0.50	10.0	64.3	1,710	153.90	0.12	0.06
MW-4R	02/23/10	10:30	0.50	10.0	87.1	1,760	158.40	0.17	0.08
MW-14	02/23/10	11:00	0.50	10.0	120	1,770	159.30	0.23	0.11
	02/23/10	11:30	0.50	10.0	101	1,750	157.50	0.19	0.10
	02/23/10	12:00	0.50	10.0	89.9	1,740	156.60	0.17	0.08
	02/23/10	12:30	0.50	12.0	69.5	1,540	138.60	0.12	0.06
	02/23/10	13:00	0.50	12.0	53.1	1,560	140.40	0.09	0.04
	02/23/10	13:30	0.50	12.0	50.4	1,540	138.60	0.08	0.04
	02/23/10	14:00	0.50	12.0	48.1	1,530	137.70	0.08	0.04
	02/23/10	14:30	0.50	13.0	51.2	1,460	131.40	0.08	0.04
	02/23/10	15:00	0.50	13.0	44.8	1,460	131.40	0.07	0.04
	02/23/10	15:30	0.50	13.0	40.8	1,410	126.90	0.06	0.03
	02/23/10	16:00	0.50	13.0	36.8	1,420	127.80	0.06	0.03
	02/23/10	16:30	0.50	13.0	38.2	1,420	127.80	0.06	0.03
	02/23/10	17:00	0.50	13.0	37.9	1,420	127.80	0.06	0.03
	02/23/10	17:30	0.50	14.0	43.9	1,360	122.40	0.06	0.03
	02/23/10	18:00	0.50	14.0	45.4	1,370	123.30	0.07	0.03
									TOTAL **0.88**

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-3R	2"	2-12	***	2.32	***	***	2.30	***	-0.02
MW-4R	2"	5-15	***	2.71	***	***	3.34	***	0.63
MW-14	2"	3.05-13.05	***	0.80	***	***	1.00	***	0.20

Vacuum Truck Information		Well ID	Stinger Depth
Subcontractor:	MECI	MW-3R	1.50
Truck Operator:	B. Owen	MW-4R	1.50
Stack I.D. (feet)	0.33 feet	MW-14	0.50

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	0.88	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	0.15	Equivilant Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	Crandall Corporation	
Total Liquids Removed:	10	Gallons

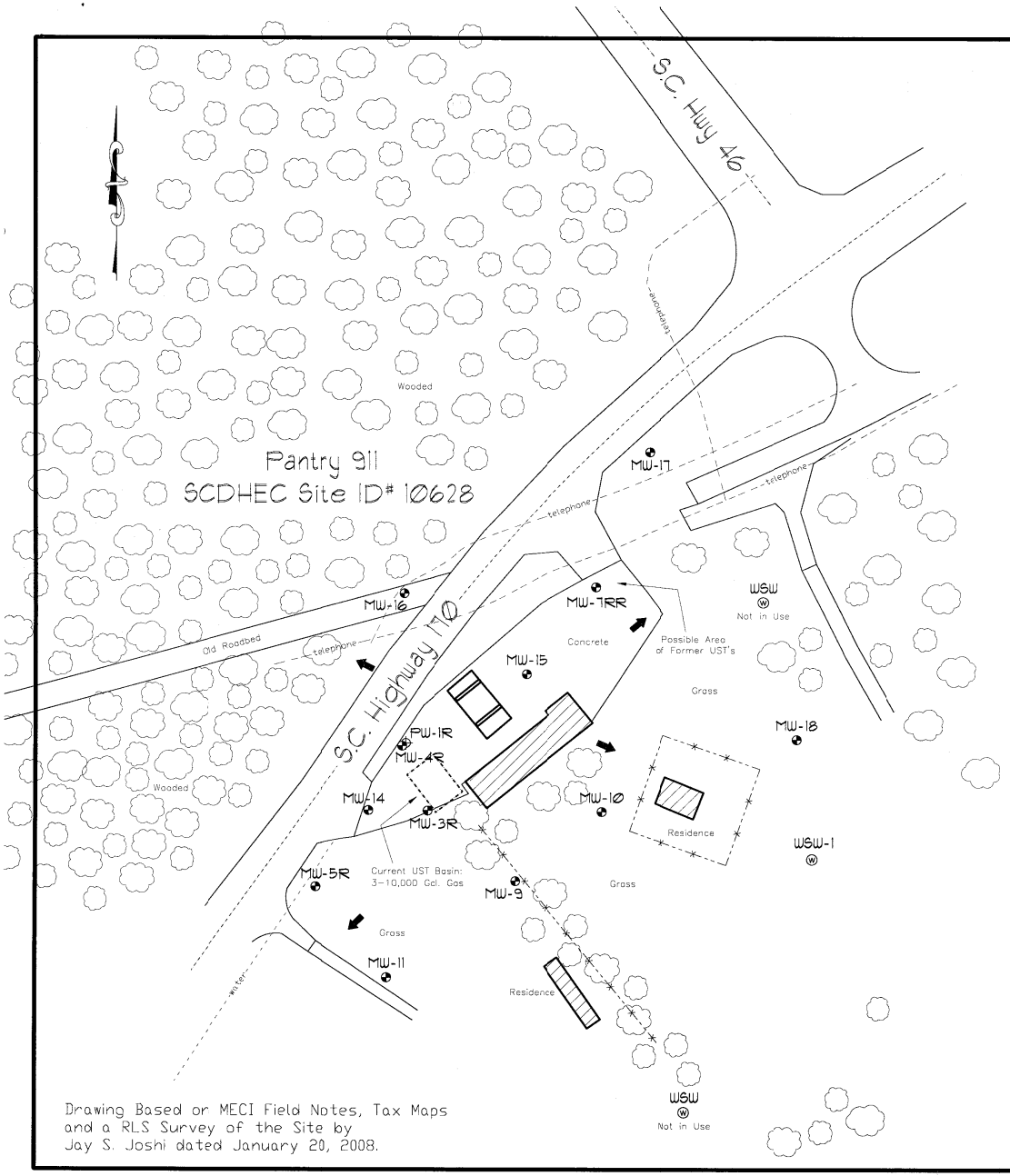
TABLE 2D
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 09-2516D
SCDHEC SITE ID NUMBER 10628

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		PW-1R	**MW-5R**	**MW-15**
Nearest Extraction Well:		MW-4R	MW-14	MW-4R
Approximate Distance:		5 ft	82 ft	128 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
10:00	0.0	0	0	0
10:30	0.5	0	0	0
11:00	1.0	0	0	0
11:30	1.5	0	0	0
12:00	2.0	0	0	0
12:30	2.5	0	0	0
13:00	3.0	0	0	0
13:30	3.5	0	0	0
14:00	4.0	0	0	0
14:30	4.5	0	0	0
15:00	5.0	0	0	0
15:30	5.5	0	0	0
16:00	6.0	0	0	0
16:30	6.5	0	0	0
17:00	7.0	0	0	0
17:30	7.5	0	0	0
18:00	8.0	0	0	0
Maximum Change:		**0**	**0**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		PW-1R	**MW-5R**	**MW-15**
Nearest Extraction Well:		MW-4R	MW-14	MW-4R
Approximate Distance:		5 ft	82 ft	128 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		0.00	1.00	3.42
14:00	4 hours	0.00	0.95	3.43
18:00	8 hours	0.00	0.90	3.46
Maximum Change:		0.00	0.10	-0.04



Drawing Based or MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Existing Underground Storage Tanks
- water — Buried Water Line
- telephone — Under Ground Telephone

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

ALL LOCATIONS ARE APPROXIMATE

Site Features

Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 08-1835
DATE January 30, 2008
FIGURE 2

Crandall

C 160295

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. .
Manifest Document No. 51411
2. Page 1 of 1

3. Generator's Name and Mailing Address
Midlands Environmental
1144 Old Two Notch
Lexington, SC 29073

4. Generator's Phone ((803) 808-2043

5. Transporter 1 Company Name
Crandall Corporation

6. US EPA ID Number
SCD981864499

A. Transporter's Phone (803) 791-4800

7. Transporter 2 Company Name

8. US EPA ID Number

B. Transporter's Phone

9. Designated Facility Name and Site Address
Crandall Corporation
100 Rich-Lex Drive
Lexington, SC 29072

10. US EPA ID Number
SCD981864499

C. Facility's Phone (803) 791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water				
Bay Creek Villas - 15662 - 390 Gal.	001	TT	3210	G
Builders Supply - 16680 - 150 Gal				
Builders Supply - 16680 - 150 Gal				
Pantry 911 - 10628 - 10 Gal.				
Mack's Comp - 02153 - 170 Gal				
Royal Petroleum - 19626 - 200 Gal				
Satterfield - 14212 - 140 Gal				
Community Quick - 11694 - 140 Gal.				
Service Station - 00479 - 120 Gal				
Southern Gas - 03913 - 150 Gal.				
Neely Oil - 19002 - 250 Gal.				
A-1 Auto - 01173 - 150 Gal.				
UST Unknown - 18678 - 260 Gal.				
Heath Self Serve - 08932 - 325 Gal.				
SCDOT Newberry - 10492 - 325 Gal.				
Bracels - 07783 - 280 Gal				

D. Additional Descriptions for Materials Listed Above

FIELD SERVICE

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

Service Call ID: GLB0151411

Emergency Response: Infotrac - 800-535-5053
Caller must ID Crandall as registrant

16. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name | Signature | Month 03 | Day 09 | Year 10

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Willis Smith | Signature | Month 03 | Day 09 | Year 10

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name | Signature | Mo

GENERATOR COPY

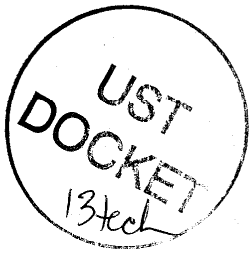
D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

MAY 18 2010



BRYAN SHANE
MIDLANDS ENVIRONMENTAL CONSULTANTS INC
P O BOX 854
LEXINGTON SC 29071

Re: Bid # IFB-34007-6/3/08-EMW; PO# 732429
Notice to Proceed

Dear Mr. Shane:

Based on the award of the referenced bid package, enclosed are the information packets to conduct assessments at several facilities. The packets contain the necessary approval for work to begin. The facilities have been assigned Cost Agreement (CA) numbers as listed below. Please reference the CA numbers and Purchase Order # 732429 on the appropriate invoices submitted for payment against the facilities. As specified in the referenced bid, **the completed invoice forms and associated reports (include contract certification number) are expected on or before the designated due date (see below).**

UST Permit#	Facility	County	Release #	Work Scope	Due Date*	CA #	Approved Amt
10503	JR's Deli & Games	Richland	1	Monitoring Well Installation	60 Days	38990	$3,850.00
10628	Pantry 911	Jasper	1	Monitoring Well Installation	60 Days	38963	$1,806.00

*From receipt of letter

Midland's Environmental Consultants, Inc. will perform services at the sites on behalf of the site's UST owners; however, payments will be made from the SUPERB Account. The site's UST owners have no obligation for payment for this scope of work. **Please note, if there are any changes in the established cost agreement amounts (e.g., additional water supply wells sampled, additional well footage, etc.) contact the site's project manager for technical and/or financial approval. Failure to do so prior to submittal of invoice may result in delay of payment.**

The Bureau grants pre-approval for transportation of drums of virgin petroleum contaminated soil and drums of groundwater from the referenced site to a permitted treatment facility. The contaminated soil and/or groundwater must be properly stored in labeled 55-gallon drums or equivalent containers.

The contaminated soil and/or groundwater must be accepted by the approved treatment facility. There can be no spillage or leakage in transport. A copy of the disposal manifest from the receiving facility that clearly designates the quantity received must be included as an appendix to the final report. Please note, transportation of waste oil contaminated soil must receive pre-approval from the Division of Waste Assessment & Emergency Response.

Please provide this office with a schedule of drilling dates and coordinate all work with me before commencing work at the facility. If you have any questions or need further assistance, please contact me at (803) 896-6633.

Sincerely,

Cathleen Ridgley

Cathleen Ridgley, Hydrogeologist
Assessment Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

enc.: Monitoring Well Approvals (MWA)
Approved Cost Agreements (ACA)
Information Packets

cc: Cathleen Ridgley, UST Program (w/out enc)
Technical Files (w/ copy of MWA, ACA, & Site Map)

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

Monitoring Well Approval

Approval is hereby granted to: **Midlands Environmental Consultants, Inc.**

On behalf of: **Mr. Malphrus**

Facility: **Pantry 911**
6195 S Okatie Hwy, Hardeeville, SC

UST Permit #: **10628**

County: **Jasper**

This approval is for the installation of 3-4" groundwater monitoring wells. The monitoring wells are to be installed in the approved locations. Monitoring wells are to be installed following the South Carolina Well Standards, R.61-71, and the applicable guidance documents.

Please note that R.61-71 requires the following :

1. All wells shall be drilled, constructed, and abandoned by a South Carolina certified well driller per R.61-71.D.1.

2. All monitoring wells shall be labeled as required by R.61-71.H.2.c.

3. A Water Well Record Form or other form provided or approved by the Department shall be completed and submitted to the Department within 30 days after well completion or abandonment unless another schedule has been approved by the Department. The form should contain the "as-built" construction details and all other information required by R.61-71.H.1.f

4. All analytical data and water levels obtained from each monitoring well shall be submitted to the Department within 30 days of receipt of laboratory results unless another schedule has been approved by the Department as required by R.61-71.H.1.d.

5. If any of the information provided to the Department changes, notification to the project manager (tel:803-896-6649 or e-mail: koonjt@dhec.sc.gov) shall be provided a minimum of twenty-four (24) hours prior to well construction as required by R.61-71.H.1.a.

6. All temporary monitoring wells shall be abandoned within 5 days of borehole completion using appropriate methods as required by R.61-71.H.4.c. All other wells shall be properly developed per R.61-71.H.2.d.

7. Departmental approval is required prior to abandonment of all monitoring wells as required by R.61-71.H.1.a.

This approval is pursuant to the provisions of Section 44-55-40 of the 1976 South Carolina Code of Laws and R.61-71 of the South Carolina Well Standards and Regulations, dated April 26, 2002. A copy of this approval should be on the site during well installation.

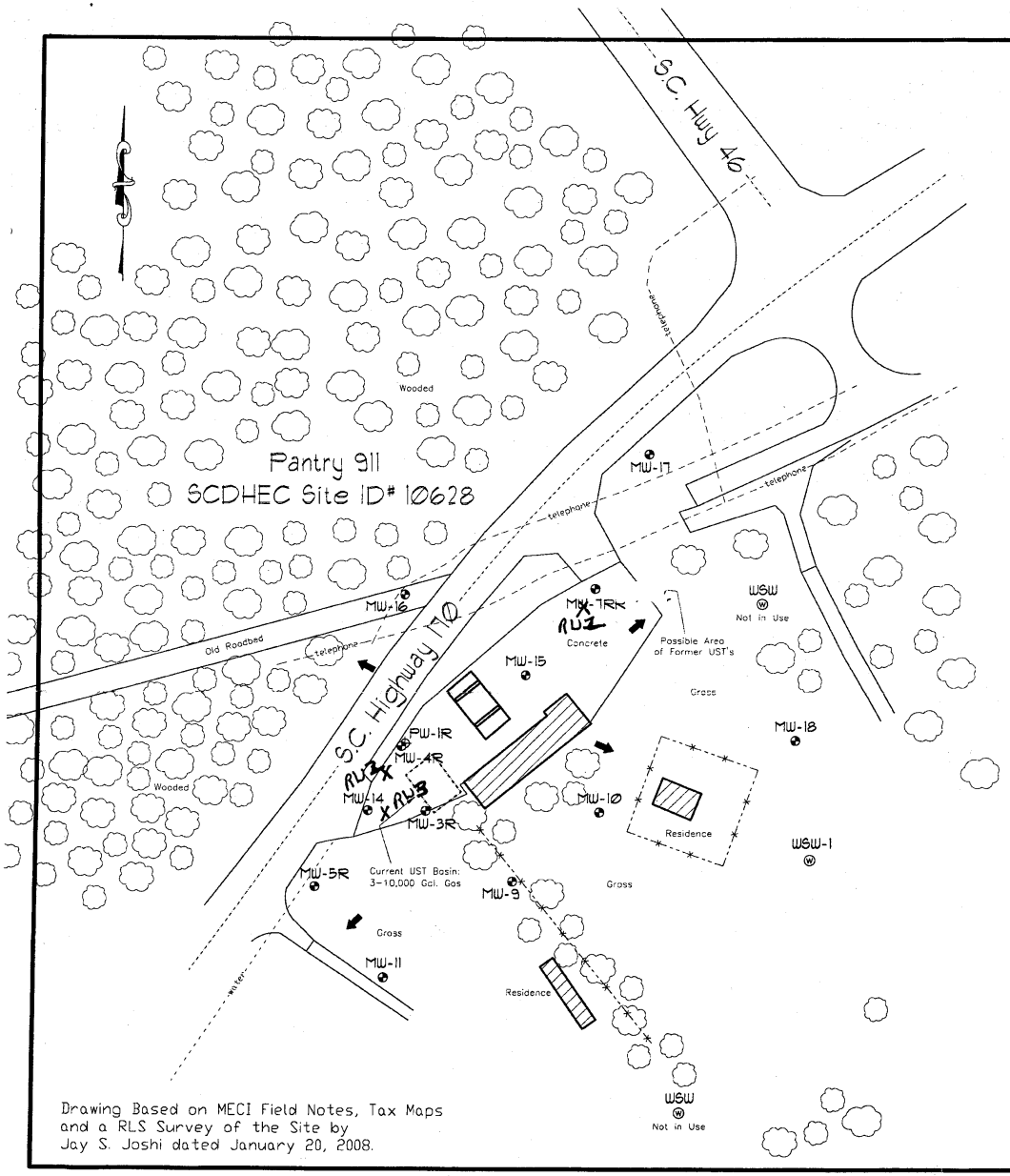
Date of Issuance: 5/7/2010 **Approval:** UMW-23663

Justin Koon, Engineer Associate
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

Approved Cost Agreement 38963

Facility: 10628 PANTRY 911
KOONJT
PO Number:

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB					
		A EQUIPMENT	1.0000	100.00	100.00
		B PERSONNEL	2.0000	100.00	200.00
11 ANALYSES					
	SOIL SOIL	Q BTEX+NAPTH	3.0000	38.00	114.00
16 SUBSEQUENT SURVEY					
		SUBSEQUENT SURVEY	1.0000	50.00	50.00
17 DISPOSAL					
		A1 WASTEWATER - PURGING/SAMPLING	1.0000	50.00	50.00
		C SOIL (TREATMENT/DISPOSAL)	8.0000	50.00	400.00
18 MISCELLANEOUS					
		4 INCH MONITORING WELL	36.0000	22.00	792.00
23 EFR					
		D SITE RECONNAISSANCE	1.0000	100.00	100.00
			Total Amount		1,806.00



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of Double Cased Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Existing Underground Storage Tanks
- water — Buried Water Line
- telephone — Under Ground Telephone

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

ALL LOCATIONS ARE APPROXIMATE

Site Features

Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 08-1835
DATE January 30, 2008
FIGURE 2

UNDERGROUND STORAGE TANK (UST) OWNER/OPERATOR LEAD INFORMATION SHEET

1. CONTRACTOR OF CHOICE

As the UST Owner/Operator of UST Permit # 10628, I would like to use the contractor or person(s)* listed below and request that they represent me for: (check one)

( ) Initial Groundwater Assessment
( ) Other (please specify)_____
(X) all future assessments scopes. **

Name of Contractor/Person(s): Midlands Environmental Consultants, Inc.

Address: 235-B Dooley Road, Lexington, SC 29073

Telephone Number: (803) 808-2043

Note: Site rehabilitation activities must be performed by a SCDHEC Certified Site Rehabilitation Contractor in accordance with R.61-98.

*indicate if the person listed is your own employee

** if you would like the contractor to perform all future assessment activities at this and/or other facilities that have confirmed releases, please provide a list of all sites on your letterhead and provide the information requested in items 2 and 3 below within the context of the letter.

2. FINANCIAL OR FAMILIAL RELATIONSHIP

Does a financial or familial relationship, as defined below, exist between you and the contractor/person that you listed above? _____ Yes _X_ No (please initial)

Financial Relationship: A connection or association through a material interest of sources of income which exceed five percent of annual gross income from a business entity.

Familial Relationship: A connection or association by family or relatives, in which a family member or relative has a material interest. Family or relatives include: father, mother, son, daughter, brother, sister, uncle, aunt, first cousin, nephew, niece, husband, wife, father-in-law, mother-in-law, son-in-law, daughter-in-law, stepfather, stepmother, stepson, stepdaughter, stepbrother, stepsister, half brother, half sister, grandparent, grandchild, great grandchild, step grandparent, step great grandparent, step grandchild, step great grandchild, or fiancee.

3. PAYMENT

You can pay the contractor and, upon the submittal of the canceled check (or a notarized statement from the contractor), be compensated from the SUPERB Account, or have payment issued directly from us to the contractor.

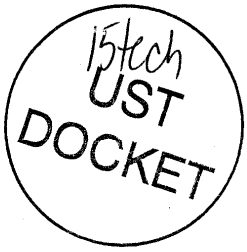
I request that payment be made to me after I have paid the contractor. _____ Yes _____ No (please initial)
I request that payment be made directly to the contractor. _X_ Yes _____ No (please initial)

Note: All costs must receive prior financial approval from the Department regardless of payment option.

Underground Storage Tank Owner/Operator Signature _____
Date 6-4-10

Midlands
Environmental
Consultants, Inc.

June 17, 2010



Mr. Justin Koon, Engineer Associate
Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land & Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Report of Recovery Well Installation
Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID# 10628, CA # 38683
MECI Project Number 10-2879
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Koon,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Report of Recovery Well Installation for the referenced site. This report describes assessment activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

PROJECT INFORMATION

The subject site (Pantry 911) is located at Highway 170 and Highway 170 Alternate outside of the town limits of Hardeeville, Jasper County, South Carolina (see Figure 1). The subject site consists of one structure that occupies the property and is currently being utilized as an active gas station. On-site surface covering is predominately concrete to the north and west and grass to the east and south of the structure. The site is bordered by S.C. Highway 170 to the northwest. Surrounding properties are primarily rural residential.

The subject site currently maintains three underground storage tanks (UST's) including: 3-10,000 gallon gasoline UST. A release of petroleum product was reported in April of 1995 and confirmed in March of 1996.

The above information is based on reports and correspondence obtained from SCDHEC files.

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29072
Telephone: (803) 808-2043 • fax: (803) 808-2048

FIELD EXPLORATION

Field exploration conducted at the site included:

- construction of three groundwater/free phase product recovery wells;
- collection of soil samples; and,
- subsequent survey to locate the newly installed recovery wells.

The monitoring well location was selected based on SCDHEC project manager instructions, existing site conditions, and drilling accessibility.

RECOVERY WELL INSTALLATION

On June 10, 2010, three single cased 4"-recovery wells (RW-1, RW-2, and RW-3) were installed at the subject site. These wells were installed by Geologic Exploration, of Statesville, North Carolina (S.C. Driller Certification: Mike McConnahey # A 01276). RW-1, RW-2, and RW-3 were installed using a ATV-mounted drilling rig employing 10.0-inch outer diameter hollow stem augers to construct the borehole. The following table presents select well installation details.

Well Number	Screened Interval (ft)	Total Depth (ft)
RW-1	2.0-12.0	12.00
RW-2	2.0-12.0	12.00
RW-3	2.0-12.0	12.00

Representative portions of soil samples were screened with an Photo Ionization Detector (PID) and classified by MECI personnel. The soils encountered during drilling activities consisted of fine to medium grained clays and clayey fine to medium sands of the Coastal Plain Physiographic Province. Test boring records showing soil descriptions and screening result are attached.

Soil samples were collected from drill cuttings produced during the installation of each recovery well. These soil samples were analyzed for volatile organic compounds including BTEX and naphthalene (EPA Method 8260B). The results of the laboratory analyses are summarized in Table 1 and presented in the attached laboratory reports.

Based on PID readings and lack on access to spread soils onsite, soil cuttings were transported to Waste Management/Richland Landfill, Elgin, SC by MECI. A total of 1.45 tons was disposed of in this manner. A disposal manifest for these soils is attached at the end of this report.

Following completion of the monitoring wells, the wells were developed by bailing until they were determined to be functioning properly and turbidity was reduced. Test Boring Records showing soil descriptions and monitoring well installation details are attached. The drummed purge water was treated by MECI personnel using a granular activated carbon drum. A total of three (3) drums of purge/development water was disposed of in this manner. A disposal manifest for the drummed purge water is attached at the end of this report.

SITE SURVEY

Following the well installation, a subsequent survey was conducted by MECI personnel, utilizing a fiberglass rod, level, and tape to determine the horizontal and vertical position of the newly installed monitoring wells. Elevations were based on site datum provided by SCDHEC. See Figure 2 for Top of Casing elevations for the newly installed recovery wells.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assessment are consistent with those normally employed in hydrogeological assessment and waste management projects of this type. Our evaluation of site conditions has been based on our understanding of the site, project information provided to us, and data obtained in our exploration. The general subsurface conditions utilized in our evaluation have been based on interpretation of subsurface data between borings. Contents of this report is intended for the sole use by the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Brendon P. Kelly
Project Scientist

Jeff L. Coleman
Senior Scientist

Attachments

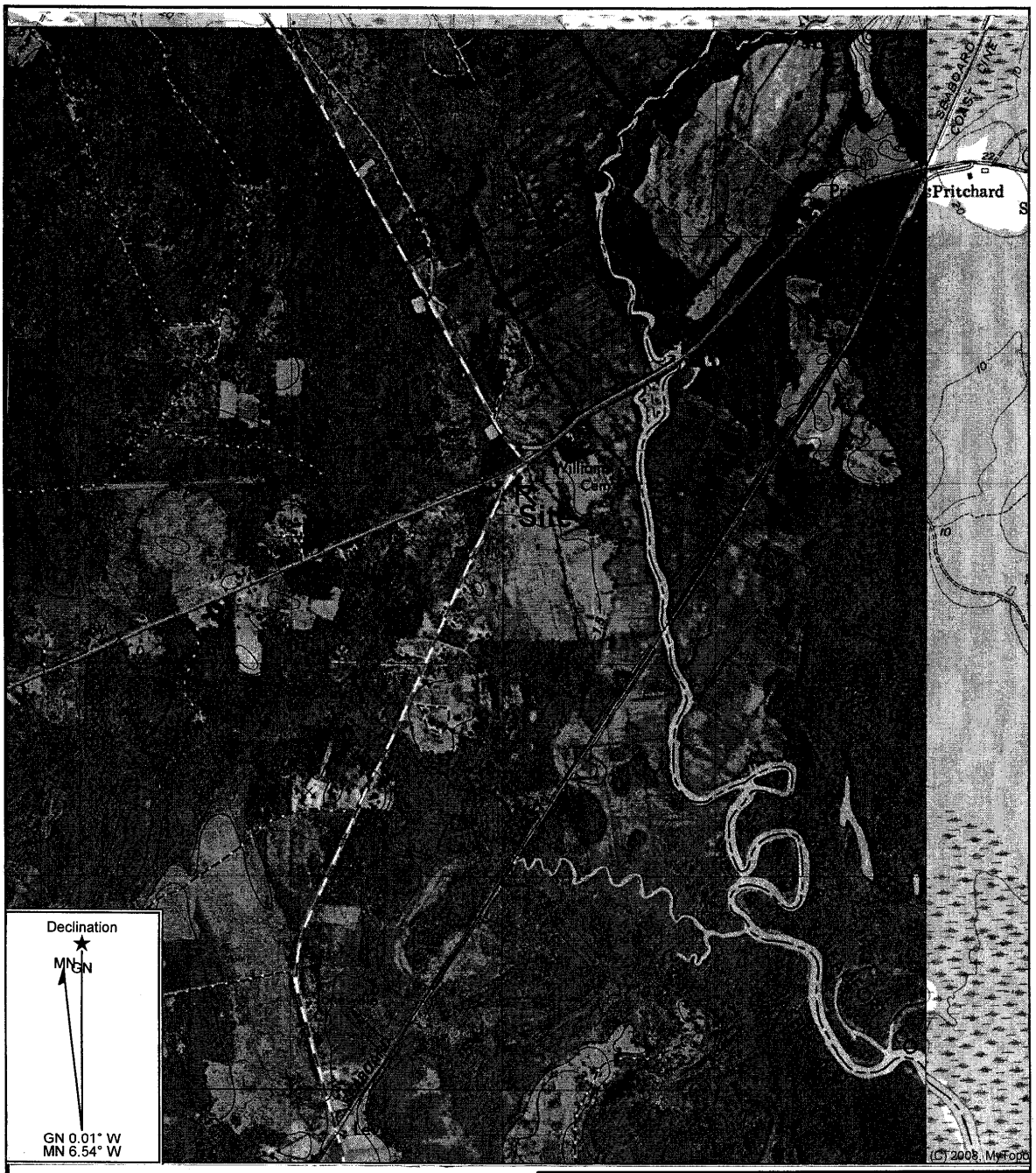
TABLES

TABLE 1
SOIL ANALYTICAL RESULTS
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 10-2879
SCDHEC SITE ID NUMBER 10628

Boring Number	Sample Date	Depth (feet BGS)	Benzene (µg/kg)	Toluene (µg/kg)	Ethylbenzene (µg/kg)	Total Xylenes (µg/kg)	Naphthalene (µg/kg)
RW-1	6/10/2010	2	**535**	**801**	**565**	**1,910**	<196
RW-2	6/10/2010	2	**109**	**3.3J**	**34.6**	**74.5**	<4.4
RW-3	6/10/2010	2	**10,200**	**98,300**	**36,100**	**205,000**	**15,500**

Notes:
1. BGS = Below Ground Surface
2. ug/kg = milligrams per kilogram
3. Soil Samples collected from Auger Cuttings.

FIGURES



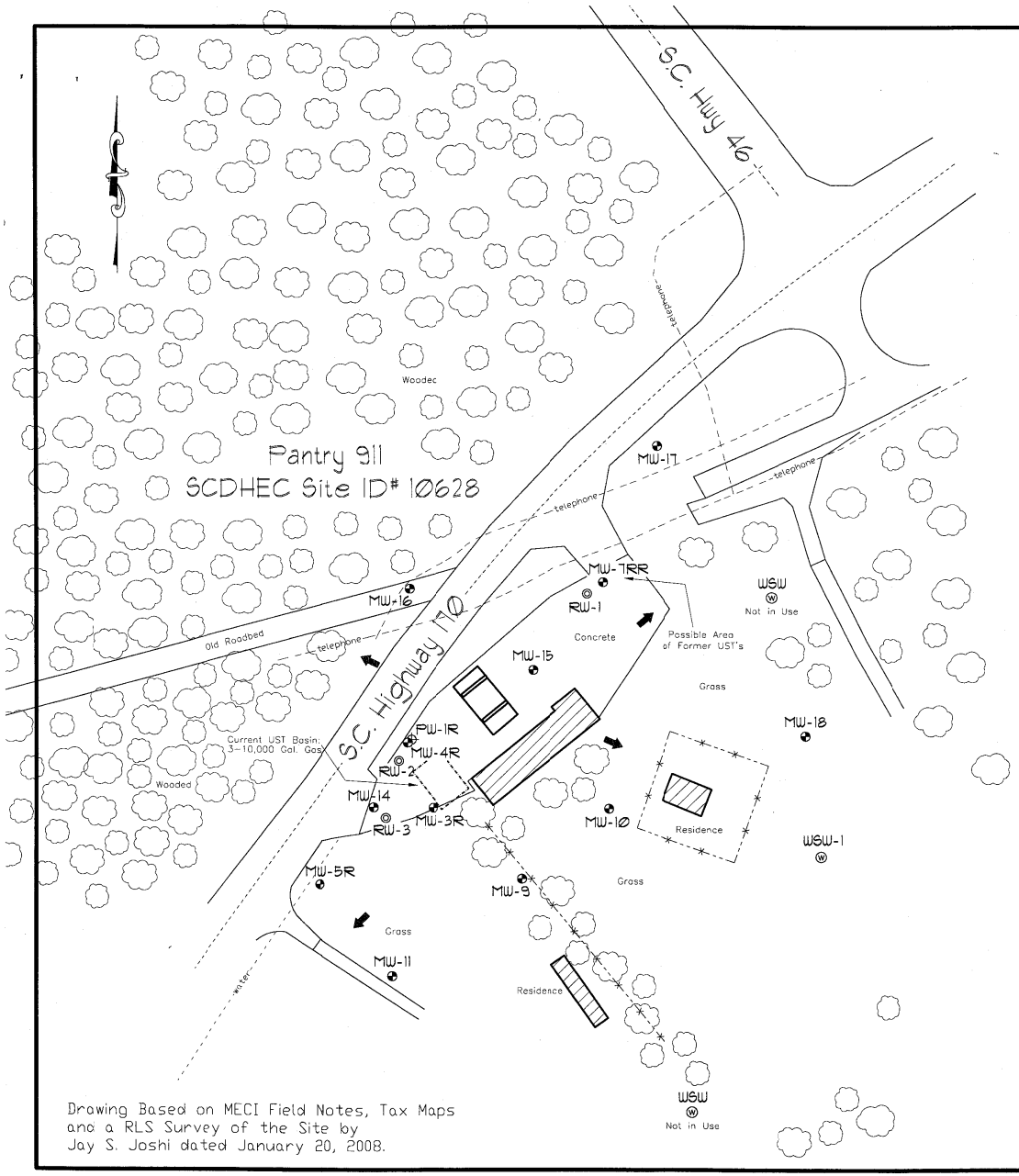
GRAPHIC SCALE

0 1000 2000 4000

1IN = 2000FT

Reference: Limehouse and Hardeeville, South Carolina
Jasper and Pritchardville, South Carolina
USGS 7.5 Min. Quad
Contour Interval–1.5 Meters

Midlands Environmental Consultants, Inc.	Site Location
Pantry 911 6195 South Okatie Highway, Hardeeville, SC SCDHEC Site ID# 10628	
Figure 1	MECI 10-2789



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of 4-Inch Recovery Well
- Location of Double Cased Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Existing Underground Storage Tanks
- water — Buried Water Line
- telephone — Under Ground Telephone

Groundwater Elevation Data

Well #	Depth to Water (ft)	Well Head Elevation	Groundwater Elevation
RW-1	7.02	96.15	89.13
RW-2	0.36	93.56	93.20
RW-3	2.87	93.22	90.35

Notes: Depth to groundwater measured on June 14, 2010.
Site Datum Based on Assumed Spot Elevation.

Soil Analytical Data•

Sample #	Sample Depth (ft)	Benzene (ug/kg)	Toluene (ug/kg)	Ethylbenzene (ug/kg)	Total Xylenes (ug/kg)	Naphthalene (ug/kg)
RW-1	2	535	801	565	1,910	<196
RW-2	2	109	3.3J	34.6	74.5	<4.4
RW-3	2	10,200	98,300	36,100	205,000	15,500

Notes: Soil samples collected June 10, 2010.

GRAPHIC SCALE
0 50 100 150 200
1IN = 100FT

ALL LOCATIONS ARE APPROXIMATE

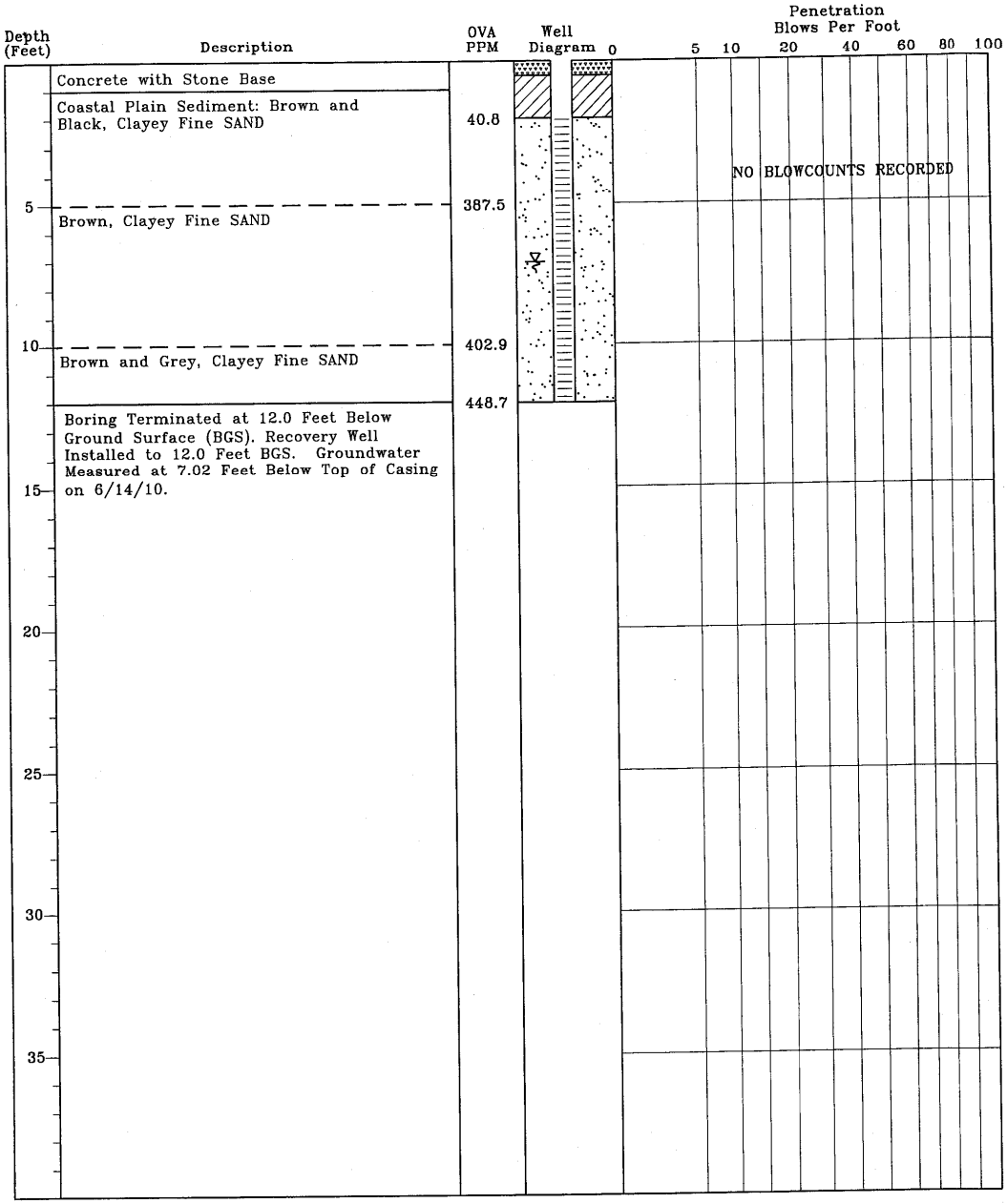
Site Features

Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 10-2879
DATE June 17, 2010
FIGURE 2

TEST BORING AND MONITORING WELL INSTALLATION RECORD



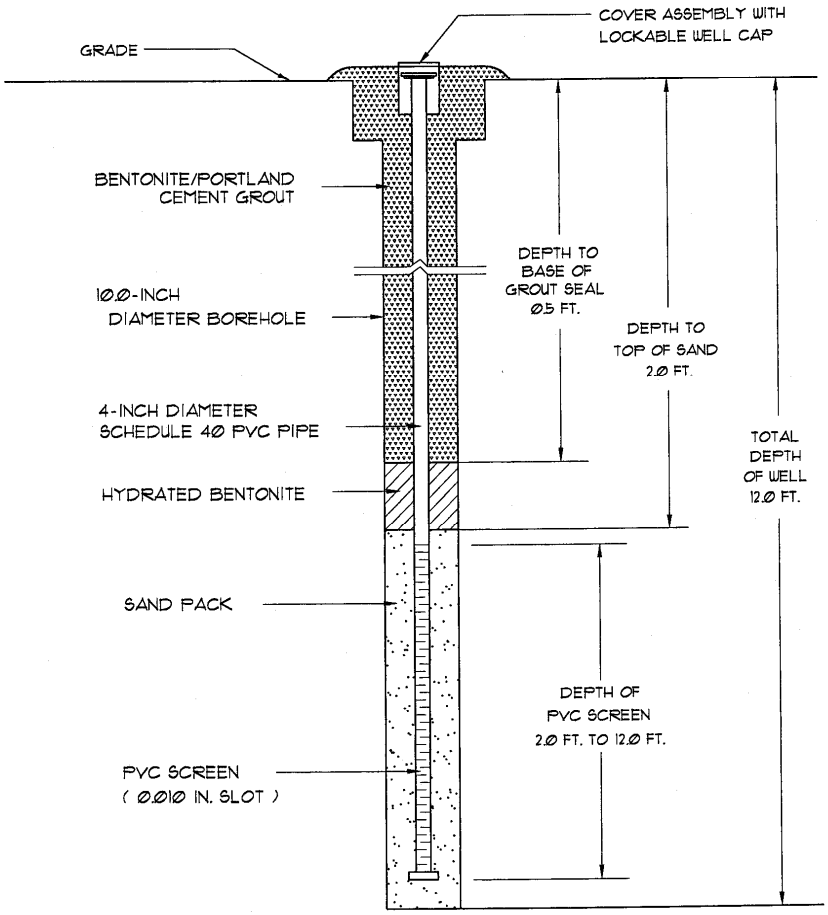
TEST BORING RECORD
Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID# 10628
MECI Project Number 10-2879

Boring Number:	RW-1
Date Drilled:	6/10/10
Drilled By:	Geologic Exploration Inc.
Logged By:	K. Pudney

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

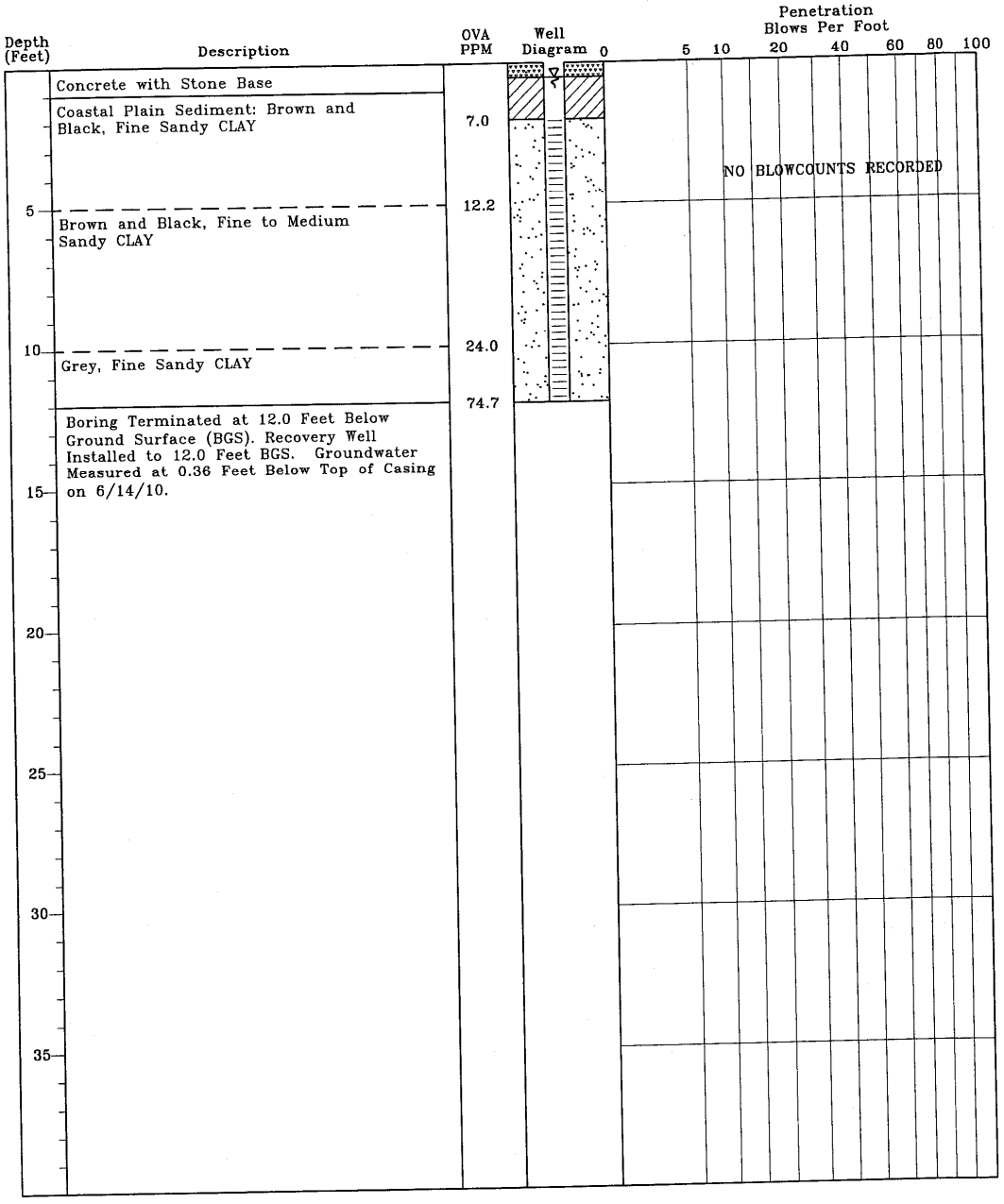
MONITORING WELL INSTALLATION RECORD

Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID# 10628
MECI Project Number 08-1835



Well Number:	RW-1
Date Drilled:	6/10/10
Drilled By:	Geologic Exploration Inc.
Driller: M. McConnahey S.C. I.D. #: A1276	
Logged By:	K. Pudney

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



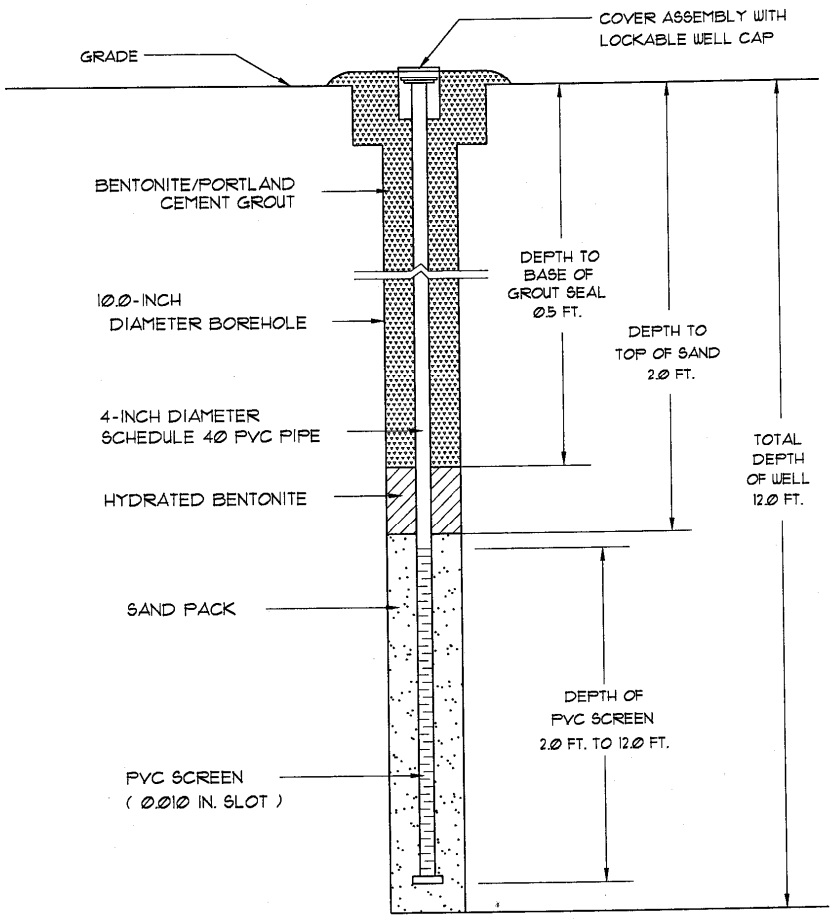
TEST BORING RECORD
Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID# 10628
MECI Project Number 10-2879

Boring Number:	RW-2
Date Drilled:	6/10/10
Drilled By:	Geologic Exploration Inc.
Logged By:	K. Pudney

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

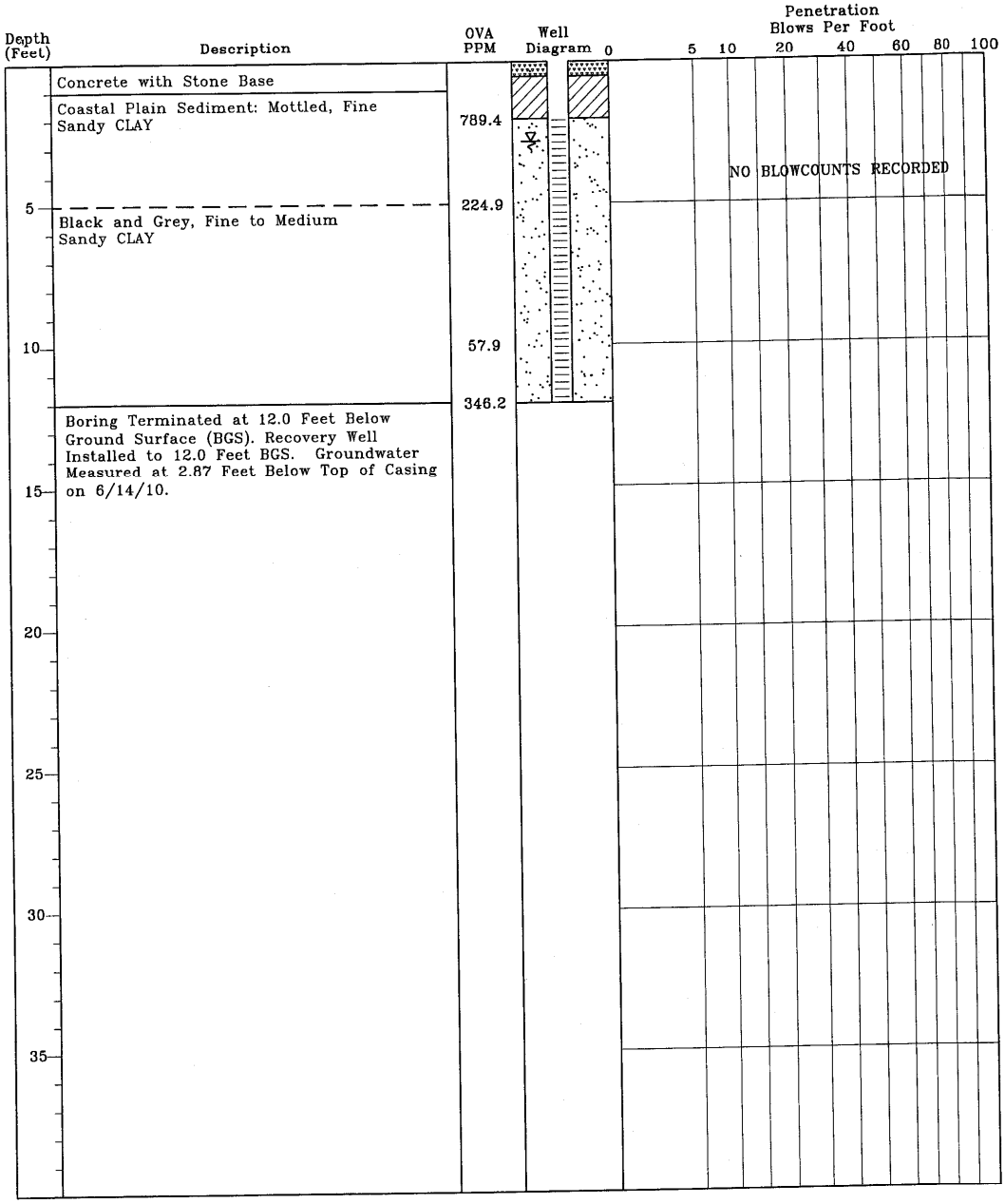
MONITORING WELL INSTALLATION RECORD

Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID# 10628
MECI Project Number 08-1835



Well Number:	RW-2
Date Drilled:	6/10/10
Drilled By:	Geologic Exploration Inc.
Driller: M. McConnahey S.C. I.D. #: A1276	
Logged By:	K. Pudney

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



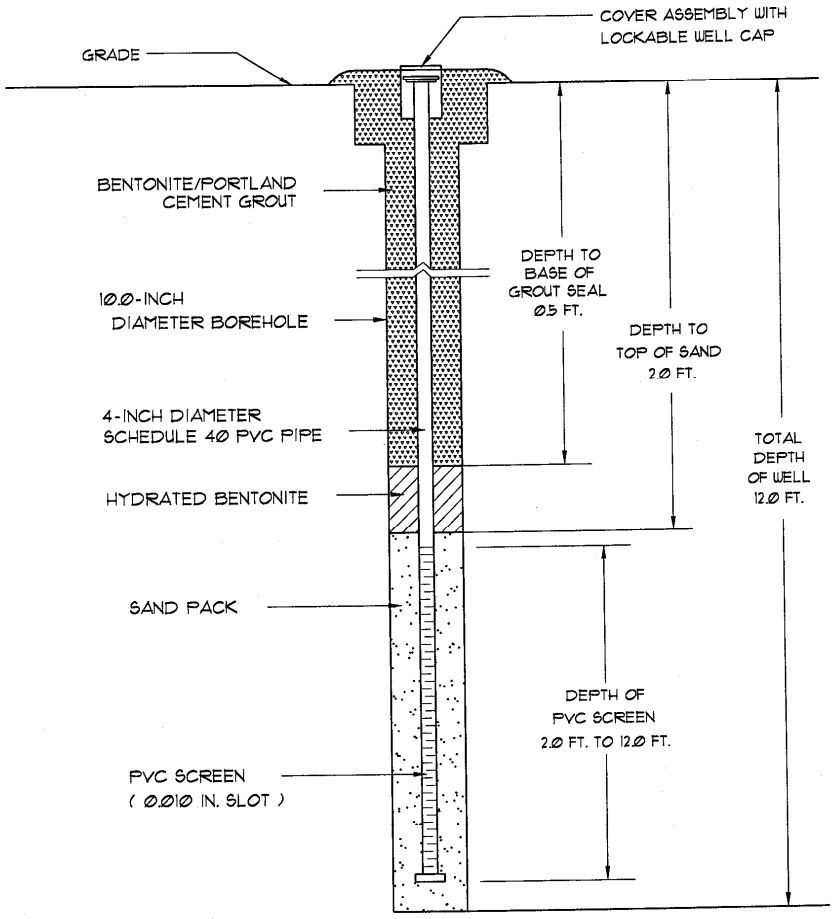
TEST BORING RECORD
Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID# 10628
MECI Project Number 10-2879

Boring Number:	RW-3
Date Drilled:	6/10/10
Drilled By:	Geologic Exploration Inc.
Logged By:	K. Pudney

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

MONITORING WELL INSTALLATION RECORD

Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID* 10628
MECI Project Number 08-1835



Well Number:	RW-3
Date Drilled:	6/10/10
Drilled By:	Geologic Exploration Inc.
Driller: M. McConnahey S.C. I.D. #: A1276	
Logged By:	K. Pudney

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: MALPHRUS, DONNIE (last) (first)
Address: 184 NEW ROAD
City: RIDGELAND State: SC Zip: 29902
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** JASPER
Name: PANTRY - 911
Street Address: 6195 SOUTH OKATIE HIGHWAY
City: HARDEEVILLE Zip: 29927
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
CONCRETE/STONE	1.0	1.0
BROWN/BLACK SAND CLAY SILT	3.0	4.0
GRAY SILTY CLAY	6.0	10.0
GRAY CLAYEY SANDY SILT	2.0	12.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
RW-1 BENTONITE SEAL FROM 0.5 TO 2.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE:
☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 12.0 ft. **Date Started:** 06/10/10 **Date Completed:** 06/10/10

10. CASING: ☑ Threaded ☐ Welded
Diam.: 4 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
4.0 in. to 2.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 4 INCH
Slot/Gauge: .010 Length: 10.0 FEET
Set Between: 2.0 ft. and 12.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 4.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 2.0 ft. to 12.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 0.5 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: MIKE MCCONAHEY **CERT. NO.:** 01276
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☑ B ☐ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Well Driller Date: 06/14/10

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

DHEC — PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: MALPHRUS, DONNIE (last) (first)
Address: 184 NEW ROAD
City: RIDGELAND State: SC Zip: 29902
Telephone: Work: Home:

2. LOCATION OF WELL: SC **COUNTY:** JASPER
Name: PANTRY - 911
Street Address: 6195 SOUTH OKATIE HIGHWAY
City: HARDEEVILLE Zip: 29927
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
CONCRETE/STONE	1.0	1.0
BROWN/BLACK SAND CLAY SILT	3.0	4.0
GRAY SILTY CLAY	6.0	10.0
GRAY CLAYEY SANDY SILT	2.0	12.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
RW-2 BENTONITE SEAL FROM 0.5 TO 2.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE:
☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 12.0 ft. **Date Started:** 06/10/10 **Date Completed:** 06/10/10

10. CASING: ☑ Threaded ☐ Welded
Diam.: 4 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
4.0 in. to 2.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 4 INCH
Slot/Gauge: .010 Length: 10.0 FEET
Set Between: 2.0 ft. and 12.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 4.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 2.0 ft. to 12.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 0.5 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date Installed: _____ Not Installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: MIKE MCCONAHEY **CERT. NO.:** 01276
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☑ B ☐ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Signed: _____ Well Driller **Date:** 06/14/10

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: MALPHRUS, DONNIE (last) (first)
Address: 184 NEW ROAD
City: RIDGELAND State: SC Zip: 29902
Telephone: Work: Home:

2. LOCATION OF WELL: SC COUNTY: JASPER
Name: PANTRY - 911
Street Address: 6195 SOUTH OKATIE HIGHWAY
City: HARDEEVILLE Zip: 29927
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
CONCRETE/STONE	1.0	1.0
BROWN/BLACK SAND CLAY SILT	3.0	4.0
GRAY SILTY CLAY	6.0	10.0
GRAY CLAYEY SANDY SILT	2.0	12.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
RW-3 BENTONITE SEAL FROM 0.5 TO 2.0 FT.

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other AUGER

7. PERMIT NUMBER:

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 12.0 ft. Date Started: 06/10/10 Date Completed: 06/10/10

10. CASING: ☑ Threaded ☐ Welded
Diam.: 4 INCH
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
4.0 in. to 2.0 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface 0.0 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: SCH 40 PVC Diam.: 4 INCH
Slot/Gauge: .010 Length: 10.0 FEET
Set Between: 2.0 ft. and 12.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 4.0 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 2.0 ft. to 12.0 ft.
Effective size 1.43 Uniformity Coefficient 1.30

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 0.5 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: MIKE MCCONAHEY CERT. NO.: 01276
Address: (Print) 176 COMMERCE BLVD
STATESVILLE, NC 28625
Level: A ☑ B ☐ C ☐ D ☐ (circle one)
Telephone No.: 704-872-7686 Fax No.: 704-872-0248

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Well Driller Date: 06/14/10

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

ANALYTICAL RESULTS

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

June 16, 2010

Mr. Bryan Shane
Midlands Environmental
PO Box 854
Lexington, SC 29071

RE: Project: PANTRY 911 10-2879
Pace Project No.: 9271350

Dear Mr. Shane:
Enclosed are the analytical results for sample(s) received by the laboratory on June 11, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Inorganic Wet Chemistry and Metals analyses were performed at our Pace Asheville laboratory and Organic testing was performed at our Pace Huntersville laboratory unless otherwise footnoted. All Microbiological analyses were performed at the laboratory where the samples were received.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Renee Spencer

Renee Spencer

renee.spencer@pacelabs.com
Project Manager

Enclosures

cc: Mr. Jeff Coleman, Midlands Environmental

REPORT OF LABORATORY ANALYSIS

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: PANTRY 911 10-2879
Pace Project No.: 9271350

Charlotte Certification IDs
9800 Kincey Ave. - Ste 100 Huntersville, NC 28078
Connecticut Certification #: PH-0104
Virginia Certification #: 00213
Tennessee Certification #: 04010
South Carolina Drinking Water Cert. #: 99006003
South Carolina Certification #: 99006001
Pennsylvania Certification #: 68-00784
North Carolina Wastewater Certification #: 12
North Carolina Field Services Certification #: 5342
North Carolina Drinking Water Certification #: 37706
New Jersey Certification #: NC012
Louisiana/LELAP Certification #: 04034
Kentucky UST Certification #: 84
Florida/NELAP Certification #: E87627
West Virginia Certification #: 357

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: PANTRY 911 10-2879
Pace Project No.: 9271350

Lab ID	Sample ID	Matrix	Date Collected	Date Received
9271350001	**RW-1**	Solid	06/10/10 16:00	06/11/10 15:15
9271350002	**RW-2**	Solid	06/10/10 15:00	06/11/10 15:15
9271350003	**RW-3**	Solid	06/10/10 11:00	06/11/10 15:15

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: PANTRY 911 10-2879
Pace Project No.: 9271350

Lab ID	Sample ID	Method	Analysts	Analytes Reported
9271350001	**RW-1**	EPA 8260	DLK	11
		ASTM D2974-87	KDF	1
9271350002	**RW-2**	EPA 8260	DLK	11
		ASTM D2974-87	KDF	1
9271350003	**RW-3**	EPA 8260	DLK	11
		ASTM D2974-87	KDF	1

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 10-2879
Pace Project No.: 9271350

Sample: RW-1 **Lab ID: 9271350001** Collected: 06/10/10 16:00 Received: 06/11/10 15:15 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A SC Volatile Org	Analytical Method: EPA 8260								
Benzene	**535**	ug/kg	196	62.8	50		06/13/10 20:32	71-43-2	D3
Ethylbenzene	**565**	ug/kg	196	70.7	50		06/13/10 20:32	100-41-4	
Naphthalene	ND	ug/kg	196	47.1	50		06/13/10 20:32	91-20-3	
Toluene	**801**	ug/kg	196	70.7	50		06/13/10 20:32	108-88-3	
Xylene (Total)	**1910**	ug/kg	393	141	50		06/13/10 20:32	1330-20-7	
m&p-Xylene	**1490**	ug/kg	393	141	50		06/13/10 20:32	179601-23-1	
o-Xylene	**423**	ug/kg	196	74.6	50		06/13/10 20:32	95-47-6	
Dibromofluoromethane (S)	102	%	70-130		50		06/13/10 20:32	1868-53-7	
Toluene-d8 (S)	100	%	70-130		50		06/13/10 20:32	2037-26-5	
4-Bromofluorobenzene (S)	98	%	70-130		50		06/13/10 20:32	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-130		50		06/13/10 20:32	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**8.5**	%	0.10	0.10	1		06/14/10 13:52		

Sample: RW-2 **Lab ID: 9271350002** Collected: 06/10/10 15:00 Received: 06/11/10 15:15 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A SC Volatile Org	Analytical Method: EPA 8260								
Benzene	**109**	ug/kg	4.4	1.4	1		06/13/10 17:11	71-43-2	
Ethylbenzene	**34.6**	ug/kg	4.4	1.6	1		06/13/10 17:11	100-41-4	
Naphthalene	ND	ug/kg	4.4	1.1	1		06/13/10 17:11	91-20-3	
Toluene	**3.3J**	ug/kg	4.4	1.6	1		06/13/10 17:11	108-88-3	
Xylene (Total)	**74.5**	ug/kg	8.8	3.2	1		06/13/10 17:11	1330-20-7	
m&p-Xylene	**68.2**	ug/kg	8.8	3.2	1		06/13/10 17:11	179601-23-1	
o-Xylene	**6.4**	ug/kg	4.4	1.7	1		06/13/10 17:11	95-47-6	
Dibromofluoromethane (S)	105	%	70-130		1		06/13/10 17:11	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		06/13/10 17:11	2037-26-5	
4-Bromofluorobenzene (S)	97	%	70-130		1		06/13/10 17:11	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	70-130		1		06/13/10 17:11	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.1**	%	0.10	0.10	1		06/14/10 13:52		

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 10-2879
Pace Project No.: 9271350

Sample: RW-3 **Lab ID: 9271350003** Collected: 06/10/10 11:00 Received: 06/11/10 15:15 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A SC Volatile Org	Analytical Method: EPA 8260								
Benzene	**10200**	ug/kg	409	131	100		06/13/10 20:50	71-43-2	
Ethylbenzene	**36100**	ug/kg	5110	1840	1250		06/14/10 16:38	100-41-4	
Naphthalene	**15500**	ug/kg	409	98.1	100		06/13/10 20:50	91-20-3	
Toluene	**98300**	ug/kg	5110	1840	1250		06/14/10 16:38	108-88-3	
Xylene (Total)	**205000**	ug/kg	10200	3680	1250		06/14/10 16:38	1330-20-7	
m&p-Xylene	**148000**	ug/kg	10200	3680	1250		06/14/10 16:38	179601-23-1	
o-Xylene	**56500**	ug/kg	5110	1940	1250		06/14/10 16:38	95-47-6	
Dibromofluoromethane (S)	98	%	70-130		100		06/13/10 20:50	1868-53-7	
Toluene-d8 (S)	97	%	70-130		100		06/13/10 20:50	2037-26-5	
4-Bromofluorobenzene (S)	82	%	70-130		100		06/13/10 20:50	460-00-4	
1,2-Dichloroethane-d4 (S)	131	%	70-130		100		06/13/10 20:50	17060-07-0	S2
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**17.0**	%	0.10	0.10	1		06/14/10 13:52		

REPORT OF LABORATORY ANALYSIS

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 10-2879
Pace Project No.: 9271350

QC Batch: MSV/11249 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 9271350001, 9271350002, 9271350003

METHOD BLANK: 455686 Matrix: Solid
Associated Lab Samples: 9271350001, 9271350002, 9271350003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	ND	5.0	06/13/10 11:05	
Ethylbenzene	ug/kg	ND	5.0	06/13/10 11:05	
m&p-Xylene	ug/kg	ND	10.0	06/13/10 11:05	
Naphthalene	ug/kg	ND	5.0	06/13/10 11:05	
o-Xylene	ug/kg	ND	5.0	06/13/10 11:05	
Toluene	ug/kg	ND	5.0	06/13/10 11:05	
Xylene (Total)	ug/kg	ND	10.0	06/13/10 11:05	
1,2-Dichloroethane-d4 (S)	%	107	70-130	06/13/10 11:05	
4-Bromofluorobenzene (S)	%	97	70-130	06/13/10 11:05	
Dibromofluoromethane (S)	%	104	70-130	06/13/10 11:05	
Toluene-d8 (S)	%	102	70-130	06/13/10 11:05	

METHOD BLANK: 455754 Matrix: Solid
Associated Lab Samples: 9271350001, 9271350002, 9271350003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	ND	5.0	06/14/10 12:03	
Ethylbenzene	ug/kg	ND	5.0	06/14/10 12:03	
m&p-Xylene	ug/kg	ND	10.0	06/14/10 12:03	
Naphthalene	ug/kg	2.8J	5.0	06/14/10 12:03	
o-Xylene	ug/kg	ND	5.0	06/14/10 12:03	
Toluene	ug/kg	ND	5.0	06/14/10 12:03	
Xylene (Total)	ug/kg	ND	10.0	06/14/10 12:03	
1,2-Dichloroethane-d4 (S)	%	91	70-130	06/14/10 12:03	
4-Bromofluorobenzene (S)	%	89	70-130	06/14/10 12:03	
Dibromofluoromethane (S)	%	93	70-130	06/14/10 12:03	
Toluene-d8 (S)	%	99	70-130	06/14/10 12:03	

LABORATORY CONTROL SAMPLE: 455687

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	50	47.2	94	70-130	
Ethylbenzene	ug/kg	50	49.5	99	70-130	
m&p-Xylene	ug/kg	100	102	102	70-130	
Naphthalene	ug/kg	50	48.3	97	70-130	
o-Xylene	ug/kg	50	50.2	100	70-130	
Toluene	ug/kg	50	48.1	96	70-130	
Xylene (Total)	ug/kg	150	153	102	70-130	
1,2-Dichloroethane-d4 (S)	%			104	70-130	

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 10-2879
Pace Project No.: 9271350

LABORATORY CONTROL SAMPLE: 455687

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4-Bromofluorobenzene (S)	%			101	70-130	
Dibromofluoromethane (S)	%			100	70-130	
Toluene-d8 (S)	%			101	70-130	

MATRIX SPIKE SAMPLE: 455756

Parameter	Units	9271352005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	ND	85.1	83.9	99	70-130	
Ethylbenzene	ug/kg	ND	85.1	79.0	92	70-130	
m&p-Xylene	ug/kg	ND	170	159	93	70-130	
Naphthalene	ug/kg	ND	85.1	23.6	28	70-130	M0
o-Xylene	ug/kg	ND	85.1	76.6	90	70-130	
Toluene	ug/kg	ND	85.1	82.9	97	70-130	
1,2-Dichloroethane-d4 (S)	%				115	70-130	
4-Bromofluorobenzene (S)	%				96	70-130	
Dibromofluoromethane (S)	%				105	70-130	
Toluene-d8 (S)	%				101	70-130	

SAMPLE DUPLICATE: 455755

Parameter	Units	9271352004 Result	Dup Result	RPD	Max RPD	Qualifiers
Benzene	ug/kg	ND	ND		30	1g
Ethylbenzene	ug/kg	ND	8.0		30	R1
m&p-Xylene	ug/kg	3.5J	36.2		30	R1
Naphthalene	ug/kg	ND	ND		30	
o-Xylene	ug/kg	2.3J	19.5		30	R1
Toluene	ug/kg	ND	20.5		30	R1
Xylene (Total)	ug/kg	5.8J	55.7		30	
1,2-Dichloroethane-d4 (S)	%	104	105	1		
4-Bromofluorobenzene (S)	%	93	96	4		
Dibromofluoromethane (S)	%	102	101	0		
Toluene-d8 (S)	%	101	101	1		

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 10-2879
Pace Project No.: 9271350

QC Batch: PMST/3232 Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 9271350001, 9271350002, 9271350003

SAMPLE DUPLICATE: 455692

Parameter	Units	9271175001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	22.4	21.9	2	25	

SAMPLE DUPLICATE: 455713

Parameter	Units	9271332003 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	25.3	26.5	4	25	

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: PANTRY 911 10-2879
Pace Project No.: 9271350

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

ANALYTE QUALIFIERS

1g	Non homogenous sample.
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
R1	RPD value was outside control limits.
S2	Surrogate recovery outside laboratory control limits due to matrix interferences (confirmed by similar results from sample re-analysis).

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

1379001

Section A Required Client Information:

Company: MECI
Address: 235-B Dooley Road
Lexington, SC 29073
Email To: JLC@meci.net
Phone: 803-808-2043 Fax: 803-808-2045
Requested Due Date/TAT:

Section B Required Project Information:

Report To: B. Shank
Copy To:
Purchase Order No.:
Project Name: Pantry 911
Project Number: 10-2879

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: R. Spencer
Pace Profile #: 836-2

REGULATORY AGENCY
☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☒ UST ☐ RCRA ☐ OTHER
Site Location STATE: SC Jasper County

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information: SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	Matrix Codes MATRIX / CODE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test ↓ Y/N	BTEX MTBE 8260B	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	RW-1	Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT	SL	G			6/10	400		4	X	X					X			X		001
2	RW-2		SL	G			6/10	300		4	X	X					X			X		002
3	RW-3		SL	G			6/10	11:00		4	X	X					X			X		003
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
Report J Values		6/11/10	1010	Pace	6/11/10	1010				
		6/11/10	1515	Jamell Reed Pace	6/11/10	1515	5.4	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Kyle Pudney
SIGNATURE of SAMPLER: Kyle V. Pudney
DATE Signed (MM/DD/YY): 6/11/2010

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

WASTE DISPOSAL MANIFESTS

Midlands
Environmental
Consultants, Inc.

June 17, 2010

Re: Treatment of Purge Water
Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID Number 10628
MECI Project Number 10-2879

To Whom It May Concern;

Midlands Environmental Consultants, Inc. is providing the following letter as certification that treatment of the referenced purge water complied with the conditions of "Proposed Conditions for Use of Portable Activated Carbon Units for the Treatment of Small Volumes of Petroleum Hydrocarbon Contaminated Groundwater", as described in the following:

Applicability:

Groundwater treated was obtained as a result development of wells and sampling.

Conditions:

1. The purge/bail water from all wells is mixed before usage of the Activated Carbon Unit.
2. No free-product was detected in any of the purge water.
3. Analytical results of from well sampling show average concentrations of petroleum hydrocarbon constituents less than 5000 parts per billion (ppb) Benzene and less than 20,000 ppb total BTEX.
4. The existing carbon pack will be replaced/reactivated every 5,000 gallons.
5. Record of usage is maintained by Contractor.
6. Any and all recommendations and conditions issued by the Manufacturer have been adhered to.
7. Any and all recommendations and conditions (even on a site by site basis) issued by the SCDHEC must be adhered to.

All purge waters were treated on-site using an up-flow treatment drum loaded with 30 pounds of activated carbon. Carbon will be loaded to a maximum of 3 pounds of total organic compounds or 5,000 gallons of development/purge water, whichever occurs first.

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

A total of one (1) drum was treated on June, 14, 2010 at the referenced site.

Midlands Environmental also tracks cumulative organic compounds adsorbed on the activated carbon to ensure the capacity of carbon mass is not over-charged. This data is available upon request.

Should you have any questions or comments, please contact the undersigned.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman
Senior Scientist

WASTE MANAGEMENT

Richland County LF
1047 Highway Church Road
Elgin, SC, 29045
Ph: (803) 788-3054

Original
Ticket# 1036244

Customer Name MIDLANDSENVIRON MIDLANDS ENVI Carrier MIDLANDSENVIRON MIDLANDS ENVIRONMENT
Ticket Date 06/14/2010 Vehicle# 1 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000469
State Waste Code Gen EPA ID
Manifest 0
Destination
PO
Profile VA2718 (SOIL FROM UST ASSESSMENT)
Generator 126-MIDLANDSENVIRONMENTAL MIDLANDS ENVIRONMENTAL

	Time	Scale	ScaleMaster
In	06/14/2010 09:02:43	Scale1	Dwayne
Out	06/14/2010 09:15:01	Scale2	Dwayne

Gross	15560 lb
Tare	9760 lb
Net	5800 lb
Tons	2.90

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	SOIL-Cont. Soil -	100	2.90	Tons				32-LEXINGT
2	FUEL-Fuel Surcharg	100		%				32-LEXINGT
3	EVF-P-Standard Env	100		%				32-LEXINGT

Total Fees
Total Ticket

SIGNATURE Chris Jashly

~~Gerald Sales Company~~

403WM

SPECIAL WASTE MANIFEST

WASTE ID NUMBER VA2718	*Richland Landfill* 1047 Highway Church Road Elgin, SC 29045
EXPIRATION DATE December 7, 2010	Special Waste Phone: 803-744-3346 Fax: 866-904-7194
Prepared by:	Karen Truett/Carol Weldon

GENERATOR OF WASTE: Midlands Env. Consultants, Inc. - Various

CUSTOMER Midlands Env. Consultants — ACCOUNT NUMBER: 820-469

LOCATION OF WASTE: Site Address:

CITY: COUNTY:

PHONE NUM 803-808-2043 — CONTACT: Bryan Shane

FAX NUMBER:

GENERATOR'S SIGNATURE Chi Jody — DATE: 6/14/10

TRANSPORTER OF WASTE:

DATE: 6/14/10 — TRUCK NUMBER: #1

DRIVER'S SIGNATURE Chi Jody

**** TO BE COMPLETED BY RICHLAND LANDFILL******

DISPOSAL SITE: RICHLAND LANDFILL ELGIN, SC — Waste Class: Soil

DESCRIPTION OF WASTE: Soil from UST Assessment

TICKET NUMBER: 10360244 — 2:90

RECEIVED BY: ocm

Pantry 911 1/2

Midlands 1/2

D H E C
PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

AUG 04 2010

MALPHRUS ENTERPRISES
PO BOX 488
HARDEEVILLE SC 29927-0488

Re: Pantry 911: 6195 South Okatie Hwy, Hardeeville, SC
UST Permit # **10628; CA#37231 and CA#38683**
Release Reported April 28, 1995
Reports received on January 4, February 23, March 9, and June 22, 2010
Jasper County

Dear Mr. Malphrus:

The Underground Storage Tank (UST) Management Division has reviewed the referenced reports. Four (4) Aggressive Fluid Vapor Recovery (AFVR) events were conducted between MW3, MW4R, MW14, and MW7RR. Free phase product was not present during any of the events. Based on the concentrations of chemicals of concern in these wells, three (3) 4" recovery wells were installed. Copies of the reports are enclosed for your information. The next scope of work is to conduct additional AFVR events to reduce the concentrations of chemicals of concern.

The UST Division recently received an owner/operator form directing Midlands Environmental Consultants Inc (MECI) to perform all future assessment work. Therefore, you should receive copies of all future reports directly from MECI.

If you have any questions concerning this correspondence, please contact me by phone at (803) 896-6649, by fax at (803) 896-6245, or by email at koonjt@dhec.sc.gov.

Sincerely,

Justin Koon, Engineer Associate
Corrective Action Division
Underground Storage Tank Management Division
Bureau of Land and Waste Management

enc: Aggressive Fluid Vapor Recovery and Recovery Well Installation Reports

cc: Technical File (w/out enc)

UST
DOCKET
1607

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

OCT 2 0 2010

MALPHRUS ENTERPRISES
2789 N OKATIE HWY
RIDGELAND SC 29936

UST DOCKET 177

Re: **Aggressive Fluid Vapor Recovery Directive**
Pantry 911: 6195 S Okatie Hwy, Hardeeville, SC
UST Permit # **10628**; CA # **39626**
Release reported April 28, 1995
Monitoring Well Installation Report received June 22, 2010
Jasper County

Dear Mr. Malphrus:

The Underground Storage Tank Management Division (UST Division) of the South Carolina Department of Health and Environmental Control (SCDHEC) has reviewed the above referenced report and determined the next necessary scope of work is to conduct two (2) Aggressive Fluid/Vapor Recovery (AFVR) events to remove free phase product and chemicals of concern. One event should be conducted at each of the following groupings: MW3R/MW14/RW3 and MW7RR/RW1. These events can be conducted on consecutive days.

Cost Agreement # **39626** has been approved in the amount shown on the enclosed cost agreement form for the aforementioned scope of work. The AFVR activities may proceed immediately upon receipt of this letter. The AFVR Report submitted at the completion of these activities should include the following:

- A narrative portion documenting the AFVR events noting site conditions, the name of the AFVR contractor, field personnel, date, time the AFVR events started and ended, ambient air temperature, and general weather conditions during the AFVR events.
- A brief description of the completed work scope and any relevant descriptions pertaining to the data tables.
- A table summarizing the airflow (in CFM) and volatile air emissions concentrations collected from the stack of the truck every thirty minutes through the duration of the events. The table shall also document which well(s) were being recovered from during that time interval.
- A table summarizing the magnehelic gauge measurements from all applicable wells on a thirty-minute time interval.
- The total volume of water recovered (gallons).
- The total volume of free phase product recovered (typically measured with a product/water interface device inserted into the top of the tanker at the completion of the event and then converted to an approximate volume).
- The total weight of petroleum removed as vapor. This is calculated based on the airflow rate and the concentration of vapor.
- A table documenting the free product thickness in each well before and after the recovery events.
- Scaled base map depicting the location of the extraction wells and the surrounding wells equipped with magnehelic gauges.
- Manifests for any contaminated soil and/or groundwater removed from the site for treatment and/or disposal.
- Signature and seal by a professional geologist or engineer registered in the State of South Carolina.

Magnehelic gauges must be installed on the extraction wells and monitoring wells immediately surrounding the extraction wells. The AFVR should be completed by establishing a vacuum on the subsurface through the existing monitoring wells. The unit must be capable of providing a minimum airflow of 250 cubic feet per minute (CPM) at 25 inches Mercury vacuum. An airtight seal must be established on the top of each extraction well. Drop tubes inserted in the well(s) should have an inside diameter of at least one (1) inch and should initially be installed six inches below the bottom of the product or the top of the well screen whichever is deeper. The drop tubes should be lowered deeper in the well only if the well exhibits slow recovery (repeatedly goes dry) or if it is deemed necessary to establish a steeper hydraulic gradient to enhance free product migration toward the well. The goal is to maximize the recovery of free product and petroleum vapors in the capillary fringe and minimize the recovery of ground water.

Midlands Environmental Consultants, Inc can submit an invoice for direct billing from the State Underground Petroleum Environmental Response Bank (SUPERB) Account. Please note that all applicable South Carolina certification requirements apply to the laboratory services, well installation, and report preparation. All site rehabilitation activities must be performed and submitted by a South Carolina Certified Underground Storage Tank Site Rehabilitation Contractor.

An AFVR report and invoice are due within 90 days from the date of this letter. Interim invoices may be submitted for this scope of work. If the invoice is not submitted within 120 days from the date of this letter, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available.

Please note that Sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that no costs will be allowed unless prior approval from the UST Division is obtained. If for any reason additional tasks will be completed, these additional tasks and the associated cost must be pre-approved by the UST Division for the cost to be paid. The SCDHEC reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria. Further, SCDHEC reserves the right to question and/or reject costs if deemed unreasonable and the right to audit project records at any time during the project or after completion of work.

The Department grants pre-approval for transportation of virgin petroleum impacted groundwater from the referenced site to a permitted treatment facility. There can be no spillage or leakage in transport. All investigation derived waste (IDW) must be properly contained and labeled prior to disposal. IDW should not be stored on-site longer than ninety (90) days. A copy of the disposal manifest and/or acceptance letter from the receiving facility that clearly designates the quantity received must be included as an appendix to the report. If the COC concentrations, based on laboratory analysis, are below Risk Based Screening Levels (RBSLs), please contact the project manager for approval to dispose of soil and/or groundwater on site. The SUPERB Account will not reimburse for transportation or treatment of soil and/or groundwater with concentrations below RBSLs.

On all correspondence or inquiries regarding this project, please reference **UST Permit #10628 and CA#39626**. If you have any questions, please feel free to contact me by phone at (803) 896-6649, by fax at (803) 896-6245, or email at koonjt@dhec.sc.gov.

Sincerely,

Justin Koon, Engineer Associate
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

enc: Cost Agreement

cc: Midlands Environmental Consultants: PO Box 854, Lexington, SC 29071 (w/ enc)
Technical File (w/ enc)

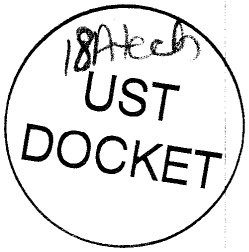
Approved Cost Agreement 39626

Facility: 10628 PANTRY 911
KOONJT
PO Number:

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB					
		A EQUIPMENT	2.0000	575.00	1,150.00
		B PERSONNEL	2.0000	290.00	580.00
17 DISPOSAL					
		A2 WASTEWATER - PUMPING TEST	1,200.0000	0.60	720.00
19 RPT/PROJECT MNGT & COORDINATIO					
		PCT PERCENT	0.1500	9,010.00	1,351.50
23 EFR					
		A 8 HOUR EVENT	2.0000	3,000.00	6,000.00
		C OFF GAS TREATMENT	16.0000	35.00	560.00
				Total Amount	10,361.50

Midlands
Environmental
Consultants, Inc.

November 11, 2010



Mr. Justin Koon, Engineer Associate
Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health and
Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Aggressive Fluid Vapor Recovery Report
Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID # 10628; CA #39626
MECI Project Number 10-3066B
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Koon,

On behalf of Mr. Donnie Malphrus of Malphrus Enterprises, Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Pantry 911 on November 4, 2010. The event was conducted on monitoring wells MW-7RR to remove free phase petroleum product and on RW-1 to reduce dissolved CoC concentrations. Free phase petroleum product was detected in monitoring well MW-7RR at a thickness of 0.11 feet prior to the AFVR event. Free phase petroleum product was not detected in monitoring well RW-1 prior to the AFVR event. The event was conducted continuously for eight hours by MECI personnel utilizing a vacuum extraction unit. Free phase petroleum product was not detected in the wells immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well were 5.60 pounds or approximately 0.97 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 0.70 pounds per hour. Concentrations of off gas produced during the event were recorded from 94.0 parts per million by volume (PPM) to 9,470 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a range of 6.0 to 24.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1B.

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2B. Monitoring well locations are depicted on attached Figure 1.

A total of 50 gallons of liquid was removed from MW-7RR and RW-1 during this event. Free phase petroleum product was not observed in the holding tank immediately following the event. The fluids produced were transported to TK Tank Services, Inc of Sumter, S.C. for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI, Mr. Donnie Malphrus of Malphrus Enterprises and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Brian J. Owen
Field Technician

Brendon P. Kelly
Project Scientist

Attachments:

TABLE 1B
AFVR MONITORING DATA
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 10-3066B
SCDHEC SITE ID NUMBER 10628

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW-7RR	11/04/10	7:30	0.50	6.0	329	1,310	117.90	0.47	0.23
RW-1	11/04/10	8:00	0.50	6.0	99.3	1,310	117.90	0.14	0.07
	11/04/10	8:30	0.50	8.0	104	1,150	103.50	0.13	0.06
	11/04/10	9:00	0.50	11.0	128	1,020	91.80	0.14	0.07
	11/04/10	9:30	0.50	12.0	94.0	950	85.50	0.10	0.05
	11/04/10	10:00	0.50	14.0	268	830	74.70	0.24	0.12
	11/04/10	10:30	0.50	17.0	421	650	58.50	0.30	0.15
	11/04/10	11:00	0.50	21.0	555	410	36.90	0.25	0.12
	11/04/10	11:30	0.50	22.0	9,470	440	39.60	4.50	2.25
	11/04/10	12:00	0.50	24.0	3,604	400	36.00	1.56	0.78
	11/04/10	12:30	0.50	24.0	1,850	400	36.00	0.80	0.40
	11/04/10	13:00	0.50	24.0	1,143	400	36.00	0.49	0.25
	11/04/10	13:30	0.50	24.0	994	400	36.00	0.43	0.21
	11/04/10	14:00	0.50	24.0	831	400	36.00	0.36	0.18
	11/04/10	14:30	0.50	24.0	829	400	36.00	0.36	0.18
	11/04/10	15:00	0.50	24.0	1,004	400	36.00	0.43	0.22
	11/04/10	15:30	0.50	24.0	1,206	400	36.00	0.52	0.26
									TOTAL **5.60**

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-7RR	2"	2-12	8.76	8.87	0.11	***	10.83	***	1.96
RW-1	4"	2-12	***	8.69	***	***	10.51	***	1.82

Vacuum Truck Information		Well ID	Stinger Depth
Subcontractor:	MECI	MW-7RR	9.50
Truck Operator:	R. Ariail	RW-1	9.00
Stack I.D. (feet)	0.33 feet		

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	5.60	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	0.97	Equivilant Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	TK Tank Services, Inc.	
Total Liquids Removed:	50	Gallons

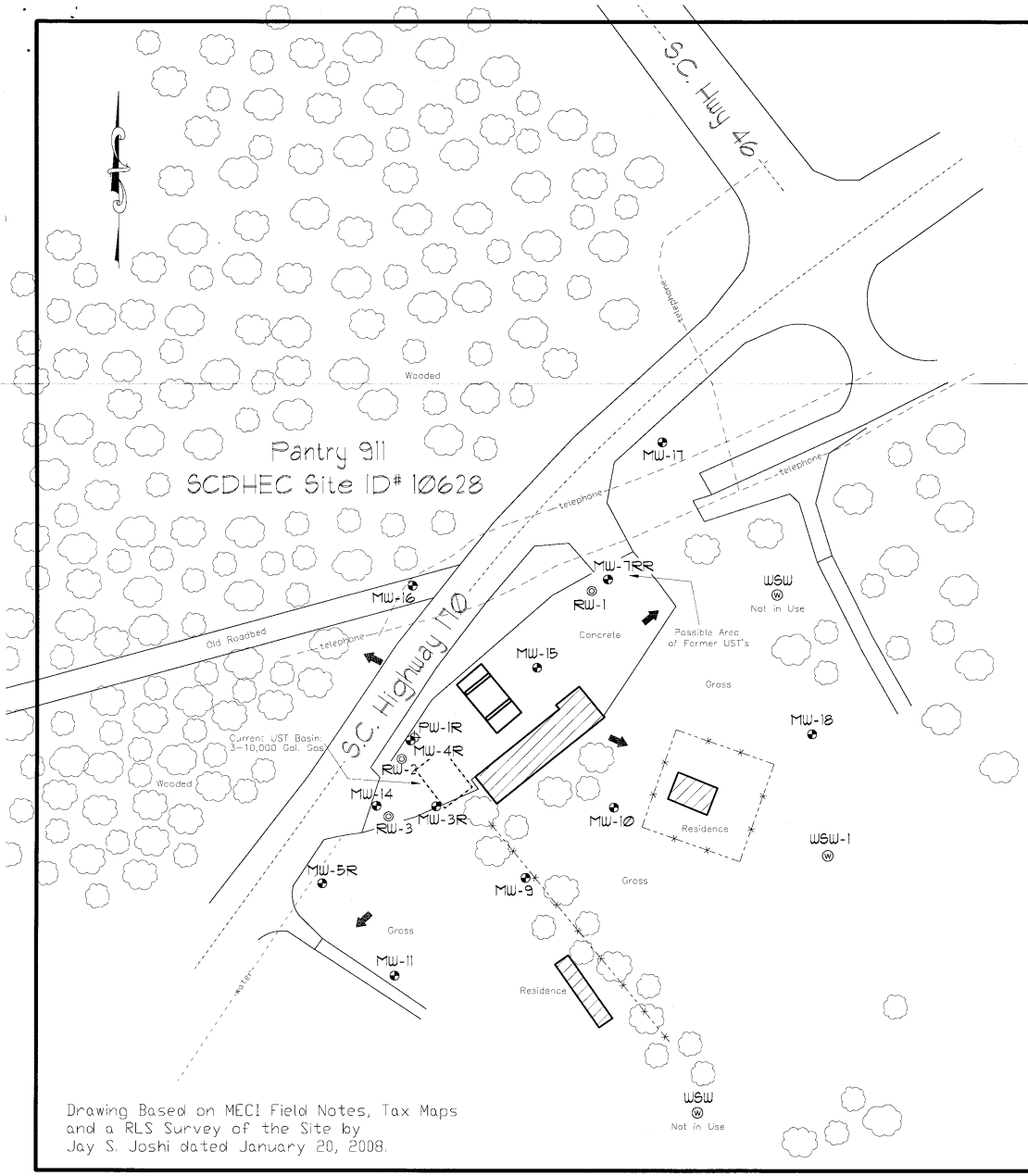
TABLE 2B
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 10-3066B
SCDHEC SITE ID NUMBER 10628

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-15	**MW-16**	**MW-17**
Nearest Extraction Well:		RW-1	RW-1	MW-7RR
Approximate Distance:		81 ft	158 ft	130 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
7:30	0.0	0	0	0
8:00	0.5	0	0	0
8:30	1.0	0	0	0
9:00	1.5	0	0	0
9:30	2.0	0	0	0
10:00	2.5	0	0	0
10:30	3.0	0	0	0
11:00	3.5	0	0	0
11:30	4.0	0	0	0
12:00	4.5	0	0	0
12:30	5.0	0	0	0
13:00	5.5	0	0	0
13:30	6.0	0	0	0
14:00	6.5	0	0	0
14:30	7.0	0	0	0
15:00	7.5	0	0	0
15:30	8.0	0	0	0
Maximum Change:		**0**	**0**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-15	**MW-16**	**MW-17**
Nearest Extraction Well:		RW-1	RW-1	MW-7RR
Approximate Distance:		81 ft	158 ft	130 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		6.45	10.53	7.70
11:30	4 hours	6.42	10.44	7.70
15:30	8 hours	6.39	10.41	7.70
Maximum Change:		0.06	0.12	0.00



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of 4-Inch Recovery Well
- Location of Double Cased Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Existing Underground Storage Tanks
- water — Buried Water Line
- telephone — Under Ground Telephone

Groundwater Elevation Data

Well #	Depth to Water (ft)	Well Head Elevation	Groundwater Elevation
RW-1	7.02	96.15	89.13
RW-2	0.36	93.56	93.20
RW-3	2.87	93.22	90.35

Notes: Depth to groundwater measured on June 14, 2010.
Site Datum Based on Assumed Spot Elevation.

Soil Analytical Data•

Sample #	Sample Depth (ft)	Benzene (ug/kg)	Toluene (ug/kg)	Ethylbenzene (ug/kg)	Total Xylenes (ug/kg)	Naphthalene (ug/kg)
RW-1	2	535	801	565	1,910	<196
RW-2	2	109	3.3J	34.6	74.5	<4.4
RW-3	2	10,200	98,300	36,100	205,000	15,500

Notes: Soil samples collected June 10, 2010.

GRAPHIC SCALE
0 50 100 150 200
1IN = 100FT

ALL LOCATIONS ARE APPROXIMATE

Site Features

Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 10-2879
DATE June 17, 2010
FIGURE 2

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number

GENERATOR

5. Generator's Name and Mailing Address

MIDLANDS ENVIRONMENTAL
1334 HWY 601 N BOX
LEXINGTON, SC 2907

Generator's Site Address (if different than mailing address)

Generator's Phone:

6. Transporter 1 Company Name — U.S. EPA ID Number

TK TANK SERVICE — SUMTER, SC

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address — U.S. EPA ID Number

TK TANK SERVICES
425 BOULEVARD ROAD
SUMTER, SC 29150

Facility's Phone: 803-481-9814

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	NON HAZARDOUS PETROLEUM CONTAMINATED WATER			AP 2980		
	BJ's Wholesale	18529	175			
2.	Satterfield Used Cars	14212	150			
	Pantry 911	10628	200			
	Southside Grocery	14472	200			
	Plantation Station	18038	175			
3.	Plantation Station	18038	150			
	Corner Cupboard	01779	130			
	Mack's Camp	01253	180			
	Plantation Station	18038	175			
4.	Lena Quick Stop	14483	125			
	Ridgeway Section Shed	03144	160			
	Foxhee Royal Petro.	19426	320			
	Handy Pantry 89	04733	100			

Handy Pantry 89 04733 200
Holly Oak Convienence 14102 100
Holly Oak Convienence 14102 75
Pantry 911 10628 50
Horton's 06768 150
Horton's 06768 165

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name | Signature | Month | Day | Year

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Joseph W. Stanton | Signature | Month: 9 | Day: 12 | Year: 12

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

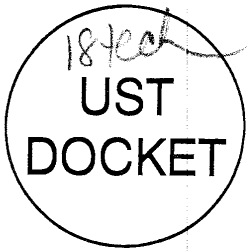
17c. Signature of Alternate Facility (or Generator) | Month | Day | Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name | Signature | Month | Day | Year

Midlands
Environmental
Consultants, Inc.

November 11, 2010



Mr. Justin Koon, Engineer Associate
Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health and
Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Aggressive Fluid Vapor Recovery Report
Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID # 10628; CA #39626
MECI Project Number 10-3066A
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Koon,

On behalf of Mr. Donnie Malphrus of Malphrus Enterprises, Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted an Aggressive Fluid Vapor Recovery (AFVR) event at Pantry 911 on November 3 and 4, 2010. The event was conducted on monitoring wells MW-3R, MW-14 and RW-3 to reduce dissolved CoC concentrations. Free phase petroleum product was not detected in monitoring wells MW-3R, MW-14 and RW-3 prior to the AFVR event. The event was conducted continuously for eight hours by MECI personnel utilizing a vacuum extraction unit. Free phase petroleum product was not detected in the well immediately following the event.

MECI treated the off gas produced during the AFVR event using an activated carbon filter system. Calculated total petroleum hydrocarbons removed from the well were 1.86 pounds or approximately 0.32 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 0.23 pounds per hour. Concentrations of off gas produced during the event were recorded from 16.2 parts per million by volume (PPM) to 1,176 PPM. Measurements were obtained from vapors prior to entering off gas treatment. Vacuum readings were recorded at a range of 7.0 to 18.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1A.

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2A. Monitoring well locations are depicted on attached Figure 1.

A total of 200 gallons of liquid was removed from MW-3R, MW-14 and RW-3 during this event. Free phase petroleum product was not observed in the holding tank immediately following the event. The fluids produced were transported to TK Tank Services, Inc of Sumter, S.C. for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI, Mr. Donnie Malphrus of Malphrus Enterprises, and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Brian J. Owen
Field Technician

Brendon P. Kelly
Project Scientist

Attachments:

TABLE 1A
AFVR MONITORING DATA
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 10-3066A
SCDHEC SITE ID NUMBER 10628

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements				
					Concentration (PPM)	Offgas Velocity Ft/Min	Flow Rate CFM	Removal Rate Lbs/Hr	Interval Removal Lbs
MW-3R	11/03/10	23:00	0.50	7.0	17.2	1,300	117.00	0.02	0.01
MW-14	11/03/10	23:30	0.50	7.0	16.7	1,270	114.30	0.02	0.01
RW-3	11/04/10	0:00	0.50	8.0	16.2	1,210	108.90	0.02	0.01
	11/04/10	0:30	0.50	8.0	18.6	1,180	106.20	0.02	0.01
	11/04/10	1:00	0.50	9.0	20.7	1,150	103.50	0.03	0.01
	11/04/10	1:30	0.50	10.0	40.4	1,080	97.20	0.05	0.02
	11/04/10	2:00	0.50	12.0	103	980	88.20	0.11	0.05
	11/04/10	2:30	0.50	12.0	129	970	87.30	0.14	0.07
	11/04/10	3:00	0.50	13.0	174	910	81.90	0.17	0.09
	11/04/10	3:30	0.50	13.0	208	900	81.00	0.20	0.10
	11/04/10	4:00	0.50	13.0	240	900	81.00	0.23	0.12
	11/04/10	4:30	0.50	18.0	488	570	51.30	0.30	0.15
	11/04/10	5:00	0.50	18.0	529	640	57.60	0.37	0.18
	11/04/10	5:30	0.50	18.0	575	580	52.20	0.36	0.18
	11/04/10	6:00	0.50	18.0	801	600	54.00	0.52	0.26
	11/04/10	6:30	0.50	18.0	585	620	55.80	0.39	0.20
	11/04/10	7:00	0.50	18.0	1,176	600	54.00	0.76	0.38
									TOTAL **1.86**

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-3R	2"	2-12	***	4.54	***	***	6.21	***	1.67
MW-14	2"	3.05-13.05	***	3.20	***	***	5.08	***	1.88
RW-3	4"	3-13	***	3.18	***	***	5.54	***	2.36

Vacuum Truck Information		Well ID	Stinger Depth
Subcontractor:	MECI	MW-3R	5.00
Truck Operator:	R. Ariail	MW-14	4.00
Stack I.D. (feet)	0.33 feet	RW-3	4.00

Recovery / Disposal Information		
Hydro carbons Removed (vapor):	1.86	Pounds
Hydro carbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	0.32	Equivilant Gallons
Molecular Weight Utilized:	75	g / mole
Disposal Facility	TK Tank Services, Inc.	
Total Liquids Removed:	200	Gallons

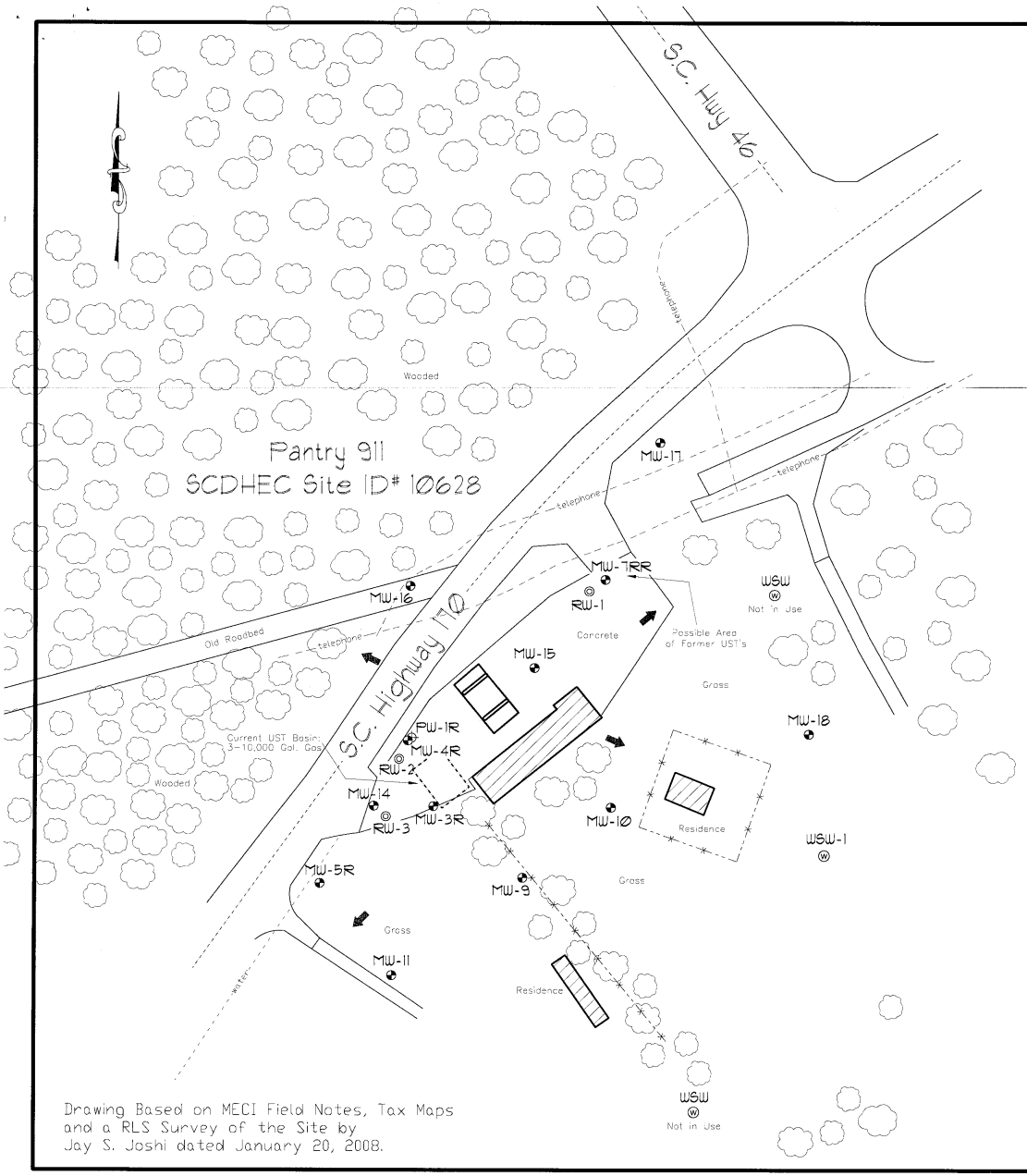
TABLE 2A
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 10-3066A
SCDHEC SITE ID NUMBER 10628

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-4R	**MW-5R**	**RW-2**
Nearest Extraction Well:		MW-3R	RW-3	MW-14
Approximate Distance:		60 ft	82 ft	45 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
23:00	0.0	0	0	0
23:30	0.5	0	0	0
0:00	1.0	0	0	0
0:30	1.5	0	0	0
1:00	2.0	0	0	0
1:30	2.5	0	0	0
2:00	3.0	0	0	0
2:30	3.5	0	0	0
3:00	4.0	0	0	0
3:30	4.5	0	0	0
4:00	5.0	0	0	0
4:30	5.5	0	0	0
5:00	6.0	0	0	0
5:30	6.5	0	0	0
6:00	7.0	0	0	0
6:30	7.5	0	0	0
7:00	8.0	0	0	0
Maximum Change:		**0**	**0**	**0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-4R	**MW-5R**	**RW-2**
Nearest Extraction Well:		MW-3R	RW-3	MW-14
Approximate Distance:		60 ft	82 ft	45 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior toAFVR		6.59	5.41	3.22
3:00	4 hours	6.55	5.38	3.23
7:00	8 hours	6.49	5.32	3.23
Maximum Change:		0.10	0.09	-0.01



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of 4-Inch Recovery Well
- Location of Double Cased Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Existing Underground Storage Tanks
- water — Buried Water Line
- telephone — Under Ground Telephone

Groundwater Elevation Data

Well #	Depth to Water (ft)	Well Head Elevation	Groundwater Elevation
RW-1	7.02	96.15	89.13
RW-2	0.36	93.56	93.20
RW-3	2.87	93.22	90.35

Notes: Depth to groundwater measured on June 14, 2010.
Site Datum Based on Assumed Spot Elevation.

Soil Analytical Data•

Sample #	Sample Depth (ft)	Benzene (ug/kg)	Toluene (ug/kg)	Ethylbenzene (ug/kg)	Total Xylenes (ug/kg)	Naphthalene (ug/kg)
RW-1	2	535	801	565	1,910	<196
RW-2	2	109	3.3J	34.6	74.5	<4.4
RW-3	2	10,200	98,300	36,100	205,000	15,500

Notes: Soil samples collected June 10, 2010.

GRAPHIC SCALE
0 50 100 150 200
1IN = 100FT
ALL LOCATIONS ARE APPROXIMATE

Site Features

Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 10-2879
DATE June 17, 2010
FIGURE 2

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number

GENERATOR

5. Generator's Name and Mailing Address — Generator's Site Address (if different than mailing address)

MIDLANDS ENVIRONMENTAL
1194 TWO NOTCH ROAD
LEXINGTON, SC 29072

Generator's Phone:

6. Transporter 1 Company Name — U.S. EPA ID Number

TK TANK SERVICE — SUMTER, SC — [illegible]

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address — U.S. EPA ID Number

TK TANK SERVICES
455 BOULEVARD ROAD
SUMTER, SC 29150

Facility's Phone: 803-418-9814 — [illegible]

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	NON HAZARDOUS PETROLEUM CONTAMINATED WATER			2980		
	BJ's Wholesale	18529	175			
2.	Satterfield Used Cars	14212	150			
	Pantry 911	10628	200			
	Southside Grocery	14472	200			
	Plantation Station	18038	175			
3.	Plantation Station	18038	150			
	Corner Cupboard	01779	130			
	Mack's Camp	01253	180			
	Plantation Station	18038	175			
4.	Lena Quick Stop	14483	125			
	Ridgeway Section Shed	03144	160			
	Forever Royal Petro.	19426	320			
	Handy Pantry 89	04733	100			

Hardy Pantry 89	04733	200		
Holly Oak Convienence	14102	100		
Holly Oak Convienence	14102	75		
Pantry 911	10628	50		
Horton's	06768	150		
Horton's	06768	165		

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name | Signature | Month | Day | Year

INTL

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Joseph M. Stanton | Signature | Month: 9 | Day: 17 | Year: 10

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

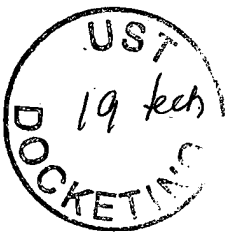
17c. Signature of Alternate Facility (or Generator) | Month | Day | Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name | Signature | Month | Day | Year

D H E C
PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment



MALPHRUS ENTERPRISES
PO BOX 488
HARDEEVILLE SC 29927-0488

MAY 2 9 2012

Re: **QAPP Contractor Addendum Directive**
Pantry 911: 6195 S Okatie Hwy, Hardeeville, SC 29927-8034
UST Permit # **10628**
Release reported April 28, 1995
Aggressive Fluid Vapor Recovery Report received December 7, 2010
Jasper County

To Whom It May Concern:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (Agency) has reviewed the above referenced report. A scope of work comprised of a groundwater sampling event is appropriate based on site conditions. The sampling event must be conducted in accordance with the UST Quality Assurance Program Plan (QAPP) and in compliance with all applicable regulations. A copy of the QAPP for the Underground Storage Tank Division is available at:

http://www.dhec.sc.gov/environment/lwm/html/ust.htm

Prior to issuance of a cost agreement for this work, your contractor must submit a QAPP Contractor Addendum for approval. The addendum is due within thirty days of the date of this letter. The addendum format can be found in Appendix B of the UST QAPP and should specifically address the following scope of work:

- Groundwater Sampling: MW-3R, 4R, 5R, 7RR, 9, 10, 11, 14, 15, 16, 17, 18, PW-1R, RW-1, 2, 3
- Water Supply Well: WSW-1 (and the two "WSW Not in Use" wells indicated on site maps if they are in use at time of sampling)
- Analytical Parameters: BTEX + Naphthalene + MtBE + 1,2-DCA + Oxygenates + EDB

Upon review and approval of the contractor addendum the Agency will issue a cost agreement and directive for the work to proceed.

On all correspondence regarding this site, please reference UST Permit #10628. If you have questions or need additional information, please call me at (803) 896-6649 or email at ebingedj@dhec.sc.gov.

Sincerely,

David Ebinger, Project Manager
Corrective Action Section, Underground Storage Tank Management Division
Bureau of Land and Waste Management

cc: Midlands Environmental Consultants: PO Box 854, Lexington, SC 29071
Technical File

D H E C
PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

JUN 05 2012

MALPHRUS ENTERPRISES
2789 N OKATIE HWY
RIDGELAND SC 29936

Re: **QAPP Contractor Addendum Directive** [address corrected from 5/29/12 mailing]
Pantry 911: 6195 S Okatie Hwy, Hardeeville, SC 29927-8034
UST Permit # **10628**
Release reported April 28, 1995
Aggressive Fluid Vapor Recovery Report received December 7, 2010
Jasper County

To Whom It May Concern:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (Agency) has reviewed the above referenced report. A scope of work comprised of a groundwater sampling event is appropriate based on site conditions. The sampling event must be conducted in accordance with the UST Quality Assurance Program Plan (QAPP) and in compliance with all applicable regulations. A copy of the QAPP for the Underground Storage Tank Division is available at:

http://www.dhec.sc.gov/environment/lwm/html/ust.htm

Prior to issuance of a cost agreement for this work, your contractor must submit a QAPP Contractor Addendum for approval. The addendum is due within thirty days of the date of this letter. The addendum format can be found in Appendix B of the UST QAPP and should specifically address the following scope of work:

- Groundwater Sampling: MW-3R, 4R, 5R, 7RR, 9, 10, 11, 14, 15, 16, 17, 18, PW-1R, RW-1, 2, 3
- Water Supply Well: WSW-1 (and the two "WSW Not in Use" wells indicated on site maps if they are in-use at time of sampling)
- Analytical Parameters: BTEX + Naphthalene + MtBE + 1,2-DCA + Oxygenates + EDB

Upon review and approval of the contractor addendum the Agency will issue a cost agreement and directive for the work to proceed.

On all correspondence regarding this site, please reference UST Permit #10628. If you have questions or need additional information, please call me at (803) 896-6649 or email at ebingedj@dhec.sc.gov.

Sincerely,

David Ebinger, Project Manager
Corrective Action Section, Underground Storage Tank Management Division
Bureau of Land and Waste Management

cc: Technical File

Midlands Environmental Consultants, Inc.

June 18, 2012

Mr. David Ebinger, Hydrogeologist
Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: QAPP Contractor Addendum – Revision 0
Pantry 911
Hardeeville South Carolina
SCDHEC Site ID Number 10628
MECI Project Number 12-4034
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Ebinger,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached QAPP Contractor Addendum for the referenced site.

On June 15, 2012, MECI personnel performed a site visit to the subject site to evaluate site conditions, locate monitoring wells and identify potential problems for future sampling activities.

If you have any question or comments please feel free to contact us at 803-808-2043.

Sincerely,
Midlands Environmental Consultants, Inc.

Courtney M. Sanders
Staff Biologist

Brendon P. Kelly
Project Scientist

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

Section A: Project Management

A1 Title and Approval Page

Quality Assurance Project Plan
Addendum to the SC DHEC UST Programmatic QAPP
For
Pantry 911, SCDHEC Site ID# 10628

6195 South Okatie Highway, Hardeeville, South Carolina

Prepared by:
Courtney M. Sanders
Staff Biologist
Midlands Environmental Consultants, Inc.
(Certified Site Rehabilitation Contractor UCC-0009)
235-B Dooley Road
Lexington, SC 29073
(803)808-2043

Date: June 18, 2012

Approvals

David Ebinger SC DHEC Project Manager	______________ Signature	Date______
Bryan T. Shane, P.G. Site Rehabilitation Contractor	[signature] Signature	Date 6-19-12
Brendon P. Kelly Contractor QA Manager	[signature] Signature	Date 6/19/12
Michael Woodrum Laboratory Director	[signature] Signature	Date 6/18/12

A2 Table of Contents

A3 Distribution List

Name	Title	Organization/Address	Telephone Number	Fax Number	Email Address
David Ebinger	SC DHEC Technical Project Manager	SCDHEC, UST Management Division, 2600 Bull St., Columbia, SC, 29201	803-896-6649	803-896-6245	ebingedj@dhec.sc.gov
Bryan T. Shane, P.G.	Site Rehabilitation Contractor	Midlands Environmental Consultants, Inc. 235-B Dooley Road Lexington, SC 29073	803-808-2043	803-808-2048	bts@meci.net
Brendon P. Kelly	Quality Assurance Officer	Midlands Environmental Consultants, Inc. 235-B Dooley Road Lexington, SC 29073	803-808-2043	803-808-2048	bpk@meci.net
Jeff L. Coleman	Field Manager	Midlands Environmental Consultants, Inc. 235-B Dooley Road Lexington, SC 29073	803-808-2043	803-808-2048	jlc@meci.net
Michael Woodrum	Laboratory Director	Shealy Environmental Services,Inc. 106 Vantage Point Dr. West Columbia, SC 29172	803-791-9700	803-791-9111	mwoodrum@shealylab.com
	Well Services/Driller				

Table 1A Addendum Distribution List

A4 Project Organization

Role from the UST Master QAPP	Person in this Role for Project	Organization/Address	Telephone Number	Fax Number	Email Address
Project Manager	David Ebinger	SCDHEC, UST Management Division, 2600 Bull St., Columbia, SC, 29201	803-896-6649	803-896-6245	ebingedj@dhec.sc.gov
Site Rehabilitation Contractor	Bryan T. Shane, P.G.	Midlands Environmental Consultants, Inc. 235-B Dooley Road Lexington, SC 29073	803-808-2043	803-808-2048	bts@meci.net
Quality Assurance Officer	Brendon P. Kelly	Midlands Environmental Consultants, Inc. 235-B Dooley Road Lexington, SC 29073	803-808-2043	803-808-2048	bpk@meci.net
Field Manager	Jeff L. Coleman	Midlands Environmental Consultants, Inc.	803-808-2043	803-808-2048	jlc@meci.net

Role from the UST Master QAPP	Person in this Role for Project	Organization/Address	Telephone Number	Fax Number	Email Address
		235-B Dooley Road Lexington, SC 29073			
Analytical Laboratory Director	Michael Woodrum	Shealy Environmental Services,Inc. 106 Vantage Point Dr. West Columbia, SC 29172	803-791-9700	803-791-9111	mwoodrum@shealylab.com
Project Verifier	Courtney M. Sanders or Brendon P. Kelly	Midlands Environmental Consultants, Inc. 235-B Dooley Road Lexington, SC 29073	803-808-2043	803-808-2048	cms@meci.net

Table 2A Addendum Role Identification and Contact Information

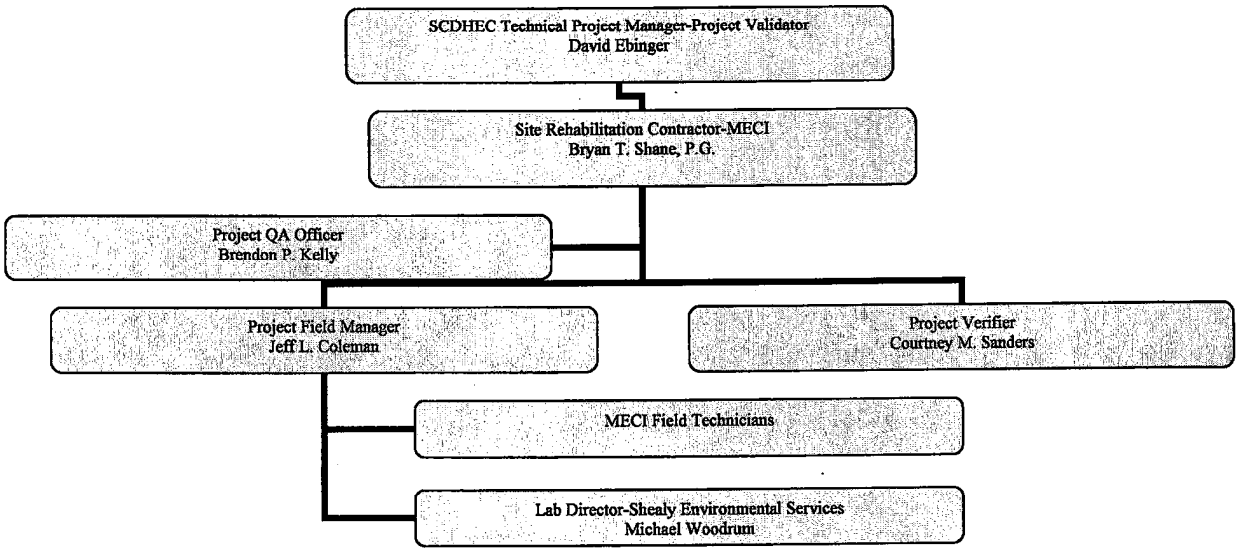


Figure 1A Organizational Chart

Project Manager (David Ebinger) – The project manager is responsible for direct oversight of contractors conducting assessment and site rehabilitation of releases at UST sites.

Site Rehabilitation Contractor (Bryan T. Shane, P.G..) – The Site Rehabilitation Contractor is an independent contractor responsible for managing and coordinating field and office activities needed for assessments or cleanup.

-Final Review of all work produced for a scope of work.
-Final say on technical interpretation of data.

Quality Assurance Officer (Brendon P. Kelly) – The Quality Assurance Officer is responsible for the oversight of all quality assurance activities associated with projects performed by the Site Rehabilitation Contractor.

-In charge of producing and maintaining the QAPPA for MECI.
-Reviews (and Audits, if necessary) all work produced in conjunction with a scope of work.
-Quality control of data entry and report preparation.

Field Manager (Jeff L. Coleman) –The field manager will oversee all work done on any given project.

-Assign, direct and oversee all field personnel working on each project.
-Responsible for coordinating with the SCDHEC project manager, should any problems or clarifications arise.
-Responsible for all reporting done in conjunction with field work.

Analytical Laboratory Director (Michael Woodrum)– The Laboratory Director is directly responsible for the Analytical Laboratory used during a scope of work. The Analytical Laboratory receives the soil and water samples from the site rehabilitation contractor, performs the requested analyses, and provides analytical reports.

Project Verifier (Courtney M. Sanders) – The project verifier is responsible for verifying the quality of data produced during a scope of work. This includes review of field work and laboratory reports for potential quality issues.

Field Technicians (various employees) – Responsible for all field activities for a given scope of work.

-Conduct all initial site visit, and record findings
-Conduct all field activities associated with a scope of work. All work will be conducted according to the MECI SOP. Will be responsible for reporting any potential problems are inconsistencies found during assessment activities.
-Completes the chain of custody upon completion of sampling event and delivers samples to lab or office for later lab pick-up.

A5 Problem Definition/Background

Discuss the background (as much as is known) of the site and appropriate historical information, and why this site is being assessed.

The subject site (Pantry 911) is located at 6195 South Okatie Highway, Hardeeville, Jasper County, South Carolina. The subject site maintains one 10,000 gallon regular unleaded gasoline underground storage tank (UST), one 10,000 gallon premium gasoline, and one 10,000 gallon diesel UST. These UST's were given a compliance date of March 7, 2012. The South Carolina Department of Health and Environmental Control (SCDHEC) reported a release of petroleum product from these UST's in April of 1995 and confirmed the release in March of 1996. The subject site is currently rated a Class 2BB.

A comprehensive sampling event will be conducted at the subject site (Pantry 911) to determine current site conditions and current analytical data.

Please answer the following: Does this project fall under UST or Brownfields area?

Underground Storage Tank Division

A6 Project/Task Description

1. ***Summarize what is known about the work to be done. This can be a short sentence indicating what the Scope of this project is (see Master QAPP Section A6).***

A comprehensive sampling event will be conducted at the subject site (Pantry 911) to determine current site conditions and current analytical data.

2. ***The work will begin within*** fourteen (14) days of receipt of approved QAPP contractors addendum ***after cost approval and sampling should be complete by*** twenty-one (21) days of receipt of approved QAPP contractors addendum.

3. ***Are there are time or resource constraints? Include those factors that may interfere with the tentative schedule.***

Factors that may prevent schedule work will be, but not limited to, inclement weather, equipment malfunction, and machine failure.

A7 Data Quality Objectives (DQOs) and Data Quality Indicators (DQIs)

The subject site is located at 6195 South Okatie Highway, Hardeeville, Jasper County, South Carolina. The site is currently occupied by an active gasoline service station (BP Station).

A8 Training and Certificates

Required training and licenses:

Title/Job	Name	Training Required	Date training received	Type of License	License Number
Principal Geologist	Bryan T. Shane, P.G.	Professional Geologist	10/30/1993	State of South Carolina	1102
Senior Scientist	Jeff Coleman	OSHA 40 hr HAZWOPER	7/27/2007	N/A	N/A
		OSHA 8 hr HAZWOPER refresher	7/27/2011	N/A	N/A
Project Scientist	Brendon Kelly	OSHA 40 hr HAZWOPER	8/21/2009	N/A	N/A
		OSHA 8 hr HAZWOPER refresher	12/15/11	N/A	N/A
Staff Geologist	John Bryant	OSHA 40 hr HAZWOPER	4/17/2009	N/A	N/A
		OSHA 8 hr HAZWOPER refresher	3/5/2012	N/A	N/A
Field Technician	Brian Owen	OSHA 40 hr HAZWOPER	8/21/2009	N/A	N/A

Title/Job	Name	Training Required	Date training received	Type of License	License Number
		OSHA 8 hr HAZWOPER refresher	12/15/11	N/A	N/A
Staff Biologist	Courtney Sanders	OSHA 40 hr HAZWOPER	12/10/2010	N/A	N/A
		OSHA 8 hr HAZWOPER refresher	12/15/11	N/A	N/A
Staff Biologist	Kyle Pudney	OSHA 40 hr HAZWOPER	12/10/2010	N/A	N/A
		OSHA 8 hr HAZWOPER refresher	12/15/11	N/A	N/A
Staff Biologist	Chris Lashley	OSHA 40 hr HAZWOPER	12/10/2010	N/A	N/A
		OSHA 8 hr HAZWOPER refresher	12/15/11	N/A	N/A
Staff Biologist	Gavin Globensky	OSHA 40 hr HAZWOPER	7/29/2011	N/A	N/A
Staff Biologist	Ryan Ariail	OSHA 40 hr HAZWOPER	9/23/2011	N/A	N/A
Lab Manager	Michael Woodrum	***	***	Lab Certification	SC 32010

Table 3A Required Training and Licenses

Brendon P. Kelly of Midlands Environmental Consultants, Inc. is responsible to ensuring that personnel participating in this project receive the proper training. All training records will be stored in the following location:235-B Dooley Road, Lexington, SC 29073.

It is understood that training records will be produced if requested by SC DHEC.

The Following Laboratory(ies) will be used for this Project:

Commercial Lab(s)

Full Name of the Laboratory___Shealy Environmental Services, Inc.____
Name of Lab Director_____Michael Woodrum_____
SC DHEC Certification Number_____32010_____
Parameters this Lab will analyze for this project:

BTEX, Napth, MTBE, 1,2-DCA, 8-Oxygenates (EPA Method 8260-B), and EDB (EPA Method 8011).

Please note: SC DHEC may require that the contractor submit some or all of the Laboratory's SOPs as part of this QAPP.

A9 Documents and Records

Personnel will receive the most current version of the QAPP Addendum via: (Check all that apply)

____US Mail ____Courier __X__ Hand delivered

Other (please specify):_____E-mailed electronic copies___

Record	Produced By	Hardcopy/ Electronic	Storage Location For how long?	Archival
Instrument Raw Data	Target, Thermospec, or Iteva software	Hardcopy and Electronic	Hardcopy: Offsite storage for 7 yrs Electronic: Two external storage device backups – one offsite, one onsite storage for 10 yrs	Yes
Final Reports	LIMS	Electronic	Electronic: Two external storage device backups – one offsite, one onsite storage for 10 years	Yes
Field Work	Field Staff	Hardcopy	MECI office: 235B Dooley Road / Min. 5 years	Yes
Chain of Custody	Field Staff	Hardcopy	MECI office: 235B Dooley Road / Min. 5 years	Yes
QAPP Addendum	Brendon Kelly	Hardcopy & Electronic	MECI office: 235B Dooley Road / Min. 5 years	Yes
Internal QC record	Brendon Kelly	Hardcopy	MECI office: 235B Dooley Road / Min. 5 years	Yes
Sampling Report	Brendon Kelly	Hardcopy & Electronic	MECI office: 235B Dooley Road / Min. 5 years	Yes

Table 4A Record Identification, Storage, and Disposal

Section B Measurement/Data Acquisition

B1 Sampling Process/Experimental Design

Item	Start Date	End Date	Comments
Site Reconnaissance	6/15/12	6/15/12	Already Completed
QAPP preparation	6/18/12	6/18/12	In progress
QAPP approval	6/19/12	7/9/12	Assuming three week turnaround
Monitoring well Sampling	7/10/12	7/24/12	Sampled within 2 weeks of QAPP approval
Report Preparation	7/25/12	8/15/12	Three weeks to prepare/submit report

Table 5A Sampling Activities

B2 Sampling Methods

Please note: The contractor must follow sampling protocols as given in the UST QAPP.

***Estimate* the number of samples of each matrix that are expected to be collected:**

Soil	_____
Ground Water from monitoring wells	____13___
From Drinking/Irrigation water wells	_____
Field Duplicate Collection	_____1___
Field Blank Collection	_____1___
Trip Blank	_____1___
From surface water features	_____
Total number of Water samples	____16___

Notes:
During the June 15, 2012 site visit, thirteen (13) monitoring wells locations were located. Monitoring wells MW-9, MW-10, and MW-18 were not located. Additionally, one (1) water supply well was not in service at the time of the site visit.

During the site visit, it was noted that monitoring wells MW-3R, MW-7RR, and MW-14 are in need of bolts. A combined total of five (5) bolts are needed at the site to properly secure the wells. Total Bolts Needed: **5 Bolts**

Samples will be analyzed by Shealy Environmental Services, Inc. for BTEX, Napth, MTBE, 1,2-DCA, 8-Oxygenates (8260B), and EDB (8011).

For the sample matrices indicated above, please describe how samples will be collected and the equipment needed.

Monitoring Well Sampling

Water Level Measurement

-MECI personnel utilize Electronic Water Level Indicators for Water Level Measurements. Each sampling crew carries an electronic water level indicator for use on downgradient monitoring wells

and an Oil/Water Interface probe for use on source area wells or wells that have historically contained measurable free phase petroleum product.

-Prior to usage, the indicator is decontaminated with isopropanol applied by a Teflon squeeze bottle and rinsed with analyte free water. This rinse water is collected and run through a portable GAC (granulated activated carbon) unit.

-The indicator is slowly lowered into the water table, and the water level is recorded to the nearest 0.01 feet.

-When free phase petroleum product is encountered, the Oil-Water Interface probe is slowly lowered into the monitoring well until product is encountered; this measurement is recorded to the nearest 0.01 feet. The meter is then lowered through the product until water is encountered. The probe is then pulled back up through the well until product is encountered again; this measurement is recorded to the nearest 0.01 feet.

-If the total depth of a monitoring well is required, after a groundwater level is recorded, the indicator probe is lowered until the bottom of the monitoring well is encountered. This depth is recorded to the nearest 0.01 feet. Following a total depth measurement, the entire length of probe tape is decontaminated with isopropanol and rinsed with analyte free water.

-All measurements will be taken from the top of the well casing.

Monitoring Well Purging

-Where necessary, monitoring wells will be purged prior to sampling if: the well screen does not bracket the watertable, if a screened interval is not known, purging is specifically asked for by the SCDHEC project manager, or a monitoring well has not previously been sampled.

-Purging will be completed utilizing a prepackaged, clear, disposable polyethylene bailer and nylon rope. Following purging/sampling of a well, the bailer and rope will be properly disposed.

-A new set of Nitrile gloves will be worn at each monitoring well, and at any time samples are handled.

-Prior to purging, the water level of the well will be determined using an electronic water level indicator. The water level, total well depth and well diameter will be used to determine the amount of water standing in the water column. The following table presents gallons of water per foot of water column in selected diameters of wells:

Well Diameter (inches)	Gallons of Water/Foot	Well Diameter (inches)	Gallons of Water/Foot
1	0.047	8	2.611
2	0.163	10	4.08
4	0.653	12	5.875
6	1.469		

-The length of the water column multiplied by the gallons of water per foot will provide the number of gallons in one well volume of water.

-Purging will continue until three well volumes of water are evacuated, or where field measurements of pH, Specific Conductivity (uS), Temperature (°C), and Turbidity (NTU) have stabilized to within 10% of previous values or until all accessible well water is evacuated (purged dry). Field measurements of these parameters will be taken and recorded in field notes, prior to purging and after each well volume of water has been purged.

-When purging a well with a diameter larger than 2", a submersible Redi-Flo2 pump can be used.

-Prior to usage, the pump assembly will be cleaned using a laboratory grade detergent and rinsed with analyte free water.

-The pump is lowered into the water column utilizing an attached nylon rope. DO NOT LOWER THE PUMP USING THE ELECTRICAL CORD OR HOSE.

-Once the pump has been lowered to the desired depth, the nylon rope is securely attached to an anchor at the ground surface (i.e. metal stake, truck bumper, etc). The power cord is attached to the speed controller which is attached to the generator.

-Slowly increase the speed of the controller until a desired flow rate is achieved. The pump should not be allowed to run dry.

-Purge water will be treated on-site utilizing a GAC unit.

Monitoring Well Sampling

-No-purge sampling will be conducted in previously sampled monitoring wells if: the water level is within the screened interval of the well or specifically asked for by the SCDHEC project manager.

-Immediately prior to sampling, laboratory provided labels will be placed on all sample vials and containers. These labels will include the site name, sample ID, analysis to be completed, date and time.

-Sampling will be conducted utilizing prepackaged, clear, disposable polyethylene bailers and nylon rope. Following sampling of a well, the bailer and rope will be properly disposed. A new set of Nitrile gloves will be worn at each monitoring well; and at any time samples are handled.

-The bailer is lowered into the well until it encounters the watertable, the bailer is then allowed to fill with water and is extracted from the well. Samples are placed in laboratory provided and approved sampling containers. Following sample collection, the samples are immediately placed in laboratory provided coolers, pre-filled with wet ice obtained from the MECI office.

-When requested by the SCDHEC project manager, passive diffusion bags (PDB) can be used to obtain no purge samples from discreet intervals within a water column or from wells were it is not possible to treat purge water on-site (i.e. DNAPL contamination).

-Prior to installation of a PDB, all equipment used should be washed with isopropanol and rinsed with analyte free water (weights, PDB clamps, etc.).

-Wearing Nitrile gloves, the PDB is filled with analyte free water, sealed with a PDB clamp according to the manufacturer and attached to a nylon rope. The PDB is then lowered into the well to a specified depth.

-After a minimum of two weeks in the well, the PDB is removed from the well and a sample taken using a disposable, prepackaged, sealed sampling straw to puncture the bag and fill sample vials.

-Once the samples are taken, they are to be immediately placed in laboratory provided coolers, pre-filled with wet ice obtained from the MECI office.

-One field duplicate will be taken for every twenty (20) monitoring wells sampled at a site. This blank is a duplicate sample taken from a monitoring well near the source area, and is sampled in accordance with MECI Standard Operating Procedures.

-One field blank will be prepared for each day a site is sampled. A field blank is prepared using lab provided DI water placed into laboratory provided sample containers.

-One trip blank per cooler used in sampling will be used at each site. The trip blank is prepared by the laboratory.

-Once a sample has been taken, a sample time will be recorded in the field notes, along with any information about monitoring well condition that should be brought to the attention of the project manager.

Will Sampling Equipment have to be cleaned and decontaminated or is everything disposable?

All equipment, excluding electronic water level indicators, field probes and turbidity tubes, is disposable.

If sampling equipment must be cleaned please give a detailed description of how this is done and the disposal of by-products from the cleaning and decontamination.

Prior to usage of non-disposable equipment, it is decontaminated with isopropanol applied by a Teflon squeeze bottle and rinsed with analyte free water. The sampling equipment is cleaned after each monitoring well. This rinse water is collected and run through a portable GAC (granulated activated carbon) unit.

Identify any equipment and support facilities needed. This may include such things as Fed-ex to ship the samples, a Geoprobe, field analysis done by another contractor (who must be certified), and electricity to run sampling equipment.

Samples will be transported to the laboratory by shipment with a lab provided courier or with a lab approved shipping company. If a courier is scheduled to visit the MECI offices the day following a sampling event, sampling coolers will be repacked with wet ice, and left at the office for pick-up. If no courier is scheduled to visit the MECI office the day following a sampling event, all sampling coolers are to be dropped off at the lab or at an approved shipping company for overnight delivery to the lab immediately following the sampling event.

Address the actions to be taken when problems occur in the field, and the person responsible for taking corrective action and how the corrective action will be documented.

Failure	Response	Documentation	Individual Responsible
Water level indicator not working properly	Attempt to clean probe, change battery, use back-up indicator if need be.	Record on field sheets, notify office staff. Take indicator out of rotation until problem identified and corrected.	Field Staff, Field Manager
Field meters not working	Attempt to clean probes, recalibrate in the field.	Record on field sheets, notify office staff. Take meters out of rotation until problem identified and corrected.	Field Staff, Field Manager
Wells not located	Use metal detector, measure from known points, contact project manager for additional information.	Record method used to attempt to locate the well on field sheets, and possibly reasoning for the well to be missing	Field Staff

Table 6A Field Corrective Action

B3 Sample Handling and Custody

1. ***How will the samples get from the Site to the Lab to ensure holding requirements are met?***

Following sample collection, the samples are immediately place in a laboratory provided cooler, pre-filled with wet ice obtained from the MECI office. Samples are transported to the MECI office once a sampling event is complete. A Chain of Custody (CoC) is filled out following the sampling event by the field staff. See attached CoC. If a lab provided courier is scheduled to visit the MECI offices the day following a sampling event, sampling coolers are repacked with wet ice, and left at the office for pick-up the following morning. If no courier is schedule to visit the MECI office the day following a sampling event, all sampling coolers are repacked with ice and are dropped off at a lab approved shipping company for overnight delivery to the lab.

2. ***How will the contactors cool the samples and keep the samples cool?***

All samples are kept on wet ice, obtained from MECI office.

3. ***How will the lab determine the temperature of the samples upon receipt? Will they be using a temperature blank?***

A calibrated thermometer and temperature blank will be used to document sample temperature. The temperature blank is immediately checked by the sample receiving technician upon arrival at the laboratory.

4. ***Where will the samples be stored in the Lab once they are received?***

All samples are stored in clean refrigeration units monitored and maintained at 4 degrees C + or – 2 degrees. Volatile organic samples are stored separately form all other samples.

5. ***Describe the chain of custody procedure and attach a copy of each chain of custody that will be used. If a Chain of Custody SOP exists from the Lab and the Contractor is willing to adhere to it, then this may be attached.***

A chain of custody (COC) will be filled out for each sampling event at each project site. COC to be signed by MECI and Shealy Environmental technician at time physical transfer of samples occurs to courier. Shealy uses the following COC procedures to protect sample integrity following pickup by their courier: A full time Sample Receiving Technician receives all samples and completes a Sample Receipt Checklist (SRC), which will identify any anomalies, if any exist the Sample Receiving Technician or Project Manager must resolve the deviation internally and/or notify the client to resolve the anomaly

B4 Analytical Methods

1. ***Identify the SOPs which will be used to analyze the samples, the method which the SOP references and the equipment or instrumentation that is needed:***

Parameter	SOP ID*	Method Referenced	Equipment	Comments

BTEX+Naph+MTBE+Oxygentaes	S-VO-002	8260B	GC/MS	
PAH's	S-SV-021	8270D	GC/MS	
EDB	S-SV-012	8011	GC	
Lead,T.	S-IM-022	6010C	ICP	
Ferrous Iron	S-IN-009	SM 3500-FED	Spectrophotometer	
Nitrate	S-IN-042	353.2	Auto-analyzer/Lachate	
Sulfate	S-IN-010	300.0	Ion Chromatograph	
Methane	S-VO-004	RSK-175	GC	
TOC	S-IN-030	Walkley-Black	N/A	
DRO - TPH	S-SV-001	8015C	GC	
pH	MECI SOP 4.3.6	*	YSI 63	
Conductivity	MECI SOP 4.3.6	*	YSI 63	
Dissolved Oxygen	MECI SOP 4.3.6	*	YSI 550A	
Temperature	MECI SOP 4.3.6	*	YSI 550A	
Turbidity	MECI SOP 4.3.6	*	60 cm Turbidity Tube	

Table 7A Analytical SOPs and Referenced Methods

- **This can be a full name of a SOP, an abbreviation, or a number. In the latter two cases, the abbreviation or number must be associated with the full name of the SOP. See also Table 8A SOP Abbreviation Key.**

Abbreviation	Lab Identification of this SOP	Full Name of the SOP
S-VO-002	S-VO-002	GC/MS VOLATILES ANALYSIS BASED ON EPA METHODS 8260B AND 624 PREPARED BY EPA METHODS 5030B, 5035 AND 3585
S-SV-021	S-SV-021	GC/MS ANALYSIS BASED ON EPA METHOD 8270D PREPARED BY EPA METHODS 3520C, 3550C AND 3580A
S-SV-012	S-SV-012	GC/ECD ANALYSIS OF EDB AND DBCP BASED ON METHOD 8011 & 504.1
S-IM-022	S-IM-022	INDUCTIVELY COUPLED PLASMA ATOMIC EMISSION SPECTROSCOPY-PECTROMETRIC METHOD for TRACE ELEMENT ANALYSES METHOD 6010C
S-IN-009	S-IN-009	FERROUS IRON (PHENANTHROLINE METHOD) STANDARD METHOD 3500-Fe D
S-IN-042	S-IN-042	NITRATE+NITRITE NITROGEN BY EPA METHOD 353.2, NITRATE NITROGEN BY 353.2 SUBTRACTION, AND NITRITE NITROGEN BY EPA METHOD 353.2
S-IN-010	S-IN-010	INORGANIC ANIONS BY ION CHROMATOGRAPHY EPA METHOD 300.0 and SW-846 9056 and 9056A
S-VO-004	S-VO-004	STANDARD OPERATING PROCEDURE GC ANALYSIS BASED ON METHOD RSKSOP-175
S-IN-030	S-IN-030	TOTAL ORGANIC CARBON (TOC) WALKLEY-BLACK PROCEDURE
S-SV-001	S-SV-001	GC/FID DIESEL RANGE ORGANICS ANALYSIS BASED ON METHOD 8015B and/or 8015C

		PREPARED BY EPA METHODS 3520C, 3550C and 3580A
MECI SOP 4.3.6	MECI SOP 4.3.6	Sampling Standard operating procedures

Table 8A SOP Abbreviation Key

2. Identify procedures to follow when failures occur, identify the individual responsible for corrective action and appropriate documentation:

Failure	Response	Documented Where?	Individual Responsible
Field meters not working	Attempt to clean probes, recalibrate in the field.	Record on field sheets, notify office staff. Take meters out of rotation until problem identified and corrected.	Field Staff, Field Manager
COC or Sample Receiving issues	Call Client	Sample Receiving Checklist (SRC)	PM – Kelly Maberry kmaberry@shealylab.com
Analytical errors	Corrective Action Form (CAF)	CAF filled out by PM	Lab Director –Michael Woodrum mwoodrum@shealylab.com
QA/QC Failure	Corrective Action Form (CAF)	CAF filled out by PM	Lab Director –Michael Woodrum mwoodrum@shealylab.com QA/QC Officer – Jami Savje Jsavje@shealylab.com
On time delivery	Corrective Action Form (CAF)	CAF filled out by PM	Lab Director –Michael Woodrum mwoodrum@shealylab.com QA/QC Officer – Jami Savje Jsavje@shealylab.com

Table 9A Corrective Action Procedures

3. Identify sample disposal procedures.

Analysis	Matrix	Schedule for disposal	Method for disposal	Comments
BTEX+Naph+MTBE+Oxygenates	Waters/Soils	Six Weeks	Tested for Hazardous Constituents and disposed as Hazardous or non-Hazardous waste.	
PAH's	Waters/Soils	Six Weeks	Tested for Hazardous Constituents	

			and disposed as Hazardous or non-Hazardous waste.	
EDB	Waters/Soils	Six Weeks	Tested for Hazardous Constituents and disposed as Hazardous or non-Hazardous waste.	
Lead	Waters/Soils	Six Weeks	Tested for Hazardous Constituents and disposed as Hazardous or non-Hazardous waste.	
Ferrous Iron	Waters/Soils	Six Weeks	Tested for Hazardous Constituents and disposed as Hazardous or non-Hazardous waste.	
Nitrate,Sulfate	Waters/Soils	Six Weeks	Tested for Hazardous Constituents and disposed as Hazardous or non-Hazardous waste.	
Methane	Waters/Soils	Six Weeks	Tested for Hazardous Constituents and disposed as Hazardous or non-Hazardous waste.	
All	Water	On-Site	Portable Granulated Activated Carbon (GAC) Unit	All waste water produced from sampling and decontamination activities will be run through a GAC unit

Table 10A Sample Disposal Procedures

4. Provide SOPs for the Kerr Method or the Ferrous Iron Method if these are parameters for this study. This can be attached or written here. If attached please note that it is an attachment and where it is located (if applicable).

B5 Quality Control Requirements:

All QC will follow the requirements laid out in Section B5 of the UST Programmatic QAPP.

B6 Field Instrument and Equipment Testing, Inspection and Maintenance

1. Identify all field and laboratory equipment needing periodic maintenance, the schedule for this, and the person responsible. Note the availability and location of spare parts.

Instrument	Serial Number	Type of Maintenance	Frequency	Parts needed/Location	Person responsible
Volatiles Mass Spec	Shealy SOP S-SV-021 Page 7	Change traps, clean ion source, replace filaments	Periodic	Laboratory	MSV Analyst
Semivolatile Mass Specc	Shealy SOP S-SV-021 Page 7	Injection port maintenance, ion source maintenance, column replacement	Periodic	Laboratory	MSSV Analyst
ECD GC	Shealy SOP S-SV-012 Page 5	Injection port maintenance, column replacement	Periodic	Laboratory	GC Analyst
Dionex IC	Shealy SOP S-IN-010 Page 6	Replace auto sampler filter, tubing, line filter, sample Line and Waste Line, as needed. Check Reagent levels, flow rate, waste line.	Periodic	Laboratory	IC Analyst
ICP	Shealy SOP S-IM-005 Page 6 & 7	Clean Sample introduction system , auto sampler, torch, Change spray chamber, torch tubing, tubing	Periodic	Laboratory	ICP Analyst
Leeman Mercury Analyzer	Shealy SOP S-IM-006 Page 5	Clean GLS, Change Pump tubing, Nafion Dryer, Lamp	Periodic	Laboratory	Mercury Analyst
Flow Injection Analysis – Lachat 8000	Shealy SOP S-IN-042 Page 5	Replace sample and reagent lines, replace light source, re-wrap heating coil, replace column	Periodic/As Needed	Laboratory	Nitrate Analyst
YSI 63	09C 101302,	Replace probe tip	Yearly	Order from YSI	B. Kelly

	10K 101895, 07M 100905				
YSI 63	09C 101302, 10K 101895, 07M 100905	Replace batteries	As Needed	In stock at office	Field Staff
YSI 63	09C 101302, 10K 101895, 07M 100905	General inspection for wear and tear on equipment	Daily	Major fixes will be done out of office	Field Staff
YSI 63	09C 101302, 10K 101895, 07M 100905	Check buffer solutions for expiration	Weekly	In stock at office	B. Kelly
YSI 550A	04L 2026AK, 08B 101407, 04A 0912AI	Replace membrane	4 to 8 weeks	In stock at office	Field Staff
YSI 550A	04L 2026AK, 08B 101407, 04A 0912AI	Replace batteries	As Needed	In stock at office	Field Staff
YSI 550A	04L 2026AK, 08B 101407, 04A 0912AI	General inspection for wear and tear on equipment	Daily	Major fixes will be done out of office	Field Staff
Turbidity Tube	#1, #2, #3	General inspection for wear and tear on equipment, clarity of Secchi Disk	Daily	Tubes will be cleaned/fixed in office	Field Staff

Table 11A Instrument and Equipment Maintenance

2. Identify the testing criteria for each lab or field instrument that is used to ensure the equipment is performing properly. Indicate how deficiencies, if found, will be resolved, re-inspections performed, and effectiveness of corrective action determined and documented. Give the person responsible for this

Instrument/Equipment & Serial Number	Type of Inspection	Requirement	Individual Responsible	Resolution of Deficiencies
Volatiles Mass Spec Shealy SOP S-SV-021 Page 7	Daily calibration check	Method Requirements	MSV Analyst	Recalibration or instrument maintenance
Semi-volatiles Mass Spec Shealy SOP S-SV-021 Page 7	Daily calibration check	Method Requirements	MSSV Analyst	Recalibration or instrument maintenance
ECD GC Shealy SOP S-SV-012 Page 5	Daily calibration check	Method Requirements	GC Analyst	Recalibration or instrument maintenance
Dionex IC Shealy SOP S-IN-010 Page 6	Daily calibration check	Method Requirements	IC Analyst	Recalibration or instrument maintenance
ICP Shealy SOP S-IM-005 Page 6 & 7	Daily calibration check	Method Requirements	ICP Analyst	Recalibration or instrument maintenance
Leeman Mercury Analyzer Shealy SOP S-IM-006 Page 5	Daily calibration check	Method Requirements	Mercury Analyst	Recalibration or instrument maintenance

Flow Injection Analysis – Lachat 8000 Shealy SOP S-IN-042 Page 5	Daily and continuing calibration check	See calibration criteria	Nitrate Analyst	Recalibration or instrument maintenance
YSI 63 - 09C 101302, 10K 101895, 07M 100905	Daily calibration check	See calibration criteria	Field Staff	Recalibrate, general maintenance then recalibrate. Ship off for service by manufacturer
YSI 550A - 04L 2026AK, 08B 101407, 04A 0912AI	Daily calibration check	See calibration criteria	Field Staff	Recalibrate, general maintenance then recalibrate. Ship off for service by manufacturer

Table 12A Instrument and Equipment Inspection

B7 Instrument Calibration and Frequency

1. Identify equipment, tools, and instruments for field or lab work that should be calibrated and the frequency.
2. Describe how the calibrations should be performed and documented, indicating test criteria and standards or certified equipment.
3. Identify how deficiencies should be resolved and documented. Identify the person responsible for corrective action.

Instrument	Calibration Procedure	Frequency of Calibration	Acceptance Criteria	Corrective Action (CA)	Person Responsible for CA	SOP Reference*
Volatiles Mass Spec	Minimum of 5 calibration standards for all compounds	When indicated by continuous calibration verification standard	Method Criteria	Detailed in SOP	MSV Analyst	S-VO-002
Semi-volatile Mass Spec	Minimum of 5 calibration standards for all compounds	When indicated by calibration verification standard	Method Criteria	Detailed in SOP	MSSV Analyst	S-SV-021
GC ECD	Minimum of 5 calibration standards for all compounds	When indicated by calibration verification standard	Method Criteria	Detailed in SOP	GC Analyst	S-SV-012
Dionex IC	Minimum of 5 calibration standards for all compounds	When indicated by calibration verification standard	Method Criteria	Detailed in SOP	IC Analyst	S-IN-010
ICP	Minimum of 3	When indicated by	Method Criteria	Detailed in SOP	ICP Analyst	S-IM-022

Instrument	Calibration Procedure	Frequency of Calibration	Acceptance Criteria	Corrective Action (CA)	Person Responsible for CA	SOP Reference*
	calibration standards for all compounds	calibration verification standard				
Cetac Mercury Analyzer	Minimum of 5 calibration standards for all compounds	When indicated by calibration verification standard	Method Criteria	Detailed in SOP	Mercury Analyst	S-IM-006
Lacaht QuickChem 8000	Minimum of 5 calibration standards	Daily or when indicated by calibration verification standard	Method Criteria	Detailed in SOP	Nitrate Analyst	S-IN-042
YSI 63	pH Calibration	Daily	+/- 0.2 pH units	clean/replace probe tip, recalibrate	Field Staff	4.3.6
YSI 63	Conductivity Calibration	As directed by manufacturer	+/- 10 uS	clean/replace probe tip, recalibrate	Field Staff	4.3.6
YSI 550A	DO calibration	Daily	+/- 0.25 mg/l	clean/replace probe tip, recalibrate	Field Staff	4.3.6
YSI 550A	Temperature Calibration	Daily	+/- 1 °C	clean/replace probe tip, recalibrate	Field Staff	4.3.6
Electronic Water Level Indicator	Checked vs. Standard	Monthly	+/- 0.01 foot per 10 foot length	Replace probe tape	Field Staff	***
Oil/Water Interface probe	Checked vs. Standard	Monthly	+/- 0.01 foot per 10 foot length	Replace probe tape	Field Staff	***

Table 13A Instrument Calibration Criteria and Corrective Action

*** This can be a full name of a SOP, an abbreviation, or a number. In the latter two cases, the abbreviation or number must be associated with the full name of the SOP. See also Table 8A SOP Abbreviation Key.**

B8 Inspection/Acceptance Requirements for Supplies and Consumables

1. Identify critical supplies and consumables for field and laboratory, noting supply source, acceptance criteria, and procedures for tracking, storing and retrieving these materials.
2. Identify the individual(s) responsible for this.

Item	Vendor	Acceptance criteria	Handling/Storage Conditions	Person responsible for inspection and tracking.
Laboratory Chemicals	Fisher,VWR	Certificates of analysis and laboratory testing	Laboratory storage	Receiving and laboratory personnel
Laboratory standards	O2Si, Restek, High Purity, VHG, Supelco	Certificates of analysis and laboratory verifications	Vendor specific storage conditions	Laboratory Analysts

Sample Containers	Daniels Scientific, QEC	Certificates of analysis and laboratory testing	Bottle storage area	Sample receiving personnel
Clear, Disposable polyethylene Bailers	Preferred Pump	Individual sleeves intact, ball valve operational	Stored in Vehicle Bay, Off of the ground	B. Kelly, Field Staff
Nylon Rope	Preferred Pump	Covered with plastic	Stored in Vehicle Bay, Off of the ground	B. Kelly, Field Staff
Nitrile Gloves	Preferred Pump	Unopened box, no holes	Stored in Vehicle Bay, Off of the ground	B. Kelly, Field Staff
40 mL HCL preserved amber vials	Shealy Environmental Services	Custody seal intact	Stored in Vehicle Bay, Off of the ground	B. Kelly, Field Staff
250 mL HNO3 preserved metals vials	Shealy Environmental Services	Custody seal intact	Stored in Vehicle Bay, Off of the ground	B. Kelly, Field Staff
Coolers	Shealy Environmental Services	Intact	Stored in Vehicle Bay, Off of the ground	B. Kelly, Field Staff
pH Buffer	TRS Environmental, Enviroequipment	Within expiration date	Stored in calibration room	B. Kelly, Field Staff
Conductivity Standard	TRS Environmental, Enviroequipment	Within expiration date	Stored in calibration room	B. Kelly, Field Staff
DO Membranes	YSI, Enviroequipment	Clean, in box	Stored in calibration room	B. Kelly, Field Staff
Batteries	Any Store	Not previously used	Stored in calibration room	B. Kelly, Field Staff

Table 14A List of Consumables and Acceptance Criteria

B9 Data Acquisition Requirements (Non-Direct Measurements)

1. Identify data sources, for example, computer databases or literature files, or models that should be accessed or used.
2. Describe the intended use of this information and the rationale for their selection, i.e., its relevance to project.
3. Indicate the acceptance criteria for these data sources and/or models.

Data Source	Used for	Justification for use in this project	Comments
Small scope assessment sampling and monitoring well installation reports	Historic groundwater and CoC concentration data. Lithology and well construction data from previous MWI's	Establish the type of drilling rig required, time for sampling and any other potential problems that may be encountered.	Previous assessment reports will be used to help determine the location of missing monitoring wells, and screened intervals.

Table 15A Non-Direct Measurements

4. Identify key resources/support facilities needed.

There are no non-direct measurements in this project

B10 Data Management

1. Describe the data management scheme from field to final use and storage.

Following sample collection and chain of custody production, samples are shipped to the lab. Field work from the field staff is reviewed by the MECI project manager, and converted into digital form. All data entry is subsequently checked to validate the data entry. The original copies of the field work are stored in MECI files for a minimum of 5 years. Digital copies of the work are stored on the MECI server, which is backed up weekly, and stored for a minimum of 5 years. The digital copy of the field work is presented to SCDHEC with the final report.

2. How does the lab and field staff ensure that no unauthorized changes are made to the chain of custody, sampling notebooks, laboratory notebooks and computer records?

The laboratory maintains comprehensive Quality Control and Training Programs. All sample receipt data, sample log-in, and analytical data is peer reviewed, including review for inappropriate changes. Data management, review procedures and the Quality Systems Program are documented in the laboratory's Quality Manual and Standard Operating Procedures. The Quality Assurance Department oversees adherence to and review of these programs.

All MECI field work is produced using ink-pens. Any attempt to alter field data, after sampling is complete, can be readily identified. MECI keeps a carbon copy of the chain of custody after it is shipped to the lab. This copy is kept with the field work. If any change to the CoC are suspected, this original carbon copy can be use to identify potential changes.

3. How does the lab ensure that there are no errors in samples records including times when sample information is compiled, data calculated and/or transmitted?

Sample data acquisition software is reviewed periodically. The LIMS database is backed up daily and is able to be restored in the event of a system failure. These procedures are documented in laboratory SOP S-AD-003, LIMS. The IT Manager is responsible for these systems and procedures."

4. How will the data be archived once the report is produced? How can it be retrieved? (This applies to both electronic and hard copies).

Laboratory Hardcopy data stored off site is logged, maintained and archived by the Quality Assurance Department. Laboratory Electronic Data Reports are maintained through IT back up under the responsibility of the IT Systems Manager.

MECI keeps all field work and paper copies of reports in its in-house filing system. All paper copies are stored for a minimum of 5 years. Any file can be retrieved easily by going to the correct filing cabinet/box.

All electronic copies of reports generated are kept on the MECI server. This server is backed-up on a weekly basis. Any file stored on the MECI server can be retrieved instantly, by accessing the server. All electronic files are stored for a minimum of 5 years on the server.

Section C Assessment and Oversight

C1 Assessment and Response Actions

1. *The Contractor is supposed to observe field personnel daily during sampling activities to ensure samples are collected and handled properly and report problems to DHEC within 24 hours. . Please state who is responsible for doing this and what observations will be made. Will this person have the authority to stop work if severe problems are seen?*

Field audits can be conducted on any field personnel at any time. MECI field audits can be conducted by the Field Manger, who will be responsible for ensuring that field personnel adhere to the QAPP. If during a random field audit, severe problems are found, work will be stopped by the field manager and the QA officer contacted to determine corrective action. All problems must be corrected prior to any additional work being performed. Should it be requested, an On-site Field Audit can be scheduled with the SCDHEC project manager. If severe problems are identified by the SCDHEC project manager, the project manager can stop the work until the problems are corrected.

2. *The SCDHEC UST QAPP states that the Lab will receive an Offsite Technical System Audit. For this project, what assessments will be done on the Commercial Lab(s) that are being used—other than their certification audit? When or how often are these done? Who will the results be given to and who has the ability to stop work if problems are severe?*

The laboratory participates in annual Proficiency Testing through an approved vendor, Wibby Environmental. If during a random audit, severe problems are found, work will be stopped by the according Wibby Environmental representative and the QA officer contacted to determine corrective action. Proficiency Testing results are provided to the Office of Environmental Laboratory Certification.

C2 Reports to Management

See the SC DHEC UST Programmatic QAPP (UST Master QAPP).

Section D Data Validation and Usability

See the SC DHEC UST Programmatic QAPP (UST Master QAPP).

CoC is shipped with the samples to the lab, and a copy is kept by MECI in the work folder.

4.3.5.2.A lab provided transport blank will be stored in each cooler for transport to the laboratory.

4.3.5.3.Samples will be transported to the laboratory by shipment with a lab provided courier or with a lab approved shipping company. If a courier is scheduled to visit the MECI offices the day following a sampling event, sampling coolers will be repacked with wet ice, and left at the office for pick-up. If no courier is scheduled to visit the MECI office the day following a sampling event, all sampling coolers are to be dropped off at the lab or at an approved shipping company for overnight delivery to the lab immediately following the sampling event.

4.3.6. Field Measurements and Instrument Calibration

4.3.6.1.Prior-to all sampling events equipment for field measurements should be calibrated. MECI utilizes YSI550A meters for DO (mg/L) and temperature readings (°C) and YSI63 meters for pH and conductivity (uS) readings. These meters are calibrated according to the manufacturers instructions (please see attached calibration instructions)

4.3.6.2.Calibration readings will be recorded on field notes, and should be within +/- 1°C for temperature, +/- 0.2 pH units of 7.00 buffer for pH and within 10% of 100 uS buffer for conductivity.

4.3.6.3.MECI utilizes a 60 cm calibrated turbidity tube for turbidity measurements. The tube is marked with a 60 cm tape that has been calibrated into Nephelometric Turbidity Units (NTU). Turbidity is measured by filling the Turbidity Tube with purge water. The water is drained from the bottom of the tube while the user looks towards the bottom of the tube. Once the Secchi disk pattern at the bottom of the tube is visible, the drain tube is closed, and a reading is taken according to the amount of purge water remaining in the tube.

4.3.6.4.Field Measurements are taken by fully submerging the probes from the YSI550A and YSI63 into water taken from the well. Readings are allowed to equilibrate, then the measurement is recorded.

4.3.6.5.Meters are to be stored in waterproof cases inside of the office when not in use, to prevent possible exposure damage.

4.4. Aquifer Characterization

Aquifer specific data will be collected using methods appropriate to the local geology of the facility. MECI will primarily utilize slug tests to obtain specific aquifer data. This data, combined with sieve analysis and hydrometer data will be utilized in aquifer calculations.

4.4.1. Slug Test

A normal characterization for a Tier II assessment will require slug tests on two watertable bracketing monitoring wells and one deep monitoring well. Other scopes of work will require a varying number of slug tests.

4.4.1.1.Slug tests will be completed utilizing prepackaged, clear, disposable polyethylene bailers, nylon rope, stop-watch and previously decontaminated electronic water level indicator.

4.4.1.2.Prior to starting the Slug test, a static groundwater measurement will be taken.

4.4.1.3.Water is removed from the well until the water level in the well has been reduced at least one foot.

4.4.1.4.The stopwatch is started as soon as the last bail of water is removed from the well.

4.4.1.5.The water level indicator is lowered into the well and groundwater elevation readings are taken at 15-second intervals for the first two minutes. This interval can be expanded as the test continues.

4.4.1.6.Water level measurements are taken until the water level in the well has returned to within 90 percent of the static level, or one hour has elapsed.

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

ASSESSMENT COMPONENT COST AGREEMENT
SOUTH CAROLINA
Department of Health and Environmental Control
Underground Storage Tank Management Division
State Underground Petroleum Environmental Response Bank Account

Facility Name: Pantry 911

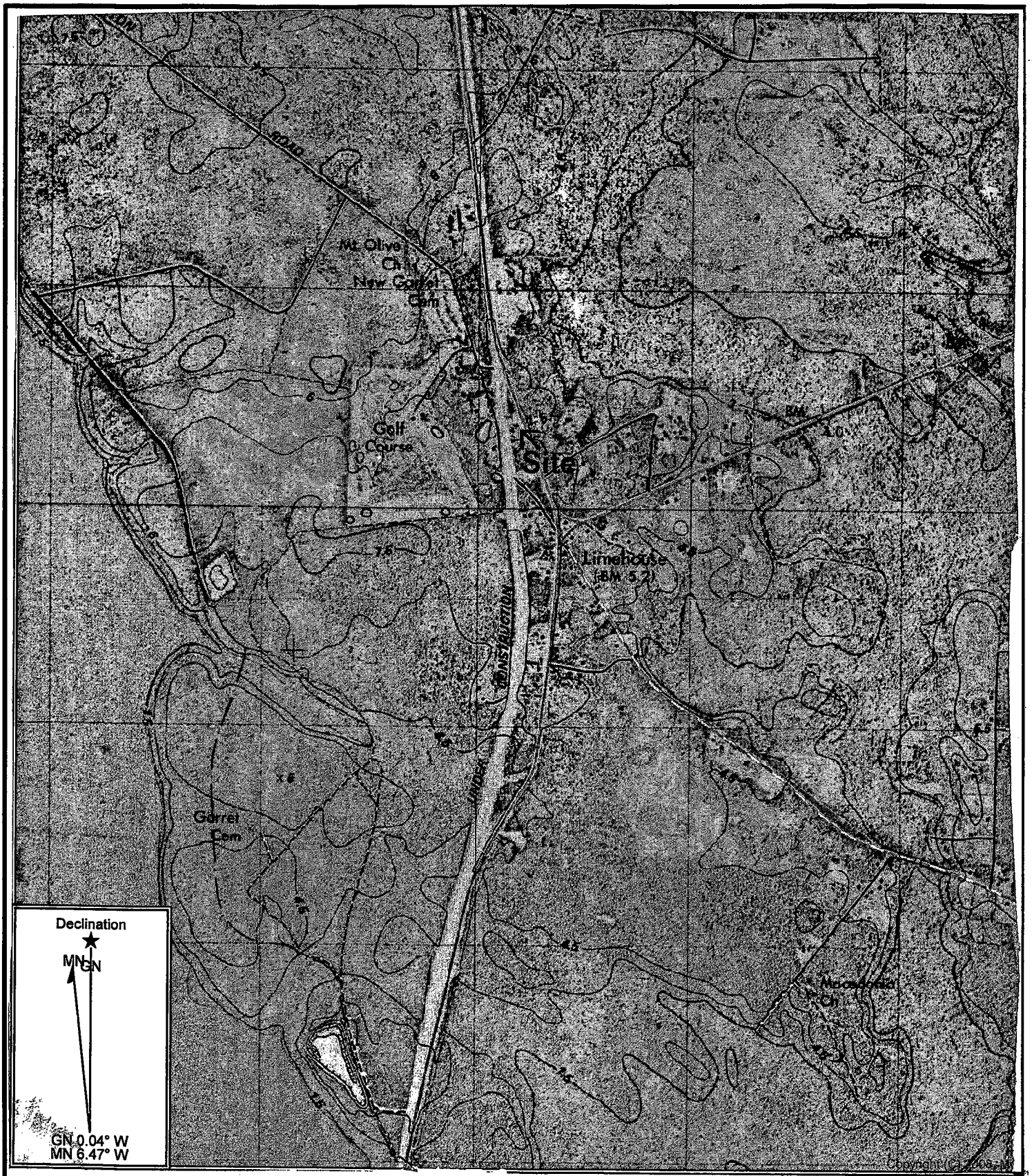
UST Permit #: 10628 **Cost Agreement #:**

ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
1. **Plan***				
B. Tax Map		x	$50.00	$0.00
C. Tier II or Comp. Plan /QAPP Appendix B	1	x	$525.00	$525.00
2. **Receptor Survey ***		x	$500.00	$0.00
3. **Survey (500 x 500 feet)**				
A. Comprehensive Survey		x	$1,000.00	$0.00
B. Subsurface Geophysical Survey				
1. < 10 meters below grade		x	$2,750.00	$0.00
2. > 10 meters below grade		x	$3,250.00	$0.00
C. Geophysical UST or Drum Survey		x	$1,125.00	$0.00
4. **Mob/Demob (Each)**				
A. Equipment		x	$575.00	$0.00
B. Personnel	2	x	$290.00	$580.00
C. Adverse Terrain Vehicle to install wells		x	$575.00	$0.00
5. **Soil Borings (hand auger)* (Feet)**		feet x	$14.00	$0.00
6. **Soil Borings (drilled) & Field Screening ***				
Rate includes collection of water sample or soil sample, and lab or other analyses				
A. Standard		feet x	$17.00	$0.00
C. Fractured Rock		feet x	$27.50	$0.00
7. **Soil Leachability Model (Each)**		each x	$200.00	$0.00
8. **Abandonment* (per foot)**				
A. 2" diameter or less		feet x	$5.00	$0.00
B. Greater than 2" to 6" diameter		feet x	$5.50	$0.00
C. Dug/Bored well (up to 6 foot diameter)		feet x	$18.00	$0.00
9. **Well Installation* (per foot)**				
A. Water Table (hand augered)		feet x	$20.00	$0.00
B. Water Table (drill rig)		feet x	$38.00	$0.00
C. Telescoping/ Pit Cased		feet x	$58.00	$0.00
D. Rock Drilling		feet x	$58.00	$0.00
E. 2" Rock Coring		feet x	$45.00	$0.00
G. Rock Multi-sampling ports/screens		feet x	$47.20	$0.00
H. Recovery Well (4 inch diameter)		each x	$45.00	$0.00
I. Pushed Pre-packed screen (1.25 diameter)		each x	$18.50	$0.00
J. Rotosonic (2 inch diameter)		each x	$45.00	$0.00
10. **Groundwater Sample Collection / Gauge Depth to Water or Product (Each)**				
A. Groundwater Purge	13	wells x	$55.00	$715.00
B. Air or Vapors		samples x	$90.00	$0.00
C. Water Supply		samples x	$30.00	$0.00
D. Groundwater No Purge or Duplicate	1	samples x	$35.00	$35.00
E. Gauge Well only		per well x	$20.00	$0.00
F. Sample Below Product		wells x	$50.00	$0.00
G. Pasive Diffusion Bag		each x	$40.00	$0.00
H. Field Blank	1	each x	$5.00	$5.00

11. Laboratory Analyses-Groundwater (Each Sample)					
A1. BTEX+Naphth.+ Oxyg's+ 1,2 DCA + Ethanol	16	samples x	$100.00		$1,600.00
AA. Lead, Filtered		samples x	$46.00		$0.00
B1. Rush EPA Method 8260B (All of item A.)		samples x	$143.00		$0.00
C1. Trimethal, Butyl, and Isopropyl Benzenes		samples x	$40.00		$0.00
D. PAH's		samples x	$120.00		$0.00
E. Lead, Unfiltered		samples x	$20.00		$0.00
F. EDB by EPA 8011	15	samples x	$55.00		$825.00
FF. EDB by EPA Method 8011 Rush		samples x	$75.00		$0.00
G. 8 RCRA Metals		samples x	$140.00		$0.00
H. TPH (9070)		samples x	$55.00		$0.00
I. pH		samples x	$10.00		$0.00
J. BOD		samples x	$40.00		$0.00
P1. Ethanol		samples x	$21.50		$0.00
11. Analyses-Soil (Each Sample)					
Q. BTEX + Naphth.		samples x	$100.00		$0.00
R. PAH's		samples x	$120.00		$0.00
S. 8 RCRA Metals		samples x	$150.00		$0.00
T. Oil & Grease (9071)		samples x	$60.00		$0.00
U. TPH-DRO (3550B/8015B)		samples x	$65.00		$0.00
V. TPH- GRO (5030B/8015B)		samples x	$65.00		$0.00
W. Grain size/hydrometer		samples x	$99.00		$0.00
X. Total Organic Carbon		samples x	$35.00		$0.00
11. Analyses-Air (Each Sample)					
Y. BTEX + Naphthalene		samples x	$247.50		$0.00
11. Analyses-Free Phase Product (Each Sample)					
Z. Hydrocarbon Fuel Identification		samples x	$620.00		$0.00
12. Aquifer Characterization*					
A. Pumping Test		hours x	$120.00		$0.00
B. Slug Test*		tests x	$150.00		$0.00
C. Fractured Rock		tests x	$500.00		$0.00
13. Free Product Recovery Rate Test* (Each)		tests x	$120.00		$0.00
14. Fate/Transport Modeling					
A. Mathematical Model		each x	$300.00		$0.00
B. Computer Model		each x	$500.00		$0.00
15. Risk Evaluation					
A. Tier I Risk Evaluation		x	$300.00		$0.00
B. Tier II Risk Evaluation		x	$500.00		$0.00
16. Subsequent Survey*		x	$300.00		$0.00
17. Disposal* (gallons or tons)					
A. Wastewater	60	gallons x	$0.80		$48.00
B1. Free Product		gallons x	$0.85		$0.00
C. Soil Treatment/Disposal		tons x	$72.50		$0.00
D. Drilling fluids		gallons x	$0.80		$0.00
18. Miscellaneous (attach receipts)					
		x			$0.00
		x			$0.00
		x			$0.00
20. Tier I Assessment (Use DHEC 3665 form)		x			$0.00
21. IGWA (Use DHEC 3666 form)		x			$0.00
22. Corrective Action (Use DHEC 3667 form)		x			$0.00

23. **Aggressive Fluid & Vapor Recovery (AFVR)**					
A. 8-hour Event*		each x	$3,000.00		$0.00
B. AFVR per-hour Continuance		per hour x	$204.00		$0.00
C. Off-gas treatment per-hour Continuance		per hour x	$35.00		$0.00
24. **Granulated Activated Carbon (GAC) filter system installation & service:**					
A. New GAC System Installation*		each x	$2,500.00		$0.00
B1. Refurbished GAC Sys. Install*		each x	$1,180.00		$0.00
C. Filter replacement/removal*		each x	$450.00		$0.00
D1. GAC System removal, cleaning, & refurbishment*		each x	$720.00		$0.00
E. GAC System housing		each x	$450.00		$0.00
F. In-line particulate filter		each x	$150.00		$0.00
G. Additional piping & fittings		feet x	$4.00		$0.00
25. **Well Repair**					
A. Additional Copies of the Report Delivered		each x	$32.50		$0.00
B. Repair 2x2 MW pad		each x	$100.00		$0.00
C. Repair 4x4 MW pad		each x	$150.00		$0.00
D. Repair well vault		each x	$225.00		$0.00
F. Replace well cover bolts	5	each x	$10.00		$50.00
G. Replace locking well cap & lock		each x	$15.00		$0.00
H. Replace/Repair stick-up		each x	$137.50		$0.00
I. Convert Flush-mount to Stick-up		each x	$175.00		$0.00
J. Convert Stick-up to Flush-mount		each x	$125.00		$0.00
K. Replace missing/illegible well ID plate		each x	$22.50		$0.00
Report Prep & Project Management	15%	x	$4,383.00		$657.45
TOTAL					$5,040.45

*The appropriate mobilization cost can be added to complete these tasks, as necessary



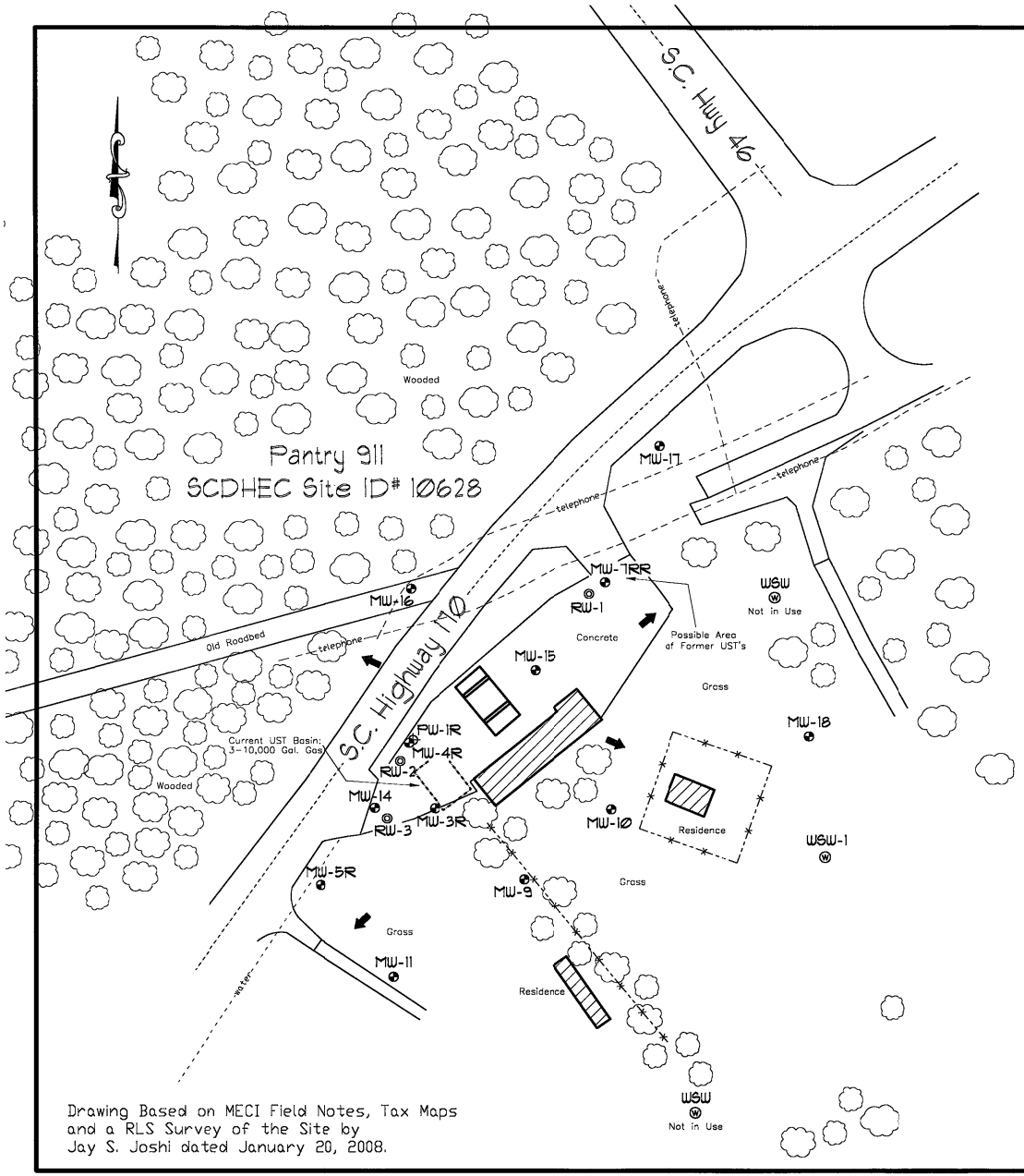
GRAPHIC SCALE

0 1000 2000 4000

1IN = 2000FT

Reference: Limehouse and Hardeeville, South Carolina
Jasper and Pritchardville, South Carolina
USGS 7.5 Min. Quad
Contour Interval—1.5 Meters

Midlands Environmental Consultants, Inc.	Site Location
Pantry 911 6195 South Okatie Highway, Hardeeville, SC SCDHEC Site ID# 10628	
Figure 1	MECI 12-4034



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of 4-Inch Recovery Well
- Location of Double Cased Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Existing Underground Storage Tanks
- water – Buried Water Line
- telephone – Under Ground Telephone

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

ALL LOCATIONS ARE APPROXIMATE

Site Features

Pantry 911
6195 South Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID# 10628

Midlands Environmental Consultants, Inc.

JOB NO. 12-4034
DATE June 18, 2012
FIGURE 2

SHEALY

Chain of Custody Record

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number 11725

Client	Report to Contact	Sampler (Printed Name)	Quote No.
Address	Telephone No. / Fax No. / Email	Waybill No.	Page of
City / State / Zip Code	Preservative: 1. Unpres 4. HNO3 7. NaOH; 2. NaOH/ZnA 5. HCL; 3. H2SO4 6. Na Thio.		Number of Containers / Bottle (See Instructions on back) / Preservative / Lot No.
Project Name			
Project Number	P.O Number		

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: GW	DW	WW	S	Other	Analysis	Remarks / Cooler ID

Turn Around Time Required (Prior lab approval required for expedited TAT)
☐ Standard ☐ Rush (Please Specify)

Sample Disposal
☐ Return to Client ☐ Disposal by Lab

QC Requirements (Specify)

Possible Hazard Identification
☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison ☐Unknown

	Date	Time		Date	Time
1. Relinquished by / Sampler			1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory Received by		

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☐ Yes ☐ No ☐ Ice Pack
Receipt Temp. _____ °C
Temp. Blank ☐ Y / ☐ N

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

JUN 2 8 2012

MALPHRUS ENTERPRISES
2789 N OKATIE HWY
RIDGELAND SC 29936

Re: Notice to Proceed – Groundwater Sampling Directive
Pantry 911: 6195 S Okatie Hwy, Hardeeville, SC 29927-8034
UST Permit #10628; Cost Agreement #43812
Release reported April 28, 1995
QAPP Contractor Addendum and Cost Agreement received June 19, 2012
Jasper County

To Whom It May Concern:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (Agency) has approved the referenced UST Quality Assurance Program Plan (QAPP) Contractor Addendum for the following scope of work:

- Groundwater Sampling (purge all): MW-3R, 4R, 5R, 7RR, 11, 14, 15, 16, 17, PW-1R, RW-1, 2, 3
- Water Supply Well: WSW-1 (if in use at time of sampling)
- Analytical Parameters: BTEX + Naphthalene + MtBE + 1,2-DCA + Oxygenates + EDB
- Replace Bolts (5): MW-3R, 7RR, 14

This work must be conducted and reported in accordance with the UST QAPP Revision 1.0 and in compliance with all applicable regulations. Cost Agreement #43812 has been approved in the amount shown on the enclosed cost agreement form. Please note that some of the requested costs have not been approved. The sampling activities may proceed immediately upon receipt of this letter. Midlands Environmental Consultants may submit an invoice for direct billing from the State Underground Petroleum Environmental Response Bank (SUPERB) Account. Please note that all site rehabilitation activities must be performed and submitted by a South Carolina Certified Underground Storage Tank Site Rehabilitation Contractor.

The final report and invoice are due within 60 days from the date of this letter. Interim Project Status Reports must be submitted via email on a weekly basis. Interim invoices may not be submitted for this scope of work. If the final invoice is not submitted within 120 days from the date of this letter, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available.

Sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that no costs will be allowed unless prior approval from the UST Division is obtained. If for any reason additional tasks will be completed, these additional tasks and the associated cost must be pre-approved by the UST Division for the cost to be paid. The Agency reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria. Further, the Agency reserves the right to question and/or reject costs if deemed unreasonable and the right to audit project records at any time during the project or after completion of work.

On all correspondence regarding this site, please reference UST Permit #10628. If you have questions or need additional information, feel free to contact me at (803) 896-6649 or by email at ebingedj@dhec.sc.gov.

Sincerely,

David Ebinger, Project Manager
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

Enc: Cost Agreement
QAPP Addendum signature page

cc: Midlands Environmental Consultants: PO Box 854, Lexington, SC 29071 (w/enclosures)
Technical File (w/enclosures)

Section A: Project Management

A1 Title and Approval Page

Quality Assurance Project Plan
Addendum to the SC DHEC UST Programmatic QAPP
For
Pantry 911, SCDHEC Site ID# 10628

6195 South Okatie Highway, Hardeeville, South Carolina

Prepared by:
Courtney M. Sanders
Staff Biologist
Midlands Environmental Consultants, Inc.
(Certified Site Rehabilitation Contractor UCC-0009)
235-B Dooley Road
Lexington, SC 29073
(803)808-2043

Date: June 18, 2012

Approvals

David Ebinger SC DHEC Project Manager	Signature	Date 6/21/12
Bryan T. Shane, P.G. Site Rehabilitation Contractor	Signature	Date 6-19-12
Brendon P. Kelly Contractor QA Manager	Signature	Date 6/19/12
Michael Woodrum Laboratory Director	Signature	Date 6/18/12

Approved Cost Agreement 43812

Facility: 10628 PANTRY 911

EBINGEDJ

PO Number:

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
01 PLAN					
		C TIER II/COMP. PLAN/QAPP APP B	1.0000	525.00	525.00
04 MOB/DEMOB					
		B PERSONNEL	2.0000	290.00	580.00
10 SAMPLE COLLECTION					
		A GROUND WATER	13.0000	55.00	715.00
		C WATER SUPPLY	1.0000	30.00	30.00
		D GROUNDWATER NO-PURGE	1.0000	35.00	35.00
		H FIELD BLANK	1.0000	5.00	5.00
11 ANALYSES					
	GW GROUNDWATER	A1 BTEXNM+OXYGS+1,2-DCA+ETH-8260B	17.0000	100.00	1,700.00
		F EDB	16.0000	55.00	880.00
17 DISPOSAL					
		A WASTEWATER	150.0000	0.80	120.00
19 RPT/PROJECT MNGT & COORDINATIO					
		PCT PERCENT	0.1500	4,640.00	696.00
25 WELL REPAIR					
		F REPLACE WELL COVER BOLTS	5.0000	10.00	50.00
			Total Amount		5,336.00

Midlands Environmental Consultants, Inc.

August 10, 2012

Mr. David Ebinger, Hydrogeologist
Corrective Action Section
Assessment & Corrective Action Division
Underground Storage Tank Program
Bureau of Land & Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Report of Ground Water Sampling and Chemical Analysis
Pantry 911
6195 South Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID# 10628, CA # 43812
MECI Project Number 12-4034
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Ebinger,

On behalf of Mr. Donnie Malphrus of Malphrus Enterprises, Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Report of Ground Water Sampling and Chemical Analysis for the referenced site. This report describes assessment activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines, including adherence to the UST Division Programmatic Quality Assurance Program Plan (QAPP).

Midlands Environmental appreciates the opportunity to offer our professional environmental services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman
Senior Scientist

Bryan T. Shane, P.G.
Principal Geologist

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

TABLE OF CONTENTS

TABLE OF CONTENTS (cont.)

NOTE: ITEMS LISTED WITH AN ** BESIDE IT WERE NOT NEEDED AS A PART OF THIS SCOPE OF WORK

1.0 INTRODUCTION

A. **Owner/Operator Information**

Facility Name:	Malphrus Enterprises UST Permit #: 10628
Facility Address:	6195 South Okatie Highway, Hardeeville, SC 29927
Name:	Mr. Donnie Malphrus
Address:	2789 North Okatie Highway, Ridgeland, SC 29936
Telephone #:	(843) 263-3050

B. **Property Owner Information**

Name	Malphrus Enterprises
Address	2789 North Okatie Highway, Ridgeland, SC 29936
Telephone #	(843) 263-3050

C. **Contractor Information**

Name:	Midlands Environmental Consultants, Inc.
Certification #:	9
Address:	P. O. Box 854, Lexington, SC 29071
Telephone #:	(803) 808-2043

D. **SCDHEC Certified Well Driller**

Name:	N/A
Driller:	N/A
Certification #:	N/A
Address:	N/A
Telephone #:	N/A

E. **SCDHEC Certified Laboratory**

Name:	Shealy Environmental Services, Inc.
Certification #:	32010
Address:	106 Vantage Point Drive, West Columbia, SC 29172
Telephone #:	(803) 791-9700

1.1 QAPP STATEMENT

This report conforms to the SCDHEC UST Management Division Programmatic QAPP. The Report, Tables (Table 1-Soil Analytical Data, Table 2-Field Parameters, Table 3-Groundwater Analytical Results, Table 4-Aquifer Characteristics, and Table 5-Site Conceptual Model), Figures (Figure 1-Topographic Map, Figure 2-Site Features, Figure 3-Soil CoC Site Map, Figure 4-Groundwater CoC Site Map, Figure 5-Groundwater Contour Map, and Figure 6-Geologic Cross Section), and Appendices are presented in accordance with formatting requirements set forth in section A9 of the UST Management Division Programmatic QAPP, Revision 1, June 2011. Some or all of the tables and figures in this report were not applicable to the scope of services presented, however have been included in order to conform to the SCDHEC UST Management Division Programmatic QAPP.

1.2 PROJECT INFORMATION

The subject site (Pantry 911) is located at 6195 South Okatie Highway, Hardeeville, Jasper County, South Carolina. The subject site maintains one 10,000 gallon regular unleaded gasoline underground storage tank (UST), one 10,000 gallon premium gasoline, and one 10,000 gallon diesel UST. These UST's were given a compliance date of March 7, 2012. The South Carolina Department of Health and Environmental Control (SCDHEC) reported a release of petroleum product from these UST's in April of 1995 and confirmed the release in March of 1996. The subject site is currently rated a Class 2BB.

Prior to commencement of the field activities described in this document, a QAPP Contractors Addendum was completed by MECI personnel, submitted to SCDHEC and approved by the SCDHEC project manager.

The above project information is based on MECI field notes and SCDHEC files.

2.0 SURROUNDING PROPERTY USAGE

The site is located outside the town limits of Hardeeville, South Carolina. The property is currently operating as an active gasoline service station (Pantry 911). South Okatie Highway (S.C. Highway 46) forms the western and northern borders of the subject property, beyond which are wooded and undeveloped properties. South and east of the subject property are residential properties and wooded areas.

3.0 FIELD EXPLORATION

Field exploration conducted at the site included:

- sampling of groundwater monitoring wells;
- collection of one water supply well sample; and,
- chemical analyses of water samples.

3.1 MONITORING WELL SAMPLING AND CHEMICAL ANALYSES

On July 25, 2012, MECI personnel collected groundwater samples from eleven (11) monitoring wells at the subject site. At time of sampling, monitoring wells MW-9, MW-10, and MW-18 were unable to be located. Monitoring wells MW-7RR and RW-3 were gauged and determined to contain free phase petroleum product. Based on a request by SCDHEC personnel, all of the wells (where applicable) were purged prior to sampling. Due to insufficient water, RW-1 was unable to be purged prior to sampling Ten (10) monitoring wells were purged prior to sampling. Purging was completed by bailing three to five well volumes of water from the well, until pH, conductivity, dissolved oxygen stabilized to within 10%, or until all available water was evacuated from the well, whichever occurred first. Sampling/purging was completed utilizing a prepackaged, clear, disposable polyethylene bailer and nylon rope. A new set of nitrile gloves were worn at each monitoring well, and at all time samples were handled. Field measurements of pH, conductivity, dissolved oxygen, water temperature, and turbidity were obtained before well sampling process. MECI utilized YSI550A meter for DO (mg/L) and temperature readings (°C) and YSI63 meters for pH and conductivity (uS) readings. The attached Field Data Information Sheets presents the results of the

field measurements obtained during purging processes and Table 2 presents the results of the field measurements collected prior to the sampling processes. The wells were sampled in accordance with SCDHEC's Quality Assurance Program Plan for the Underground Storage Tank Management Division (QAPP, Dated June 2011) and MECI's Standard Operating Procedures (MECI SOP, Dated August, 2011). Groundwater samples obtained were sent to Shealy Environmental Services, Inc. of West Columbia, SC (SCDHEC Laboratory Certification #32010) for analysis.

The following sampling matrix contains well development and requested analyses for each well:

Monitoring Well	Purge	No Purge	Gauge Well Only	Not Located	BTEX, Naphthalene, MTBE (EPA Method 8260-B)	8 Oxygenates (EPA Method 8260-B)	1,2 DCA (EPA Method 8260-B)	Ethanol (EPA Method 8260-B)	EDB (EPA Method 8011)	Total Lead (EPA Method 6010)	Filtered Lead (EPA Method 6010)	8 RCRA Metals (EPA Method 6010)	TPH (EPA Method 9071)	PAH's (EPA Method 8270)
					Analyte Sampled									
MW-3R	X				X	X	X	X						
MW-4R	X				X	X	X	X						
MW-5R	X				X	X	X	X						
MW-7RR			X											
MW-9				X										
MW-10				X										
MW-11	X				X	X	X	X						
MW-14	X				X	X	X	X						
MW-15	X				X	X	X	X						
MW-16	X				X	X	X	X						
MW-17	X				X	X	X	X						
MW-18				X										
PW-1R	X				X	X	X	X						
RW-1		X			X	X	X	X						
RW-2	X				X	X	X	X						
RW-3			X											
RW-1 Dup. **					X	X	X	X						
Field Blank					X	X	X	X						
Trip Blank					X	X	X							

Notes: BTEX = benzene, toluene, ethylbenzene, & total xylenes MTBE=methyl tertiary butyl ether 1,2 DCA = 1,2 dicloroethane PAH = polycyclic aromatic hydrocarbons

**** = Indicates Field Duplicate**

The results of the laboratory analyses are summarized in Table 3 & 3A and presented in Appendix B.

Purge water produced by the purging process was treated on-site utilizing a granular activated carbon unit. A total of 20.0 gallons of purge water was disposed of in this manner. A disposal manifest for the referenced purge water is presented in Appendix G.

Furthermore, five well locking bolts were replaced on monitoring wells MW-3R, MW-7RR, and MW-14. These locking bolts were replaced to insure the monitoring wells were properly secured following sampling activities.

3.2 WATER SUPPLY WELL SAMPLING AND CHEMICAL ANALYSIS

On July 25, 2012, MECI personnel collected one (1) water supply well sample. This water supply well (WSW-1) is located approximately 350 feet east of the current UST basin. The following matrix contains well status, owner(s), and tax map identification numbers:

Water Supply Well Number	Well Owner	Jasper County Tax Map Number:	Notes:	Well Status
WSW-1	Stella Crosby Jeffers	039-00-10-029	Sampled (274 New River Rd.)	Active

The samples obtained from WSW-1 were analyzed for volatile organic compounds including BTEX, naphthalene, and methyl-tertiary-butyl-ether, 1,2 DCA, 8 Oxygenates (EPA Method 8260B) and EDB (EPA Method 8011). Results of the laboratory analyses are summarized in Table 3, Table 3A, Figure 4, and Figure 4A. The laboratory reports are also presented in Appendix B.

4.0 AREA GEOLOGY AND HYDROGEOLOGY

The project site is located in the Atlantic Coastal Plain Physiographic Province. The soils in this province are generally interbedded silts, sands and clays that have been deposited during successive advances and retreats of the ocean over the past several million years. This interbedding can cause perched water and makes hydrogeological interpretation difficult.

In this geologic setting, the uppermost aquifer is the surficial aquifer of sands with lenses and layers of clays and silts. Water occupies the interstices between the formation particles and is in hydrostatic balance with the atmosphere at the water table surface.

Local precipitation is the source of freshwater recharge to the Coastal Plain formations. Groundwater recharge varies considerably over the region and is attributed to the differences in precipitation and to the variability in the infiltration rates.

Coastal Plain formations generally dip toward the Atlantic Ocean. Consequently, regional groundwater movement is to the southeast. On a regional scale, hydraulic gradients are relatively low.

Locally, in the surficial aquifer, groundwater discharges into streams, lakes or springs where the groundwater table intersects lows occupied by these water bodies. Current groundwater elevation data reveal a radial flow pattern to southwest, northwest, and the northeast.

4.1 LOCAL SUBSURFACE CONDITIONS

Coastal plain sediments were encountered during previous drilling activities conducted at the site by MECI in December of 2008 and June of 2010. The soils encountered during previous assessment activities generally consisted sandy clays and clayey sands.

On July 25, 2012, stabilized groundwater levels were measured in the monitoring wells. Depth to groundwater ranged from 2.29 to 12.83 feet below top of casing in the wells measured. The groundwater measurements are summarized in tabular form in Table 2 and on Figure 5. Groundwater levels may fluctuate several feet with seasonal and rainfall variations and with change in the water level of adjacent drainage features. Normally, the highest groundwater levels occur in late winter and spring. The lowest levels occur in late summer and fall.

5.0 TEST RESULTS AND EVALUATION

The following sections discuss groundwater test results for the subject site.

5.1 GROUNDWATER ANALYTICAL RESULTS

As discussed in Section 3.1, groundwater samples obtained from the monitoring wells were analyzed for dissolved phase petroleum constituents. Monitoring wells MW-7RR and RW-3 contained measurable free phase petroleum product during the subject sampling event. Groundwater samples were not obtained beneath the petroleum product layer during this assessment. The analytical results indicate petroleum impact to the surficial aquifer, with the highest concentrations being detected in two portions of the subject property. High concentrations of dissolved phase petroleum product were detected in the area of MW-14 and in the area of RW-1. Given the distance between MW-14 and RW-1 and historical data obtained from MW-5R, it is MECI's professional opinion that there may have been an secondary source located in the area of RW-1 and MW-7RR. The analytical results indicate dissolved total BTEX concentrations ranging from levels below detection limits (BDL) to 78,800 micrograms per liter in RW-1. Dissolved Naphthalene concentrations ranged from below detection limits to 540 micrograms per liter in monitoring well MW-14. Dissolved MTBE concentrations ranged from below detection limits to 4,200 micrograms per liter in monitoring well MW-4R. The results of the analyses for each monitoring well and specific parameters are listed on Tables 3, Table 3A, and provided in the attached laboratory reports (Appendix B).

5.2 WATER SUPPLY WELL ANALYTICAL RESULTS

One water supply well (WSW-1) sample was analyzed by Shealy Environmental Services, Inc. for petroleum constituents. Analytical results indicate samples were reported at concentrations below detection limits (BDL). The results of the analyses are presented on Table 3, Table 3A, and in Appendix B.

6.0 ASSESSMENT SUMMARY & RECOMMENDATIONS

Groundwater elevation data for the July 25, 2012, gauging event was plotted, and points of equal elevation were interpolated between the monitoring wells. A groundwater contour map of the surficial aquifer was thus prepared and is presented on Figure 5. Current groundwater elevation data reveal a radial flow pattern to southwest, northwest, and the northeast.

The analytical results indicate petroleum impact to the surficial aquifer, with the highest concentrations being detected in two portions of the subject property. Monitoring wells MW-7RR and RW-3 contained measurable free phase petroleum product during the subject sampling event. High concentrations of dissolved phase petroleum product were detected in the area of MW-14 and in the area of RW-1. The analytical results indicate dissolved total BTEX concentrations ranging from levels below detection limits (BDL) to 78,800 micrograms per liter in RW-1. Dissolved Naphthalene concentrations ranged from below detection limits to 540 micrograms per liter in monitoring well

MW-14. Dissolved MTBE concentrations ranged from below detection limits to 4,200 micrograms per liter in monitoring well MW-4R. Samples collected from the 'deep' monitoring well (PW-1R) did not indicate petroleum impact and analytical results were below detection limits. Analytical data is presented on Table 3 & 3A and in the attached Appendix B. Figure 4 depicts graphically the concentrations of Total BTEX (indicator for plume migration) dissolved in the 'shallow' surficial aquifer at the site. 4A depicts the analytical results for the eight Oxygenates.

Currently, the contaminant plume is not defined to the west of MW-14/RW-3 and to the northwest of MW-7RR/RW-1. Since the January of 2009 groundwater sampling event, analytical results from the source area monitoring wells and perimeter monitoring wells have generally remained constant with a slight decrease in monitoring wells MW-3R and MW-4R. However, the presence of free phase petroleum product has occurred in monitoring wells MW-7RR and RW-3. This may be a result of a decrease in the groundwater elevation in these wells since previous assessment. MECI recommends installing additional monitoring wells to the west of MW-14/RW-3, to the northwest of MW-7RR/RW-1, and replacing monitoring wells MW-9, MW-10, MW-18. Additionally, MECI recommends a series of Aggressive Fluid Vapor Recovery (AFVR) Events be conducted on monitoring wells MW-14/RW-3 and on MW-7RR/RW-1 to decrease elevated dissolved CoC concentrations and to remove free phase petroleum product. Following the proposed AFVR events, additional groundwater sampling events should be conducted to continue to monitor the contaminant plume.

7.0 QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assessment are consistent with those normally employed in hydrogeological assessment and waste management projects of this type. Our evaluation of site conditions has been based on our understanding of the site, project information provided to us, and data obtained in our exploration. The general subsurface conditions utilized in our evaluation have been based on interpretation of subsurface data between borings. Contents of this report are intended for the sole use of Mr. Donnie Malphrus of Malphrus Enterprises, MECI, and SCDHEC under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

-oOo-

TABLES

TABLE 1
SOIL ANALYTICAL RESULTS
SITE NAME
SITE LOCATION, SOUTH CAROLINA
MECI PROJECT NUMBER ##-####
SCDHEC SITE ID NUMBER

Boring Number	Sample Date	Depth (feet BGS)	Benzene (µg/kg)	Toluene (µg/kg)	Ethylbenzene (µg/kg)	Total Xylenes (µg/kg)	MTBE (µg/kg)	Naphthalene (µg/kg)

Soil Samples for chemical analysis were not obtained during this assessment. In order to conform with formatting guidelines provided by the SCDHEC UST Management Division Programmatic Quality Assurance Program Plan (QAPP), this filler table is included to provide report continuity.

Notes:

1. BGS = Below Ground Surface
2. µg/kg = micrograms per kilogram
3. "J" values report concentrations above the method detection limits (MDL) and below actual reporting limit (RL).
4. Soil Samples collected from discrete split samples during installation of Monitoring wells.

TABLE 2
FIELD PARAMETERS
JULY 25, 2012 SAMPLING EVENT
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 12-4034
SCDHEC SITE ID NUMBER 10628

Well Number	Sample Date	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Well-head Elevation	Groundwater Elevation
MW-3R	1/8/2009	2-12	***	3.02	***	94.56	91.54
	7/25/2012		***	2.91	***	94.56	91.65
MW-4R	1/8/2009	5-15	***	4.29	***	93.75	89.46
	7/25/2012		***	7.61	***	93.75	86.14
MW-5R	1/8/2009	5-15	***	3.00	***	91.70	88.70
	7/25/2012		***	7.35	***	91.70	84.35
MW-7RR	1/8/2009	2-12	***	6.38	***	95.80	89.42
	7/25/2012		10.61	10.72	0.11	95.80	85.17
MW-9	1/8/2009	8-18	***	6.09	***	96.73	90.64
	7/25/2012		***	NL	***	96.73	NL
MW-10	1/8/2009	2-12	***	4.36	***	93.29	88.93
	7/25/2012		***	NL	***	93.29	NL
MW-11	1/8/2009	2-12	***	1.45	***	91.62	90.17
	7/25/2012		***	3.90	***	91.62	87.72
MW-14	1/8/2009	3.05-13.05	***	2.23	***	93.23	91.00
	7/25/2012		***	2.29	***	93.23	90.94
MW-15	1/8/2009	2-12	***	4.50	***	96.12	91.62
	7/25/2012		***	4.80	***	96.12	91.32
MW-16	1/8/2009	7-17	***	8.11	***	97.02	88.91
	7/25/2012		***	12.83	***	97.02	84.19
MW-17	1/8/2009	3-13	***	5.88	***	94.96	89.08
	7/25/2012		***	9.49	***	94.96	85.47
MW-18	1/8/2009	2-12	***	2.48	***	91.34	88.86
	7/25/2012		***	NL	***	91.34	NL
PW-1R	1/8/2009	30-35	***	4.57	***	93.47	88.90
	7/25/2012		***	9.59	***	93.47	83.88
RW-1	7/25/2012	2-12	***	10.53	***	96.15	85.62
RW-2	7/25/2012	2-12	***	2.59	***	93.56	90.97
RW-3	7/25/2012	2-12	2.56	2.61	0.05	93.22	90.65

Notes:

1. Elevations are referenced to an assumed site datum .
2. Groundwater depths were measured from the top of the PVC riser pipe.
3. Groundwater levels measured 7/25/2012.
4. NL = Not Located.
5. Groundwater elevation for MW-7RR and RW-3 corrected for the presence of free phase petroleum product using a specific gravity for fuel of 0.85

TABLE 3
GROUNDWATER ANALYTICAL RESULTS
JULY 25, 2012 SAMPLING EVENT
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 12-4058
SCDHEC ID NUMBER 10628

Well Number	Sample Date	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	Naphthalene (µg/l)	MTBE (µg/l)	1,2 DCA (µg/l)	EDB (µg/l)	Total Lead (µg/l)
MW-3R	1/8/2009	2,700	9,080	1,410	11,000	24,190	748	2,580	<250	<0.19	<5.0
	7/25/2012	1,600	2,500	740	4,000	8,840	180	970	<10	<0.019	NT
MW-4R	1/8/2009	4,640	5,070	1,360	3,990	15,060	<1,000	21,000	<1,000	<0.020	<5.0
	7/25/2012	2,220	2,500	470	1,600	6,790	260	4,200	62	<0.020	NT
MW-5R	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	2.3J	<5.0	<0.020	<5.0
	7/25/2012	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	8.9	<5.0	<0.020	NT
MW-7RR	1/8/2009	17,500	22,700	1,850	10,900	52,950	<1,000	<1,000	731J	1.5	157
	7/25/2012	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-9	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.019	<5.0
	7/25/2012	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW-10	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	3.8J	<5.0	<0.019	11.6
	7/25/2012	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW-11	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.019	<5.0
	7/25/2012	<5.0	22	<5.0	<5.0	22	<5.0	<5.0	<5.0	<0.019	NT
MW-14	1/8/2009	11,800	13,700	2,420	11,000	38,920	<500	4,020	<500	<0.020	<5.0
	7/25/2012	9,200	15,000	3,300	14,000	41,500	540	1,600	<500	<0.020	NT
MW-15	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	2.8J	<5.0	<0.019	<5.0
	7/25/2012	1.1J	2.0J	<5.0	2.1J	5.2J	<5.0	1.2J	<5.0	<0.019	NT
MW-16	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.021	<5.0
	7/25/2012	0.30J	<5.0	<5.0	<5.0	0.30J	<5.0	<5.0	<5.0	<0.019	NT
MW-17	1/8/2009	39.1	<5.0	<5.0	<10.0	39.1	<5.0	<5.0	<5.0	<0.023	<5.0
	7/25/2012	0.23J	<5.0	<5.0	<5.0	0.23J	<5.0	<5.0	<5.0	<0.020	NT
MW-18	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.023	<5.0
	7/25/2012	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
PW-1R	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.019	<5.0
	7/25/2012	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
RW-1	7/25/2012	31,000	32,000	2,800	13,000	78,800	510J	<1,000	1,500	1.2	NT
RW-2	7/25/2012	160	3.6J	67	69	299.6J	8.7	13	<5.0	<0.020	NT
RW-3	7/25/2012	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
WSW-1	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.019	NT
	7/25/2012	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019	NT
RW-1 (Dup.)	7/25/2012	30,000	30,000	2,700	12,000	74,700	500	53J	1,500	0.86	NT
Field Blank	7/25/2012	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
Trip Blank	7/25/2012	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	NT	NT

Notes:

1. BDL = Below Practical Quantitative Limits
2. ug/l = micrograms per liter
3. MTBE = Methyl-Tertiary-Butyl Ether
4. 1,2 DCA = 1,2-Dichloroethane
5. EDB = 1,2 - Dibromoethane
6. NL = Not Located
7. NT = Not Tested
8. PROD = Free Phase Petroleum Product
9. "J" Values included in Total BTEX Calculations.
10. "J" values report concentrations above the method detection limits (MDL) and below actual reporting limit (RL).

TABLE 3A
GROUNDWATER ANALYTICAL RESULTS (OXYGENATES)
JULY 25, 2012 SAMPLING EVENT
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 12-4034
SCDHEC SITE ID NUMBER 10628

Well Number	Sample Date	DIPE (µg/l)	Ethanol (µg/l)	3,3-Dimethyl-1-butanol (µg/l)	ETBE (µg/l)	TAA (µg/l)	TAME (µg/l)	TBA (µg/l)	TBF (µg/l)
MW-3R	07/25/12	**1.7J**	<2,000	<200	**42J**	**2,500**	**150**	**4,300**	<200
MW-4R	07/25/12	**6.2J**	<1,000	<100	**170**	**4,000**	**390**	**23,000**	<100
MW-5R	07/25/12	**4.2J**	<1,000	<100	<100	**64J**	<10	**43J**	<100
MW-7RR	07/25/12	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**
MW-9	07/25/12	NL	NL	NL	NL	NL	NL	NL	NL
MW-10	07/25/12	NL	NL	NL	NL	NL	NL	NL	NL
MW-11	07/25/12	<10	<1,000	<100	<100	<100	<10	<100	<100
MW-14	07/25/12	<1,000	<100,000	<10,000	**69J**	**9,900J**	**460J**	**3,200J**	<10,000
MW-15	07/25/12	**0.65J**	<1,000	<100	<100	**13J**	<10	**27J**	<100
MW-16	07/25/12	<10	<1,000	<100	<100	<100	<10	<100	<100
MW-17	07/25/12	**3.6J**	<1,000	<100	<100	<100	<10	<100	<100
MW-18	07/25/12	NL	NL	NL	NL	NL	NL	NL	NL
PW-1R	07/25/12	<10	<1,000	<100	<100	<100	<10	<100	<100
RW-1	07/25/12	**12,000**	<200,000	<20,000	<20,000	**53,000**	<2,000	<20,000	<20,000
RW-2	07/25/12	<10	<1,000	<100	**2.0J**	**41J**	**1.8J**	**310**	<100
RW-3	07/25/12	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**
WSW-1	07/25/12	<10	<1,000	<100	<100	<100	<10	<100	<100
RW-1 (Duplicate)	07/25/12	**12,000**	<100,000	<10,000	<10,000	**54,000**	<1,000	**1,400J**	<10,000
Field Blank	07/25/12	<10	<1,000	<100	<100	<100	<10	**41J**	<100
Trip Blank	07/25/12	<10	<1,000	<100	<100	<100	<10	<100	<100

Notes:

1. ug/l = micrograms per liter
2. DIPE = Diisopropyl Ether
3. ETBE = Ethyl ter-butyl Ether
4. TAA = tert-Amyl Alcohol
5. TAME = tert-Amyl Methyl Ether
6. TBA = ter-Butyl Alcohol
7. TBF = tert-Butyl Formate
8. NL = Not Located
9. PROD = Free Phase Petroleum Product
10. "J" values report concentrations above the method detection limits (MDL) and below actual reporting limit (RL).

TABLE 4 - AQUIFER CHARACTERISTICS (Page 1 of 2)

SOUTH CAROLINA
Department of Health and Environmental Control (DHEC)

Site Data

SITE ID # _____ COUNTY _____

FACILITY NAME _____

SLUG DATA

See Appendix _____ Table _____ Figure _____ for a list of all data measurements.
(water level logs, etc.)(Complete as appropriate).
Water Level Recovery Data was measured by ORS Interface Probe .
(Hermit Data Logger, Manually with Water Level Indicator, etc.)(List Method)
Complete the following table for each well tested.
COMPLETE A SECOND SHEET IF MORE THAN FOUR WELLS ARE TESTED

Aquifer Characteristics were not obtained as part of this assessment. In order to conform with formatting guidelines provided by the SCDHEC UST Management Division Programmatic Quality Assurance Program Plan (QAPP), this filler table is included to provide report continuity.

Calculations

See Appendix _____ Table _____ Figure _____ for calculations
The method for aquifer calculations was NAVFAC
Calculated values by well were as follows:

Slug Test Conducted in Well(s) number					
Hydraulic Conductivity					cm/sec

Thickness of the aquifer used to calculate hydraulic conductivity was __ N/A __ feet.
The aquifer is _____ confined _____ semi-confined _____ water table (Check as Appropriate).
SEE SHEET 3
The estimated seepage velocity is _____ feet per year based on a hydraulic conductivity of _____ cm/sec, a hydraulic gradient of _____ ft/ft, and a porosity of _____ percent for _____ soil.

SUMMARY of SLUG TEST

TABLE 4 - AQUIFER CHARACTERISITCS (Page 2 of 2)

SOUTH CAROLINA
Department of Health and Environmental Control (DHEC)

Site Data

SITE ID # 0 COUNTY 0

FACILITY NAME 0

Hydraulic Conductivity (average)

Hydraulic Conductivity Average = _____ cm/sec
()

_____ ft./day

_____ ft./min

Groundwater Seepage Velocity

V = (Ki)/(Ne)
(ft./day)

* Enter Values in Shaded Areas Only

where:

K = Hydraulic Conductivity (ft./day)
I = Hydraulic Gradient (ft./ft.)
Ne = Effective Permeability

K = _____ ft./day
I = _____ ft./ft.
Ne = _____

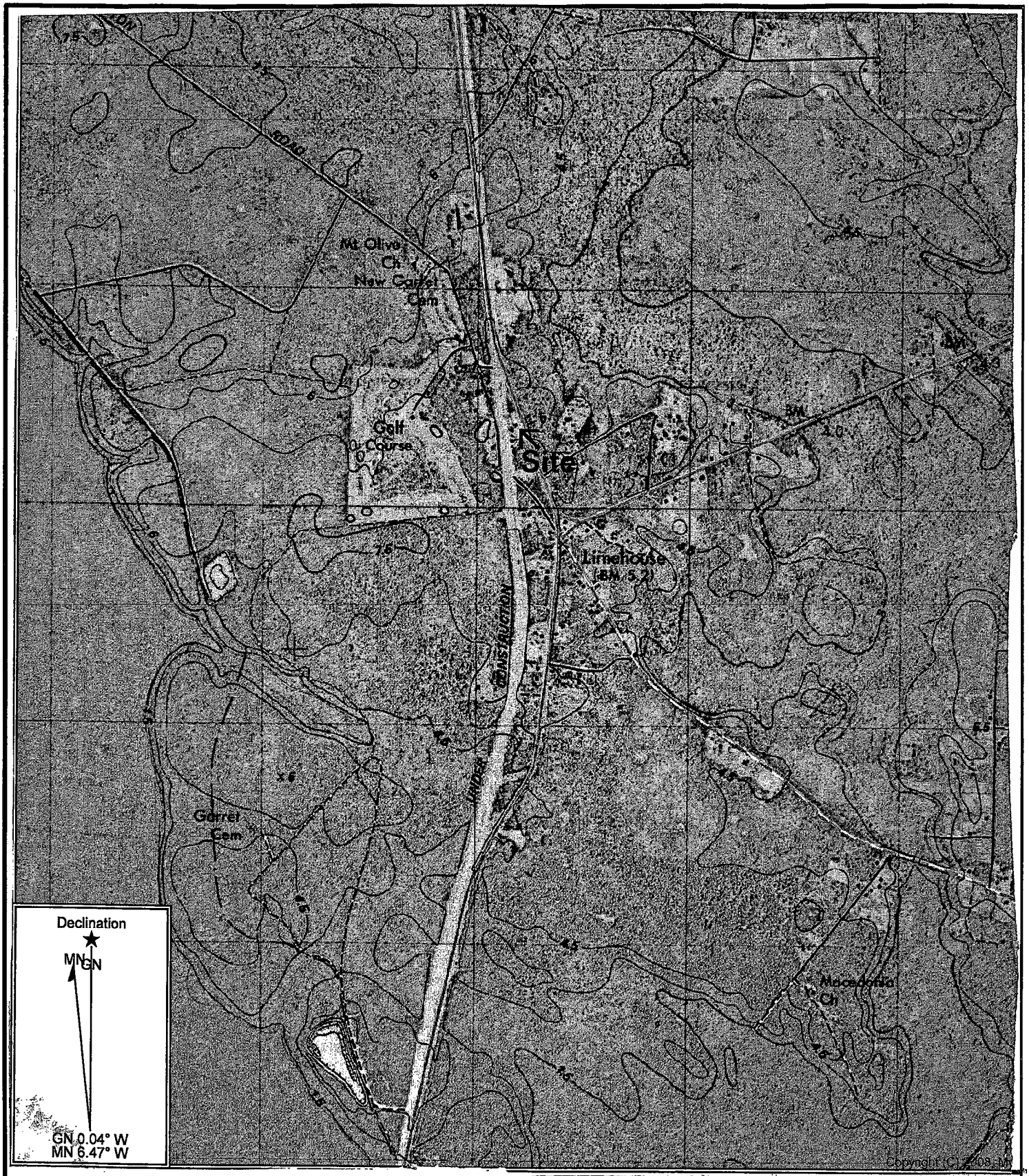
V = _____ ft./day _____ ft./year

Groundwater Seepage Velocity Calculations

TABLE 5
SITE CONCEPTUAL MODEL AND POSSIBLE EXPOSURE POINTS
(CURRENT LAND USE)

Potentially Exposed Population	Exposure Route, Medium, and Exposure Point	Pathway Selected for Evaluation?	Reason for Selection or Nonselection
Off-site Resident	Ingestion of groundwater from impacted water well Direct contact with surface soil Inhalation while showering Dermal contact while showering Inhalation of volatiles Ignition of vapors Dermal contact with surface water	A Site Conceptual Model was not required as part of this assessment. In order to conform with formatting guidelines provided by the SCDHEC UST Management Division Programmatic Quality Assurance Program Plan (QAPP), this filler table is included to provide report continuity.	
On-site Resident	Ingestion of groundwater Direct contact with surface soil Inhalation while showering Dermal contact while showering Inhalation of volatiles Ignition of vapors		
Worker	Ingestion of ground water Direct contact with surface soil Inhalation while showering Dermal contact while showering Inhalation of volatiles Ignition of vapors		
Visitor	Ingestion of ground water Direct contact with surface soil Inhalation while showering Dermal contact while showering Inhalation of volatiles Ignition of vapors Dermal contact with surface water		

FIGURES



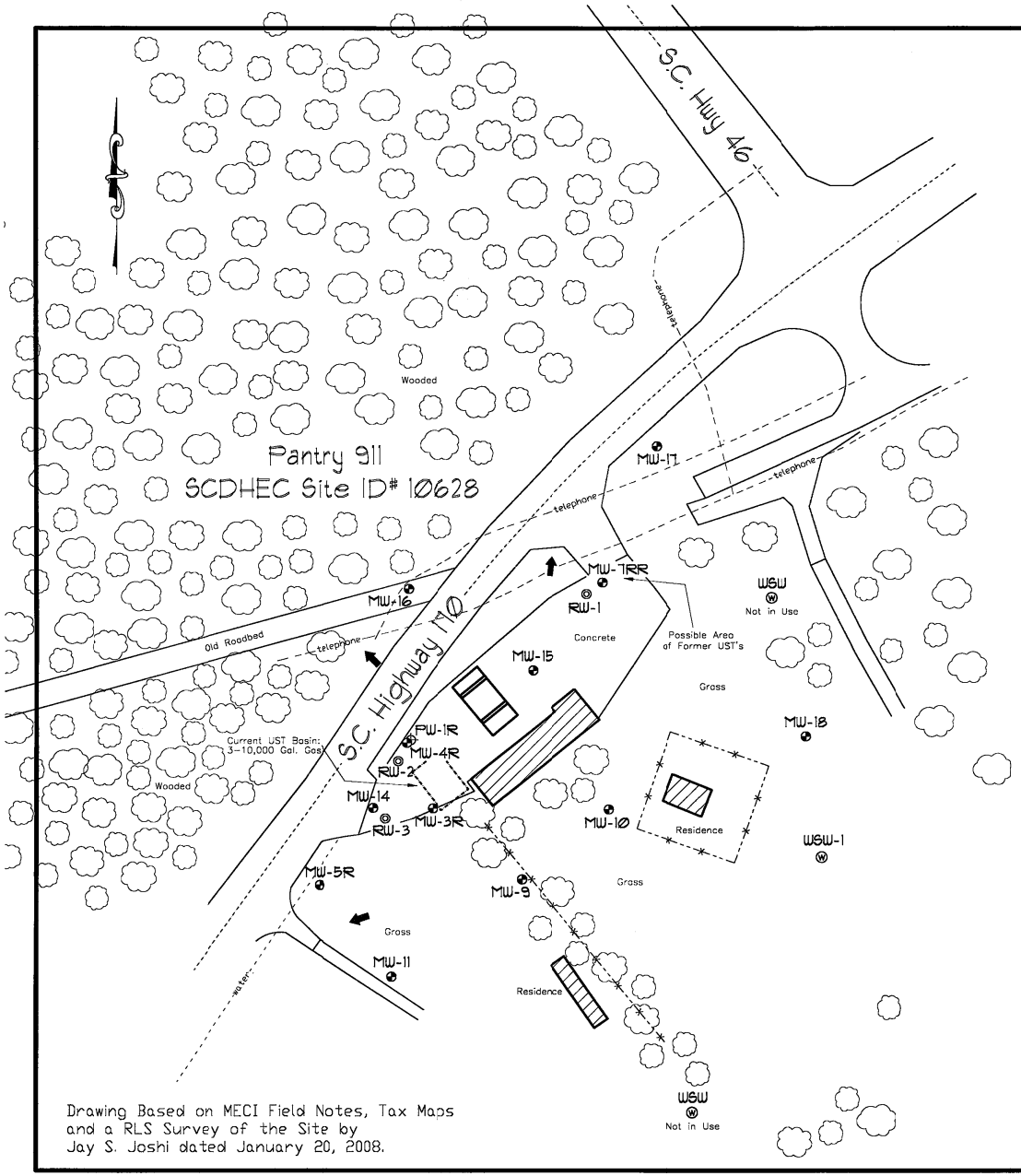
GRAPHIC SCALE

0 1000 2000 4000

1IN = 2000FT

Reference: Limehouse and Hardeeville, South Carolina
Jasper and Pritchardville, South Carolina
USGS 7.5 Min. Quad
Contour Interval–1.5 Meters

Midlands Environmental Consultants, Inc.	Site Location
Pantry 911 6195 South Okatie Highway, Hardeeville, SC SCDHEC Site ID# 10628	
Figure 1	MECI 12-4034



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of 4-inch Recovery Well
- Location of Double Cased Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Existing Underground Storage Tanks
- water — Buried Water Line
- telephone — Under Ground Telephone

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

ALL LOCATIONS ARE APPROXIMATE

Site Base Map

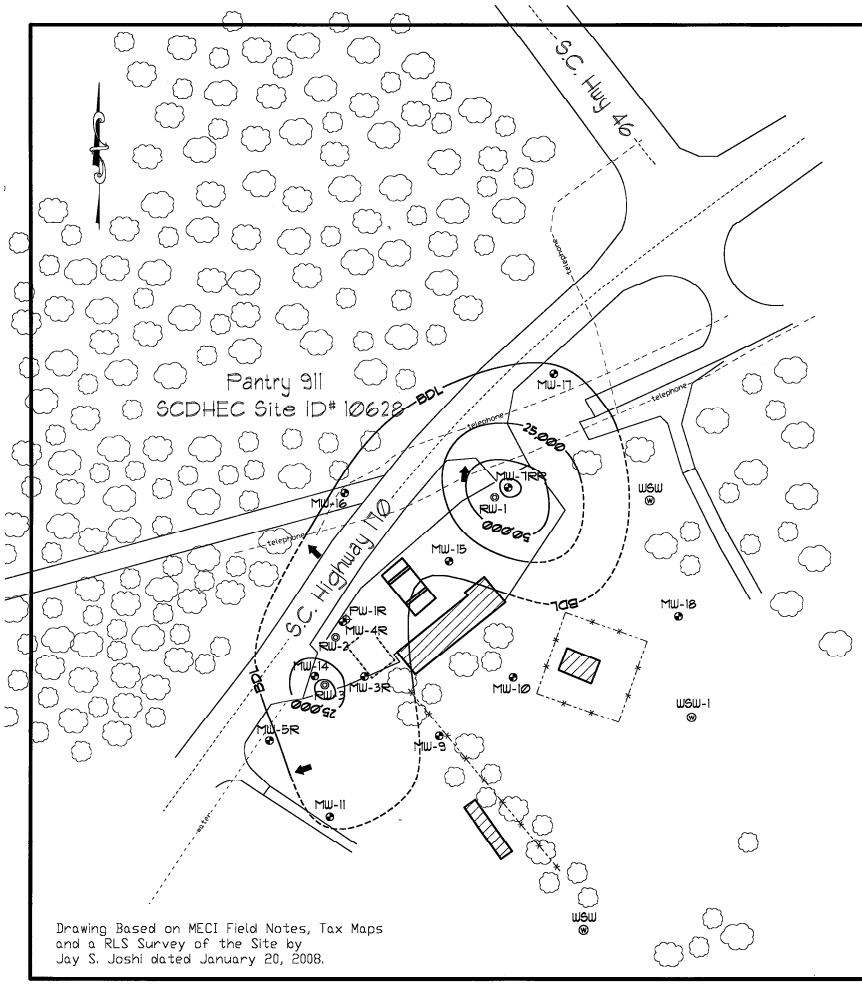
Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 12-4034
DATE August 9, 2012
FIGURE 2

Soil Samples for chemical analysis were not obtained during this assessment. In order to conform with formatting guidelines provided by the SCDHEC UST Management Division Programmatic Quality Assurance Program Plan (QAPP), this filler Figure is included to provide report continuity.

Midlands Environmental Consultants, Inc.	Soil CoC Site Map
Site Name Site Location, South Carolina SCDHEC Site ID: *****	
Figure 3	MECI **-****



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Water Supply Well
- Location of Double Cased "Deep" Monitoring Well
- Estimated Groundwater Flow Direction
- Location of 4-inch Recovery Well
- Estimated Location of Removed Underground Storage Tanks
- Total BTEX Concentration Isopleth (ug/l)

Groundwater COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	Naphthalene (ug/l)	MTBE (ug/l)	12 DCA (ug/l)	EDB (ug/l)
MW-3R	1,600	2,500	740	4,000	8,840	180	970	<10	<0.019
MW-4R	2,200	2,500	470	1,600	6,770	260	4,200	62	<0.020
MW-5R	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	8.9	<5.0	<0.020
MW-7RR	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-9	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW-10	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW-11	<5.0	22	<5.0	<5.0	22	<5.0	<5.0	<5.0	<0.019
MW-14	9,200	15,000	3,300	14,000	41,500	540	1,600	<500	<0.020
MW-15	1.1J	2.0J	<5.0	2.1J	5.2J	<5.0	1.2J	<5.0	<0.019
MW-16	0.30J	<5.0	<5.0	<5.0	0.30J	<5.0	<5.0	<5.0	<0.019
MW-17	0.23J	<5.0	<5.0	<5.0	0.23J	<5.0	<5.0	<5.0	<0.019
MW-18	NL	NL	NL	NL	NL	NL	NL	NL	NL
PW-1R	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
RW-1	31,000	32,000	2,800	13,000	78,800	510J	<1,000	1,500	1.2
RW-2	160	3.6J	67	69	299.6J	8.7	13	<5.0	<0.020
RW-3	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
WSW-1	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
RW-1 (Duplicate)	30,000	30,000	2,700	12,000	74,700	500	53J	1,500	0.86
Field Blank	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
Trip Blank	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	NT

Notes:
- Groundwater samples collected on July 25, 2012.
- Isopleth Interval = 25,000 ug/l
- BDL = Below Detection Limits
- Monitoring well PW-1R not used in contouring.
- "J" Values included in Total BTEX Calculations
- NL = Not Located
- NT = Not Tested
- PROD = Free Phase Petroleum Detected
- Isopleths Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

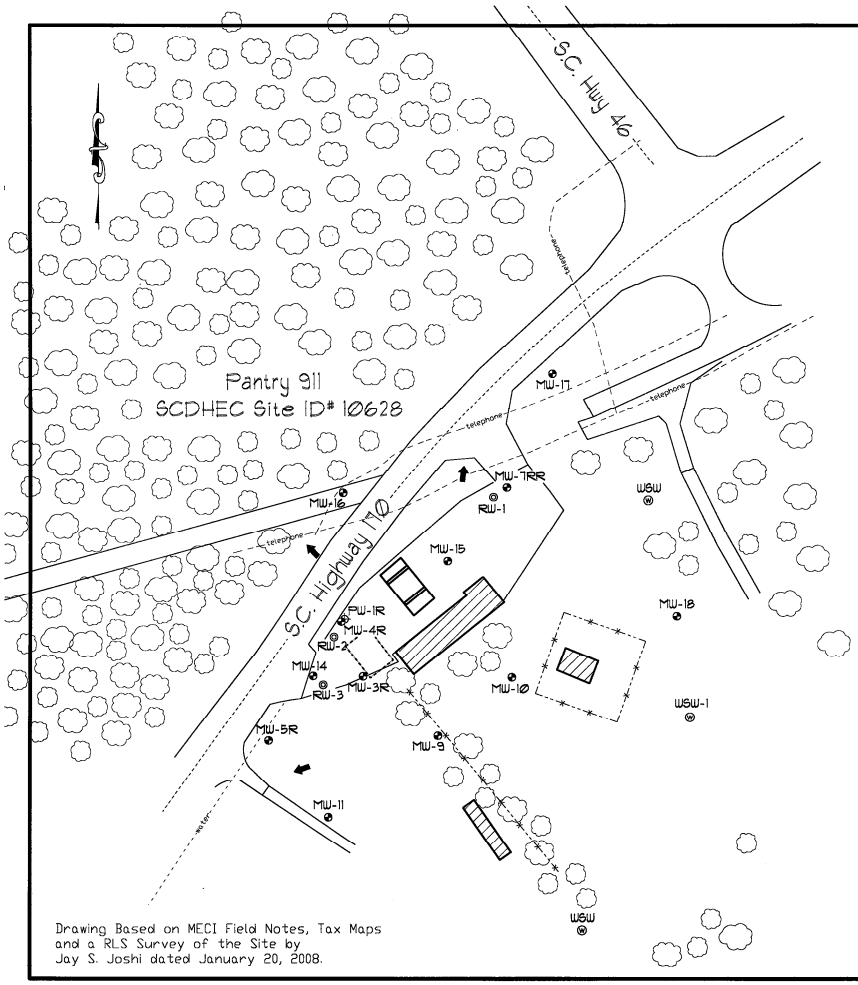
ALL LOCATIONS ARE APPROXIMATE

Groundwater CoC Site Map
(Total BTEX Isopleth)

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 12-4034
DATE August 9, 2012
FIGURE 4



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Doubls Cased "Deep" Monitoring Well
- Location of 4-inch Recovery Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks

Groundwater COC Concentration Data - Oxygenates

Sample #	DIPE (ug/l)	Ethanol (ug/l)	3,3-Dimethyl-1-butanol (ug/l)	ETBE (ug/l)	TAA (ug/l)	TAME (ug/l)	TBA (ug/l)	TBF (ug/l)
MW-3R	1.7J	<2,000	<200	42J	2,500	150	4,300	<200
MW-4R	6.2J	<1,000	<100	170	4,000	390	23,000	<100
MW-5R	4.2J	<1,000	<100	<100	64J	<10	43J	<100
MW-7RR	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-9	NL	NL	NL	NL	NL	NL	NL	NL
MW-10	NL	NL	NL	NL	NL	NL	NL	NL
MW-11	<10	<1,000	<100	<100	<100	<10	<100	<100
MW-14	<1,000	<100,000	<10,000	69J	9,900J	460J	3,200J	<10,000
MW-15	0.65J	<1,000	<100	<100	13J	<10	27J	<100
MW-16	<10	<1,000	<100	<100	<100	<10	<100	<100
MW-17	3.6J	<1,000	<100	<100	<100	<10	<100	<100
MW-18	NL	NL	NL	NL	NL	NL	NL	NL
PW-1R	<10	<1,000	<100	<100	<100	<10	<100	<100
RW-1	12,000	<200,000	<20,000	<20,00	53,000	<2,000	<20,000	<20,000
RW-2	<10	<1,000	<100	2.0J	41J	1.8J	310	<100
RW-3	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
WSW-1	<10	<1,000	<100	<100	<100	<10	<100	<100
RW-1 (Duplicate)	12,000	<100,000	<10,000	<10,000	54,000	<1,000	1,400J	<10,000
Field Blank	<10	<1,000	<100	<100	<100	<10	41J	<100
Trip Blank	<10	<1,000	<100	<100	<100	<10	<100	<100

Notes: Groundwater samples collected on July 25, 2012.
NL = Not Located
NT = Not Tested
PROD = Free Phase Petroleum Detected
DIPE = Diisopropyl Ether
ETBE = Ethyl tert-butyl Ether
TAA = tert-Amyl Alcohol
TAME = tert-Amy Methyl Ether
TBA = tert-Butyl Alcohol
TBF = tert-Butyl Formate

GRAPHIC SCALE
0 50 100 150 200
1IN = 100FT

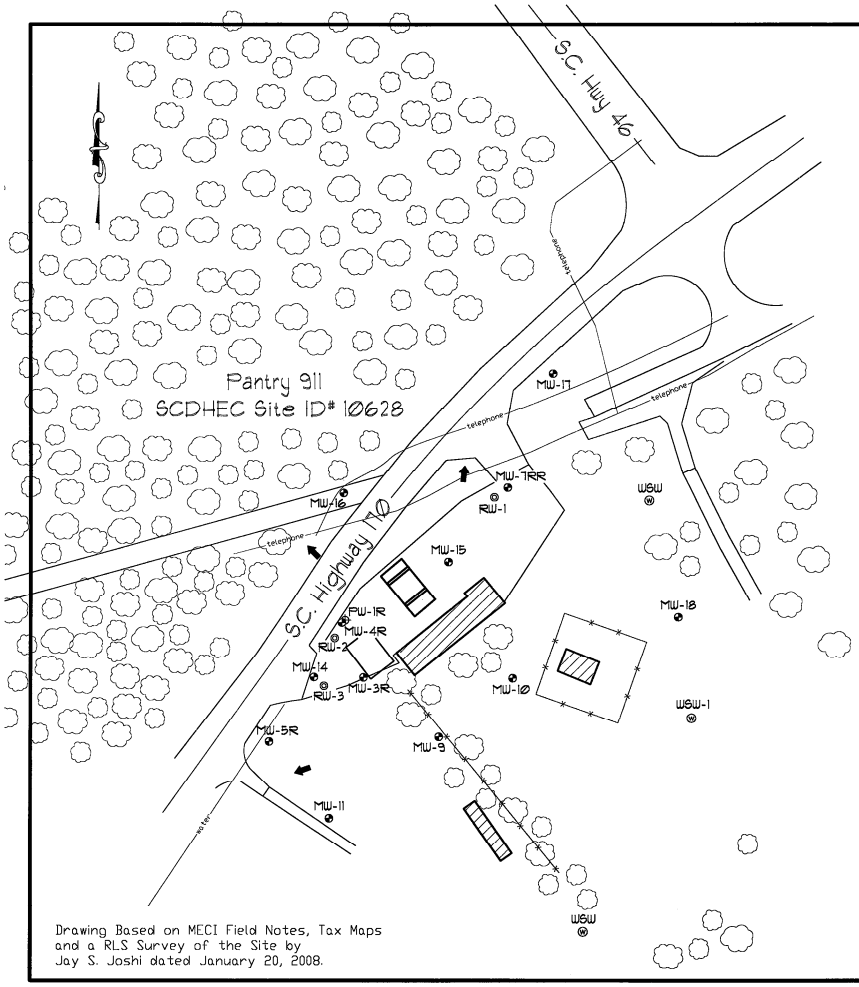
ALL LOCATIONS ARE APPROXIMATE

Groundwater CoC Site Map
(Oxygenates)

Pantry 911
6135 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 12-4031
DATE August 9, 2012
FIGURE 4A



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Waterable Bracketing Monitoring Well
- Location of Double Cased "Deep" Monitoring Well
- Location of 4-Inch Recovery Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks

Potentiometric Data

Well #	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Well Head Elevation	Groundwater Elevation
MW-3R	2-12	---	2.91	---	94.56	91.65
MW-4R	5-15	---	7.61	---	93.75	86.14
MW-5R	5-15	---	7.35	---	91.70	84.35
MW-7RR	2-12	10.61	10.72	0.11	95.80	85.17
MW-9	8-18	---	NL	---	96.73	NL
MW-10	2-12	---	NL	---	93.29	NL
MW-11	2-12	---	3.90	---	91.62	87.72
MW-14	3.05-13.05	---	2.29	---	93.23	90.94
MW-15	2-12	---	4.80	---	96.12	91.32
MW-16	7-17	---	12.83	---	97.02	84.19
MW-17	3-13	---	9.49	---	94.96	85.47
MW-18	2-12	---	NL	---	91.34	NL
PW-1R	30-35	---	9.59	---	93.47	83.88
RW-1	2-12	---	10.53	---	96.15	85.62
RW-2	2-12	---	2.59	---	93.56	90.97
RW-3	2-12	2.56	2.61	0.05	93.22	90.65

Notes:
Depth to groundwater measured on July 25, 2012.
Site Datum Based on Assumed Spot Elevation.
Contour Interval = 2.00 Feet
Monitoring well PW-1R not used in contouring.
Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE
0 50 100 150 200
1IN = 100FT
ALL LOCATIONS ARE APPROXIMATE

Potentiometric Data Site Map
(Groundwater Contour)

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 12-4034
DATE August 9, 2012
FIGURE 5

Construction of Geologic Cross Sections were not part of this assessment. In order to conform with formatting guidelines provided by the SCDHEC UST Management Division Programmatic Quality Assurance Program Plan (QAPP), this filler Figure is included to provide report continuity.

Midlands Environmental Consultants, Inc.	Geologic Cross Sections
Site Name Site Location, South Carolina SCDHEC Site ID: *****	
Figure 6	MECI **-****

APPENDIX A:

SITE SURVEY

This appendix is not applicable to the scope of services presented in the subject report, however this page has been included in order to conform to the SCDHEC UST Management Division Programmatic QAPP and provide report continuity

APPENDIX B:

SAMPLING LOGS, LABORATORY DATA SHEETS, & CHAIN-OF-CUSTODY FORMS

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 7/25/2012

Field Personnel: Brian Owen & Darcie Odom

General Weather Conditions: Sunny

Ambient Air Temperature: 31.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** MW-3R

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	2.91			feet
Total Well Depth (TWD)	12			feet
Length of the water column (LWC=TWD-DGW)			9.09	feet
1 casing volume (CV=LWC X C)= _____ X		0.163	1.48	gallons
3 casing volume (3 X CV)=		3	4.45	gallons

Total Volume of Water Purged Before Sampling 1.5 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	14:19	14:23						
pH (s.u.)	4.48	3.64						
Specific Conductivity (µmhos/cm)	178.1	360.4						
Water Temperature (°C)	29.30	27.6						
Dissolved Oxygen	0.24	0.89						
Turbidity (NTU)	240+	240+						
PID readings, if required								

Remarks: Sample Time: 14:23 **Dry at 1.5 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 7/25/2012

Field Personnel: Brian Owen & Darcie Odom

General Weather Conditions: Sunny

Ambient Air Temperature: 31.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912A1	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** MW-4R

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:			feet
Depth to Free Product (DFP)			feet
Depth to Ground Water (DGW)	7.61		feet
Total Well Depth (TWD)	15		feet
Length of the water column (LWC=TWD-DGW)		7.39	feet
1 casing volume (CV=LWC X C)= ____ X	0.163	1.20	gallons
3 casing volume (3 X CV)=	3	3.61	gallons

Total Volume of Water Purged Before Sampling 1 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	13:34	13:36						
pH (s.u.)	4.61	4.57						
Specific Conductivity (µmhos/cm)	209.1	207.5						
Water Temperature (°C)	26.30	26.4						
Dissolved Oxygen	0.89	0.84						
Turbidity (NTU)	240+	240+						
PID readings, if required								

Remarks: Sample Time: 13:36 **Dry at 1.0 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 7/25/2012
Field Personnel: Brian Owen & Darcie Odom
General Weather Conditions: Sunny

Ambient Air Temperature: 31.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911
Site ID#: 10628 **Monitoring Well #** MW-5R
Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	7.35			feet
Total Well Depth (TWD)	15			feet
Length of the water column (LWC=TWD-DGW)			7.65	feet
1 casing volume (CV=LWC X C)=	____ X	0.163	1.25	gallons
3 casing volume (3 X CV)=		3	3.74	gallons

Total Volume of Water Purged Before Sampling 1 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	12:27	12:29						
pH (s.u.)	4.49	4.48						
Specific Conductivity (µmhos/cm)	420.6	464.7						
Water Temperature (°C)	23.30	23.6						
Dissolved Oxygen	0.77	1.88						
Turbidity (NTU)	240+	240+						
PID readings, if required								

Remarks: Sample Time: 12:29 **Dry at 1.0 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 7/25/2012

Field Personnel: Brian Owen & Darcie Odom

General Weather Conditions: Sunny

Ambient Air Temperature: 31.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** MW-7RR

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:	0.11		feet
Depth to Free Product (DFP)	10.61		feet
Depth to Ground Water (DGW)	10.72		feet
Total Well Depth (TWD)	12		feet
Length of the water column (LWC=TWD-DGW)		1.28	feet
1 casing volume (CV=LWC X C)= ____ X	0.163	0.21	gallons
3 casing volume (3 X CV)=	3	0.63	gallons

Total Volume of Water Purged Before Sampling 0 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	12:21							
pH (s.u.)	PROD							
Specific Conductivity (µmhos/cm)	PROD							
Water Temperature (°C)	PROD							
Dissolved Oxygen	PROD							
Turbidity (NTU)	PROD							
PID readings, if required								

Remarks: Sample Time: 12:21 **Free Phase Petroleum Encountered**
No Sample Collected

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 7/25/2012

Field Personnel: Brian Owen & Darcie Odom

General Weather Conditions: Sunny

Ambient Air Temperature: 31.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** MW-11

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	3.90			feet
Total Well Depth (TWD)	12			feet
Length of the water column (LWC=TWD-DGW)			8.1	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	1.32	gallons
3 casing volume (3 X CV)=		3	3.96	gallons

Total Volume of Water Purged Before Sampling 1.5 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	12:11	12:14						
pH (s.u.)	5.94	5.96						
Specific Conductivity (µmhos/cm)	311.30	304.1						
Water Temperature (°C)	23.20	22.8						
Dissolved Oxygen	0.89	1.85						
Turbidity (NTU)	240+	240+						
PID readings, if required								

Remarks: Sample Time: 12:14 **Dry at 1.5 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 7/25/2012

Field Personnel: Brian Owen & Darcie Odom

General Weather Conditions: Sunny

Ambient Air Temperature: 31.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** MW-14

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	2.29			feet
Total Well Depth (TWD)	12			feet
Length of the water column (LWC=TWD-DGW)			9.71	feet
1 casing volume (CV=LWC X C)= _____ X		0.163	1.58	gallons
3 casing volume (3 X CV)=		3	4.75	gallons

Total Volume of Water Purged Before Sampling 1.5 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	14:01	14:06						
pH (s.u.)	5.71	5.72						
Specific Conductivity (µmhos/cm)	303.50	296.4						
Water Temperature (°C)	30.00	29.6						
Dissolved Oxygen	0.64	0.81						
Turbidity (NTU)	240+	240+						
PID readings, if required								

Remarks: Sample Time: 14:06 **Dry at 1.5 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 7/25/2012

Field Personnel: Brian Owen & Darcie Odom

General Weather Conditions: Sunny

Ambient Air Temperature: 31.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** MW-15

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	4.80			feet
Total Well Depth (TWD)	12			feet
Length of the water column (LWC=TWD-DGW)			7.2	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	1.17	gallons
3 casing volume (3 X CV)=		3	3.52	gallons

Total Volume of Water Purged Before Sampling 1 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	13:11							
pH (s.u.)	6.02							
Specific Conductivity (µmhos/cm)	501.3							
Water Temperature (°C)	28.3							
Dissolved Oxygen	1.46							
Turbidity (NTU)	240+							
PID readings, if required								

Remarks: Sample Time: 13:11 **Dry at 1.0 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 7/25/2012

Field Personnel: Brian Owen & Darcie Odom

General Weather Conditions: Sunny

Ambient Air Temperature: 31.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** MW-16

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	12.83			feet
Total Well Depth (TWD)	17			feet
Length of the water column (LWC=TWD-DGW)			4.17	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	0.68	gallons
3 casing volume (3 X CV)=		3	2.04	gallons

Total Volume of Water Purged Before Sampling 1 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	12:02	12:04						
pH (s.u.)	5.22	5.15						
Specific Conductivity (µmhos/cm)	253.3	168.8						
Water Temperature (°C)	24.2	23.4						
Dissolved Oxygen	0.97	0.95						
Turbidity (NTU)	240+	240+						
PID readings, if required								

Remarks: Sample Time: 12:04 **Dry at 1.0 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 7/25/2012

Field Personnel: Brian Owen & Darcie Odom

General Weather Conditions: Sunny

Ambient Air Temperature: 31.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** MW-17

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	9.49			feet
Total Well Depth (TWD)	13			feet
Length of the water column (LWC=TWD-DGW)			3.51	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	0.57	gallons
3 casing volume (3 X CV)=		3	1.72	gallons

Total Volume of Water Purged Before Sampling 0.5 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:24	11:27						
pH (s.u.)	5.34	5.31						
Specific Conductivity (µmhos/cm)	176.8	122.7						
Water Temperature (°C)	25.2	25.0						
Dissolved Oxygen	1.34	1.06						
Turbidity (NTU)	240+	240+						
PID readings, if required								

Remarks: Sample Time: 11:27 **Dry at 0.5 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 7/25/2012

Field Personnel: Brian Owen & Darcie Odom

General Weather Conditions: Sunny

Ambient Air Temperature: 31.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** PW-1R

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	9.59			feet
Total Well Depth (TWD)	35			feet
Length of the water column (LWC=TWD-DGW)			25.41	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	4.14	gallons
3 casing volume (3 X CV)=		3	12.43	gallons

Total Volume of Water Purged Before Sampling 4.5 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	13:26	13:29						
pH (s.u.)	6.68	6.75						
Specific Conductivity (µmhos/cm)	267.5	239.5						
Water Temperature (°C)	27.1	24.3						
Dissolved Oxygen	1.54	0.91						
Turbidity (NTU)	150	240+						
PID readings, if required								

Remarks: Sample Time: 13:29 **Dry at 4.5 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 7/25/2012

Field Personnel: Brian Owen & Darcie Odom

General Weather Conditions: Sunny

Ambient Air Temperature: 31.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** RW-1

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 4 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	10.53			feet
Total Well Depth (TWD)	12			feet
Length of the water column (LWC=TWD-DGW)			1.47	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	0.24	gallons
3 casing volume (3 X CV)=		3	0.72	gallons

Total Volume of Water Purged Before Sampling 0 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	12:59							
pH (s.u.)	Ins.							
Specific Conductivity (µmhos/cm)	Ins.							
Water Temperature (°C)	Ins.							
Dissolved Oxygen	Ins.							
Turbidity (NTU)	Ins.							
PID readings, if required								

Remarks: Sample Time: 12:59 **Insufficient Water to Purge**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 7/25/2012

Field Personnel: Brian Owen & Darcie Odom

General Weather Conditions: Sunny

Ambient Air Temperature: 31.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** RW-2

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 4 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:			feet
Depth to Free Product (DFP)			feet
Depth to Ground Water (DGW)	2.59		feet
Total Well Depth (TWD)	12		feet
Length of the water column (LWC=TWD-DGW)		9.41	feet
1 casing volume (CV=LWC X C)= ____ X	0.652	6.14	gallons
3 casing volume (3 X CV)=	3	18.41	gallons

Total Volume of Water Purged Before Sampling 6.5 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	13:50	13:54						
pH (s.u.)	6.13	6.26						
Specific Conductivity (µmhos/cm)	551.0	618.0						
Water Temperature (°C)	30.3	27.9						
Dissolved Oxygen	0.42	0.27						
Turbidity (NTU)	240+	240+						
PID readings, if required								

Remarks: Sample Time: 13:54 **Dry at 6.5 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 7/25/2012

Field Personnel: Brian Owen & Darcie Odom

General Weather Conditions: Sunny

Ambient Air Temperature: 31.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** RW-3

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 4 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:	0.05			feet
Depth to Free Product (DFP)	2.56			feet
Depth to Ground Water (DGW)	2.61			feet
Total Well Depth (TWD)	12			feet
Length of the water column (LWC=TWD-DGW)			9.39	feet
1 casing volume (CV=LWC X C)= _____ X		0.163	1.53	gallons
3 casing volume (3 X CV)=		3	4.59	gallons

Total Volume of Water Purged Before Sampling 0 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	14:00							
pH (s.u.)	PROD							
Specific Conductivity (µmhos/cm)	PROD							
Water Temperature (°C)	PROD							
Dissolved Oxygen	PROD							
Turbidity (NTU)	PROD							
PID readings, if required								

Remarks: Sample Time: 14:00 **Free Phase Petroleum Encountered**
No Sample Collected

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

Midlands Environmental Consultants, Inc.
235 Dooley Rd
Lexington, SC 29073
Attention: Bryan Shane

Project Name: **Pantry 911**

Project Number: **12-4034**

Lot Number: **NG26038**

Date Completed: **08/09/2012**

Kelly M. Maberry
Project Manager

ACCREDITED IN ACCORDANCE WITH nelac

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* NG26038 *

Case Narrative
Midlands Environmental Consultants, Inc.
Lot Number: NG26038

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Receiving
Samples -002, -004, -006, -010, -011,-013, -014 and -015 for volatiles analysis contained vials with air bubbles greater than ¼" or 6mm in diameter. The laboratory uses these vials for screening and the vials without bubbles for analysis whenever possible. Condition of samples is documented on the Sample Receipt Checklist (SRC).

GC/MS Volatiles
The LCS/LCSD associated with batch 90728 had tert-butyl formate, ethanol, ethyl-tert-butyl ether and 1,2-dichloroethane recovered above the acceptance limits and the RPD exceeded method control limits for ethanol. This demonstrates a high bias on analytical results. There were no detections for these compounds in the samples associated with this batch; therefore, data quality is not impacted.

The RPD for tert-butyl formate and ethanol exceeded method control limits in batch 90613; however, all other QA/QC criteria for this compound in the LCS/LCSD were within acceptance criteria and method control limits. The associated sample results were reported and no corrective action was required.

The MS associated with sample -010 had ethanol and tert-butyl formate recovered outside of the acceptance limits. This demonstrates a matrix effect and data quality is not impacted.

EDB/DBCP
Sample -001 had the surrogate recovered above the acceptance limits. This reflects a high bias for compounds associated with this surrogate. There were no detections for these compounds in the sample; therefore, there is no impact on data quality and no corrective action is required.

Sample Summary

Midlands Environmental Consultants, Inc.

Lot Number: NG26038

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	MW-3R	Aqueous	07/25/2012 1423	07/26/2012
002	MW-4R	Aqueous	07/25/2012 1336	07/26/2012
003	MW-5R	Aqueous	07/25/2012 1229	07/26/2012
004	MW-11	Aqueous	07/25/2012 1214	07/26/2012
005	MW-14	Aqueous	07/25/2012 1406	07/26/2012
006	MW-15	Aqueous	07/25/2012 1311	07/26/2012
007	MW-16	Aqueous	07/25/2012 1204	07/26/2012
008	MW-17	Aqueous	07/25/2012 1127	07/26/2012
009	PW-1R	Aqueous	07/25/2012 1329	07/26/2012
010	RW-1	Aqueous	07/25/2012 1259	07/26/2012
011	RW-2	Aqueous	07/25/2012 1354	07/26/2012
012	WSW-1	Aqueous	07/25/2012 1151	07/26/2012
013	RW-1 Dup	Aqueous	07/25/2012 1259	07/26/2012
014	Field Blank	Aqueous	07/25/2012 1330	07/26/2012
015	Trip Blank	Aqueous	07/25/2012 1331	07/26/2012

(15 samples)

Executive Summary

Midlands Environmental Consultants, Inc.

Lot Number: NG26038

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	MW-3R	Aqueous	Benzene	8260B	1600		ug/L	6
001	MW-3R	Aqueous	Ethylbenzene	8260B	740		ug/L	6
001	MW-3R	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	970		ug/L	6
001	MW-3R	Aqueous	Naphthalene	8260B	180		ug/L	6
001	MW-3R	Aqueous	Toluene	8260B	2500		ug/L	6
001	MW-3R	Aqueous	Xylenes (total)	8260B	4000		ug/L	6
001	MW-3R	Aqueous	Diisopropyl ether (IPE)	8260B	1.7	J	ug/L	6
001	MW-3R	Aqueous	Ethyl-tert-butyl ether (ETBE)	8260B	42	J	ug/L	6
001	MW-3R	Aqueous	tert-Amyl alcohol (TAA)	8260B	2500		ug/L	6
001	MW-3R	Aqueous	tert-Amyl methyl ether (TAME)	8260B	150		ug/L	6
001	MW-3R	Aqueous	tert-butyl alcohol (TBA)	8260B	4300		ug/L	6
002	MW-4R	Aqueous	Benzene	8260B	2200		ug/L	8
002	MW-4R	Aqueous	1,2-Dichloroethane	8260B	62		ug/L	8
002	MW-4R	Aqueous	Ethylbenzene	8260B	470		ug/L	8
002	MW-4R	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	4200		ug/L	8
002	MW-4R	Aqueous	Naphthalene	8260B	260		ug/L	8
002	MW-4R	Aqueous	Toluene	8260B	2500		ug/L	8
002	MW-4R	Aqueous	Xylenes (total)	8260B	1600		ug/L	8
002	MW-4R	Aqueous	Diisopropyl ether (IPE)	8260B	6.2	J	ug/L	8
002	MW-4R	Aqueous	Ethyl-tert-butyl ether (ETBE)	8260B	170		ug/L	8
002	MW-4R	Aqueous	tert-Amyl alcohol (TAA)	8260B	4000		ug/L	8
002	MW-4R	Aqueous	tert-Amyl methyl ether (TAME)	8260B	390		ug/L	8
002	MW-4R	Aqueous	tert-butyl alcohol (TBA)	8260B	23000		ug/L	8
003	MW-5R	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	8.9		ug/L	10
003	MW-5R	Aqueous	Diisopropyl ether (IPE)	8260B	4.2	J	ug/L	10
003	MW-5R	Aqueous	tert-Amyl alcohol (TAA)	8260B	64	J	ug/L	10
003	MW-5R	Aqueous	tert-butyl alcohol (TBA)	8260B	43	J	ug/L	10
004	MW-11	Aqueous	Toluene	8260B	22		ug/L	12
005	MW-14	Aqueous	Benzene	8260B	9200		ug/L	14
005	MW-14	Aqueous	Ethylbenzene	8260B	3300		ug/L	14
005	MW-14	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	1600		ug/L	14
005	MW-14	Aqueous	Naphthalene	8260B	540		ug/L	14
005	MW-14	Aqueous	Toluene	8260B	15000		ug/L	14
005	MW-14	Aqueous	Xylenes (total)	8260B	14000		ug/L	14
005	MW-14	Aqueous	Ethyl-tert-butyl ether (ETBE)	8260B	69	J	ug/L	14
005	MW-14	Aqueous	tert-Amyl alcohol (TAA)	8260B	9900	J	ug/L	14
005	MW-14	Aqueous	tert-Amyl methyl ether (TAME)	8260B	460	J	ug/L	14
005	MW-14	Aqueous	tert-butyl alcohol (TBA)	8260B	3200	J	ug/L	14
006	MW-15	Aqueous	Benzene	8260B	1.1	J	ug/L	16
006	MW-15	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	1.2	J	ug/L	16
006	MW-15	Aqueous	Toluene	8260B	2.0	J	ug/L	16
006	MW-15	Aqueous	Xylenes (total)	8260B	2.1	J	ug/L	16
006	MW-15	Aqueous	Diisopropyl ether (IPE)	8260B	0.65	J	ug/L	16
006	MW-15	Aqueous	tert-Amyl alcohol (TAA)	8260B	13	J	ug/L	16
006	MW-15	Aqueous	tert-butyl alcohol (TBA)	8260B	27	J	ug/L	16

Executive Summary (Continued)

Lot Number: NG26038

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
007	MW-16	Aqueous	Benzene	8260B	0.30	J	ug/L	18
008	MW-17	Aqueous	Benzene	8260B	0.23	J	ug/L	20
008	MW-17	Aqueous	Diisopropyl ether (IPE)	8260B	3.6	J	ug/L	20
010	RW-1	Aqueous	Benzene	8260B	31000		ug/L	24
010	RW-1	Aqueous	1,2-Dichloroethane	8260B	1500		ug/L	24
010	RW-1	Aqueous	Ethylbenzene	8260B	2800		ug/L	24
010	RW-1	Aqueous	Naphthalene	8260B	510	J	ug/L	24
010	RW-1	Aqueous	Toluene	8260B	32000		ug/L	24
010	RW-1	Aqueous	Xylenes (total)	8260B	13000		ug/L	24
010	RW-1	Aqueous	Diisopropyl ether (IPE)	8260B	12000		ug/L	24
010	RW-1	Aqueous	tert-Amyl alcohol (TAA)	8260B	53000		ug/L	24
010	RW-1	Aqueous	1,2-Dibromoethane (EDB)	8011	1.2		ug/L	25
011	RW-2	Aqueous	Benzene	8260B	160		ug/L	26
011	RW-2	Aqueous	Ethylbenzene	8260B	67		ug/L	26
011	RW-2	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	13		ug/L	26
011	RW-2	Aqueous	Naphthalene	8260B	8.7		ug/L	26
011	RW-2	Aqueous	Toluene	8260B	3.6	J	ug/L	26
011	RW-2	Aqueous	Xylenes (total)	8260B	69		ug/L	26
011	RW-2	Aqueous	Ethyl-tert-butyl ether (ETBE)	8260B	2.0	J	ug/L	26
011	RW-2	Aqueous	tert-Amyl alcohol (TAA)	8260B	41	J	ug/L	26
011	RW-2	Aqueous	tert-Amyl methyl ether (TAME)	8260B	1.8	J	ug/L	26
011	RW-2	Aqueous	tert-butyl alcohol (TBA)	8260B	310		ug/L	26
013	RW-1 Dup	Aqueous	Benzene	8260B	30000		ug/L	30
013	RW-1 Dup	Aqueous	1,2-Dichloroethane	8260B	1500		ug/L	30
013	RW-1 Dup	Aqueous	Ethylbenzene	8260B	2700		ug/L	30
013	RW-1 Dup	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	53	J	ug/L	30
013	RW-1 Dup	Aqueous	Naphthalene	8260B	500		ug/L	30
013	RW-1 Dup	Aqueous	Toluene	8260B	30000		ug/L	30
013	RW-1 Dup	Aqueous	Xylenes (total)	8260B	12000		ug/L	30
013	RW-1 Dup	Aqueous	Diisopropyl ether (IPE)	8260B	12000		ug/L	30
013	RW-1 Dup	Aqueous	tert-Amyl alcohol (TAA)	8260B	54000		ug/L	30
013	RW-1 Dup	Aqueous	tert-butyl alcohol (TBA)	8260B	1400	J	ug/L	30
013	RW-1 Dup	Aqueous	1,2-Dibromoethane (EDB)	8011	0.86		ug/L	31
014	Field Blank	Aqueous	tert-butyl alcohol (TBA)	8260B	41	J	ug/L	32

(79 detections)

Client: **Midlands Environmental Consultants, Inc.** Laboratory ID: **NG26038-001**

Description: **MW-3R** Matrix: **Aqueous**

Date Sampled: **07/25/2012 1423**

Date Received: **07/26/2012**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	2	08/08/2012 0359	DD		90894

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	**71-43-2**	**8260B**	**1600**		**10**	**0.40**	**ug/L**	**2**
1,2-Dichloroethane	107-06-2	8260B	ND		10	0.60	ug/L	2
Ethylbenzene	**100-41-4**	**8260B**	**740**		**10**	**3.4**	**ug/L**	**2**
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**970**		**10**	**0.80**	**ug/L**	**2**
Naphthalene	**91-20-3**	**8260B**	**180**		**10**	**3.4**	**ug/L**	**2**
Toluene	**108-88-3**	**8260B**	**2500**		**10**	**3.4**	**ug/L**	**2**
Xylenes (total)	**1330-20-7**	**8260B**	**4000**		**10**	**3.4**	**ug/L**	**2**

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		99	70-130

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	2	08/08/2012 0359	DD		90894

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**1.7**	**J**	**20**	**0.80**	**ug/L**	**2**
Ethanol	64-17-5	8260B	ND		2000	66	ug/L	2
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		200	2.0	ug/L	2
Ethyl-tert-butyl ether (ETBE)	**637-92-3**	**8260B**	**42**	**J**	**200**	**0.40**	**ug/L**	**2**
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**2500**		**200**	**13**	**ug/L**	**2**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**150**		**20**	**0.40**	**ug/L**	**2**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**4300**		**200**	**13**	**ug/L**	**2**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		200	2.0	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
Bromofluorobenzene		96	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		99	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/01/2012 0921	AMB	07/28/2012 1612	90183

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Client: **Midlands Environmental Consultants, Inc.**
Laboratory ID: **NG26038-001**

Description: **MW-3R**
Matrix: **Aqueous**

Date Sampled: **07/25/2012 1423**

Date Received: **07/26/2012**

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/01/2012 0921	AMB	07/28/2012 1612	90183

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane	N	793	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
* = Reportable result (only when report all runs)
H = Out of holding time
N = Recovery is out of criteria

Client: **Midlands Environmental Consultants, Inc.** Laboratory ID: **NG26038-002**

Description: **MW-4R** Matrix: **Aqueous**

Date Sampled: **07/25/2012 1336**

Date Received: **07/26/2012**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/03/2012 0319	JJG		90613
2	5030B	8260B	1	08/08/2012 0423	DD		90894

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	**71-43-2**	**8260B**	**2200**		**5.0**	**0.20**	**ug/L**	**2**
1,2-Dichloroethane	**107-06-2**	**8260B**	**62**		**5.0**	**0.30**	**ug/L**	**1**
Ethylbenzene	**100-41-4**	**8260B**	**470**		**5.0**	**1.7**	**ug/L**	**2**
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**4200**		**5.0**	**0.40**	**ug/L**	**2**
Naphthalene	**91-20-3**	**8260B**	**260**		**5.0**	**1.7**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**2500**		**5.0**	**1.7**	**ug/L**	**2**
Xylenes (total)	**1330-20-7**	**8260B**	**1600**		**5.0**	**1.7**	**ug/L**	**2**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		95	70-130		96	70-130
Bromofluorobenzene		99	70-130		98	70-130
Toluene-d8		96	70-130		99	70-130

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/03/2012 0319	JJG		90613
2	5030B	8260B	1	08/08/2012 0423	DD		90894

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**6.2**	**J**	**10**	**0.40**	**ug/L**	**1**
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethyl-tert-butyl ether (ETBE)	**637-92-3**	**8260B**	**170**		**100**	**0.20**	**ug/L**	**1**
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**4000**		**100**	**6.7**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**390**		**10**	**0.20**	**ug/L**	**2**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**23000**		**100**	**6.7**	**ug/L**	**2**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
Bromofluorobenzene		99	70-130		98	70-130
1,2-Dichloroethane-d4		95	70-130		96	70-130
Toluene-d8		96	70-130		99	70-130

PQL = Practical quantitation limit | B = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | H = Out of holding time

ND = Not detected at or above the MDL | J = Estimated result < PQL and ≥ MDL | P = The RPD between two GC columns exceeds 40% | N = Recovery is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W" | * = Reportable result (only when report all runs)

Client: **Midlands Environmental Consultants, Inc.** Laboratory ID: **NG26038-002**

Description: **MW-4R** Matrix: **Aqueous**

Date Sampled: **07/25/2012 1336**

Date Received: **07/26/2012**

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/01/2012 0942	AMB	07/28/2012 1612	90183

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		84	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Client: **Midlands Environmental Consultants, Inc.** Laboratory ID: **NG26038-003**

Description: **MW-5R** Matrix: **Aqueous**

Date Sampled: **07/25/2012 1229**

Date Received: **07/26/2012**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/03/2012 1058	BDC		90675

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**8.9**		**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		92	70-130

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/03/2012 1058	BDC		90675
2	5030B	8260B	1	08/07/2012 1119	BDC		90865

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**4.2**	**J**	**10**	**0.40**	**ug/L**	**1**
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**64**	**J**	**100**	**6.7**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**43**	**J**	**100**	**6.7**	**ug/L**	**2**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
Bromofluorobenzene		96	70-130		102	70-130
1,2-Dichloroethane-d4		102	70-130		108	70-130
Toluene-d8		92	70-130		104	70-130

PQL = Practical quantitation limit | B = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | H = Out of holding time

ND = Not detected at or above the MDL | J = Estimated result < PQL and ≥ MDL | P = The RPD between two GC columns exceeds 40% | N = Recovery is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W" | * = Reportable result (only when report all runs)

Client: **Midlands Environmental Consultants, Inc.**
Laboratory ID: **NG26038-003**

Description: **MW-5R**
Matrix: **Aqueous**

Date Sampled: **07/25/2012 1229**

Date Received: **07/26/2012**

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/01/2012 1004	AMB	07/28/2012 1612	90183

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		83	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
* = Reportable result (only when report all runs)
H = Out of holding time
N = Recovery is out of criteria

Client: **Midlands Environmental Consultants, Inc.** Laboratory ID: **NG26038-004**

Description: **MW-11** Matrix: **Aqueous**

Date Sampled: **07/25/2012 1214**

Date Received: **07/26/2012**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	1	08/07/2012 1049	BDC		90871

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	2
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	2
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	2
Toluene	**108-88-3**	**8260B**	**22**		**5.0**	**1.7**	**ug/L**	**2**
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		103	70-130
Toluene-d8		98	70-130

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	1	08/07/2012 1049	BDC		90871

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	2
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	2
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	2
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	2
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	2
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	2
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	2
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
Bromofluorobenzene		103	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		98	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/01/2012 1025	AMB	07/28/2012 1612	90183

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Client: **Midlands Environmental Consultants, Inc.** Laboratory ID: **NG26038-004**

Description: **MW-11** Matrix: **Aqueous**

Date Sampled: **07/25/2012 1214**

Date Received: **07/26/2012**

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/01/2012 1025	AMB	07/28/2012 1612	90183

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		98	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
* = Reportable result (only when report all runs)
H = Out of holding time
N = Recovery is out of criteria

Client: **Midlands Environmental Consultants, Inc.** Laboratory ID: **NG26038-005**

Description: **MW-14** Matrix: **Aqueous**

Date Sampled: **07/25/2012 1406**

Date Received: **07/26/2012**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	100	08/03/2012 0405	JJG		90613

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	**71-43-2**	**8260B**	**9200**		**500**	**20**	**ug/L**	**1**
1,2-Dichloroethane	107-06-2	8260B	ND		500	30	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**3300**		**500**	**170**	**ug/L**	**1**
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**1600**		**500**	**40**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**540**		**500**	**170**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**15000**		**500**	**170**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**14000**		**500**	**170**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		113	70-130
Bromofluorobenzene		114	70-130
Toluene-d8		112	70-130

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	100	08/03/2012 0405	JJG		90613

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1000	40	ug/L	1
Ethanol	64-17-5	8260B	ND		100000	3300	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		10000	100	ug/L	1
Ethyl-tert-butyl ether (ETBE)	**637-92-3**	**8260B**	**69**	**J**	**10000**	**20**	**ug/L**	**1**
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**9900**	**J**	**10000**	**670**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**460**	**J**	**1000**	**20**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**3200**	**J**	**10000**	**670**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		10000	100	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		114	70-130
1,2-Dichloroethane-d4		113	70-130
Toluene-d8		112	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/01/2012 1046	AMB	07/28/2012 1612	90183

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Client: **Midlands Environmental Consultants, Inc.** Laboratory ID: **NG26038-005**

Description: **MW-14** Matrix: **Aqueous**

Date Sampled: **07/25/2012 1406**

Date Received: **07/26/2012**

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/01/2012 1046	AMB	07/28/2012 1612	90183

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		85	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Client: **Midlands Environmental Consultants, Inc.**
Laboratory ID: **NG26038-006**
Description: **MW-15**
Matrix: **Aqueous**
Date Sampled: **07/25/2012 1311**
Date Received: **07/26/2012**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/03/2012 0428	JJG		90613

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	**71-43-2**	**8260B**	**1.1**	**J**	**5.0**	**0.20**	**ug/L**	**1**
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**1.2**	**J**	**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
Toluene	**108-88-3**	**8260B**	**2.0**	**J**	**5.0**	**1.7**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**2.1**	**J**	**5.0**	**1.7**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		100	70-130
Toluene-d8		98	70-130

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/03/2012 0428	JJG		90613

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**0.65**	**J**	**10**	**0.40**	**ug/L**	**1**
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**13**	**J**	**100**	**6.7**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**27**	**J**	**100**	**6.7**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		101	70-130
Toluene-d8		98	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/01/2012 1108	AMB	07/28/2012 1612	90183

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Client: **Midlands Environmental Consultants, Inc.** Laboratory ID: **NG26038-006**

Description: **MW-15** Matrix: **Aqueous**

Date Sampled: **07/25/2012 1311**

Date Received: **07/26/2012**

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/01/2012 1108	AMB	07/28/2012 1612	90183

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		91	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
* = Reportable result (only when report all runs)
H = Out of holding time
N = Recovery is out of criteria

Client: **Midlands Environmental Consultants, Inc.** Laboratory ID: **NG26038-007**

Description: **MW-16** Matrix: **Aqueous**

Date Sampled: **07/25/2012 1204**

Date Received: **07/26/2012**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/03/2012 0452	JJG		90613

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	**71-43-2**	**8260B**	**0.30**	**J**	**5.0**	**0.20**	**ug/L**	**1**
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		96	70-130

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/03/2012 0452	JJG		90613

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		96	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/01/2012 1129	AMB	07/28/2012 1612	90183

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Client: **Midlands Environmental Consultants, Inc.**
Laboratory ID: **NG26038-007**

Description: **MW-16**
Matrix: **Aqueous**

Date Sampled: **07/25/2012 1204**

Date Received: **07/26/2012**

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/01/2012 1129	AMB	07/28/2012 1612	90183

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		98	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Client: **Midlands Environmental Consultants, Inc.** Laboratory ID: **NG26038-008**

Description: **MW-17** Matrix: **Aqueous**

Date Sampled: **07/25/2012 1127**

Date Received: **07/26/2012**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/03/2012 0514	JJG		90613

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	**71-43-2**	**8260B**	**0.23**	**J**	**5.0**	**0.20**	**ug/L**	**1**
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		95	70-130

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/03/2012 0514	JJG		90613

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**3.6**	**J**	**10**	**0.40**	**ug/L**	**1**
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		97	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		95	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/01/2012 1151	AMB	07/28/2012 1612	90183

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Client: **Midlands Environmental Consultants, Inc.**
Laboratory ID: **NG26038-008**

Description: **MW-17**
Matrix: **Aqueous**

Date Sampled: **07/25/2012 1127**

Date Received: **07/26/2012**

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/01/2012 1151	AMB	07/28/2012 1612	90183

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		86	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
* = Reportable result (only when report all runs)

H = Out of holding time
N = Recovery is out of criteria

Client: **Midlands Environmental Consultants, Inc.** Laboratory ID: **NG26038-009**

Description: **PW-1R** Matrix: **Aqueous**

Date Sampled: **07/25/2012 1329**

Date Received: **07/26/2012**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/03/2012 0537	JJG		90613

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		99	70-130

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/03/2012 0537	JJG		90613

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		103	70-130
Toluene-d8		99	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/01/2012 1212	AMB	07/28/2012 1612	90183

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Client: **Midlands Environmental Consultants, Inc.**
Laboratory ID: **NG26038-009**
Description: **PW-1R**
Matrix: **Aqueous**
Date Sampled: **07/25/2012 1329**
Date Received: **07/26/2012**

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/01/2012 1212	AMB	07/28/2012 1612	90183

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		110	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
* = Reportable result (only when report all runs)
H = Out of holding time
N = Recovery is out of criteria

Client: **Midlands Environmental Consultants, Inc.** Laboratory ID: **NG26038-010**

Description: **RW-1** Matrix: **Aqueous**

Date Sampled: **07/25/2012 1259**

Date Received: **07/26/2012**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	200	08/03/2012 0600	JJG		90613

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	**71-43-2**	**8260B**	**31000**		**1000**	**40**	**ug/L**	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**1500**		**1000**	**60**	**ug/L**	1
Ethylbenzene	**100-41-4**	**8260B**	**2800**		**1000**	**340**	**ug/L**	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1000	80	ug/L	1
Naphthalene	**91-20-3**	**8260B**	**510**	**J**	**1000**	**340**	**ug/L**	1
Toluene	**108-88-3**	**8260B**	**32000**		**1000**	**340**	**ug/L**	1
Xylenes (total)	**1330-20-7**	**8260B**	**13000**		**1000**	**340**	**ug/L**	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		96	70-130

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	200	08/03/2012 0600	JJG		90613

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**12000**		**2000**	**80**	**ug/L**	1
Ethanol	64-17-5	8260B	ND		200000	6600	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20000	200	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		20000	40	ug/L	1
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**53000**		**20000**	**1300**	**ug/L**	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		2000	40	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20000	1300	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		20000	200	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		96	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	8011	8011	2	08/01/2012 1707	AMB	07/28/2012 1612	90183

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Client: **Midlands Environmental Consultants, Inc.**
Laboratory ID: **NG26038-010**

Description: **RW-1**
Matrix: **Aqueous**

Date Sampled: **07/25/2012 1259**

Date Received: **07/26/2012**

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	8011	8011	2	08/01/2012 1707	AMB	07/28/2012 1612	90183

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**1.2**		**0.040**	**0.040**	**ug/L**	**2**

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		131	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Client: **Midlands Environmental Consultants, Inc.** Laboratory ID: **NG26038-011**

Description: **RW-2** Matrix: **Aqueous**

Date Sampled: **07/25/2012 1354**

Date Received: **07/26/2012**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/03/2012 0623	JJG		90613

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	**71-43-2**	**8260B**	**160**		**5.0**	**0.20**	**ug/L**	**1**
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**67**		**5.0**	**1.7**	**ug/L**	**1**
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**13**		**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**8.7**		**5.0**	**1.7**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**3.6**	**J**	**5.0**	**1.7**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**69**		**5.0**	**1.7**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		109	70-130
Bromofluorobenzene		105	70-130
Toluene-d8		105	70-130

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/03/2012 0623	JJG		90613

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethyl-tert-butyl ether (ETBE)	**637-92-3**	**8260B**	**2.0**	**J**	**100**	**0.20**	**ug/L**	**1**
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**41**	**J**	**100**	**6.7**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**1.8**	**J**	**10**	**0.20**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**310**		**100**	**6.7**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		105	70-130
1,2-Dichloroethane-d4		109	70-130
Toluene-d8		105	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/01/2012 1255	AMB	07/28/2012 1612	90183

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Client: **Midlands Environmental Consultants, Inc.** Laboratory ID: **NG26038-011**

Description: **RW-2** Matrix: **Aqueous**

Date Sampled: **07/25/2012 1354**

Date Received: **07/26/2012**

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/01/2012 1255	AMB	07/28/2012 1612	90183

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		127	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
* = Reportable result (only when report all runs)

H = Out of holding time
N = Recovery is out of criteria

Client: **Midlands Environmental Consultants, Inc.** Laboratory ID: **NG26038-012**

Description: **WSW-1** Matrix: **Aqueous**

Date Sampled: **07/25/2012 1151**

Date Received: **07/26/2012**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/03/2012 0647	JJG		90613

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		110	70-130
Bromofluorobenzene		105	70-130
Toluene-d8		102	70-130

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/03/2012 0647	JJG		90613

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		105	70-130
1,2-Dichloroethane-d4		110	70-130
Toluene-d8		102	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/01/2012 1316	AMB	07/28/2012 1612	90183

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Client: **Midlands Environmental Consultants, Inc.**
Laboratory ID: **NG26038-012**
Description: **WSW-1**
Matrix: **Aqueous**
Date Sampled: **07/25/2012 1151**
Date Received: **07/26/2012**

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/01/2012 1316	AMB	07/28/2012 1612	90183

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		110	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
* = Reportable result (only when report all runs)
H = Out of holding time
N = Recovery is out of criteria

Client: **Midlands Environmental Consultants, Inc.** Laboratory ID: **NG26038-013**

Description: **RW-1 Dup** Matrix: **Aqueous**

Date Sampled: **07/25/2012 1259**

Date Received: **07/26/2012**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	100	08/03/2012 0710	JJG		90613

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	**71-43-2**	**8260B**	**30000**		**500**	**20**	**ug/L**	**1**
1,2-Dichloroethane	**107-06-2**	**8260B**	**1500**		**500**	**30**	**ug/L**	**1**
Ethylbenzene	**100-41-4**	**8260B**	**2700**		**500**	**170**	**ug/L**	**1**
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**53**	**J**	**500**	**40**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**500**		**500**	**170**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**30000**		**500**	**170**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**12000**		**500**	**170**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		99	70-130

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	100	08/03/2012 0710	JJG		90613

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**12000**		**1000**	**40**	**ug/L**	**1**
Ethanol	64-17-5	8260B	ND		100000	3300	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		10000	100	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		10000	20	ug/L	1
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**54000**		**10000**	**670**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		1000	20	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**1400**	**J**	**10000**	**670**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		10000	100	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		103	70-130
Toluene-d8		99	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/01/2012 1420	AMB	07/28/2012 1612	90183

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Client: **Midlands Environmental Consultants, Inc.** Laboratory ID: **NG26038-013**

Description: **RW-1 Dup** Matrix: **Aqueous**

Date Sampled: **07/25/2012 1259**

Date Received: **07/26/2012**

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/01/2012 1420	AMB	07/28/2012 1612	90183

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.86**		**0.022**	**0.022**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		119	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Client: **Midlands Environmental Consultants, Inc.** Laboratory ID: **NG26038-014**

Description: **Field Blank** Matrix: **Aqueous**

Date Sampled: **07/25/2012 1330**

Date Received: **07/26/2012**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/03/2012 1121	BDC		90675
2	5030B	8260B	1	08/07/2012 1031	BDC		90865

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	2
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130		112	70-130
Bromofluorobenzene		88	70-130		98	70-130
Toluene-d8		85	70-130		105	70-130

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/03/2012 1121	BDC		90675
2	5030B	8260B	1	08/07/2012 1031	BDC		90865

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**41**	**J**	**100**	**6.7**	**ug/L**	**2**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
Bromofluorobenzene		88	70-130		98	70-130
1,2-Dichloroethane-d4		100	70-130		112	70-130
Toluene-d8		85	70-130		105	70-130

PQL = Practical quantitation limit | B = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | H = Out of holding time

ND = Not detected at or above the MDL | J = Estimated result < PQL and ≥ MDL | P = The RPD between two GC columns exceeds 40% | N = Recovery is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W" | * = Reportable result (only when report all runs)

Client: **Midlands Environmental Consultants, Inc.**
Laboratory ID: **NG26038-014**

Description: **Field Blank**
Matrix: **Aqueous**

Date Sampled: **07/25/2012 1330**

Date Received: **07/26/2012**

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	08/01/2012 1645	AMB	07/28/2012 1612	90183

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		104	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
* = Reportable result (only when report all runs)
H = Out of holding time
N = Recovery is out of criteria

Client: **Midlands Environmental Consultants, Inc.** Laboratory ID: **NG26038-015**

Description: **Trip Blank** Matrix: **Aqueous**

Date Sampled: **07/25/2012 1331**

Date Received: **07/26/2012**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/05/2012 1607	BDC		90728

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		103	70-130

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/05/2012 1607	BDC		90728

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		95	70-130
1,2-Dichloroethane-d4		103	70-130
Toluene-d8		103	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: NQ90613-001
Batch: 90613
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	100	6.7	ug/L	08/02/2012 2355
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	08/02/2012 2355
tert-Butyl formate (TBF)	ND		1	100	1.0	ug/L	08/02/2012 2355
Diisopropyl ether (IPE)	ND		1	10	0.40	ug/L	08/02/2012 2355
3,3-Dimethyl-1-butanol	ND		1	100	1.0	ug/L	08/02/2012 2355
Ethanol	ND		1	1000	33	ug/L	08/02/2012 2355
Ethyl-tert-butyl ether (ETBE)	ND		1	100	0.20	ug/L	08/02/2012 2355
tert-butyl alcohol (TBA)	ND		1	100	6.7	ug/L	08/02/2012 2355

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		106	70-130
Toluene-d8		98	70-130

Volatile Organic Compounds by GC/MS - LCS

Sample ID: NQ90613-002
Batch: 90613
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1100		1	114	70-130	08/02/2012 2308
tert-Amyl methyl ether (TAME)	50	49		1	98	70-130	08/02/2012 2308
tert-Butyl formate (TBF)	250	280		1	111	70-130	08/02/2012 2308
Diisopropyl ether (IPE)	50	55		1	110	70-130	08/02/2012 2308
3,3-Dimethyl-1-butanol	1000	1200		1	117	70-130	08/02/2012 2308
Ethanol	5000	5800		1	116	70-130	08/02/2012 2308
Ethyl-tert-butyl ether (ETBE)	50	52		1	104	70-130	08/02/2012 2308
tert-butyl alcohol (TBA)	1000	1100		1	110	70-130	08/02/2012 2308

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		106	70-130
1,2-Dichloroethane-d4		107	70-130
Toluene-d8		105	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: NQ90613-003 **Matrix:** Aqueous
Batch: 90613 **Prep Method:** 5030B
Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	940		1	94	19	70-130	20	08/03/2012 0819
tert-Amyl methyl ether (TAME)	50	48		1	97	0.63	70-130	20	08/03/2012 0819
tert-Butyl formate (TBF)	250	180	+	1	72	43	70-130	20	08/03/2012 0819
Diisopropyl ether (IPE)	50	53		1	107	3.1	70-130	20	08/03/2012 0819
3,3-Dimethyl-1-butanol	1000	1000		1	101	15	70-130	20	08/03/2012 0819
Ethanol	5000	3700	+	1	74	44	70-130	20	08/03/2012 0819
Ethyl-tert-butyl ether (ETBE)	50	51		1	101	2.9	70-130	20	08/03/2012 0819
tert-butyl alcohol (TBA)	1000	920		1	92	19	70-130	20	08/03/2012 0819

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		96	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		97	70-130

Volatile Organic Compounds by GC/MS - Duplicate

Sample ID: NG26038-005DU **Matrix:** Aqueous
Batch: 90613 **Prep Method:** 5030B
Analytical Method: 8260B

Parameter	Sample Amount (ug/L)	Result (ug/L)	Q	Dil	% RPD	% RPD Limit	Analysis Date
Diisopropyl ether (IPE)	ND	ND		100	0.00	20	08/03/2012 0733
Ethanol	ND	ND		100	0.00	20	08/03/2012 0733
3,3-Dimethyl-1-butanol	ND	ND		100	0.00	20	08/03/2012 0733
Ethyl-tert-butyl ether (ETBE)	69	72	J	100	3.0	20	08/03/2012 0733
tert-Amyl alcohol (TAA)	9900	9000	J	100	8.9	20	08/03/2012 0733
tert-Amyl methyl ether (TAME)	460	450	J	100	2.4	20	08/03/2012 0733
tert-butyl alcohol (TBA)	3200	2800	J	100	11	20	08/03/2012 0733
tert-Butyl formate (TBF)	ND	ND		100	0.00	20	08/03/2012 0733

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		105	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: NG26038-010MS
Batch: 90613
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Diisopropyl ether (IPE)	12000	10000	23000		200	117	70-130	08/03/2012 0756
Ethanol	ND	1000000	550000	N	200	55	70-130	08/03/2012 0756
3,3-Dimethyl-1-butanol	ND	200000	220000		200	108	70-130	08/03/2012 0756
Ethyl-tert-butyl ether (ETBE)	ND	10000	11000		200	114	70-130	08/03/2012 0756
tert-Amyl alcohol (TAA)	53000	200000	250000		200	97	70-130	08/03/2012 0756
tert-Amyl methyl ether (TAME)	ND	10000	11000		200	111	70-130	08/03/2012 0756
tert-butyl alcohol (TBA)	ND	200000	180000		200	90	70-130	08/03/2012 0756
tert-Butyl formate (TBF)	ND	50000	65000	N	200	131	70-130	08/03/2012 0756

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		102	70-130
1,2-Dichloroethane-d4		104	70-130
Toluene-d8		104	70-130

Volatile Organic Compounds by GC/MS - MB

Sample ID: NQ90613-001
Batch: 90613
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Benzene	ND		1	5.0	0.20	ug/L	08/02/2012 2355
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/02/2012 2355
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/02/2012 2355
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/02/2012 2355
Naphthalene	ND		1	5.0	1.7	ug/L	08/02/2012 2355
Toluene	ND		1	5.0	1.7	ug/L	08/02/2012 2355
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/02/2012 2355

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		106	70-130
Toluene-d8		98	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: NQ90613-002
Batch: 90613
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Benzene	50	53		1	105	70-130	08/02/2012 2308
1,2-Dichloroethane	50	54		1	108	70-130	08/02/2012 2308
Ethylbenzene	50	54		1	107	70-130	08/02/2012 2308
Methyl tertiary butyl ether (MTBE)	50	55		1	110	70-130	08/02/2012 2308
Naphthalene	50	52		1	103	70-130	08/02/2012 2308
Toluene	50	52		1	104	70-130	08/02/2012 2308
Xylenes (total)	100	110		1	110	70-130	08/02/2012 2308

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		106	70-130
1,2-Dichloroethane-d4		107	70-130
Toluene-d8		105	70-130

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: NQ90613-003
Batch: 90613
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Benzene	50	51		1	103	2.3	70-130	20	08/03/2012 0819
1,2-Dichloroethane	50	52		1	104	3.7	70-130	20	08/03/2012 0819
Ethylbenzene	50	51		1	102	4.8	70-130	20	08/03/2012 0819
Methyl tertiary butyl ether (MTBE)	50	54		1	108	1.8	70-130	20	08/03/2012 0819
Naphthalene	50	48		1	97	6.1	70-130	20	08/03/2012 0819
Toluene	50	50		1	100	3.4	70-130	20	08/03/2012 0819
Xylenes (total)	100	110		1	106	3.7	70-130	20	08/03/2012 0819

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		96	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		97	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - Duplicate

Sample ID: NG26038-005DU
Batch: 90613
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Result (ug/L)	Q	Dil	% RPD	% RPD Limit	Analysis Date
Benzene	9200	8900		100	4.1	20	08/03/2012 0733
1,2-Dichloroethane	ND	ND		100	0.00	20	08/03/2012 0733
Ethylbenzene	3300	3200		100	1.6	20	08/03/2012 0733
Methyl tertiary butyl ether (MTBE)	1600	1500		100	1.7	20	08/03/2012 0733
Naphthalene	540	560		100	2.9	20	08/03/2012 0733
Toluene	15000	15000		100	3.0	20	08/03/2012 0733
Xylenes (total)	14000	14000		100	0.12	20	08/03/2012 0733

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		105	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		99	70-130

Volatile Organic Compounds by GC/MS - MS

Sample ID: NG26038-010MS
Batch: 90613
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Benzene	31000	10000	42000		200	106	70-130	08/03/2012 0756
1,2-Dichloroethane	1500	10000	13000		200	113	70-130	08/03/2012 0756
Ethylbenzene	2800	10000	15000		200	117	70-130	08/03/2012 0756
Methyl tertiary butyl ether (MTBE)	ND	10000	11000		200	112	70-130	08/03/2012 0756
Naphthalene	510	10000	9700		200	92	70-130	08/03/2012 0756
Toluene	32000	10000	43000		200	114	70-130	08/03/2012 0756
Xylenes (total)	13000	20000	36000		200	116	70-130	08/03/2012 0756

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		104	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: NQ90675-001
Batch: 90675
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	100	6.7	ug/L	08/03/2012 0934
tert-Amyl methyl ether (TAME)	**0.60**	**J**	**1**	**10**	**0.20**	**ug/L**	**08/03/2012 0934**
tert-Butyl formate (TBF)	ND		1	100	1.0	ug/L	08/03/2012 0934
Diisopropyl ether (IPE)	ND		1	10	0.40	ug/L	08/03/2012 0934
3,3-Dimethyl-1-butanol	ND		1	100	1.0	ug/L	08/03/2012 0934
Ethanol	ND		1	1000	33	ug/L	08/03/2012 0934
Ethyl-tert-butyl ether (ETBE)	ND		1	100	0.20	ug/L	08/03/2012 0934

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		109	70-130
1,2-Dichloroethane-d4		107	70-130
Toluene-d8		90	70-130

Volatile Organic Compounds by GC/MS - LCS

Sample ID: NQ90675-002
Batch: 90675
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1200		1	117	70-130	08/03/2012 0825
tert-Amyl methyl ether (TAME)	50	53		1	106	70-130	08/03/2012 0825
tert-Butyl formate (TBF)	250	290		1	117	70-130	08/03/2012 0825
Diisopropyl ether (IPE)	50	56		1	112	70-130	08/03/2012 0825
3,3-Dimethyl-1-butanol	1000	1100		1	105	70-130	08/03/2012 0825
Ethanol	5000	6000		1	121	70-130	08/03/2012 0825
Ethyl-tert-butyl ether (ETBE)	50	58		1	116	70-130	08/03/2012 0825

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		102	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		111	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: NQ90675-001
Batch: 90675
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Benzene	ND		1	5.0	0.20	ug/L	08/03/2012 0934
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/03/2012 0934
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/03/2012 0934
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/03/2012 0934
Naphthalene	ND		1	5.0	1.7	ug/L	08/03/2012 0934
Toluene	ND		1	5.0	1.7	ug/L	08/03/2012 0934
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/03/2012 0934

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		109	70-130
1,2-Dichloroethane-d4		107	70-130
Toluene-d8		90	70-130

Volatile Organic Compounds by GC/MS - LCS

Sample ID: NQ90675-002
Batch: 90675
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Benzene	50	55		1	110	70-130	08/03/2012 0825
1,2-Dichloroethane	50	53		1	105	70-130	08/03/2012 0825
Ethylbenzene	50	60		1	119	70-130	08/03/2012 0825
Methyl tertiary butyl ether (MTBE)	50	59		1	119	70-130	08/03/2012 0825
Naphthalene	50	40		1	80	70-130	08/03/2012 0825
Toluene	50	53		1	105	70-130	08/03/2012 0825
Xylenes (total)	100	130		1	126	70-130	08/03/2012 0825

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		102	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		111	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: NQ90728-001
Batch: 90728
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	100	6.7	ug/L	08/05/2012 1207
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	08/05/2012 1207
tert-Butyl formate (TBF)	ND		1	100	1.0	ug/L	08/05/2012 1207
Diisopropyl ether (IPE)	ND		1	10	0.40	ug/L	08/05/2012 1207
3,3-Dimethyl-1-butanol	ND		1	100	1.0	ug/L	08/05/2012 1207
Ethanol	ND		1	1000	33	ug/L	08/05/2012 1207
Ethyl-tert-butyl ether (ETBE)	ND		1	100	0.20	ug/L	08/05/2012 1207
tert-butyl alcohol (TBA)	ND		1	100	6.7	ug/L	08/05/2012 1207

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		107	70-130
Toluene-d8		106	70-130

Volatile Organic Compounds by GC/MS - LCS

Sample ID: NQ90728-002
Batch: 90728
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1200		1	124	70-130	08/05/2012 1039
tert-Amyl methyl ether (TAME)	50	65		1	130	70-130	08/05/2012 1039
tert-Butyl formate (TBF)	250	360	N	1	144	70-130	08/05/2012 1039
Diisopropyl ether (IPE)	50	63		1	127	70-130	08/05/2012 1039
3,3-Dimethyl-1-butanol	1000	1200		1	124	70-130	08/05/2012 1039
Ethanol	5000	10000	N	1	199	70-130	08/05/2012 1039
Ethyl-tert-butyl ether (ETBE)	50	71	N	1	142	70-130	08/05/2012 1039
tert-butyl alcohol (TBA)	1000	1300		1	128	70-130	08/05/2012 1039

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		109	70-130
Toluene-d8		104	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: NQ90728-003
Batch: 90728
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1000		1	101	20	70-130	20	08/05/2012 1101
tert-Amyl methyl ether (TAME)	50	56		1	112	15	70-130	20	08/05/2012 1101
tert-Butyl formate (TBF)	250	300		1	120	19	70-130	20	08/05/2012 1101
Diisopropyl ether (IPE)	50	55		1	111	13	70-130	20	08/05/2012 1101
3,3-Dimethyl-1-butanol	1000	1000		1	102	20	70-130	20	08/05/2012 1101
Ethanol	5000	7900	N,+	1	157	24	70-130	20	08/05/2012 1101
Ethyl-tert-butyl ether (ETBE)	50	61		1	122	15	70-130	20	08/05/2012 1101
tert-butyl alcohol (TBA)	1000	1000		1	105	20	70-130	20	08/05/2012 1101

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		103	70-130
1,2-Dichloroethane-d4		109	70-130
Toluene-d8		105	70-130

Volatile Organic Compounds by GC/MS - MB

Sample ID: NQ90728-001
Batch: 90728
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Benzene	ND		1	5.0	0.20	ug/L	08/05/2012 1207
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/05/2012 1207
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/05/2012 1207
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/05/2012 1207
Naphthalene	ND		1	5.0	1.7	ug/L	08/05/2012 1207
Toluene	ND		1	5.0	1.7	ug/L	08/05/2012 1207
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/05/2012 1207

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		107	70-130
Toluene-d8		106	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: NQ90728-002
Batch: 90728
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Benzene	50	64		1	128	70-130	08/05/2012 1039
1,2-Dichloroethane	50	67	N	1	135	70-130	08/05/2012 1039
Ethylbenzene	50	62		1	123	70-130	08/05/2012 1039
Methyl tertiary butyl ether (MTBE)	50	64		1	127	70-130	08/05/2012 1039
Naphthalene	50	57		1	114	70-130	08/05/2012 1039
Toluene	50	61		1	123	70-130	08/05/2012 1039
Xylenes (total)	100	120		1	123	70-130	08/05/2012 1039

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		109	70-130
Toluene-d8		104	70-130

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: NQ90728-003
Batch: 90728
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Benzene	50	54		1	109	16	70-130	20	08/05/2012 1101
1,2-Dichloroethane	50	58		1	115	15	70-130	20	08/05/2012 1101
Ethylbenzene	50	52		1	104	17	70-130	20	08/05/2012 1101
Methyl tertiary butyl ether (MTBE)	50	55		1	109	15	70-130	20	08/05/2012 1101
Naphthalene	50	49		1	97	16	70-130	20	08/05/2012 1101
Toluene	50	53		1	105	15	70-130	20	08/05/2012 1101
Xylenes (total)	100	110		1	105	16	70-130	20	08/05/2012 1101

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		103	70-130
1,2-Dichloroethane-d4		109	70-130
Toluene-d8		105	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: NQ90865-001
Batch: 90865
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-butyl alcohol (TBA)	ND		1	100	6.7	ug/L	08/07/2012 0827

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		108	70-130
Toluene-d8		99	70-130

Volatile Organic Compounds by GC/MS - LCS

Sample ID: NQ90865-002
Batch: 90865
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-butyl alcohol (TBA)	1000	800		1	80	70-130	08/07/2012 0652

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		103	70-130
1,2-Dichloroethane-d4		116	70-130
Toluene-d8		106	70-130

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: NQ90865-003
Batch: 90865
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-butyl alcohol (TBA)	1000	800		1	80	0.19	70-130	20	08/07/2012 0715

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		96	70-130
1,2-Dichloroethane-d4		112	70-130
Toluene-d8		108	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: NQ90865-001
Batch: 90865
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Toluene	ND		1	5.0	1.7	ug/L	08/07/2012 0827

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		108	70-130
Toluene-d8		99	70-130

Volatile Organic Compounds by GC/MS - LCS

Sample ID: NQ90865-002
Batch: 90865
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Toluene	50	56		1	112	70-130	08/07/2012 0652

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		103	70-130
1,2-Dichloroethane-d4		116	70-130
Toluene-d8		106	70-130

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: NQ90865-003
Batch: 90865
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Toluene	50	59		1	118	5.3	70-130	20	08/07/2012 0715

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		96	70-130
1,2-Dichloroethane-d4		112	70-130
Toluene-d8		108	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: NQ90871-001
Batch: 90871
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	100	6.7	ug/L	08/07/2012 0925
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	08/07/2012 0925
tert-Butyl formate (TBF)	ND		1	100	1.0	ug/L	08/07/2012 0925
Diisopropyl ether (IPE)	ND		1	10	0.40	ug/L	08/07/2012 0925
3,3-Dimethyl-1-butanol	ND		1	100	1.0	ug/L	08/07/2012 0925
Ethanol	ND		1	1000	33	ug/L	08/07/2012 0925
Ethyl-tert-butyl ether (ETBE)	ND		1	100	0.20	ug/L	08/07/2012 0925
tert-butyl alcohol (TBA)	ND		1	100	6.7	ug/L	08/07/2012 0925

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		103	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		99	70-130

Volatile Organic Compounds by GC/MS - LCS

Sample ID: NQ90871-002
Batch: 90871
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	900		1	90	70-130	08/07/2012 0751
tert-Amyl methyl ether (TAME)	50	53		1	106	70-130	08/07/2012 0751
tert-Butyl formate (TBF)	250	270		1	108	70-130	08/07/2012 0751
Diisopropyl ether (IPE)	50	53		1	106	70-130	08/07/2012 0751
3,3-Dimethyl-1-butanol	1000	960		1	96	70-130	08/07/2012 0751
Ethanol	5000	4800		1	95	70-130	08/07/2012 0751
Ethyl-tert-butyl ether (ETBE)	50	50		1	101	70-130	08/07/2012 0751
tert-butyl alcohol (TBA)	1000	860		1	86	70-130	08/07/2012 0751

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		97	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: NQ90871-003
Batch: 90871
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	960		1	96	7.2	70-130	20	08/07/2012 0815
tert-Amyl methyl ether (TAME)	50	55		1	109	3.2	70-130	20	08/07/2012 0815
tert-Butyl formate (TBF)	250	280		1	112	3.7	70-130	20	08/07/2012 0815
Diisopropyl ether (IPE)	50	54		1	109	2.5	70-130	20	08/07/2012 0815
3,3-Dimethyl-1-butanol	1000	1000		1	103	7.4	70-130	20	08/07/2012 0815
Ethanol	5000	5200		1	103	8.1	70-130	20	08/07/2012 0815
Ethyl-tert-butyl ether (ETBE)	50	52		1	104	3.3	70-130	20	08/07/2012 0815
tert-butyl alcohol (TBA)	1000	930		1	93	7.4	70-130	20	08/07/2012 0815

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		98	70-130
Toluene-d8		100	70-130

Volatile Organic Compounds by GC/MS - MB

Sample ID: NQ90871-001
Batch: 90871
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Benzene	ND		1	5.0	0.20	ug/L	08/07/2012 0925
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/07/2012 0925
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/07/2012 0925
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/07/2012 0925
Naphthalene	ND		1	5.0	1.7	ug/L	08/07/2012 0925
Toluene	ND		1	5.0	1.7	ug/L	08/07/2012 0925
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/07/2012 0925

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		103	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: NQ90871-002
Batch: 90871
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Benzene	50	50		1	101	70-130	08/07/2012 0751
1,2-Dichloroethane	50	49		1	97	70-130	08/07/2012 0751
Ethylbenzene	50	51		1	102	70-130	08/07/2012 0751
Methyl tertiary butyl ether (MTBE)	50	52		1	105	70-130	08/07/2012 0751
Naphthalene	50	52		1	104	70-130	08/07/2012 0751
Toluene	50	49		1	99	70-130	08/07/2012 0751
Xylenes (total)	100	100		1	101	70-130	08/07/2012 0751

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		97	70-130
Toluene-d8		101	70-130

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: NQ90871-003
Batch: 90871
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Benzene	50	51		1	102	1.2	70-130	20	08/07/2012 0815
1,2-Dichloroethane	50	50		1	100	3.1	70-130	20	08/07/2012 0815
Ethylbenzene	50	51		1	102	0.16	70-130	20	08/07/2012 0815
Methyl tertiary butyl ether (MTBE)	50	55		1	109	4.2	70-130	20	08/07/2012 0815
Naphthalene	50	53		1	107	2.2	70-130	20	08/07/2012 0815
Toluene	50	49		1	98	0.94	70-130	20	08/07/2012 0815
Xylenes (total)	100	100		1	101	0.42	70-130	20	08/07/2012 0815

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		98	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: NQ90894-001
Batch: 90894
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	100	6.7	ug/L	08/07/2012 2215
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	08/07/2012 2215
tert-Butyl formate (TBF)	ND		1	100	1.0	ug/L	08/07/2012 2215
Diisopropyl ether (IPE)	ND		1	10	0.40	ug/L	08/07/2012 2215
3,3-Dimethyl-1-butanol	ND		1	100	1.0	ug/L	08/07/2012 2215
Ethanol	ND		1	1000	33	ug/L	08/07/2012 2215
Ethyl-tert-butyl ether (ETBE)	ND		1	100	0.20	ug/L	08/07/2012 2215
tert-butyl alcohol (TBA)	ND		1	100	6.7	ug/L	08/07/2012 2215

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		102	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		99	70-130

Volatile Organic Compounds by GC/MS - LCS

Sample ID: NQ90894-002
Batch: 90894
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	860		1	86	70-130	08/07/2012 2042
tert-Amyl methyl ether (TAME)	50	53		1	107	70-130	08/07/2012 2042
tert-Butyl formate (TBF)	250	260		1	104	70-130	08/07/2012 2042
Diisopropyl ether (IPE)	50	53		1	106	70-130	08/07/2012 2042
3,3-Dimethyl-1-butanol	1000	930		1	93	70-130	08/07/2012 2042
Ethanol	5000	4500		1	90	70-130	08/07/2012 2042
Ethyl-tert-butyl ether (ETBE)	50	50		1	100	70-130	08/07/2012 2042
tert-butyl alcohol (TBA)	1000	840		1	84	70-130	08/07/2012 2042

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: NQ90894-003
Batch: 90894
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	870		1	87	1.0	70-130	20	08/07/2012 2105
tert-Amyl methyl ether (TAME)	50	52		1	104	2.5	70-130	20	08/07/2012 2105
tert-Butyl formate (TBF)	250	260		1	104	0.55	70-130	20	08/07/2012 2105
Diisopropyl ether (IPE)	50	52		1	103	2.5	70-130	20	08/07/2012 2105
3,3-Dimethyl-1-butanol	1000	940		1	94	1.1	70-130	20	08/07/2012 2105
Ethanol	5000	4700		1	94	4.2	70-130	20	08/07/2012 2105
Ethyl-tert-butyl ether (ETBE)	50	49		1	98	2.2	70-130	20	08/07/2012 2105
tert-butyl alcohol (TBA)	1000	850		1	85	0.71	70-130	20	08/07/2012 2105

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		97	70-130
Toluene-d8		99	70-130

Volatile Organic Compounds by GC/MS - MB

Sample ID: NQ90894-001
Batch: 90894
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Benzene	ND		1	5.0	0.20	ug/L	08/07/2012 2215
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	08/07/2012 2215
Ethylbenzene	ND		1	5.0	1.7	ug/L	08/07/2012 2215
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	08/07/2012 2215
Naphthalene	ND		1	5.0	1.7	ug/L	08/07/2012 2215
Toluene	ND		1	5.0	1.7	ug/L	08/07/2012 2215
Xylenes (total)	ND		1	5.0	1.7	ug/L	08/07/2012 2215

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		102	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: NQ90894-002
Batch: 90894
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Benzene	50	50		1	100	70-130	08/07/2012 2042
1,2-Dichloroethane	50	50		1	100	70-130	08/07/2012 2042
Ethylbenzene	50	51		1	102	70-130	08/07/2012 2042
Methyl tertiary butyl ether (MTBE)	50	53		1	106	70-130	08/07/2012 2042
Naphthalene	50	50		1	100	70-130	08/07/2012 2042
Toluene	50	49		1	97	70-130	08/07/2012 2042
Xylenes (total)	100	100		1	102	70-130	08/07/2012 2042

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		99	70-130

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: NQ90894-003
Batch: 90894
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Benzene	50	49		1	98	2.1	70-130	20	08/07/2012 2105
1,2-Dichloroethane	50	49		1	98	1.5	70-130	20	08/07/2012 2105
Ethylbenzene	50	50		1	100	1.6	70-130	20	08/07/2012 2105
Methyl tertiary butyl ether (MTBE)	50	52		1	104	1.7	70-130	20	08/07/2012 2105
Naphthalene	50	51		1	101	0.64	70-130	20	08/07/2012 2105
Toluene	50	48		1	95	2.1	70-130	20	08/07/2012 2105
Xylenes (total)	100	100		1	100	1.8	70-130	20	08/07/2012 2105

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		97	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MB

Sample ID: NQ90183-001 **Matrix:** Aqueous
Batch: 90183 **Prep Method:** 8011
Analytical Method: 8011 **Prep Date:** 07/28/2012 1612

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
1,2-Dibromoethane (EDB)	ND		1	0.020	0.020	ug/L	08/01/2012 0755

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		103	57-137

EDB & DBCP by Microextraction - LCS

Sample ID: NQ90183-002 **Matrix:** Aqueous
Batch: 90183 **Prep Method:** 8011
Analytical Method: 8011 **Prep Date:** 07/28/2012 1612

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	0.25	0.24		1	96	60-140	08/01/2012 0817

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		103	57-137

EDB & DBCP by Microextraction - MS

Sample ID: NG26038-012MS **Matrix:** Aqueous
Batch: 90183 **Prep Method:** 8011
Analytical Method: 8011 **Prep Date:** 07/28/2012 1612

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	ND	0.24	0.24		1	101	60-140	08/01/2012 1338

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		105	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MSD

Sample ID: NG26038-012MD
Batch: 90183
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 07/28/2012 1612

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
1,2-Dibromoethane (EDB)	ND	0.24	0.24		1	100	0.50	60-140	20	08/01/2012 1359

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		106	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Chain of Custody Record

Number 14356

Client: MECI	Report to Contact: B. Shane	Sampler (Printed Name): Darcie Odom
Address: 235-B Dooley Rd.	Telephone No. / Fax No. / Email: 803-808-2043	Waybill No:
City: Lexington State: SC Zip Code: 29169		
Project Name: Pantry 911		
Project Number: 12-4034	P.O Number:	

Preservative: 1. Unpres. 2. NaOH/ZnA 3. H_2SO_4 4. HNO_3 5. HCl 6. Na Thio 7. NaOH

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: GW	DW	WW	S	Other	Analysis: Btex, Naphth, MTBE, 8260B	1,2-DCA	8-oxy	EDB	Number of Containers	Bottle (See instructions on back)	Preservative	Lot No.	Remarks / Cooler ID
									3		→		3			NG20038	
									A		→		A				
									5		→		5				
MW-3R	7/25	1423	G	X					X	X	X	X					
MW-4R		1336															
MW-5R		1229															
~~MW-7RR~~																	Product
~~MW-9~~																	Not located
~~MW-10~~																	Not located
MW-11		1214															
MW-14		1406															
MW-15	↓	1311	↓	↓					↓	↓	↓	↓					
MW-16	7/25	1204	G	X					X	X	X	X					

Page 1 of 2

Turn Around Time Required (Prior lab approval required for expedited TAT): ☐ Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab

QC Requirements (Specify):

Possible Hazard Identification: ☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison ☐Unknown

	Date	Time		Date	Time
1. Relinquished by / Sampler: Darcie Odom	7.25.12	1800	1. Received by:	7.25.12	1800
2. Relinquished by:	7.26.12	1415	2. Received by:	7.26.12	1415
3. Relinquished by:	Date	Time	3. Received by:	Date	Time
4. Relinquished by:	7.26.12	1446	4. Laboratory Received by:	7.26.12	1446

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY — Received on Ice (Check): ☐ Yes ☐ No ☐ Ice Pack — Receipt Temp. 2.5 °C — Temp. Blank ☐ Yes ☐ No

Level 1 Report v2.1

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

SHEALY

Chain of Custody Record

Number 14357

Client: MECI	Report to Contact: B. Shane	Sampler (Printed Name): Darcie Odom	Cooler No.
Address: 235-B Dooley Rd.	Telephone No. / Fax No. / Email: 803-808-2043	Waybill No.	Page 2 of 2
City: Lexington / State: SC / Zip Code: 29169	Preservative: 1. Unpres. 2. $NaOH/ZnA$ 3. H_2SO_4 4. HNO_3 5. HCl 6. $Na_2S_2O_3$ 7. NaOH		Number of Containers: 3 / 4 / 5
Project Name: Pantry 911			Bottle (See Instructions at back): 3 / A / 5
Project Number: 12-4034	P.O. Number		Preservative
			Lot No. DGW038

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: GW	DW	WW	S	Other	Analysis: BTEX, MTBE, 8260B	1,2-DCA	EDB	Remarks / Cooler ID
MW-17	7/25	1127	G	X					X	X	X	X	
~~MW-16~~													Not located
PW-1R		1329											
RW-1		1259											
RW-2		1354											
~~RW-3~~													Product
MW60-1		1151											
RW-1 Dup		1259											
Field Blank		1330										X	
Trip Blank	7/25	1331	G	X					X	X	X		

Turn Around Time Required (Prior lab approval required for expedited TAT): ☐ Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client ☐ Dispose by Lab

QC Requirements (Specify):

Possible Hazard Identification: ☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison ☐Unknown

	Date	Time		Date	Time
1. Relinquished by / Sampler	7-25-12	1800	1. Received by	7/25/12	1800
2. Relinquished by	7-26-12	1415	2. Received by	7/26/12	1415
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	Date 7-26-12	Time 1440	4. Laboratory Received by	Date 7-26-12	Time 1440

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY — Received on Ice (Check): ☑ Yes ☐ No ☐ Ice Pack — Receipt Temp. 2.5 °C — Temp. Blank: (Y) / N

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Level 1 Report v2.1

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: F-AD-016
Revision Number: 9

Page 1 of 1
Replaces Date: 05/06/11
Effective Date: 10/17/11

Sample Receipt Checklist (SRC)

Client: MECI Cooler Inspected by/date: [illegible] - 2/26/22 Lot #: NG26038

Means of receipt: ☑ SESI	☐ Client	☐ UPS	☐ FedEx ☐ Airborne Exp ☐ Other
Yes ☐	No ☑		1. Were custody seals present on the cooler?
Yes ☐	No ☑		2. If custody seals were present, were they intact and unbroken?

Cooler ID/temperature upon receipt 4.5 °C ______ °C ______ °C ______ °C
Method: ☐ Temperature Blank ☑ Against Bottles
Method of coolant: ☑ Wet Ice ☐ Blue Ice ☐ Dry Ice ☐ None

If response is No (or Yes for 14, 15, 16), an explanation/resolution must be provided.

Yes ☐	No ☐	NA ☑	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: ______. (For coolers received via commercial courier, PMs are to be notified immediately.
Yes ☐	No ☐	NA ☑	4. Is the commercial courier's packing slip attached to this form?
Yes ☑	No ☐		5. Were proper custody procedures (relinquished/received) followed?
Yes ☐	No ☐	NA ☑	5a Were samples relinquished by client to commercial courier?
Yes ☑	No ☐		6. Were sample IDs listed?
Yes ☑	No ☐		7. Was collection date & time listed?
Yes ☑	No ☐		8. Were tests to be performed listed on the COC?
Yes ☑	No ☐		9. Did all samples arrive in the proper containers for each test?
Yes ☑	No ☐		10. Did all container label information (ID, date, time) agree with COC?
Yes ☑	No ☐		11. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes ☑	No ☐		12. Was adequate sample volume available?
Yes ☑	No ☐		13. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes ☐	No ☑		14. Were any samples containers missing?
Yes ☐	No ☑		15. Were there any excess samples not listed on COC?
Yes ☑	No ☐	NA ☐	16. Were bubbles present >"pea-size" (¼"or 6mm in diameter) in any VOA vials?
Yes ☐	No ☐	NA ☑	17. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes ☐	No ☐	NA ☑	18. Were all cyanide and/or sulfide samples received at a pH >12?
Yes ☐	No ☐	NA ☑	19. Were all applicable NH3/TKN/cyanide/phenol/BNA/pest/PCB/herb (<0.2mg/L) samples free of residual chlorine?
Yes ☐	No ☐	NA ☑	20. Were collection temperatures documented on the COC for NC samples?
Yes ☐	No ☐	NA ☑	21. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) ______ were received incorrectly preserved and were adjusted accordingly in sample receiving with (H_2SO_4,HNO_3,HCl,NaOH) with the SR # (number)

Sample(s) -002(1) -004(1) -006(1) -010(3) -011(2) were received with bubbles >6 mm in diameter.

Sample(s) -003(4) -004(2) -013(3) were received with TRC >0.2 mg/L for NH3/TKN/cyanide/BNA/pest/PCB/herb.

Corrective Action taken, if necessary:

Was client notified: Yes ☐ No ☐ Did client respond: Yes ☐ No ☐
SESI employee: ______ Date of response: ______
Comments: ______

APPENDIX C:

TAX MAP

This appendix is not applicable to the scope of services presented in the subject report, however this page has been included in order to conform to the SCDHEC UST Management Division Programmatic QAPP and provide report continuity

APPENDIX D:

SOIL BORING/FIELD SCREENING LOGS & 1903 FORMS

This appendix is not applicable to the scope of services presented in the subject report, however this page has been included in order to conform to the SCDHEC UST Management Division Programmatic QAPP and provide report continuity

APPENDIX E:

WELL COMPLETION LOGS & 1903 FORMS

This appendix is not applicable to the scope of services presented in the subject report, however this page has been included in order to conform to the SCDHEC UST Management Division Programmatic QAPP and provide report continuity

APPENDIX F:

AQUIFER EVALUATION SUMMARY FORMS, DATA, GRAPHS, EQUATIONS

This appendix is not applicable to the scope of services presented in the subject report, however this page has been included in order to conform to the SCDHEC UST Management Division Programmatic QAPP and provide report continuity

APPENDIX G:
DISPOSAL MANIFEST

Midlands
Environmental
Consultants, Inc.

August 10, 2012

Re: Treatment of Purge Water
Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID Number 10628
MECI Project Number 12-4034

To Whom It May Concern;

Midlands Environmental Consultants, Inc. is providing the following letter as certification that treatment of the referenced purge water complied with the conditions of "Proposed Conditions for Use of Portable Activated Carbon Units for the Treatment of Small Volumes of Petroleum Hydrocarbon Contaminated Groundwater", as described in the following:

Applicability:

Groundwater treated was obtained as a result development of wells and sampling.

Conditions:

1. The purge/bail water from all wells is mixed before usage of the Activated Carbon Unit.
2. No free-product was detected in any of the purge water drums.
3. Analytical results of from well sampling show average concentrations of petroleum hydrocarbon constituents less than 5000 parts per billion (ppb) Benzene and less than 20,000 ppb total BTEX.
4. The existing carbon pack will be replaced/reactivated every 5,000 gallons.
5. Record of usage is maintained by Contractor.
6. Any and all recommendations and conditions issued by the Manufacturer have been adhered to.
7. Any and all recommendations and conditions (even on a site by site basis) issued by the SCDHEC must be adhered to.

All purge waters were treated on-site using an up-flow treatment drum loaded with 30 pounds of activated carbon. Carbon will be loaded to a maximum of 3 pounds of total organic compounds or 5,000 gallons of development/purge water, whichever occurs first.

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

A total of 20.0 gallons were treated on July 25, 2012 at the referenced site.

Midlands Environmental also tracks cumulative organic compounds adsorbed on the activated carbon to ensure the capacity of carbon mass is not over-charged. This data is available upon request.

Should you have any questions or comments, please contact the undersigned.

Sincerely,
Midlands Environmental Consultants, Inc.

Courtney M. Sanders
Staff Biologist

APPENDIX H:
LOCAL ZONING REGULATIONS

This appendix is not applicable to the scope of services presented in the subject report, however this page has been included in order to conform to the SCDHEC UST Management Division Programmatic QAPP and provide report continuity

APPENDIX I:

FATE AND TRANSPORT MODELING

This appendix is not applicable to the scope of services presented in the subject report, however this page has been included in order to conform to the SCDHEC UST Management Division Programmatic QAPP and provide report continuity

APPENDIX J:
ACCESS AGREEMENTS

This appendix is not applicable to the scope of services presented in the subject report, however this page has been included in order to conform to the SCDHEC UST Management Division Programmatic QAPP and provide report continuity

APPENDIX K:
DATA VERIFICATION CHECKLIST

Contractor Checklist

Item#	Item	Yes	No	N/A
1	Are Facility Name, Permit #, and address provided?	X		
2	Is UST Owner/Operator name, address, & phone number provided?	X		
3	Is name, address, & phone number of current property owner provided?	X		
4	Is the DHEC Certified UST Site Rehabilitation Contractor's Name, Address, telephone number, and certification number provided?	X		
5	Is the name, address, telephone number, and certification number of the well driller that installed borings/monitoring wells provided?	X		
6	Is the name, address, telephone number, and certification number of the certified laboratory(ies) performing analytical analyses provided?	X		
7	Has the facility history been summarized?	X		
8	Has the regional geology and hydrogeology been described?	X		
9	Are the receptor survey results provided as required?			X
10	Has current use of the site and adjacent land been described?	X		
11	Has the site-specific geology and hydrogeology been described?	X		
12	Has the primary soil type been described?	X		
13	Have field screening results been described?			X
14	Has a description of the soil sample collection and preservation been detailed?			X
15	Has the field screening methodology and procedure been detailed?			X
16	Has the monitoring well installation and development dates been provided?			X
17	Has the method of well development been detailed?			X
18	Has justification been provided for the locations of the monitoring wells?			X
19	Have the monitoring wells been labeled in accordance with the UST QAPP guidelines?			X
20	Has the groundwater sampling methodology been detailed?	X		
21	Have the groundwater sampling dates and groundwater measurements been provided? (Table 2 & Figure 5)	X		
22	Has the purging methodology been detailed?	X		
23	Has the volume of water purged from each well been provided along with measurements to verify that purging is complete? (Appendix B)	X		
24	If free-product is present, has the thickness been provided?	X		
25	Does the report include a brief discussion of the assessment done and the results?	X		
26	Does the report include a brief discussion of the aquifer evaluation and results?			X
27	Does the report include a brief discussion of the fate & transport models used?			X

Item#	Item	Yes	No	N/A
28	Are the site-conceptual model tables included? (Tier 1 Risk Evaluation)			X
29	Have the exposure pathways been analyzed? (Tier 2 Risk Evaluation)			X
30	Have the SSTLs for each compound and pathway been calculated? (Tier 2 Risk Evaluation)			X
31	Have recommendations for further action been provided and explained?	X		
32	Has the soil analytical data for the site been provided in tabular format? (Table 1)			X
33	Has the potentiometric data for the site been provided in tabular format? (Table 2)	X		
34	Has the current and historical laboratory data been provided in tabular format? (Tables 3 & 3A)	X		
35	Have the aquifer characteristics been provided and summarized on the appropriate form? (Appendix F)			X
36	Have the Site conceptual model tables been included? (Tier 1 Risk Evaluation)			X
37	Has the topographic map been provided with all required elements? (Figure 1)	X		
38	Has the site base map been provided with all required elements? (Figure 2)	X		
39	Have the CoC site maps been provided? (Figures 4, 4A, 4B, 4C)	X		
40	Has the site potentiometric map been provided? (Figure 5)	X		
41	Have the geologic cross-sections been provided? (Figure 6)			X
42	Have maps showing the predicted migration of the CoCs through time been provided? (Tier 2 Risk Evaluation)			X
43	Has the site survey been provided and include all necessary elements? (Appendix A)			X
44	Have the sampling logs, chain of custody forms, and the analytical data package been included with all required elements? (Appendix B)	X		
45	Is the laboratory performing the analyses properly certified?	X		
46	Has the tax map been included with all necessary elements? (Appendix C)			X
47	Have the soil boring/field screening logs been provided? (Appendix E)			X
48	Have the well completion logs and SCDHEC Form 1903 been provided? (Appendix E)			X
49	Have the aquifer evaluation forms, data, graphs, equations, etc. been provided? (Appendix F)			X
50	Have the disposal manifests been provided? (Appendix G)	X		
51	Has a copy of the local zoning regulations been provided? (Appendix H)			X
52	Has all fate and transport modeling been provided? (Appendix I)			X
53	Have copies of all access agreements obtained by the contractor been provided? (Appendix J)			X
54	Has a copy of this form been attached to the final report and are explanations for any missing or incomplete data been provided? (Appendix K)	X		

Verification, Validation and Usability Report (VVUR)

UST Permit #: 10628 **Docket** 23 Tech **Date** September 11, 2012

Facility Name: PANTRY 911 **Report Received:** August 24, 2012 **Signature:**

Cost Agreement: 43812 **UST Project Manager:** David Ebinger

Contractor: MIDLANDS ENVIRONMENTAL CONSULTANTS Shealy

Project Objective: Assess current site conditions / evaluate for CNFA

Scope of Work: CA#43812> Groundwater Sampling (purge all): MW-3R, 4R, 5R, 7RR, 11, 14, 15, 16, 17, PW-1R, RW-1, 2, 3
Water Supply Well: WSW-1 (if in use at time of sampling)
Analytical Parameters: BTEX + Naphthalene + MtBE + 1,2-DCA + Oxygenates + EDB
Replace BoI

	Item	Comments	Impact on Usability	Corrective Action
Completeness	**Data Deliverables and QAPP** Ensure that all required information on sampling and analysis was provided (including planning documents). Note both Present / Missing Items SRC = Sample Receipt Checklist COC = Chain of Custody LCN = Lab Case Narrative (or similar report containing qualifications)	Present: Report; Tables (Field Parameters-Elevation Data, GW Concentrations); Maps (Topo Location, Site, CoC (2), Potentiometric); Purge Notes Laboratory Report: LCN, Sample Summary, Executive Summary, Analytical Results; QA/QC Summary; SRC; COC Contractor Checklist, Disposal Manifest, Contractor Addendum Missing: None	–	
	Meteorological Data and Site Conditions Evaluate the possible effects of meteorological (e.g., wind, rain, temperature) and site conditions on sample results. Review field reports to identify whether any unusual conditions were present and how the sampling plan was executed.	31 deg C, sunny	–	
	Verification Report (Contractor Checklist) Summarize deviations from methods, procedures, or contracts. Include qualified data and explanation of all data qualifiers.	Complete	–	
	Analytes Ensure that required lists of analytes were reported as specified.	Complete	–	
	Sampling Plan Ensure that required sample locations were reported as specified. Determine if alterations to sample locations continue to satisfy the project objectives.	MW-9, 10 and 18 were not located were not located on recon and were not sampled	–Likely	
	Chain-of-Custody Examine the traceability of the data from time of sample collection until reporting of data. Examine chain-of-custody records against contract, method, or procedural requirements. Establish that any problems with documentation or custody procedures do not prevent the data from being used for the intended purpose.	Complete	–	
	Work Scope Examine deviations from contract / work plan - repairs, waste disposal etc (no impact on data quality)	Delineation is open to S and E; FP in RW-3 and MW-7RR	–	Additional wells; Free product recovery
	Sample Receipt Checklist (or equivalent) Ensure consistency with COC, LCN. Examine checklist against contract, method or procedural requirements.	Temperature taken agains Trip Blank; LCN, COC, SRC are consistent	–	
	Holding Times Identify holding time criteria, and either confirm that they were met or document any deviations. Ensure that samples were analyzed within holding times specified in method, procedure, or contract requirements. If holding times were not met, confirm that deviations were documented, that appropriate notifications were made (consistent with procedural requirements), and that approval to proceed was received prior to analysis.	7/25 finished 8/7/12 - < 14 days hold	–	
	Sample Handling Ensure that required sample handling, receipt, and storage procedures were followed, and that any deviations were documented.	Temp Blank not present	–Unlikely	

Conformance	**Sampling Methods and Procedures** Establish that required sampling methods were used and that any deviations were noted. Ensure that the sampling procedures and field measurements met performance criteria and that any deviations were documented (e.g., techniques, equipment, decontamination, volume, temperature, preservatives, etc.)	Bubbles: MW-4R(1) MW-11(1) MW-15(1) RW-1(3) RW-2(2) RW-1Dup(4) FB(2) TB(3) All wells (w/o FP) purged dry	--Unlikely	
	Analytical Methods and Procedures Establish that required analytical methods were used and that any deviations were noted. Ensure that the QC samples met performance criteria and that any deviations were documented.	As specified	--Minimal	
	Lab Data Qualifiers Determine that the laboratory data qualifiers were defined and applied as specified in methods, procedures, or contracts.	As specified	--Minimal	
	Confirmatory Analyses Evaluate agreement of laboratory results. Evaluate the implications of unacceptable QC sample results on the data usability for the associated samples: blank contamination, matrix effects . .	TB: ND FB: TBA 41 QA/QC outside acceptance limits are unlikely to have any impact (see LCN)	--minimal impact	
	Co-located Field Duplicates Compare results of collocated field duplicates with criteria established in the QAPP. RPD (%) = [((CS – CD)/(CS + CD)/2)] x 100	#10628 07-25-2012 RW-1/RW-1 Dup TBA 1400 vs ND MtBE 53 vs ND Benzene RPD: 3 Toluene RPD: 6 Ethylbenzene RPD: 4 Tot Xylenes RPD: 8 Naphthalene RPD: 2 1,2-DCA RPD: 0 EDB RPD: 33 TAA RPD: 2 DIPE RPD: 0	--Unlikely	

		Comments
Reconciliation with User Requirements	**Completeness** Evaluate the impact of missing information. Ensure that enough information was obtained for the data to be usable (completeness as defined in DQOs documented in the QAPP) **Critical Samples** Establish that critical samples and critical target analytes/COCs, as defined in the QAPP, were collected and analyzed. Determine if the results meet criteria specified in the QAPP.	Presence of free product obviates reliance on this data; delineation to E and S is required
	Conformance Criteria Evaluate QC data against project-specific performance criteria in the QAPP (i.e., evaluate quality parameters beyond those outlined in the methods). Describe the exact process for handling data that do not meet DQOs (i.e., when measurement performance criteria are not met). Depending on how these data will be used, specify the restrictions on use of these data for environmental decision-making.	EDB data should be considered biased low for samples having headspace
	Comparability Ensure that results from different data collection activities achieve an acceptable level of agreement.	Data is comparable with historic sampling data.

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

MALPHRUS ENTERPRISES
2789 N OKATIE HWY
RIDGELAND SC 29936

Re: **QAPP Contractor Addendum Directive – Monitor Well Install & GWS**
Pantry 911, 6195 S Okatie Hwy, Hardeeville, SC 29927-8034
UST Permit # 10628
Releases reported April 28, 1995
Monitoring Report received August 24, 2012
Jasper County

To Whom It May Concern,

The Underground Storage Tank (UST) Management Division (Division) of the South Carolina Department of Health and Environmental Control (Agency) has reviewed the referenced report. The next appropriate scope of work at the site is to replace monitoring wells MW-9, 10, and 18. In addition, please install two (2) new monitoring wells, one (1) Northwest of MW-7RR & RW-1, and another West of MW-14 & RW-3. The proposed well locations are marked on the enclosed map. After installing/replacing the monitoring wells, conduct a comprehensive groundwater sampling event. All monitoring wells should be analyzed for BTEXMN + 1,2-DCA + 8 Oxygenates + EDB. All work should be conducted in accordance with the UST Quality Assurance Division Plan and must be conducted in compliance with all applicable regulations. A copy of the Agency Quality Assurance Program Plan (QAPP) for the UST Management Division is available at:

http://www.scdhec.gov/environment/lwm/usthome/Qapp.htm

Please have your contractor complete and submit the QAPP Contractor Addendum and Cost Agreement within thirty (30) days of the date of this letter. Every component may not be necessary to complete the above scope of work. The State Underground Petroleum Environmental Response Bank (SUPERB) Account allowable cost for each component is included on the Assessment Component Cost Agreement Form. **Please note that technical and financial preapproval from the Agency must be issued before work begins.**

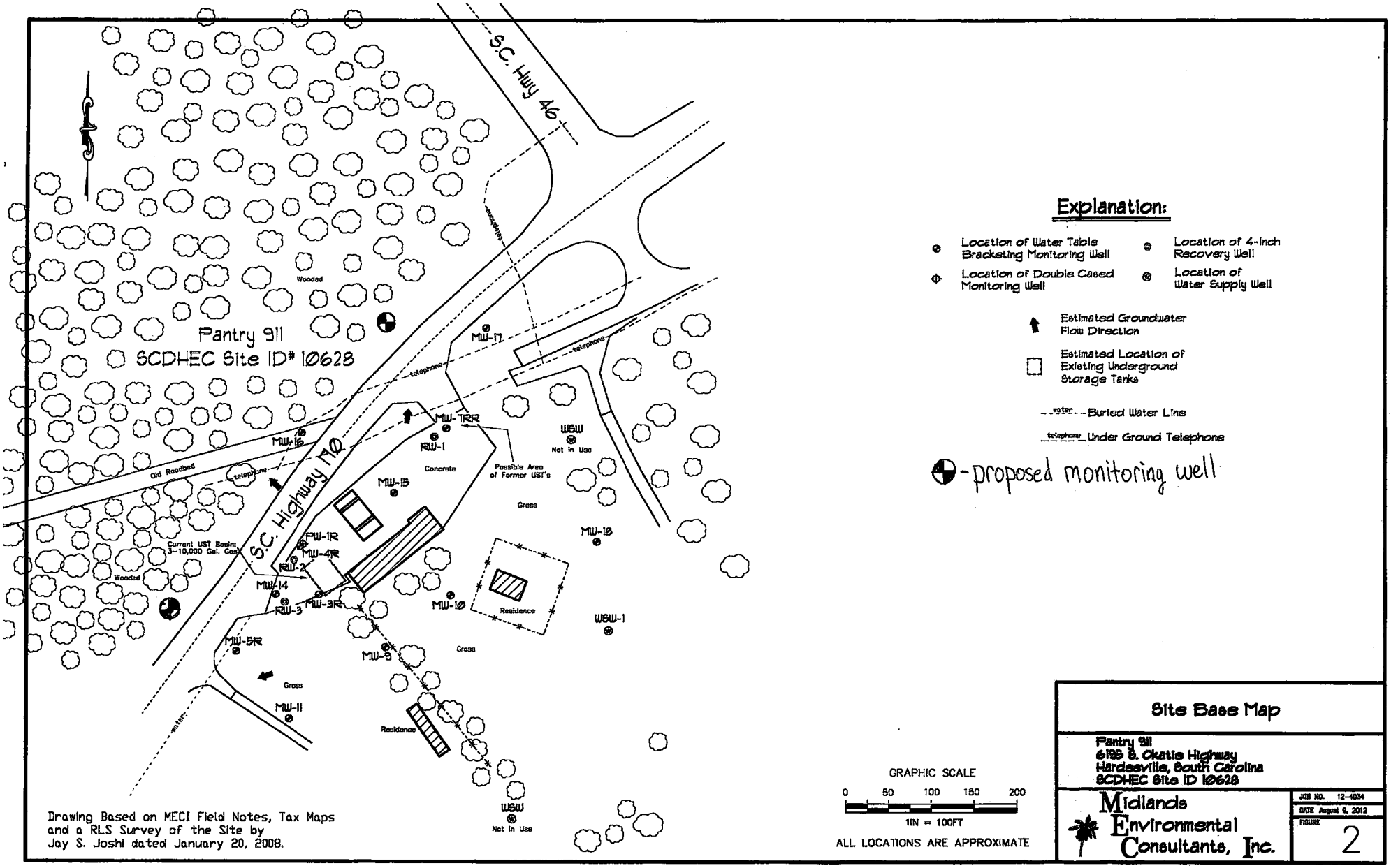
On all correspondence concerning this site, please reference **UST Permit # 10628.** If there are any questions concerning this project, please contact me at (803) 896-6649 or by email at bursonsj@dhec.sc.gov.

Sincerely,

Scott J. Burson, Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

enc: Site Base Map w/ proposed well locations

cc: Midlands Environmental Consultants, PO Box 854, Lexington, SC 29071 (W/Enc)
Technical File (W/Enc)



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of 4-inch Recovery Well
- Location of Double Cased Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Existing Underground Storage Tanks
- water – Buried Water Line
- telephone – Under Ground Telephone
- ⊕ - proposed monitoring well

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

ALL LOCATIONS ARE APPROXIMATE

Site Base Map

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 12-4034
DATE August 9, 2012
FIGURE 2

Midlands Environmental Consultants, Inc.

May 3, 2013

Mr. Scott J. Burson, Hydrogeologist
Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: QAPP Contractor Addendum – Revision 0
Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID Number 10628
MECI Project Number 13-4447
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Burson,

On behalf of Mr. Donnie Malphrus of Malphrus Enterprises, Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached QAPP Contractor Addendum for the referenced site.

On May 02, 2012, MECI personnel performed a site visit to the subject site to evaluate site conditions, attempt to locate monitoring wells and identify potential problems for future assessment activities.

If you have any question or comments please feel free to contact us at 803-808-2043.

Sincerely,
Midlands Environmental Consultants, Inc.

Courtney M. Sanders
Project Biologist

Jeff L. Coleman
Senior Scientist

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

Section A: Project Management

A1 Title and Approval Page

Quality Assurance Project Plan
Addendum to the SC DHEC UST Programmatic QAPP
For
Pantry 911, SCDHEC Site ID# 10628

6195 South Okatie Highway, Hardeeville, South Carolina

Prepared by:
Courtney M. Sanders
Staff Biologist
Midlands Environmental Consultants, Inc.
(Certified Site Rehabilitation Contractor UCC-0009)
235-B Dooley Road
Lexington, SC 29073
(803)808-2043

Date: May 03, 2013

Approvals

Scott J. Burson
SC DHEC Project Manager _____ Signature Date _____

Courtney M. Sanders
Contractor QA Manager _____ Signature Date 5.8.13

Bryan T. Shane, P.G.
Site Rehabilitation Contractor _____ Signature Date 5.6.13

Daniel J. Wright
Laboratory Director _____ Signature Date 05/03/2013

A2 Table of Contents

A3 Distribution List

Name	Title	Organization/Address	Telephone Number	Fax Number	Email Address
Scott J. Burson	SC DHEC Technical Project Manager	SCDHEC, UST Management Division, 2600 Bull St., Columbia, SC, 29201	803-896-6649	803-896-6245	bursonsj@dhec.sc.gov
Bryan T. Shane, P.G.	Site Rehabilitation Contractor	Midlands Environmental Consultants, Inc. 235-B Dooley Road Lexington, SC 29073	803-808-2043	803-808-2048	bts@meci.net
Courtney M. Sanders	Quality Assurance Officer	Midlands Environmental Consultants, Inc. 235-B Dooley Road Lexington, SC 29073	803-808-2043	803-808-2048	cms@meci.net
Jeff L. Coleman	Field Manager	Midlands Environmental Consultants, Inc. 235-B Dooley Road Lexington, SC 29073	803-808-2043	803-808-2048	jlc@meci.net
Daniel J. Wright	Laboratory Director	Shealy Environmental Services,Inc. 106 Vantage Point Dr. West Columbia, SC 29172	803-791-9700	803-791-9111	dwright@shealylab.com
Tommy Bolyard	Well Services/Driller	Environmental Probing and Drilling Services 17538 Greenhill Road Charlotte, NC 28278	704-607-7529	803-548-2233	EDPS@comporium.net

Table 1A Addendum Distribution List

A4 Project Organization

Role from the UST Master QAPP	Person in this Role for Project	Organization/Address	Telephone Number	Fax Number	Email Address
Project Manager	Scott J. Burson	SCDHEC, UST Management Division, 2600 Bull St., Columbia, SC, 29201	803-896-6649	803-896-6245	bursonsj@dhec.sc.gov
Site Rehabilitation Contractor	Bryan T. Shane, P.G.	Midlands Environmental Consultants, Inc. 235-B Dooley Road Lexington, SC 29073	803-808-2043	803-808-2048	bts@meci.net
Quality Assurance Officer	Courtney M. Sanders	Midlands Environmental Consultants, Inc. 235-B Dooley Road Lexington, SC 29073	803-808-2043	803-808-2048	cms@meci.net
Field Manager	Jeff L. Coleman	Midlands Environmental Consultants, Inc. 235-B Dooley Road Lexington, SC 29073	803-808-2043	803-808-2048	jlc@meci.net
Analytical Laboratory Director	Daniel J. Wright	Shealy Environmental Services,Inc. 106 Vantage Point Dr. West Columbia, SC 29172	803-791-9700	803-791-9111	dwright@shealylab.com
Soil Boring and Monitoring Well Driller	Tommy Bolyard	Environmental Probing and Drilling Services 17538 Greenhill Road Charlotte, NC 28278	704-607-7529	803-548-2233	EDPS@comporium.net

Role from the UST Master QAPP	Person in this Role for Project	Organization/Address	Telephone Number	Fax Number	Email Address
Registered Land Surveyor	Jay S. Joshi	Construction Support Services, Inc. 1318 RL Coward Road Hopkins, SC 29061	803-776-9909	803-776-2688	jsjoshi@constructionsupportsc.com
Disposal Facility	Carol Weldon	Waste Management, Inc. Richland Landfill 1047 Highway Church Road Elgin, SC 29045	803-744-3346	886-904-7194	Not Available
Project Verifier	Courtney M. Sanders or Brendon P. Kelly	Midlands Environmental Consultants, Inc. 235-B Dooley Road Lexington, SC 29073	803-808-2043	803-808-2048	cms@meci.net

Table 2A Addendum Role Identification and Contact Information

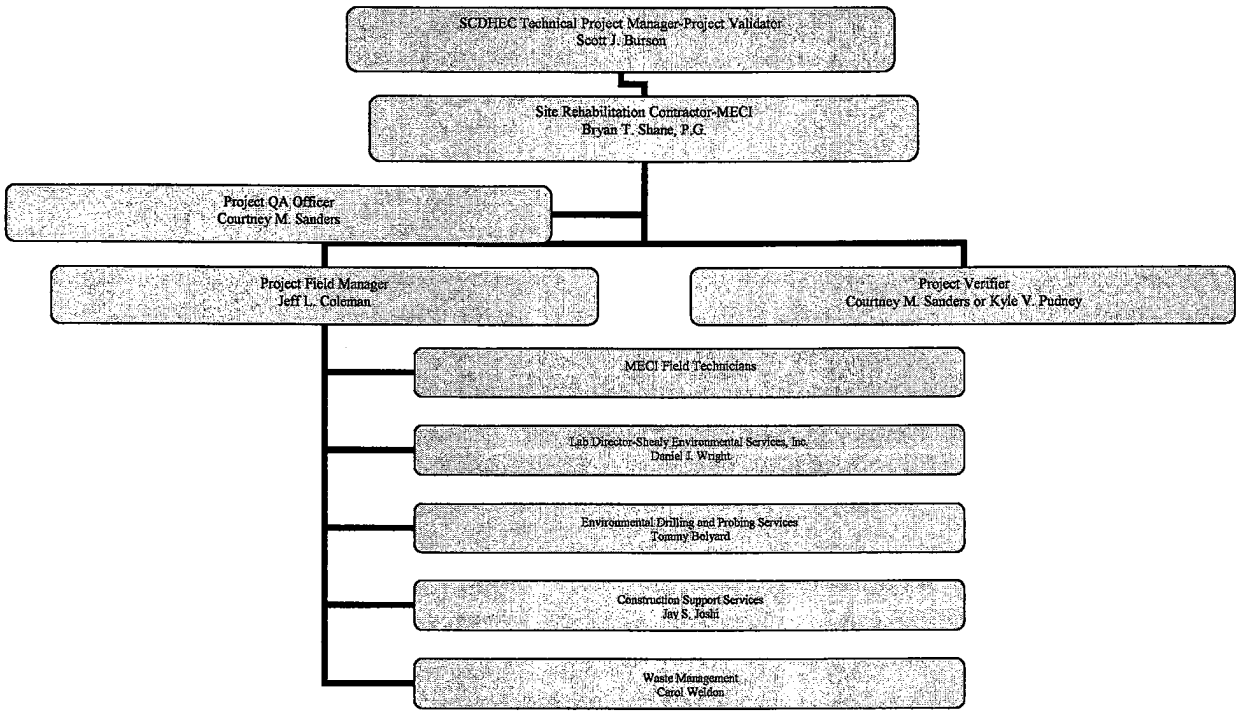


Figure 1A Organizational Chart

Project Manager (Scott J. Burson) – The project manager is responsible for direct oversight of contractors conducting assessment and site rehabilitation of releases at UST sites.

Site Rehabilitation Contractor (Bryan T. Shane, P.G.) – The Site Rehabilitation Contractor is an independent contractor responsible for managing and coordinating field and office activities needed for assessments or cleanup.

-Final Review of all work produced for a scope of work.

-Final say on technical interpretation of data.

Quality Assurance Officer (Courtney M. Sanders) – The Quality Assurance Officer is responsible for the oversight of all quality assurance activities associated with projects performed by the Site Rehabilitation Contractor.

-In charge of producing and maintaining the QAPPA for MECI.
-Reviews (and Audits, if necessary) all work produced in conjunction with a scope of work.
-Quality control of data entry and report preparation.

Field Manager (Jeff L. Coleman) –The field manager will oversee all work done on any given project.

-Assign, direct and oversee all field personnel working on each project.
-Responsible for coordinating with the SCDHEC project manager, should any problems or clarifications arise.
-Responsible for all reporting done in conjunction with field work.

Project Verifier (Courtney M. Sanders) – The project verifier is responsible for verifying the quality of data produced during a scope of work. This includes review of field work and laboratory reports for potential quality issues.

Well Driller (Tommy Bolyard) – The well driller is responsible for installing monitoring wells according to South Carolina Well Standards, R.61-71. The well driller is a subcontractor for MECI.

Field Technicians (various employees) – Responsible for all field activities for a given scope of work.

-Conduct all initial site visit, and record findings
-Conduct all field activities associated with a scope of work. All work will be conducted according to the MECI SOP. Will be responsible for reporting any potential problems are inconsistencies found during assessment activities.
-Completes the chain of custody upon completion of sampling event and delivers samples to lab or office for later lab pick-up

A5 Problem Definition/Background

Discuss the background (as much as is known) of the site and appropriate historical information, and why this site is being assessed.

The subject site (Pantry 911) is located at 6195 South Okatie Highway, Hardeeville, Jasper County, South Carolina. The subject site maintains one 10,000 gallon regular unleaded gasoline underground storage tank (UST), one 10,000 gallon premium gasoline, and one 10,000 gallon diesel UST. These UST's were given a compliance date of March 7, 2012. The South Carolina Department of Health and Environmental Control (SCDHEC) reported a release of petroleum product from these UST's in April of 1995 and confirmed the release in March of 1996. The subject site is currently rated a Class 2BB.

Please answer the following: Does this project fall under UST or Brownfields area?

Underground Storage Tank Division

A6 Project/Task Description

1. ***Summarize what is known about the work to be done. This can be a short sentence indicating what the Scope of this project is (see Master QAPP Section A6).***

The scope of this assessment is to install two watertable bracketing monitoring well, replace monitoring well MW-5R not located during the initial site visit, and replace the damaged pad and vault of monitoring well MW-11 in areas indicated by the SCDHEC project manager. Following monitoring well installation, all newly installed wells, entire monitoring well network and a water supply well will be sampled for BTEXMN, 1,2DCA, 8-Oxygenates, and EDB.

Following the well installation a comprehensive survey will be conducted by Construction Support Services of Columbia, SC (Jay S. Joshi-PLS#14811) to locate the vertical and horizontal positions of the newly installed wells and existing wells.

2. ***The work will begin within*** fourteen (14) days of receipt of approved QAPP contractors addendum ***after cost approval and the scope of work should be complete by*** sixty (60) days of receipt of approved QAPP contractors addendum.

3. ***Are there are time or resource constraints? Include those factors that may interfere with the tentative schedule.***

Factors that may prevent schedule work will be, but not limited to, inclement weather, equipment malfunction, and machine failure.

A7 Data Quality Objectives (DQOs) and Data Quality Indicators (DQIs)

The subject site is located at 6195 South Okatie Highway, Hardeeville, Jasper County, South Carolina. The site is currently occupied by an active gasoline service station.

The proposed work will be conducted on the properties located 6195 South Okatie Highway (Jasper County Tax Map Number 039-00 -10-025) and 2258 Plantation Drive (Jasper County Tax Map Number 040-00 -02-050).

A8 Training and Certificates

Required training and licenses:

Title/Job	Name	Training Required	Date training received	Type of License	License Number
Principal Geologist	Bryan T. Shane, P.G.	Professional Geologist	10/30/1993	State of South Carolina	1102
Senior Scientist	Jeff Coleman	OSHA 40 hr HAZWOPER	7/27/2007	N/A	N/A
		OSHA 8 hr	7/27/2011	N/A	N/A

Title/Job	Name	Training Required	Date training received	Type of License	License Number
		HAZWOPER refresher			
Staff Geologist	John Bryant	OSHA 40 hr HAZWOPER	4/17/2009	N/A	N/A
		OSHA 8 hr HAZWOPER refresher	12/14/2010	N/A	N/A
Staff Biologist	Courtney Sanders	OSHA 40 hr HAZWOPER	12/10/2010	N/A	N/A
		OSHA 8 hr HAZWOPER refresher	12/15/11	N/A	N/A
Staff Biologist	Kyle Pudney	OSHA 40 hr HAZWOPER	12/10/2010	N/A	N/A
		OSHA 8 hr HAZWOPER refresher	12/15/11	N/A	N/A
Staff Biologist	Chris Lashley	OSHA 40 hr HAZWOPER	12/10/2010	N/A	N/A
		OSHA 8 hr HAZWOPER refresher	12/15/11	N/A	N/A
Staff Biologist	Gavin Globensky	OSHA 40 hr HAZWOPER	7/29/2011	N/A	N/A
Staff Biologist	Ryan Ariail	OSHA 40 hr HAZWOPER	9/23/2011	N/A	N/A
Lab Manager	Neal Magee	***	***	Lab Certification	SC 32010
Surveying Services	Jay S. Joshi	Tier A Land Surveyor Certification	6/1/1992	PLS	14811
Drilling Services	Tommy Bolyard - EDPS	SC Drillers Certification	8/24/2004	B	01846

Table 3A Required Training and Licenses

Courtney M. Sanders of Midlands Environmental Consultants, Inc. is responsible to ensuring that personnel participating in this project receive the proper training. All training records will be stored in the following location:235-B Dooley Road, Lexington, SC 29073.

It is understood that training records will be produced if requested by SC DHEC.

The Following Laboratory(ies) will be used for this Project:

Commercial Lab(s)

Full Name of the Laboratory___Shealy Environmental Services, Inc.____
Name of Lab Director_____Daniel J. Wright_____

SC DHEC Certification Number_____32010_____
Parameters this Lab will analyze for this project:

Groundwater collected from the monitoring wells will be analyzed for BTEX, Naphthalene, MTBE, 1,2 DCA, 8-Oxygenates (EPA Method 8260B), and EDB (EPA Method 8011).

A9 Documents and Records

Personnel will receive the most current version of the QAPP Addendum via: (Check all that apply)

____US Mail ____Courier _X_ Hand delivered

Other (please specify):_____E-mailed electronic copies___

Record	Produced By	Hardcopy/ Electronic	Storage Location For how long?	Archival
Instrument Raw Data	Target, Thermospec, or Iteva software	Hardcopy and Electronic	Hardcopy: Offsite storage for 7 yrs Electronic: Two external storage device backups – one offsite, one onsite storage for 10 yrs	Yes
Final Reports	LIMS	Electronic	Electronic: Two external storage device backups – one offsite, one onsite storage for 10 years	Yes
Field Work	Field Staff	Hardcopy	MECI office: 235B Dooley Road / Min. 5 years	Yes
Chain of Custody	Field Staff	Hardcopy	MECI office: 235B Dooley Road / Min. 5 years	Yes
QAPP Addendum	Courtney Sanders	Hardcopy & Electronic	MECI office: 235B Dooley Road / Min. 5 years	Yes
Internal QC record	Courtney Sanders	Hardcopy	MECI office: 235B Dooley Road / Min. 5 years	Yes
Sampling Report	Courtney Sanders	Hardcopy & Electronic	MECI office: 235B Dooley Road / Min. 5 years	Yes
1903 Water Well Record Form	EDPS	Hardcopy	MECI office: 235B Dooley Road / Min. 5 years	Yes

Table 4A Record Identification, Storage, and Disposal

Section B Measurement/Data Acquisition

B1 Sampling Process/Experimental Design

Item	Start Date	End Date	Comments
Site Reconnaissance	5/2/13	5/2/13	Already Completed
QAPP preparation	5/3/13	5/3/13	In progress
QAPP approval	5/4/13	5/25/13	Assuming three week turnaround
PUPs Request	5/26/13	5/30/13	Give 72 hours until PUPs ticket active
Monitoring Well	5/31/13	6/14/13	2 Weeks to mobilize Drill Rig.

Item	Start Date	End Date	Comments
Installation			
Monitoring well Sampling	6/15/13	6/29/13	2 Weeks to mobilize sampling crew. Standard 5 Day Turn Around Time on analytical (2 Weeks)
Report Preparation	6/30/13	7/21/13	Three weeks to prepare/submit report

Table 5A Sampling Activities

B2 Sampling Methods

Please note: The contractor must follow sampling protocols as given in the UST QAPP.

***Estimate* the number of samples of each matrix that are expected to be collected:**

Soil	_____
Ground Water from Monitoring Wells	____18___
From Drinking/Irrigation water wells	_____1___
Field Duplicate Collection	_____1___
Field Blank Collection	_____1___
Trip Blank	_____1___
From surface water features	_____
Total number of samples	____22___

Notes:
-Two newly installed monitoring wells, one replacement monitoring well, entire monitoring well network, and one water supply well, will be sampled, following monitoring well installation.

-It is anticipated that one (1) field duplicate will be sampled. One duplicate will be collected during the monitoring well sampling event.

-It is anticipated that one (1) field blank will be collected. One field blank will be collected during the monitoring well sampling event.

- It is anticipated that one (1) trip blank will be analyzed.

During the initial site visit it was noted two (2) bolts were needed to properly secure monitoring wells MW-3R and MW-15. **Total Bolts Needed: 2 Bolts**

Please note at the subject site the South Carolina Department of Transportation (SCDOT) conducted work and installed water lines and fire hydrants in the SCDOT Right of Way.

Environmental Drilling and Probing Services (EDPS) will mobilize a drilling rig to the subject site. All drilling activities will be performed under the supervision of a South Carolina Certified Well Driller and MECI field personnel (Tommy Bolyard, #B 01846).

Wells will be installed according to MECI Standard Operating Procedures (4.1.1, 4.1.5, 4.2.1, 4.2.2, & 4.2.4) and in accordance with South Carolina Well Standards, R.61-71.

Monitoring wells will be purged/sampled in accordance with MECI SOP # 4.3.1 through 4.3.5.

For the sample matrices indicated above, please describe how samples will be collected and the equipment needed.

Monitoring Well Sampling

Water Level Measurement:

-MECI personnel utilize Electronic Water Level Indicators for Water Level Measurements. Each sampling crew carries an electronic water level indicator for use on downgradient monitoring wells and an Oil/Water Interface probe for use on source area wells or wells that have historically contained measurable free phase petroleum product.

-Prior to usage, the indicator is decontaminated with isopropanol applied by a Teflon squeeze bottle and rinsed with analyte free water. This rinse water is collected and run through a portable GAC (granulated activated carbon) unit.

-The indicator is slowly lowered into the water table, and the water level is recorded to the nearest 0.01 feet.

-When free phase petroleum product is encountered, the Oil-Water Interface probe is slowly lowered into the monitoring well until product is encountered; this measurement is recorded to the nearest 0.01 feet. The meter is then lowered through the product until water is encountered. The probe is then pulled back up through the well until product is encountered again; this measurement is recorded to the nearest 0.01 feet.

-If the total depth of a monitoring well is required, after a groundwater level is recorded, the indicator probe is lowered until the bottom of the monitoring well is encountered. This depth is recorded to the nearest 0.01 feet. Following a total depth measurement, the entire length of probe tape is decontaminated with isopropanol and rinsed with analyte free water.

-All measurements will be taken from the top of the well casing.

Monitoring Well Purging:

-Where necessary, monitoring wells will be purged prior to sampling if: the well screen does not bracket the watertable, if a screened interval is not known, purging is specifically asked for by the SCDHEC project manager, or a monitoring well has not previously been sampled.

-Purging will be completed utilizing a prepackaged, clear, disposable polyethylene bailer and nylon rope. Following purging/sampling of a well, the bailer and rope will be properly disposed. -A new set of Nitrile gloves will be worn at each monitoring well, and at any time samples are handled.

-Prior to purging, the water level of the well will be determined using an electronic water level indicator. The water level, total well depth and well diameter will be used to determine the amount of water standing in the water column. The following table presents gallons of water per foot of water column in selected diameters of wells:

Well Diameter (inches)	***Gallons of Water/Foot***	***Well Diameter (inches)***	***Gallons of Water/Foot***
1	0.047	8	2.611
2	0.163	10	4.08
4	0.653	12	5.875
6	1.469		

-The length of the water column multiplied by the gallons of water per foot will provide the number of gallons in one well volume of water.

-Purging will continue until three well volumes of water are evacuated, or where field measurements of pH, Specific Conductivity (uS), Temperature (°C), and Turbidity (NTU) have stabilized to within 10% of previous values or until all accessible well water is evacuated (purged dry). Field measurements of these parameters will be taken and recorded in field notes, prior to purging and after each well volume of water has been purged.

-When purging a well with a diameter larger than 2", a submersible Redi-Flo2 pump can be used.

-Prior to usage, the pump assembly will be cleaned using a laboratory grade detergent and rinsed with analyte free water.

-The pump is lowered into the water column utilizing an attached nylon rope. DO NOT LOWER THE PUMP USING THE ELECTRICAL CORD OR HOSE.

-Once the pump has been lowered to the desired depth, the nylon rope is securely attached to an anchor at the ground surface (i.e. metal stake, truck bumper, etc). The power cord is attached to the speed controller which is attached to the generator.

-Slowly increase the speed of the controller until a desired flow rate is achieved. The pump should not be allowed to run dry.

-Purge water will be treated on-site utilizing a GAC unit.

Monitoring Well No-Purge Sampling:

-No-purge sampling will be conducted in previously sampled monitoring wells if: the water level is within the screened interval of the well or specifically asked for by the SCDHEC project manager.

-Immediately prior to sampling, laboratory provided labels will be placed on all sample vials and containers. These labels will include the site name, sample ID, analysis to be completed, date and time.
-Sampling will be conducted utilizing prepackaged, clear, disposable polyethylene bailers and nylon rope. Following sampling of a well, the bailer and rope will be properly disposed. A new set of Nitrile gloves will be worn at each monitoring well, and at any time samples are handled.

-The bailer is lowered into the well until it encounters the watertable, the bailer is then allowed to fill with water and is extracted from the well. Samples are placed in laboratory provided and approved sampling containers. Following sample collection, the samples are immediately placed in laboratory provided coolers, pre-filled with wet ice obtained from the MECI office.

-When requested by the SCDHEC project manager, passive diffusion bags (PDB) can be used to obtain no purge samples from discreet intervals within a water column or from wells were it is not possible to treat purge water on-site (i.e. DNAPL contamination).

-Prior to installation of a PDB, all equipment used should be washed with isopropanol and rinsed with analyte free water (weights, PDB clamps, etc.).

-Wearing Nitrile gloves, the PDB is filled with analyte free water, sealed with a PDB clamp according to the manufacturer and attached to a nylon rope. The PDB is then lowered into the well to a specified depth.

-After a minimum of two weeks in the well, the PDB is removed from the well and a sample taken using a disposable, prepackaged, sealed sampling straw to puncture the bag and fill sample vials.

Quality Assurance:

-Once the samples are taken, they are to be immediately placed in laboratory provided coolers, pre-filled with wet ice obtained from the MECI office.

-One field duplicate will be taken for every twenty (20) monitoring wells sampled at a site. This blank is a duplicate sample taken from a monitoring well near the source area, and is sampled in accordance with MECI Standard Operating Procedures.

-One field blank will be prepared for each day a site is sampled. A field blank is prepared using lab provided DI water placed into laboratory provided sample containers.

-One trip blank per cooler used in sampling will be used at each site. The trip blank is prepared by the laboratory.

-Once a sample has been taken, a sample time will be recorded in the field notes, along with any information about monitoring well condition that should be brought to the attention of the project manager.

Will Sampling Equipment have to be cleaned and decontaminated or is everything disposable?

All equipment, excluding electronic water level indicators, field probes and turbidity tubes, is disposable.

If sampling equipment must be cleaned please give a detailed description of how this is done and the disposal of by-products from the cleaning and decontamination.

Prior to usage of non-disposable equipment, it is decontaminated with isopropanol applied by a Teflon squeeze bottle and rinsed with analyte free water. This rinse water is collected and run through a portable GAC (granulated activated carbon) unit.

Identify any equipment and support facilities needed. This may include such things as Fed-ex to ship the samples, a Geoprobe, field analysis done by another contractor (who must be certified), and electricity to run sampling equipment.

Environmental Drilling and Probing Services (EDPS) will mobilize a drilling rig to the subject site. All drilling activities will be performed under the supervision of a South Carolina Certified Well Driller and MECI field personnel (Tommy Bolyard, #B 01846).

Wells will be installed according to MECI Standard Operating Procedures (4.2., 4.2.2, 4.2.3 & 4.2.4) and in accordance with South Carolina Well Standards, R.61-71.

Drill cuttings will be disposed of by MECI personnel at Waste Management Richland County Landfill in Elgin, SC.

Address the actions to be taken when problems occur in the field, and the person responsible for taking corrective action and how the corrective action will be documented.

Failure	Response	Documentation	Individual Responsible
Unable to gain access to drilling location	Attempt to create path to well location through vegetation, Utilize plywood boards to cross soft ground, contact SCDHEC project manager to discuss a potential change to the well location.	Record on field sheets, notify SCDHEC and Office.	Field Staff, Field Manager

Hitting a Utility Line while Drilling	Contact PUPS (Palmetto Utilities Protection Service), contact appropriate utility (if gas line is hit, notify fire department)	Record in field sheets, on PUPS ticket in office. Contact SCDHEC project manager to inform them of problem.	Field Staff, Field Manager
Drilling rig breaks down	Attempt to correct problem. If the problem cannot be determined, or cannot be fixed, discontinue drilling for the day. Drilling can continue once drill rig has been fixed, or new drill rig is mobilized to the site	Record on field sheet, notify office staff.	Field Staff, Drill rig operator
Property Owner will not allow access onto property for drilling activities	Stop drilling. Attempt to discuss with property owner the need for the work. Inform SCDHEC project manager of the access issue. If no resolution can be made, discontinue drilling on the disputed property until access can be obtained or new well location is determined.	Document on field sheets (or QAPP, if access denied during QAPP site visit). Inform SCDHEC project manager immediately if any disputes arise.	Field Staff, Field Manager

Table 6A Field Corrective Action

B3 Sample Handling and Custody

1. ***How will the samples get from the Site to the Lab to ensure holding requirements are met?***

Following sample collection, the samples are immediately place in a laboratory provided cooler, pre-filled with wet ice obtained from the MECI office. Samples are transported to the MECI office once a sampling event is complete. A Chain of Custody (CoC) is filled out following the sampling event by the field staff. See attached CoC. If a lab provided courier is scheduled to visit the MECI offices the day following a sampling event, sampling coolers are repacked with wet ice, and left at the office for pick-up the following morning. If no courier is schedule to visit the MECI office the day following a sampling event, all sampling coolers are repacked with ice and are dropped off at a lab approved shipping company for overnight delivery to the lab.

2. ***How will the contactors cool the samples and keep the samples cool?***

All samples are kept on wet ice, obtained from MECI office.

3. ***How will the lab determine the temperature of the samples upon receipt? Will they be using a temperature blank?***

A calibrated thermometer and temperature blank will be used to document sample temperature. The temperature blank is immediately checked by the sample receiving technician upon arrival at the laboratory.

4. ***Where will the samples be stored in the Lab once they are received?***

All samples are stored in clean refrigeration units monitored and maintained at 4 degrees C + or – 2 degrees. Volatile organic samples are stored separately form all other samples.

5. ***Describe the chain of custody procedure and attach a copy of each chain of custody that will be used. If a Chain of Custody SOP exists from the Lab and the Contractor is willing to adhere to it, then this may be attached.***

A chain of custody (COC) will be filled out for each sampling event at each project site. COC to be signed by MECI and Shealy Environmental technician at time physical transfer of samples occurs to courier. Shealy uses the following COC procedures to protect sample integrity following pickup by their courier: A full time Sample Receiving Technician receives all samples and completes a Sample Receipt Checklist (SRC), which will identify any anomalies, if any exist the Sample Receiving Technician or Project Manager must resolve the deviation internally and/or notify the client to resolve the anomaly.

B4 Analytical Methods

1. ***Identify the SOPs which will be used to analyze the samples, the method which the SOP references and the equipment or instrumentation that is needed:***

Parameter	SOP ID*	Method Referenced	Equipment	Comments
BTEX+Naph+MTBE+Oxygentaes	S-VO-002	8260B	GC/MS	
PAH's	S-SV-021	8270D	GC/MS	
EDB	S-SV-012	8011	GC	
Lead,T.	S-IM-022	6010C	ICP	
Ferrous Iron	S-IN-009	SM 3500-FED	Spectrophotometer	
Nitrate	S-IN-042	353.2	Auto-analyzer/Lachate	
Sulfate	S-IN-010	300.0	Ion Chromatograph	
Methane	S-VO-004	RSK-175	GC	
TOC	S-IN-030	Walkley-Black	N/A	
DRO - TPH	S-SV-001	8015C	GC	
Mercury	S-IM-006	7470A/7471B	Hydra AA Analyzer	
RCRA Metals	S-IM-014	6020A	ICP-MS	
pH	Standard	MECI SOP 4.3.6	YSI 63	Place probe in sample and allow to equilibrate before recording reading
Conductivity	Standard	MECI SOP 4.3.6	YSI 63	
Dissolved Oxygen	Standard	MECI SOP 4.3.6	YSI 550A	
Temperature	Standard	MECI SOP 4.3.6	YSI 550A	
PID reading	MECI SOP 4.2.2			Use MiniRae PID to obtain reading. Place probe into soil sample bag and record the highest reading.

Table 7A Analytical SOPs and Referenced Methods

- **This can be a full name of a SOP, an abbreviation, or a number. In the latter two cases, the abbreviation or number must be associated with the full name of the SOP. See also Table 8A SOP Abbreviation Key.**

Abbreviation	Lab Identification of this SOP	Full Name of the SOP
S-VO-002	S-VO-002	GC/MS VOLATILES ANALYSIS BASED ON EPA METHODS 8260B AND 624 PREPARED BY EPA METHODS 5030B, 5035 AND 3585
S-SV-021	S-SV-021	GC/MS ANALYSIS BASED ON EPA METHOD 8270D PREPARED BY EPA METHODS 3520C, 3550C AND 3580A
S-SV-012	S-SV-012	GC/ECD ANALYSIS OF EDB AND DBCP BASED ON METHOD 8011 & 504.1
S-IM-022	S-IM-022	INDUCTIVELY COUPLED PLASMA ATOMIC EMISSION SPECTROSCOPY-PECTROMETRIC METHOD for TRACE ELEMENT ANALYSES METHOD 6010C
S-IN-009	S-IN-009	FERROUS IRON (PHENANTHROLINE METHOD) STANDARD METHOD 3500-Fe D
S-IN-042	S-IN-042	NITRATE+NITRITE NITROGEN BY EPA METHOD 353.2, NITRATE NITROGEN BY 353.2 SUBTRACTION, AND NITRITE NITROGEN BY EPA METHOD 353.2
S-IN-010	S-IN-010	INORGANIC ANIONS BY ION CHROMATOGRAPHY EPA METHOD 300.0 and SW-846 9056 and 9056A
S-VO-004	S-VO-004	STANDARD OPERATING PROCEDURE GC ANALYSIS BASED ON METHOD RSKSOP-175
S-IN-030	S-IN-030	TOTAL ORGANIC CARBON (TOC) WALKLEY-BLACK PROCEDURE
S-SV-001	S-SV-001	GC/FID DIESEL RANGE ORGANICS ANALYSIS BASED ON METHOD 8015B and/or 8015C PREPARED BY EPA METHODS 3520C, 3550C and 3580A
S-IM-006	S-IM-006	MERCURY ANALYSIS BY COLD-VAPOR-ATOMIC ABSORBTION METHOD 245.1/7470A AND METHOD 245.5/7471B
S-IM-014	S-IM-014	INDUCTIVELY COUPLED PLASMA - MASS SPECTROMETRY ANALYSIS METHOD 200.8
MECI SOP 4.2.2	MECI SOP 4.2.2	Drilling Standard operating procedures
MECI SOP 4.3.6	MECI SOP 4.3.6	Sampling Standard operating procedures

Table 8A SOP Abbreviation Key

2. Identify procedures to follow when failures occur, identify the individual responsible for corrective action and appropriate documentation:

Failure	Response	Documented Where?	Individual Responsible
Field meters not working	Attempt to clean probes, recalibrate in the field.	Record on field sheets, notify office staff. Take meters out of rotation until problem identified and corrected.	Field Staff, Field Manager

COC or Sample Receiving issues	Call Client	Sample Receiving Checklist (SRC)	PM – Kelly Maberry kmaberry@shealylab.com
Analytical errors	Corrective Action Form (CAF)	CAF filled out by PM	Lab Director –Daniel J. Wright dwright@shealylab.com
QA/QC Failure	Corrective Action Form (CAF)	CAF filled out by PM	Lab Director – Daniel J. Wright dwright@shealylab.com QA/QC Officer – Jami Savje Jsavje@shealylab.com
On time delivery	Corrective Action Form (CAF)	CAF filled out by PM	Lab Director – Daniel J. Wright dwright@shealylab.com QA/QC Officer – Jami Savje Jsavje@shealylab.com
PID not functioning propertly	Attempt to clean PID, recalibrate.	Record on field sheets, notify office staff. PID taken rotation until problem identified and corrected.	Field Staff, Field Manager

Table 9A Corrective Action Procedures

3. Identify sample disposal procedures.

Analysis	Matrix	Schedule for disposal	Method for disposal	Comments
BTEX+Naph+MTBE+Oxygenates	Waters/Soils	Six Weeks	Tested for Hazardous Constituents and disposed as Hazardous or non-Hazardous waste.	
PAH's	Waters/Soils	Six Weeks	Tested for Hazardous Constituents and disposed as Hazardous or non-Hazardous waste.	
EDB	Waters/Soils	Six Weeks	Tested for Hazardous Constituents and disposed as Hazardous or non-Hazardous waste.	
Lead	Waters/Soils	Six Weeks	Tested for Hazardous	

			Constituents and disposed as Hazardous or non-Hazardous waste.	
Ferrous Iron	Waters/Soils	Six Weeks	Tested for Hazardous Constituents and disposed as Hazardous or non-Hazardous waste.	
Nitrate,Sulfate	Waters/Soils	Six Weeks	Tested for Hazardous Constituents and disposed as Hazardous or non-Hazardous waste.	
Methane	Waters/Soils	Six Weeks	Tested for Hazardous Constituents and disposed as Hazardous or non-Hazardous waste.	
All	Water	On-Site	Portable Granulated Activated Carbon (GAC) Unit	All waste water produced from sampling and decontamination activities will be run through a GAC unit

Table 10A Disposal Procedures

4. Provide SOPs for the Kerr Method or the Ferrous Iron Method if these are parameters for this study. This can be attached or written here. If attached please note that it is an attachment and where it is located (if applicable).

B5 Quality Control Requirements:

All QC will follow the requirements laid out in Section B5 of the UST Programmatic QAPP.

B6 Field Instrument and Equipment Testing, Inspection and Maintenance

1. Identify all field and laboratory equipment needing periodic maintenance, the schedule for this, and the person responsible. Note the availability and location of spare parts.

Instrument	Serial Number	Type of Maintenance	Frequency	Parts needed/Location	Person responsible
Volatiles Mass Spec	Shealy SOP S-SV-021 Page 7	Change traps, clean ion source, replace filaments	Periodic	Laboratory	MSV Analyst
Semivolatile Mass Specc	Shealy SOP S-SV-021 Page 7	Injection port maintenance, ion source maintenance, column replacement	Periodic	Laboratory	MSSV Analyst
ECD GC	Shealy SOP S-SV-012 Page 5	Injection port maintenance, column replacement	Periodic	Laboratory	GC Analyst
Dionex IC	Shealy SOP S-IN-010 Page 6	Replace auto sampler filter, tubing, line filter, sample Line and Waste Line, as needed. Check Reagent levels, flow rate, waste line.	Periodic	Laboratory	IC Analyst
ICP	Shealy SOP S-IM-005 Page 6 & 7	Clean Sample introduction system , auto sampler, torch, Change spray chamber, torch tubing, tubing	Periodic	Laboratory	ICP Analyst
Leeman Mercury Analyzer	Shealy SOP S-IM-006 Page 5	Clean GLS, Change Pump tubing, Nafion Dryer, Lamp	Periodic	Laboratory	Mercury Analyst
Flow Injection Analysis – Lachat 8000	Shealy SOP S-IN-042 Page 5	Replace sample and reagent lines, replace light source, re-wrap heating coil, replace column	Periodic/As Needed	Laboratory	Nitrate Analyst
YSI 63	09C 101302, 10K 101895, 07M 100905	Replace probe tip	Yearly	Order from YSI	C. Sanders
YSI 63	09C 101302, 10K 101895, 07M 100905	Replace batteries	As Needed	In stock at office	Field Staff
YSI 63	09C 101302, 10K 101895, 07M 100905	General inspection for wear and tear on equipment	Daily	Major fixes will be done out of office	Field Staff
YSI 63	09C 101302, 10K 101895, 07M 100905	Check buffer solutions for expiration	Weekly	In stock at office	C. Sanders
YSI 550A	04L 2026AK, 08B 101407, 04A 0912AI	Replace membrane	4 to 8 weeks	In stock at office	Field Staff
YSI 550A	04L 2026AK, 08B 101407, 04A 0912AI	Replace batteries	As Needed	In stock at office	Field Staff

YSI 550A	04L 2026AK, 08B 101407, 04A 0912AI	General inspection for wear and tear on equipment	Daily	Major fixes will be done out of office	Field Staff
Electronic Water Level Indicator	WLI-1, WLI-2, WLI-3	Inspection	Weekly	N/A	Field Staff
Oil/Water Interface probe	PLI-1, PLI-2, PLI-3, PLI-4	Inspection	Weely	N/A	Field Staff
MiniRae 3000	592-902491	Cleaning	Weekly	N/A	C. Sanders
MiniRae 3000	592-902491	Parts Inspection	As Needed	In stock at office	Field Staff

Table 11A Instrument and Equipment Maintenance

2. Identify the testing criteria for each lab or field instrument that is used to ensure the equipment is performing properly. Indicate how deficiencies, if found, will be resolved, re-inspections performed, and effectiveness of corrective action determined and documented. Give the person responsible for this

Instrument/Equipment & Serial Number	Type of Inspection	Requirement	Individual Responsible	Resolution of Deficiencies
Volatiles Mass Spec Shealy SOP S-SV-021 Page 7	Daily calibration check	Method Requirements	MSV Analyst	Recalibration or instrument maintenance
Semi-volatiles Mass Spec Shealy SOP S-SV-021 Page 7	Daily calibration check	Method Requirements	MSSV Analyst	Recalibration or instrument maintenance
ECD GC Shealy SOP S-SV-012 Page 5	Daily calibration check	Method Requirements	GC Analyst	Recalibration or instrument maintenance
Dionex IC Shealy SOP S-IN-010 Page 6	Daily calibration check	Method Requirements	IC Analyst	Recalibration or instrument maintenance
ICP Shealy SOP S-IM-005 Page 6 & 7	Daily calibration check	Method Requirements	ICP Analyst	Recalibration or instrument maintenance
Leeman Mercury Analyzer Shealy SOP S-IM-006 Page 5	Daily calibration check	Method Requirements	Mercury Analyst	Recalibration or instrument maintenance
Flow Injection Analysis – Lachat 8000 Shealy SOP S-IN-042 Page 5	Daily and continuing calibration check	See calibration criteria	Nitrate Analyst	Recalibration or instrument maintenance
YSI 63 - 09C 101302, 10K 101895, 07M 100905	Daily calibration check	See calibration criteria	Field Staff	Recalibrate, general maintenance then recalibrate. Ship off for service by manufacturer
YSI 550A - 04L 2026AK, 08B 101407, 04A 0912AI	Daily calibration check	See calibration criteria	Field Staff	Recalibrate, general maintenance then recalibrate. Ship off for service by

				manufacturer
MiniRae 3000 – 592-902491	Weekly calibration check	Within 5 ppm of 100 ppm standard. MiniRae 3000 does not need daily calibration according to Manufacturers guidelines	Field Staff	Recalibrate, general maintenance then recalibrate. Ship off for service by manufacturer
Electronic Water Level Indicator	Monthly	Checked vs. Standard - +/- 0.01 foot per 10 foot length	Field Staff	Ship off for service by manufacturer
Oil/Water Interface probe	Monthly	Checked vs. Standard - +/- 0.01 foot per 10 foot length	Field Staff	Ship off for service by manufacturer

Table 12A Instrument and Equipment Inspection

B7 Instrument Calibration and Frequency

1. Identify equipment, tools, and instruments for field or lab work that should be calibrated and the frequency.
2. Describe how the calibrations should be performed and documented, indicating test criteria and standards or certified equipment.
3. Identify how deficiencies should be resolved and documented. Identify the person responsible for corrective action.

Instrument	Calibration Procedure	Frequency of Calibration	Acceptance Criteria	Corrective Action (CA)	Person Responsible for CA	SOP Reference*
Volatiles Mass Spec	Minimum of 5 calibration standards for all compounds	When indicated by continuous calibration verification standard	Method Criteria	Detailed in SOP	MSV Analyst	S-VO-002
Semi-volatile Mass Spec	Minimum of 5 calibration standards for all compounds	When indicated by calibration verification standard	Method Criteria	Detailed in SOP	MSSV Analyst	S-SV-021
GC ECD	Minimum of 5 calibration standards for all compounds	When indicated by calibration verification standard	Method Criteria	Detailed in SOP	GC Analyst	S-SV-012
Dionex IC	Minimum of 5 calibration standards for all compounds	When indicated by calibration verification standard	Method Criteria	Detailed in SOP	IC Analyst	S-IN-010
ICP	Minimum of 3 calibration standards for all compounds	When indicated by calibration verification standard	Method Criteria	Detailed in SOP	ICP Analyst	S-IM-022
Cetac Mercury Analyzer	Minimum of 5 calibration	When indicated by calibration	Method Criteria	Detailed in SOP	Mercury Analyst	S-IM-006

Instrument	Calibration Procedure	Frequency of Calibration	Acceptance Criteria	Corrective Action (CA)	Person Responsible for CA	SOP Reference*
	standards for all compounds	verification standard				
Lacaht QuickChem 8000	Minimum of 5 calibration standards	Daily or when indicated by calibration verification standard	Method Criteria	Detailed in SOP	Nitrate Analyst	S-IN-042
YSI 63	pH Calibration	Daily	+/- 0.2 pH units	clean/replace probe tip, recalibrate	Field Staff	4.3.6
YSI 63	Conductivity Calibration	As directed by manufacturer	+/- 10 uS	clean/replace probe tip, recalibrate	Field Staff	4.3.6
YSI 550A	DO calibration	Daily	+/- 0.25 mg/l	clean/replace probe tip, recalibrate	Field Staff	4.3.6
YSI 550A	Temperature Calibration	Daily	+/- 1 °C	clean/replace probe tip, recalibrate	Field Staff	4.3.6
MiniRae 3000	PID Calibration	Weekly	+/- 5 ppm	clean, recalibrate	Field Staff	***
Electronic Water Level Indicator	Checked vs. Standard	Monthly	+/- 0.01 foot per 10 foot length	Replace probe tape	Field Staff	***
Oil/Water Interface probe	Checked vs. Standard	Monthly	+/- 0.01 foot per 10 foot length	Replace probe tape	Field Staff	***

Table 13A Instrument Calibration Criteria and Corrective Action

*** This can be a full name of a SOP, an abbreviation, or a number. In the latter two cases, the abbreviation or number must be associated with the full name of the SOP. See also Table 8A SOP Abbreviation Key.**

B8 Inspection/Acceptance Requirements for Supplies and Consumables

1. Identify critical supplies and consumables for field and laboratory, noting supply source, acceptance criteria, and procedures for tracking, storing and retrieving these materials.
2. Identify the individual(s) responsible for this.

Item	Vendor	Acceptance criteria	Handling/Storage Conditions	Person responsible for inspection and tracking.
Laboratory Chemicals	Fisher,VWR	Certificates of analysis and laboratory testing	Laboratory storage	Receiving and laboratory personnel
Laboratory standards	O2Si, Restek, High Purity, VHG, Supelco	Certificates of analysis and laboratory verifications	Vendor specific storage conditions	Laboratory Analysts
Sample	Daniels Scientific,	Certificates of analysis and	Bottle storage area	Sample receiving personnel

Containers	QEC	laboratory testing		
Clear, Disposable polyethylene Bailers	Preferred Pump	Individual sleeves intact, ball valve operational	Stored in Vehicle Bay, Off of the ground	C. Sanders, Field Staff
Nylon Rope	Preferred Pump	Covered with plastic	Stored in Vehicle Bay, Off of the ground	C. Sanders, Field Staff
Nitrile Gloves	Preferred Pump	Unopened box, no holes	Stored in Vehicle Bay, Off of the ground	C. Sanders, Field Staff
40 mL HCL preserved amber vials	Shealy Environmental Services	Custody seal intact	Stored in Vehicle Bay, Off of the ground	C. Sanders, Field Staff
250 mL HNO3 preserved metals vials	Shealy Environmental Services	Custody seal intact	Stored in Vehicle Bay, Off of the ground	C. Sanders, Field Staff
Coolers	Shealy Environmental Services	Intact	Stored in Vehicle Bay, Off of the ground	C. Sanders, Field Staff
pH Buffer	TRS Environmental, Enviroequipment	Within expiration date	Stored in calibration room	C. Sanders, Field Staff
Conductivity Standard	TRS Environmental, Enviroequipment	Within expiration date	Stored in calibration room	C. Sanders, Field Staff
DO Membranes	YSI, Enviroequipment	Clean, in box	Stored in calibration room	C. Sanders, Field Staff
Batteries	Any Store	Not previously used	Stored in calibration room	C. Sanders, Field Staff
PID Calibration Gas – Isobutylene	Enviroequipment	Not Depleted, within expiration date	Stored in calibration room	C. Sanders, Field Staff

Table 14A List of Consumables and Acceptance Criteria

B9 Data Acquisition Requirements (Non-Direct Measurements)

1. Identify data sources, for example, computer databases or literature files, or models that should be accessed or used.
2. Describe the intended use of this information and the rationale for their selection, i.e., its relevance to project.
3. Indicate the acceptance criteria for these data sources and/or models.

Data Source	Used for	Justification for use in this project	Comments
IGWA/Tier 1 Report or information pertaining to nearby LUST Sites.	Historic groundwater and CoC concentration data. Lithology and well construction data from previous MWI's	Establish the type of drilling rig required, time for sampling and any other potential problems that may be encountered.	1903 forms from previous monitoring well installations will be used to estimate depth of the newly installed monitoring wells installed in conjunction with the Tier II Assessment.

Table 15A Non-Direct Measurements

4. Identify key resources/support facilities needed.

B10 Data Management

1. Describe the data management scheme from field to final use and storage.

Following sample collection and chain of custody production, samples are shipped to the lab. Field work from the field staff is reviewed by the MECI project manager, and converted into digital form. All data entry is subsequently checked to validate the data entry. The original copies of the field work are stored in MECI files for a minimum of 5 years. Digital copies of the work are stored on the MECI server, which is backed up weekly, and stored for a minimum of 5 years. The digital copy of the field work is presented to SCDHEC with the final report.

2. How does the lab and field staff ensure that no unauthorized changes are made to the chain of custody, sampling notebooks, laboratory notebooks and computer records?

The laboratory maintains comprehensive Quality Control and Training Programs. All sample receipt data, sample log-in, and analytical data is peer reviewed, including review for inappropriate changes. Data management, review procedures and the Quality Systems Program are documented in the laboratory's Quality Manual and Standard Operating Procedures. The Quality Assurance Department oversees adherence to and review of these programs.

All MECI field work is produced using ink-pens. Any attempt to alter field data, after sampling is complete, can be readily identified. MECI keeps a carbon copy of the chain of custody after it is shipped to the lab. This copy is kept with the field work. If any change to the CoC are suspected, this original carbon copy can be use to identify potential changes.

3. How does the lab ensure that there are no errors in samples records including times when sample information is compiled, data calculated and/or transmitted?

Sample data acquisition software is reviewed periodically. The LIMS database is backed up daily and is able to be restored in the event of a system failure. These procedures are documented in laboratory SOP S-AD-003, LIMS. The IT Manager is responsible for these systems and procedures."

4. How will the data be archived once the report is produced? How can it be retrieved? (This applies to both electronic and hard copies).

Laboratory Hardcopy data stored off site is logged, maintained and archived by the Quality Assurance Department. Laboratory Electronic Data Reports are maintained through IT back up under the responsibility of the IT Systems Manager.

MECI keeps all field work and paper copies of reports in its in-house filing system. All paper copies are stored for a minimum of 5 years. Any file can be retrieved easily by going to the correct filing cabinet/box.

All electronic copies of reports generated are kept on the MECI server. This server is backed-up on a weekly basis. Any file stored on the MECI server can be retrieved instantly, by accessing the server. All electronic files are stored for a minimum of 5 years on the server.

Section C Assessment and Oversight

C1 Assessment and Response Actions

1. *The Contractor is supposed to observe field personnel daily during sampling activities to ensure samples are collected and handled properly and report problems to DHEC within 24 hours.. Please state who is responsible for doing this and what observations will be made. Will this person have the authority to stop work if severe problems are seen?*

Field audits can be conducted on any field personnel at any time. MECI field audits can be conducted by the Field Manger, who will be responsible for ensuring that field personnel adhere to the QAPP. If during a random field audit, severe problems are found, work will be stopped by the field manager and the QA officer contacted to determine corrective action. All problems must be corrected prior to any additional work being performed. Should it be requested, an On-site Field Audit can be scheduled with the SCDHEC project manager.

2. *The SCDHEC UST QAPP states that the Lab will receive an Offsite Technical System Audit. For this project, what assessments will be done on the Commercial Lab(s) that are being used—other than their certification audit? When or how often are these done? Who will the results be given to and who has the ability to stop work if problems are severe?*

The laboratory participates in annual Proficiency Testing through an approved vendor, Wibby Environmental. Proficiency Testing results are provided to the Office of Environmental Laboratory Certification.

C2 Reports to Management

See the SC DHEC UST Programmatic QAPP (UST Master QAPP).

Section D Data Validation and Usability

All field and laboratory data will be checked and verified by the project verifier (Courtney Sanders) prior to submission to SCDHEC.

CoC is shipped with the samples to the lab, and a copy is kept by MECI in the work folder.

4.3.5.2.A lab provided transport blank will be stored in each cooler for transport to the laboratory.

4.3.5.3.Samples will be transported to the laboratory by shipment with a lab provided courier or with a lab approved shipping company. If a courier is scheduled to visit the MECI offices the day following a sampling event, sampling coolers will be repacked with wet ice, and left at the office for pick-up. If no courier is scheduled to visit the MECI office the day following a sampling event, all sampling coolers are to be dropped off at the lab or at an approved shipping company for overnight delivery to the lab immediately following the sampling event.

4.3.6. Field Measurements and Instrument Calibration

4.3.6.1.Prior-to all sampling events equipment for field measurements should be calibrated. MECI utilizes YSI550A meters for DO (mg/L) and temperature readings (°C) and YSI63 meters for pH and conductivity (uS) readings. These meters are calibrated according to the manufacturers instructions (please see attached calibration instructions)

4.3.6.2.Calibration readings will be recorded on field notes, and should be within +/- 1°C for temperature, +/- 0.2 pH units of 7.00 buffer for pH and within 10% of 100 uS buffer for conductivity.

4.3.6.3.MECI utilizes a 60 cm calibrated turbidity tube for turbidity measurements. The tube is marked with a 60 cm tape that has been calibrated into Nephelometric Turbidity Units (NTU). Turbidity is measured by filling the Turbidity Tube with purge water. The water is drained from the bottom of the tube while the user looks towards the bottom of the tube. Once the Secchi disk pattern at the bottom of the tube is visible, the drain tube is closed, and a reading is taken according to the amount of purge water remaining in the tube.

4.3.6.4.Field Measurements are taken by fully submerging the probes from the YSI550A and YSI63 into water taken from the well. Readings are allowed to equilibrate, then the measurement is recorded.

4.3.6.5.Meters are to be stored in waterproof cases inside of the office when not in use, to prevent possible exposure damage.

4.4. Aquifer Characterization

Aquifer specific data will be collected using methods appropriate to the local geology of the facility. MECI will primarily utilize slug tests to obtain specific aquifer data. This data, combined with sieve analysis and hydrometer data will be utilized in aquifer calculations.

4.4.1. Slug Test

A normal characterization for a Tier II assessment will require slug tests on two watertable bracketing monitoring wells and one deep monitoring well. Other scopes of work will require a varying number of slug tests.

4.4.1.1.Slug tests will be completed utilizing prepackaged, clear, disposable polyethylene bailers, nylon rope, stop-watch and previously decontaminated electronic water level indicator.

4.4.1.2.Prior to starting the Slug test, a static groundwater measurement will be taken.

4.4.1.3.Water is removed from the well until the water level in the well has been reduced at least one foot.

4.4.1.4.The stopwatch is started as soon as the last bail of water is removed from the well.

4.4.1.5.The water level indicator is lowered into the well and groundwater elevation readings are taken at 15-second intervals for the first two minutes. This interval can be expanded as the test continues.

4.4.1.6.Water level measurements are taken until the water level in the well has returned to within 90 percent of the static level, or one hour has elapsed.

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

ASSESSMENT COMPONENT COST AGREEMENT
SOUTH CAROLINA
Department of Health and Environmental Control
Underground Storage Tank Management Division
State Underground Petroleum Environmental Response Bank Account

Facility Name: Pantry 911

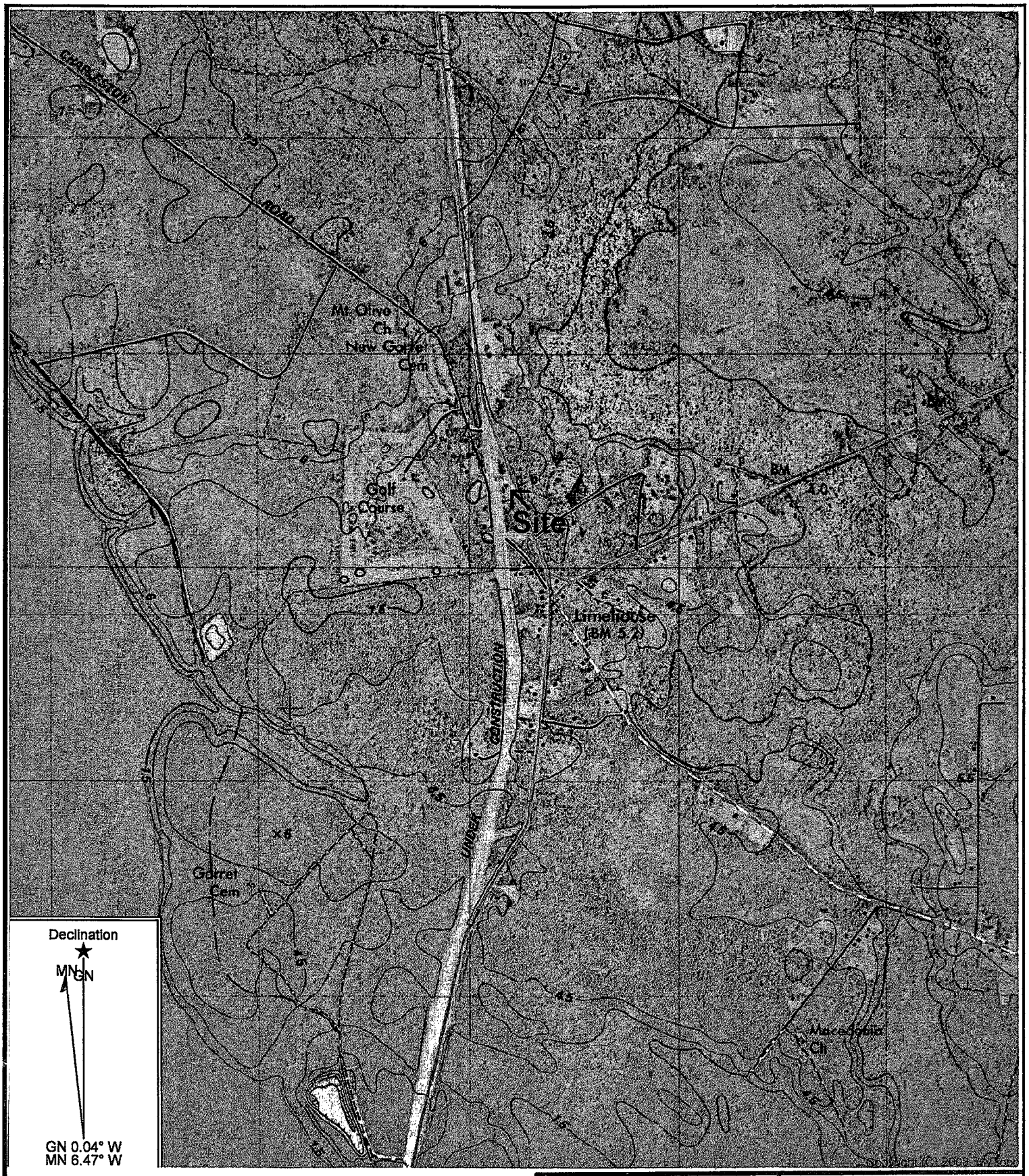
UST Permit #: 10628 **Cost Agreement #:** N/A

ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
1. **Plan***				
B. Tax Map		x	$50.00	$0.00
C. Tier II or Comp. Plan /QAPP Appendix B	1	x	$525.00	$525.00
2. **Receptor Survey ***		x	$500.00	$0.00
3. **Survey (500 x 500 feet)**				
A. Comprehensive Survey	1	x	$1,000.00	$1,000.00
B. Subsurface Geophysical Survey				
1. < 10 meters below grade		x	$2,750.00	$0.00
2. > 10 meters below grade		x	$3,250.00	$0.00
C. Geophysical UST or Drum Survey		x	$1,125.00	$0.00
4. **Mob/Demob (Each)**				
A. Equipment	1	x	$575.00	$575.00
B. Personnel	3	x	$290.00	$870.00
C. Adverse Terrain Vehicle to install wells		x	$575.00	$0.00
5. **Soil Borings (hand auger)* (Feet)**		feet x	$14.00	$0.00
6. **Soil Borings (drilled) & Field Screening ***				
Rate includes collection of water sample or soil sample, and lab or other analyses				
A. Standard		feet x	$17.00	$0.00
C. Fractured Rock		feet x	$27.50	$0.00
7. **Soil Leachability Model (Each)**		each x	$200.00	$0.00
8. **Abandonment* (per foot)**				
A. 2" diameter or less		feet x	$5.00	$0.00
B. Greater than 2" to 6" diameter		feet x	$5.50	$0.00
C. Dug/Bored well (up to 6 foot diameter)		feet x	$18.00	$0.00
9. **Well Installation* (per foot)**				
A. Water Table (hand augered)		feet x	$20.00	$0.00
B. Water Table (drill rig)	49	feet x	$38.00	$1,862.00
C. Telescoping/ Pit Cased		feet x	$58.00	$0.00
D. Rock Drilling		feet x	$58.00	$0.00
E. 2" Rock Coring		feet x	$45.00	$0.00
G. Rock Multi-sampling ports/screens		feet x	$47.20	$0.00
H. Recovery Well (4 inch diameter)		each x	$45.00	$0.00
I. Pushed Pre-packed screen (1.25 diameter)		each x	$18.50	$0.00
J. Rotosonic (2 inch diameter)		each x	$45.00	$0.00
10. **Groundwater Sample Collection / Gauge Depth to Water or Product (Each)**				
A. Groundwater Purge	4	wells x	$55.00	$220.00
B. Air or Vapors		samples x	$90.00	$0.00
C. Water Supply	1	samples x	$30.00	$30.00
D. Groundwater No Purge or Duplicate	15	samples x	$35.00	$525.00
E. Gauge Well only		per well x	$20.00	$0.00
F. Sample Below Product		wells x	$50.00	$0.00
G. Pasive Diffusion Bag		each x	$40.00	$0.00
H. Field Blank	1	each x	$5.00	$5.00

11. Laboratory Analyses-Groundwater (Each Sample)					
A1. BTEX+Naphth.+ Oxyg's+ 1,2 DCA + Ethanol	22	samples x	$100.00		$2,200.00
AA. Lead, Filtered		samples x	$46.00		$0.00
B1. Rush EPA Method 8260B (All of item A.)		samples x	$143.00		$0.00
C1. Trimethal, Butyl, and Isopropyl Benzenes		samples x	$40.00		$0.00
D. PAH's		samples x	$120.00		$0.00
E. Lead, Unfiltered		samples x	$20.00		$0.00
F. EDB by EPA 8011	21	samples x	$55.00		$1,155.00
FF. EDB by EPA Method 8011 Rush		samples x	$75.00		$0.00
G. 8 RCRA Metals		samples x	$140.00		$0.00
H. TPH (9070)		samples x	$55.00		$0.00
I. pH		samples x	$10.00		$0.00
J. BOD		samples x	$40.00		$0.00
P1. Ethanol		samples x	$21.50		$0.00
11. Analyses-Soil (Each Sample)					
Q. BTEX + Naphth.		samples x	$100.00		$0.00
R. PAH's		samples x	$120.00		$0.00
S. 8 RCRA Metals		samples x	$150.00		$0.00
T. Oil & Grease (9071)		samples x	$60.00		$0.00
U. TPH-DRO (3550B/8015B)		samples x	$65.00		$0.00
V. TPH- GRO (5030B/8015B)		samples x	$65.00		$0.00
W. Grain size/hydrometer		samples x	$99.00		$0.00
X. Total Organic Carbon		samples x	$35.00		$0.00
11. Analyses-Air (Each Sample)					
Y. BTEX + Naphthalene		samples x	$247.50		$0.00
11. Analyses-Free Phase Product (Each Sample)					
Z. Hydrocarbon Fuel Identification		samples x	$620.00		$0.00
12. Aquifer Characterization*					
A. Pumping Test		hours x	$120.00		$0.00
B. Slug Test*		tests x	$150.00		$0.00
C. Fractured Rock		tests x	$500.00		$0.00
13. Free Product Recovery Rate Test* (Each)		tests x	$120.00		$0.00
14. Fate/Transport Modeling					
A. Mathematical Model		each x	$300.00		$0.00
B. Computer Model		each x	$500.00		$0.00
15. Risk Evaluation					
A. Tier I Risk Evaluation		x	$300.00		$0.00
B. Tier II Risk Evaluation		x	$500.00		$0.00
16. Subsequent Survey*		x	$300.00		$0.00
17. Disposal* (gallons or tons)					
A. Wastewater	25	gallons x	$0.80		$20.00
B1. Free Product		gallons x	$0.85		$0.00
C. Soil Treatment/Disposal	2	tons x	$72.50		$145.00
D. Drilling fluids		gallons x	$0.80		$0.00
18. Miscellaneous (attach receipts)					
		x			$0.00
		x			$0.00
		x			$0.00
20. Tier I Assessment (Use DHEC 3665 form)		x			$0.00
21. IGWA (Use DHEC 3666 form)		x			$0.00
22. Corrective Action (Use DHEC 3667 form)		x			$0.00

23. **Aggressive Fluid & Vapor Recovery (AFVR)**					
A. 8-hour Event*		each	x	$3,000.00	$0.00
B. AFVR per-hour Continuance		per hour	x	$204.00	$0.00
C. Off-gas treatment per-hour Continuance		per hour	x	$35.00	$0.00
24. **Granulated Activated Carbon (GAC) filter system installation & service:**					
A. New GAC System Installation*		each	x	$2,500.00	$0.00
B1. Refurbished GAC Sys. Install*		each	x	$1,180.00	$0.00
C. Filter replacement/removal*		each	x	$450.00	$0.00
D1. GAC System removal, cleaning, & refurbishment*		each	x	$720.00	$0.00
E. GAC System housing		each	x	$450.00	$0.00
F. In-line particulate filter		each	x	$150.00	$0.00
G. Additional piping & fittings		feet	x	$4.00	$0.00
25. **Well Repair**					
A. Additional Copies of the Report Delivered		each	x	$32.50	$0.00
B. Repair 2x2 MW pad		each	x	$100.00	$0.00
C. Repair 4x4 MW pad		each	x	$150.00	$0.00
D. Repair well vault	1	each	x	$225.00	$225.00
F. Replace well cover bolts	2	each	x	$10.00	$20.00
G. Replace locking well cap & lock		each	x	$15.00	$0.00
H. Replace/Repair stick-up		each	x	$137.50	$0.00
I. Convert Flush-mount to Stick-up		each	x	$175.00	$0.00
J. Convert Stick-up to Flush-mount		each	x	$125.00	$0.00
K. Replace missing/illegible well ID plate		each	x	$22.50	$0.00
Report Prep & Project Management	15%	x		$9,377.00	$1,406.55
TOTAL					$10,783.55

*The appropriate mobilization cost can be added to complete these tasks, as necessary



GRAPHIC SCALE

0 1000 2000 4000

1IN = 2000FT

Reference: Limehouse and Hardeeville, South Carolina
Jasper and Pritchardville, South Carolina
USGS 7.5 Min. Quad
Contour Interval—1.5 Meters

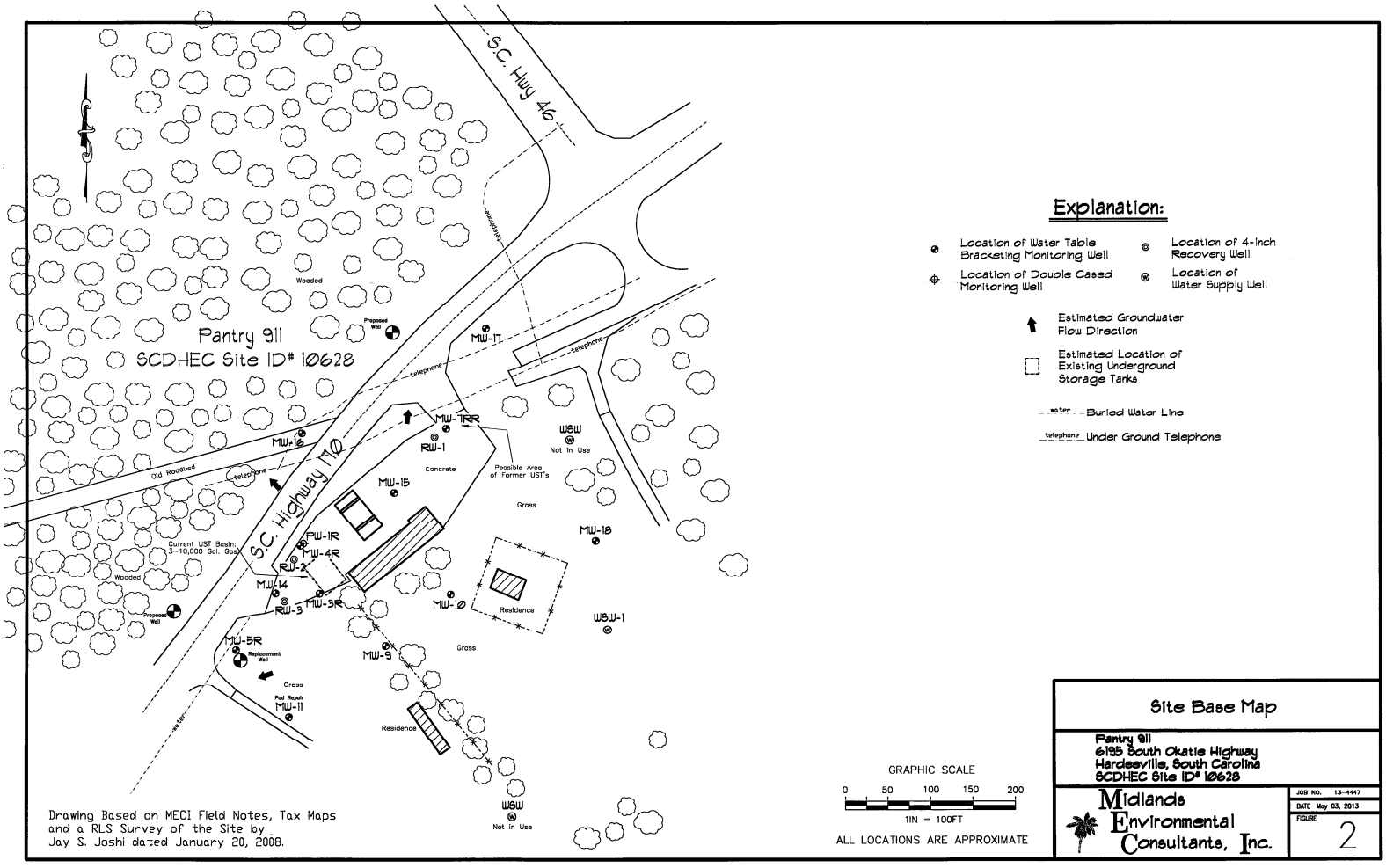
Midlands Environmental Consultants, Inc.

Site Location

Pantry 911
6195 South Okatie Highway, Hardeeville, SC
SCDHEC Site ID# 10628

Figure 1

MECI 13-4447



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of 4-Inch Recovery Well
- Location of Double Cased Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Existing Underground Storage Tanks
- water — Buried Water Line
- telephone — Under Ground Telephone

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

ALL LOCATIONS ARE APPROXIMATE

Site Base Map

Pantry 911
6195 South Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID# 10628

Midlands Environmental Consultants, Inc.

JOB NO. 13-4447
DATE May 03, 2013
FIGURE 2

SHEALY

Chain of Custody Record

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number

Client	Report to Contact	Sampler (Printed Name)	Quote No.
Address	Telephone No. / Fax No. / Email	Waybill No.	Page ___ of ___
City / State / Zip Code	Preservative 1. Unpres. 4. HNO3 7. NaOH 2. NaOH/ZnA 5. HCL 3. H2SO4 6. Na Thio.		
Project Name			
Project Number	P.O Number		

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: GW	DW	WW	S	Other	Analysis	Number of Containers	Bottle (See instructions on back)	Preservative	Lot No.	Remarks / Cooler ID

Turn Around Time Required (Prior lab approval required for expedited TA)
☐ Standard ☐ Rush (Please Specify)

Sample Disposal
☐ Return to Client ☐ Disposal by Lab

QC Requirements (Specify)

Possible Hazard Identification
☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison ☐Unknown

1. Relinquished by / Sampler	Date	Time	1. Received by	Date	Time
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory Received by	Date	Time

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☐ Yes ☐ No ☐ Ice Pack
Receipt Temp. _____ °C
Temp. Blank ☐ Y / ☐ N

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

DONNIE B MALPHRUS ENTERPRISES
ATTN; DONNIE MALPHRUS
2789 N OKATIE HWY
RIDGELAND SC 29936

MAY 28 2013

Re: **QAPP Contractor Addendum Approval – Notice to Proceed**
Pantry 911, 6195 S. Okatie Hwy., Hardeeville, SC 29227-8034
UST Permit # 10628 ; CA # 45846 ; MWA # UMW-25036
Releases reported April 28, 1995
QAPP Contractor Addendum received May 9, 2013
Jasper County

Mr. Malphrus,

The Underground Storage Tank Management Division (UST Division) of the South Carolina Department of Health and Environmental Control (Agency) has reviewed the referenced addendum submitted on your behalf by Midlands Environmental Consultant, Inc. The previous monitoring report for this release indicates that petroleum Chemicals of Concern (CoC) are present in the groundwater at concentrations that exceed risk-based screening levels. Additionally, free product was found. In order to determine the extent of the CoC, additional assessment is necessary. All work should be conducted in accordance with the UST Quality Assurance Division Plan and must be conducted in compliance with all applicable regulations. A copy of Agency Quality Assurance Program Plan (QAPP) for the UST Management Division is available online at:

http://www.scdhec.gov/environment/lwm/usthome/Qapp.htm

Assessment activities at the site should begin immediately upon receipt of this letter. **CA # 45846** has been approved for the amount shown on the enclosed cost agreement form for monitoring well installation, and a groundwater sampling. Groundwater samples should be collected and analyzed for BTEXMN + 1,2-DCA + 8 Oxygenates + EDB. Analyses should be in accordance with Appendix E of the QAPP to include duplicate samples, field and trip blanks.

In accordance with the QAPP, a weekly status report of the project should be provided via e-mail. If any quality assurance problems arise, your contractor must contact the UST Division within 24 hours via phone or e-mail. In addition, a discussion of the problem(s) encountered, including quality assurance problems, the actions taken, and the results must be included in the final report submitted to the UST Management Division.

The Assessment Report, contractor checklist (Appendix K), and invoice are due within 90 days from the date of this letter. The report submitted at the completion of these activities

should include the required information outlined in the QAPP. Please note that all applicable South Carolina certification requirements apply to the services and report preparation. All site rehabilitation activities must be performed and submitted by a South Carolina Certified Underground Storage Tank Site Rehabilitation Contractor.

Midlands Environmental Consultants, Inc. can submit an invoice for direct payment from State Underground Petroleum Environmental Response Bank (SUPERB) Account for pre-approved costs. By law, the SUPERB Account cannot compensate any costs that are not pre-approved. Please note that applicable South Carolina certification requirements regarding laboratory services, well installation, and report preparation must be satisfied. If the invoice is not submitted within 120 days from the date of this letter, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available.

Please note that Sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that no costs will be allowed unless prior approval from the Agency is obtained. If for any reason additional tasks will be completed, these additional tasks and the associated cost must be pre-approved by the Agency for the cost to be paid. The Agency reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria. Further, the Agency reserves the right to question and/or reject costs if deemed unreasonable and the right to audit project records at any time during the project or after completion of work.

Please note, if unnecessary dilutions are completed resulting in reporting limits of individual CoC in excess of Risk-Based Screening Levels (RBSLs), the data cannot be used. In those cases, the Division may deny payment for any non-detect analysis where the reporting limit exceeds the RBSL. The UST Management Division encourages the use of 'J' values as necessary so the appropriate action can be determined for a release.

The Agency grants pre-approval for transportation of virgin petroleum impacted soil and groundwater from the referenced site to a permitted treatment facility. The transport and disposal must be conducted in accordance with the QAPP. If the CoC concentrations based on laboratory analysis are below RBSLs, please contact the project manager for approval to dispose of soil and/or groundwater on site. The SUPERB Account will not reimburse for transportation or treatment of soil and/or groundwater with concentrations below RBSLs.

On all correspondence or inquiries regarding this project, please reference **UST Permit #10628 and CA#45846**. If you have any questions, please feel free to contact me by phone at (803) 896-6649, by fax at (803) 896-6245, or email at bursonsj@dhec.sc.gov.

Sincerely,

Scott J. Burson, Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

enc: Approved Cost Agreement
Monitoring Well Approval UMW-25036
Signed QAPP Addendum Signature Page

cc: Midlands Environmental Consultants, Inc., PO Box 854, Lexington, SC 29071 (W/Enc)
Technical File (W/Enc)

Monitoring Well Approval

Approval is hereby granted to: Midlands Environmental Consultants, Inc.
(On behalf of): Mr. Malphrus
Facility: Pantry 911, 6195 S. Okatie Hwy., Hardeeville, SC 29227-8034
UST Permit Number: 10628
County: Jasper

This approval is for the installation of two (2) groundwater monitoring wells, and the replacement of one (1) groundwater monitoring well. The monitoring wells are to be installed in the approved locations. Monitoring wells are to be installed following the South Carolina Well Standards, R.61-71, and the applicable guidance documents.

Please note that R.61-71 requires the following:

1. All wells shall be drilled, constructed, and abandoned by a South Carolina certified well driller per R.61-71.D.1.
2. All monitoring wells shall be labeled as required by R.61-71.H.2.c.
3. A Water Well Record Form or other form provided or approved by the Department shall be completed and submitted to the Department within 30 days after well completion or abandonment unless another schedule has been approved by the Department. The form should contain the "as-built" construction details and all other information required by R.61-71.H.1.f
4. All analytical data and water levels obtained from each monitoring well shall be submitted to the Department within 30 days of receipt of laboratory results unless another schedule has been approved by the Department as required by R.61-71.H.1.d.
5. If any of the information provided to the Department changes, notification to Scott Burson (tel: (803) 896-6649 or e-mail: bursonsj@dhec.sc.gov) shall be provided a minimum of twenty-four (24) hours prior to well construction as required by R.61-71.H.1.a.
6. All temporary monitoring wells shall be abandoned within 5 days of borehole completion using appropriate methods as required by R.61-71.H.4.c. All other wells shall be properly developed per R.61-71.H.2.d.
7. Departmental approval is required prior to abandonment of all monitoring wells as required by R.61-71.H.1.a.

This approval is pursuant to the provisions of Section 44-55-40 of the 1976 South Carolina Code of Laws and R.61-71 of the South Carolina Well Standards and Regulations, dated April 26, 2002. A copy of this approval should be on the site during well installation.

Date of Issuance: **May 15, 2013** **Approval #:** **UMW-25036**

Scott J. Burson, Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

Section A: Project Management

A1 Title and Approval Page

Quality Assurance Project Plan
Addendum to the SC DHEC UST Programmatic QAPP
For
Pantry 911, SCDHEC Site ID# 10628

6195 South Okatie Highway, Hardeeville, South Carolina

Prepared by:
Courtney M. Sanders
Staff Biologist
Midlands Environmental Consultants, Inc.
(Certified Site Rehabilitation Contractor UCC-0009)
235-B Dooley Road
Lexington, SC 29073
(803)808-2043

Date: May 03, 2013

Approvals

Scott J. Burson SC DHEC Project Manager	Signature	Date 5-24-13
Courtney M. Sanders Contractor QA Manager	Signature	Date 5.8.13
Bryan T. Shane, P.G. Site Rehabilitation Contractor	Signature	Date 5.8.13
Daniel J. Wright Laboratory Director	Signature	Date 05/03/2013

Approved Cost Agreement 45846

Facility: 10628 PANTRY 911
BURSONSJ
PO Number:

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
01 PLAN					
		C TIER II/COMP. PLAN/QAPP APP B	1.0000	525.00	525.00
03 COMPREHENSIVE SURVEY					
		COMPREHENSIVE SURVEY	1.0000	1,000.00	1,000.00
04 MOB/DEMOB					
		A EQUIPMENT	1.0000	575.00	575.00
		B PERSONNEL	3.0000	290.00	870.00
09 WELL INSTALLATION					
		B WATER TABLE (DRILLED)	49.0000	38.00	1,862.00
10 SAMPLE COLLECTION					
		A GROUND WATER	4.0000	55.00	220.00
		C WATER SUPPLY	1.0000	30.00	30.00
		D GROUNDWATER NO-PURGE	15.0000	35.00	525.00
		H FIELD BLANK	1.0000	5.00	5.00
11 ANALYSES	GW GROUNDWATER	A1 BTEXNM+OXYGS+1,2-DCA+ETH-8260B	22.0000	100.00	2,200.00
		F EDB	21.0000	55.00	1,155.00
17 DISPOSAL					
		A WASTEWATER	25.0000	0.80	20.00
		C SOIL (TREATMENT/DISPOSAL)	2.0000	72.50	145.00
19 RPT/PROJECT MNGT & COORDINATIO					
		PCT PERCENT	0.1500	9,377.00	1,406.55
25 WELL REPAIR					
		D REPLACE WELL VAULT	1.0000	225.00	225.00
		F REPLACE WELL COVER BOLTS	2.0000	10.00	20.00
			Total Amount		10,783.55

Midlands Environmental Consultants, Inc.

July 17, 2013

Mr. Scott J. Burson, Hydrogeologist
Corrective Action Section
Assessment & Corrective Action Division
Underground Storage Tank Program
Bureau of Land & Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Report of Monitoring Well Installation, Groundwater Sampling and Chemical Analyses
Pantry 911
6195 South Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID# 10628, CA # 45846
MECI Project Number 13-4447
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Burson,

On behalf of Mr. Donnie Malphrus of Malphrus Enterprises, Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Report of Monitoring Well Installation, Ground Water Sampling and Chemical Analysis for the referenced site. This report describes assessment activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines, including adherence to the UST Division Programmatic Quality Assurance Program Plan (QAPP).

Midlands Environmental appreciates the opportunity to offer our professional environmental services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman
Senior Scientist

Bryan T. Shane, P.G.
Principal Geologist

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

TABLE OF CONTENTS

TABLE OF CONTENTS (cont.)

NOTE: ITEMS LISTED WITH AN ** BESIDE IT WERE NOT NEEDED AS A PART OF THIS SCOPE OF WORK

1.0 INTRODUCTION

A. **Owner/Operator Information**

Facility Name:	Malphrus Enterprises UST Permit #: 10628
Facility Address:	6195 South Okatie Highway, Hardeeville, SC 29927
Name:	Mr. Donnie Malphrus
Address:	2789 North Okatie Highway, Ridgeland, SC 29936
Telephone #:	(843) 263-3050

B. **Property Owner Information**

Name	Malphrus Enterprises
Address	2789 North Okatie Highway, Ridgeland, SC 29936
Telephone #	(843) 263-3050

C. **Contractor Information**

Name:	Midlands Environmental Consultants, Inc.
Certification #:	9
Address:	P. O. Box 854, Lexington, SC 29071
Telephone #:	(803) 808-2043

D. **SCDHEC Certified Well Driller**

Name:	Environmental Drilling & Probing Services, LLC.
Driller:	David Brown
Certification #:	B 02053
Address:	17538 Greenhill Road, Charlotte, NC 28278
Telephone #:	(704) 607-7529

E. **SCDHEC Certified Laboratory**

Name:	Shealy Environmental Services, Inc.
Certification #:	32010
Address:	106 Vantage Point Drive, West Columbia, SC 29172
Telephone #:	(803) 791-9700

1.1 QAPP STATEMENT

This report conforms to the SCDHEC UST Management Division Programmatic QAPP. The Report, Tables (Table 1-Soil Analytical Data, Table 2-Field Parameters, Table 3-Groundwater Analytical Results, Table 4-Aquifer Characteristics, and Table 5-Site Conceptual Model), Figures (Figure 1-Topographic Map, Figure 2-Site Features, Figure 3-Soil CoC Site Map, Figure 4-Groundwater CoC Site Map, Figure 5-Groundwater Contour Map, and Figure 6-Geologic Cross Section), and Appendices are presented in accordance with formatting requirements set forth in section A9 of the UST Management Division Programmatic QAPP, Revision 1, June 2011. Some or all of the tables and figures in this report were not applicable to the scope of services presented, however have been included in order to conform to the SCDHEC UST Management Division Programmatic QAPP.

1.2 PROJECT INFORMATION

The subject site (Pantry 911) is located at 6195 South Okatie Highway, Hardeeville, Jasper County, South Carolina. The subject site maintains one 10,000 gallon regular unleaded gasoline underground storage tank (UST), one 10,000 gallon premium gasoline, and one 10,000 gallon diesel UST. These UST's were given a compliance date of March 7, 2012. The South Carolina Department of Health and Environmental Control (SCDHEC) reported a release of petroleum product from these UST's in April of 1995 and confirmed the release in March of 1996. The subject site is currently rated a Class 2BB.

Prior to commencement of the field activities described in this document, a QAPP Contractors Addendum was completed by MECI personnel, submitted to SCDHEC and approved by the SCDHEC project manager.

The above project information is based on MECI field notes and SCDHEC files.

2.0 SURROUNDING PROPERTY USAGE

The site is located outside the town limits of Hardeeville, South Carolina. The property is currently operating as an active gasoline service station (Pantry 911). South Okatie Highway (S.C. Highway 46) forms the western and northern borders of the subject property, beyond which are wooded and undeveloped properties. South and east of the subject property are residential properties and wooded areas.

3.0 FIELD EXPLORATION

Field exploration conducted at the site included:

- Construction of three groundwater monitoring wells;
- sampling of groundwater monitoring wells;
- collection of one water supply well sample;
- chemical analyses of water samples; and,
- a subsequent survey to locate the newly installed monitoring wells.

The monitoring well locations were selected based on SCDHEC project manager instructions, existing site conditions, and drilling accessibility.

3.1 MONITORING WELL INSTALLATION

On June 19, 2013, three single cased, watertable bracketing monitoring wells were installed at the subject site to better define the contaminant plume. The single cased monitoring wells were installed using a track-mounted drilling rig employing 7.5-inch outer diameter hollow stem augers to construct the boreholes. These wells were installed by Environmental Drilling & Probing Services, LLC of Charlotte, NC (S.C. Driller Certification: David Brown # B 02053).

The following table presents well installation details:

Well Number	Single Cased	Double Cased	Screened Interval (ft)	Total Depth (ft)
MW-5RR	X		2.0-12.0	12.0
MW-19	X		2.0-12.0	12.0
MW-20	X		4.0-14.0	14.0

The soils encountered during drilling activities consisted of sandy clayey silts and sandy silty clays of the Atlantic Coastal Plain Province Representative portions of soil samples were screened with a Photo Ionization Detector (PID) and classified by MECI personnel. Test boring records showing soil descriptions and screening result are attached in Appendix E.

Drill cuttings were containerized and transported to Waste Management/Richland County Landfill, Elgin, SC by MECI personnel. A total of 0.49 tons was disposed of in this manner. A disposal manifest for these soils is attached at the end of this report.

Following completion of the monitoring wells, the wells were developed by bailing until they were determined to be functioning properly and turbidity was reduced. Test Boring Records showing soil descriptions and monitoring well installation details are attached. The drum of purge water was treated by MECI personnel using a granular activated carbon drum. A total of 15.0 gallons of purge/development water was disposed of in this manner. A disposal manifest for the treated purge water is presented in Appendix G.

3.2 MONITORING WELL SAMPLING AND CHEMICAL ANALYSES

On June 27, 2013, MECI personnel collected groundwater samples from sixteen (16) monitoring wells at the subject site. Monitoring wells MW-7RR and RW-3 were gauged and determined to contain measurable free phase petroleum product. Based on a request by SCDHEC personnel, only monitoring wells which did not bracket the watertable and newly installed wells were to be purged prior to sample collection. Eight (8) monitoring wells were purged prior to sampling. Purging was completed by bailing three to five well volumes of water from the well, until pH, conductivity, dissolved oxygen, temperature, and turbidity stabilized or until all available water was evacuated from the well, whichever occurred first. Sampling/purging was completed utilizing a prepackaged, clear, disposable polyethylene bailer and nylon rope. A new set of nitrile gloves were worn at each monitoring well, and at all time samples were handled. Field measurements of pH, conductivity, dissolved oxygen, water temperature, and turbidity were obtained before well sampling process. MECI utilized YSI550A meter for DO (mg/L) and temperature readings (°C) and YSI63 meters for pH and conductivity (uS) readings. The attached Field Data Information Sheets presents the results of the field measurements obtained during purging processes and Table 2 presents the results of the potentiometric data collected prior to the sampling processes. The wells were sampled in accordance with SCDHEC's Quality Assurance Program Plan for the Underground Storage Tank Management Division (QAPP, Dated June 2011) and MECI's Standard Operating Procedures (MECI SOP, Dated August, 2011). Groundwater samples obtained were sent to Shealy Environmental Services, Inc. of West Columbia, SC (SCDHEC Laboratory Certification #32010) for analysis.

The following sampling matrix contains well development and requested analyses for each well:

Monitoring Well	Purge	No Purge	Gauge Well Only	Not Located	BTEX, Naphthalene, MTBE (EPA Method 8260-B)	8 Oxygenates (EPA Method 8260-B)	1,2 DCA (EPA Method 8260-B)	Ethanol (EPA Method 8260-B)	EDB (EPA Method 8011)	Total Lead (EPA Method 6010)	Filtered Lead (EPA Method 6010)	8 RCRA Metals (EPA Method 6010)	TPH (EPA Method 9071)	PAH's (EPA Method 8270)
					Analyte Sampled									
MW-3R		X			X	X	X	X	X					
MW-4R	X				X	X	X	X	X					
MW-5RR	X				X	X	X	X	X					
MW-7RR			X											
MW-9	X				X	X	X	X	X					
MW-10		X			X	X	X	X	X					
MW-11	X				X	X	X	X	X					
MW-14	X				X	X	X	X	X					
MW-15		X			X	X	X	X	X					
MW-16		X			X	X	X	X	X					
MW-17		X			X	X	X	X	X					
MW-18		X			X	X	X	X	X					
MW-19	X				X	X	X	X	X					
MW-20	X				X	X	X	X	X					
PW-1R	X				X	X	X	X	X					
RW-1	X				X	X	X	X	X					
RW-2	X				X	X	X	X	X					
RW-3			X											
RW-2 Dup. **					X	X	X	X	X					
Field Blank					X	X	X	X	X					
Trip Blank					X	X	X	X						

Notes: BTEX = benzene, toluene, ethylbenzene, & total xylenes MTBE=methyl tertiary butyl ether 1,2 DCA = 1,2 dicloroethane PAH = polycyclic aromatic hydrocarbons

**** = Indicates Field Duplicate**

The results of the laboratory analyses are summarized in Table 3 & 3A and presented in Appendix B.

Purge water produced by the purging process was treated on-site utilizing a granular activated carbon unit. A total of 21.0 gallons of purge water was disposed of in this manner. A disposal manifest for the referenced purge water is presented in Appendix G.

3.3 MONITORING WELL REPAIR

During assessment activities it was observed that monitoring vault for MW-11 was in need of repair; however during sampling activities it was determined that the locking cap installed on MW-11 would not allow for the lid to be properly secured. On June 27, 2013, MECI replaced the cap to allow for the MECI property secure the well lid on the existing vault. Additionally, MECI personnel added two locking bolts to MW-3R.

3.4 WATER SUPPLY WELL SAMPLING AND CHEMICAL ANALYSIS

On June 27, 2013, MECI personnel collected one (1) water supply well sample. This water supply well (WSW-1) is located approximately 350 feet east of the current UST basin. The following matrix contains well status, owner(s), and tax map identification numbers:

Water Supply Well Number	Well Owner	Jasper County Tax Map Number:	Notes:	Well Status
WSW-1	Stella Crosby Jeffers	039-00-10-029	Sampled (274 New River Rd.)	Active

The samples obtained from WSW-1 were analyzed for volatile organic compounds including BTEX, naphthalene, and methyl-tertiary-butyl-ether, 1,2 DCA, 8 Oxygenates (EPA Method 8260B) and EDB (EPA Method 8011). Results of the laboratory analyses are summarized in Table 3, Table 3A, Figure 4, and Figure 4A. The laboratory reports are also presented in Appendix B.

3.5 SITE SURVEY

Following the well installation, a subsequent survey was conducted by MECI personnel, utilizing a fiberglass rod, level, and tape to determine the horizontal and vertical position of the newly installed monitoring wells. A TOC elevation of 91.62 for MW-11 and a TOC elevation of 93.22 for RW-3 were used as a benchmark for surveying newly installed monitoring wells MW-5RR and MW-19. Additionally, a TOC elevation of 95.80 for MW-7RR and a TOC elevation of 94.96 for MW-17 were used as a benchmark for surveying newly installed monitoring well MW-20. Elevations were based on site datum obtained from the comprehensive survey conducted at the referenced site by Construction Support Services, Inc. (Jay S. Joshi/PLS# 14811) in January of 2008. See Table 2 and Figure 5 for potentiometric data for the entire monitoring well network.

4.0 AREA GEOLOGY AND HYDROGEOLOGY

The project site is located in the Atlantic Coastal Plain Physiographic Province. The soils in this province are generally interbedded silts, sands and clays that have been deposited during successive advances and retreats of the ocean over the past several million years. This interbedding can cause perched water and makes hydrogeological interpretation difficult.

In this geologic setting, the uppermost aquifer is the surficial aquifer of sands with lenses and layers of clays and silts. Water occupies the interstices between the formation particles and is in hydrostatic balance with the atmosphere at the water table surface.

Local precipitation is the source of freshwater recharge to the Coastal Plain formations. Groundwater recharge varies considerably over the region and is attributed to the differences in precipitation and to the variability in the infiltration rates.

Coastal Plain formations generally dip toward the Atlantic Ocean. Consequently, regional groundwater movement is to the southeast. On a regional scale, hydraulic gradients are relatively low.

Locally, in the surficial aquifer, groundwater discharges into streams, lakes or springs where the groundwater table intersects lows occupied by these water bodies. Current groundwater elevation data reveal a radial flow pattern west, north, and east.

4.1 LOCAL SUBSURFACE CONDITIONS

Coastal plain sediments were encountered during previous drilling activities conducted at the site. The soils encountered during previous assessment activities generally consisted sandy clays and silts.

On June 27, 2013, stabilized groundwater levels were measured in the monitoring wells. Depth to groundwater ranged from 0.41 to 9.14 feet below top of casing in the wells measured. The groundwater measurements are summarized in tabular form in Table 2 and on Figure 5. Groundwater levels may fluctuate several feet with seasonal and rainfall variations and with change in the water level of adjacent drainage features. Normally, the highest groundwater levels occur in late winter and spring. The lowest levels occur in late summer and fall.

5.0 TEST RESULTS AND EVALUATION

The following sections discuss groundwater test results for the subject site.

5.1 GROUNDWATER ANALYTICAL RESULTS

As discussed in Section 3.1, groundwater samples obtained from the monitoring wells were analyzed for dissolved phase petroleum constituents. Monitoring wells MW-7RR and RW-3 contained measurable free phase petroleum product during the subject sampling event. Groundwater samples were not obtained beneath the petroleum product layer during this assessment. The analytical results indicate petroleum impact to the surficial aquifer, with the highest concentrations being detected in two portions of the subject property. High concentrations of dissolved phase petroleum product were detected in the area of MW-4R and in the area of RW-1. Given the distance between MW-4R and RW-1 and historical data obtained from MW-5R, it is MECI's professional opinion that there may have been an secondary source located in the area of RW-1 and MW-7RR. The analytical results indicate dissolved total BTEX concentrations ranging from levels below detection limits (BDL) to 74,700 micrograms per liter in RW-1. Dissolved Naphthalene concentrations ranged from below detection limits to 610J micrograms per liter in monitoring well RW-1. Dissolved MTBE concentrations ranged from below detection limits to 5,600 micrograms per liter in monitoring well MW-4R. The results of the analyses for each monitoring well and specific parameters are listed on Tables 3, Table 3A, and provided in the attached laboratory reports (Appendix B).

5.2 WATER SUPPLY WELL ANALYTICAL RESULTS

One water supply well (WSW-1) sample was analyzed by Shealy Environmental Services, Inc. for petroleum constituents. Analytical results indicate samples were reported at concentrations below detection limits (BDL). The results of the analyses are presented on Table 3, Table 3A, and in Appendix B.

6.0 ASSESSMENT SUMMARY & RECOMMENDATIONS

Groundwater elevation data for the June 27, 2013, gauging event was plotted, and points of equal elevation were interpolated between the monitoring wells. A groundwater contour map of the

surficial aquifer was thus prepared and is presented on Figure 5. Current groundwater elevation data reveal a radial flow pattern to west, west, and the east.

The analytical results indicate petroleum impact to the surficial aquifer, with the highest concentrations being detected in two portions of the subject property. Monitoring wells MW-7RR and RW-3 contained measurable free phase petroleum product during the subject sampling event. Groundwater samples were not obtained beneath the petroleum product layer during this assessment. The analytical results indicate petroleum impact to the surficial aquifer, with the highest concentrations being detected in two portions of the subject property. High concentrations of dissolved phase petroleum product were detected in the area of MW-4R and in the area of RW-1. Given the distance between MW-4R and RW-1 and historical data obtained from MW-5R, it is MECI's professional opinion that there may have been an secondary source located in the area of RW-1 and MW-7RR. The analytical results indicate dissolved total BTEX concentrations ranging from levels below detection limits (BDL) to 74,700 micrograms per liter in RW-1. Dissolved Naphthalene concentrations ranged from below detection limits to 610J micrograms per liter in monitoring well RW-1. Dissolved MTBE concentrations ranged from below detection limits to 5,600 micrograms per liter in monitoring well MW-4R. Samples collected from the 'deep' monitoring well (PW-1R) did not indicate petroleum impact and analytical results were below detection limits. Analytical data is presented on Table 3 & 3A and in the attached Appendix B. Figure 4 depicts graphically the concentrations of Total BTEX (indicator for plume migration) dissolved in the 'shallow' surficial aquifer at the site. 4A depicts the analytical results for the eight Oxygenates.

Since the July 2012 groundwater sampling event, analytical results from the source area monitoring wells and perimeter monitoring wells have generally remained constant with a significant increase in monitoring well MW-17. This increase in dissolved phased CoC's may be the result of water fluctuation or may indicate plume migration to the north. Based on the concentrations detected in MW-17, the contaminant plume is currently not defined to the north. MECI recommends installing additional monitoring wells to the north of MW-17. Additionally, MECI recommends a series of extended Aggressive Fluid Vapor Recovery (AFVR) Events be conducted on monitoring wells MW-14/MW-4R/RW-3 and on MW-7RR/RW-1 to decrease elevated dissolved CoC concentrations and to remove free phase petroleum product. Following the proposed AFVR events, additional groundwater sampling events should be conducted to continue to monitor the contaminant plume.

7.0 QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assessment are consistent with those normally employed in hydrogeological assessment and waste management projects of this type. Our evaluation of site conditions has been based on our understanding of the site, project information provided to us, and data obtained in our exploration. The general subsurface conditions utilized in our evaluation have been based on interpretation of subsurface data between borings. Contents of this report are intended for the sole use of Mr. Donnie Malphrus of Malphrus Enterprises, MECI, and SCDHEC under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

-oOo-

TABLE 2
POTENTIOMETRIC DATA
JUNE 27, 2013 SAMPLING EVENT
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 13-4447
SCDHEC SITE ID NUMBER 10628

Well Number	Sample Date	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Well-head Elevation	Groundwater Elevation
MW-3R	1/8/2009	2-12	***	3.02	***	94.56	91.54
	7/25/2012		***	2.91	***	94.56	91.65
	6/27/2013		***	3.16	***	94.56	91.40
MW-4R	1/8/2009	5-15	***	4.29	***	93.75	89.46
	7/25/2012		***	7.61	***	93.75	86.14
	6/27/2013		***	3.99	***	93.75	89.76
MW-5R	1/8/2009	5-15	***	3.00	***	91.70	88.70
	7/25/2012		***	7.35	***	91.70	84.35
MW-5RR	6/27/2013	2-12	***	3.20	***	92.18	88.98
MW-7RR	1/8/2009	2-12	***	6.38	***	95.80	89.42
	7/25/2012		10.61	10.72	0.11	95.80	85.17
	6/27/2013		6.32	6.34	0.02	95.80	89.48
MW-9	1/8/2009	8-18	***	6.09	***	96.73	90.64
	7/25/2012		***	NL	***	96.73	NL
	6/27/2013		***	5.05	***	96.73	91.68
MW-10	1/8/2009	2-12	***	4.36	***	93.29	88.93
	7/25/2012		***	NL	***	93.29	NL
	6/27/2013		***	3.81	***	93.29	89.48
MW-11	1/8/2009	2-12	***	1.45	***	91.62	90.17
	7/25/2012		***	3.90	***	91.62	87.72
	6/27/2013		***	0.41	***	91.62	91.21
MW-14	1/8/2009	3.05-13.05	***	2.23	***	93.23	91.00
	7/25/2012		***	2.29	***	93.23	90.94
	6/27/2013		***	1.30	***	93.23	91.93
MW-15	1/8/2009	2-12	***	4.50	***	96.12	91.62
	7/25/2012		***	4.80	***	96.12	91.32
	6/27/2013		***	3.52	***	96.12	92.60
MW-16	1/8/2009	7-17	***	8.11	***	97.02	88.91
	7/25/2012		***	12.83	***	97.02	84.19
	6/27/2013		***	8.41	***	97.02	88.61
MW-17	1/8/2009	3-13	***	5.88	***	94.96	89.08
	7/25/2012		***	9.49	***	94.96	85.47
	6/27/2013		***	5.35	***	94.96	89.61
MW-18	1/8/2009	2-12	***	2.48	***	91.34	88.86
	7/25/2012		***	NL	***	91.34	NL
	6/27/2013		***	2.87	***	91.34	88.47
MW-19	6/27/2013	2-12	***	4.14	***	93.01	88.87
MW-20	6/27/2013	4-14	***	9.14	***	98.84	89.70
PW-1R	1/8/2009	30-35	***	4.57	***	93.47	88.90
	7/25/2012		***	9.59	***	93.47	83.88
	6/27/2013		***	4.80	***	93.47	88.67
RW-1	7/25/2012	2-12	***	10.53	***	96.15	85.62
	6/27/2013		***	6.47	***	96.15	89.68
RW-2	7/25/2012	2-12	***	2.59	***	93.56	90.97
	6/27/2013		***	2.19	***	93.56	91.37
RW-3	7/25/2012	2-12	2.56	2.61	0.05	93.22	90.65
	6/27/2013		1.32	1.44	0.12	93.22	91.88

Notes:

1. Elevations are referenced to an assumed site datum .
2. Groundwater depths were measured from the top of the PVC riser pipe.
3. Groundwater levels measured 6/27/2013.
4. NL = Not Located.
5. Groundwater elevation for MW-7RR and RW-3 corrected for the presence of free phase petroleum product using a specific gravity for fuel of 0.85

TABLE 3
PAGE 1 OF 2
GROUNDWATER ANALYTICAL RESULTS
JUNE 27, 2013 SAMPLING EVENT
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 13-4447
SCDHEC ID NUMBER 10628

Well Number	Sample Date	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	Naphthalene (µg/l)	MTBE (µg/l)	1,2 DCA (µg/l)	EDB (µg/l)	Total Lead (µg/l)
MW-3R	1/8/2009	2,700	9,080	1,410	11,000	24,190	748	2,580	<250	<0.19	<5.0
	7/25/2012	1,600	2,500	740	4,000	8,840	180	970	<10	<0.019	NT
	6/27/2013	1,000	4,500E	1,100	7,600	14,200E	350	200	<100	<0.020	NT
MW-4R	1/8/2009	4,640	5,070	1,360	3,990	15,060	<1,000	21,000	<1,000	<0.020	<5.0
	7/25/2012	2,220	2,500	470	1,600	6,790	260	4,200	62	<0.020	NT
	6/27/2013	4,900	8,800	1,700	5,900	21,300	<500	5,600	<500	<0.021	NT
MW-5R	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	2.3J	<5.0	<0.020	<5.0
	7/25/2012	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	8.9	<5.0	<0.020	NT
MW-5RR	6/27/2013	<500	<500	<500	<500	BDL	<500	<500	<500	<0.026	NT
	6/27/2013	<5.0H	<5.0H	<5.0H	<5.0H	BDL	<5.0H	<5.0H	<5.0H	NT	NT
MW-7RR	1/8/2009	17,500	22,700	1,850	10,900	52,950	<1,000	<1,000	731J	1.5	157
	7/25/2012	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
	6/27/2013	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-9	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.019	<5.0
	7/25/2012	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
	6/27/2013	<500	<500	<500	<500	BDL	<500	<500	<500	<0.020	NT
	6/27/2013	<5.0H	<5.0H	<5.0H	<5.0H	BDL	<5.0H	<5.0H	<5.0H	NT	NT
MW-10	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	3.8J	<5.0	<0.019	11.6
	7/25/2012	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	2.3J	<5.0	<0.020	NT
MW-11	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.019	<5.0
	7/25/2012	<5.0	22	<5.0	<5.0	22	<5.0	<5.0	<5.0	<0.019	NT
	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
MW-14	1/8/2009	11,800	13,700	2,420	11,000	38,920	<500	4,020	<500	<0.020	<5.0
	7/25/2012	9,200	15,000	3,300	14,000	41,500	540	1,600	<500	<0.020	NT
	6/27/2013	6,000	4,500	1,800	6,800	19,100	240J	900	<250	<0.020	NT
MW-15	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	2.8J	<5.0	<0.019	<5.0
	7/25/2012	1.1J	2.0J	<5.0	2.1J	5.2J	<5.0	1.2J	<5.0	<0.019	NT
	6/27/2013	0.51J	<5.0	<5.0	<5.0	0.51J	<5.0	0.70J	<5.0	<0.020	NT

Notes:

1. BDL = Below Practical Quantitative Limits
2. ug/l = micrograms per liter
3. MTBE = Methyl-Tertiary-Butyl Ether
4. 1,2 DCA = 1,2-Dichloroethane
5. EDB = 1,2 - Dibromoethane
6. NL = Not Located
7. NT = Not Tested
8. H = Out of Hold Time
9. PROD = Free Phase Petroleum Product
10. "J" Values included in Total BTEX Calculations.
11. "J" values report concentrations above the method detection limits (MDL) and below actual reporting limit (RL).

TABLE 3
PAGE 2 OF 2
GROUNDWATER ANALYTICAL RESULTS
JUNE 27, 2013 SAMPLING EVENT
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 13-4447
SCDHEC ID NUMBER 10628

Well Number	Sample Date	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	Naphthalene (µg/l)	MTBE (µg/l)	1,2 DCA (µg/l)	EDB (µg/l)	Total Lead (µg/l)
MW-16	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.021	<5.0
	7/25/2012	**0.30J**	<5.0	<5.0	<5.0	**0.30J**	<5.0	<5.0	<5.0	<0.019	NT
	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
MW-17	1/8/2009	**39.1**	<5.0	<5.0	<10.0	**39.1**	<5.0	<5.0	<5.0	<0.023	<5.0
	7/25/2012	**0.23J**	<5.0	<5.0	<5.0	**0.23J**	<5.0	<5.0	<5.0	<0.020	NT
	6/27/2013	**250**	<25	**45**	**66**	**361**	<25	<25	**10J**	<0.020	NT
MW-18	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.023	<5.0
	7/25/2012	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
MW-19	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	**1.5J**	<5.0	<0.029	NT
MW-20	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.022	NT
PW-1R	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.019	<5.0
	7/25/2012	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
RW-1	7/25/2012	**31,000**	**32,000**	**2,800**	**13,000**	**78,800**	**510J**	<1,000	**1,500**	**1.2**	NT
	6/27/2013	**27,000**	**31,000**	**2,600**	**11,000**	**71,600**	**610J**	<1,000	<1,000	**0.59P**	NT
RW-2	7/25/2012	**160**	**3.6J**	**67**	**69**	**299.6J**	**8.7**	**13**	<5.0	<0.020	NT
	6/27/2013	**1,800**	**110**	**870**	**870**	**3,650**	**190**	**140**	<50	<0.020	NT
RW-3	7/25/2012	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**
	6/27/2013	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**
WSW-1	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.019	NT
	7/25/2012	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019	NT
	6/27/2013	<1.0	<1.0	<1.0	<1.0	BDL	<1.0	<1.0	<1.0	<0.020	NT
RW-1 (Dup.)	7/25/2012	**30,000**	**30,000**	**2,700**	**12,000**	**74,700**	**500**	**53J**	**1,500**	**0.86**	NT
RW-2 (Dup.)	6/27/2013	**1,900**	**100**	**880**	**880**	**3,760**	**190**	**140**	<50	<0.020	NT
Field Blank	7/25/2012	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
Trip Blank	7/25/2012	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	NT	NT
	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	NT	NT

Notes:

1. BDL = Below Practical Quantitative Limits
2. ug/l = micrograms per liter
3. MTBE = Methyl-Tertiary-Butyl Ether
4. 1,2 DCA = 1,2-Dichloroethane
5. EDB = 1,2 - Dibromoethane
6. NL = Not Located
7. NT = Not Tested
8. H = Out of Hold Time
9. PROD = Free Phase Petroleum Product
10. "J" Values included in Total BTEX Calculations.
11. "J" values report concentrations above the method detection limits (MDL) and below actual reporting limit (RL).

TABLE 3A
PAGE 1 OF 2
GROUNDWATER ANALYTICAL RESULTS (OXYGENATES)
JUNE 27, 2013 SAMPLING EVENT
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 13-4447
SCDHEC SITE ID NUMBER 10628

Well Number	Sample Date	TAA (µg/l)	TAME (µg/l)	TBF (µg/l)	DIPE (µg/l)	3,3-Dimethyl-1-butanol (µg/l)	Ethanol (µg/l)	ETBE (µg/l)	TBA (µg/l)
MW-3R	07/25/12	**2,500**	**150**	<200	**1.7J**	<200	<2,000	**42J**	**4,300**
	06/27/13	**540J**	**45J**	<2,000	<200	<2,000	<20,000	**9.5J**	**250J**
MW-4R	07/25/12	**4,000**	**390**	<100	**6.2J**	<100	<1,000	**170**	**23,000**
	05/27/13	**5,200J**	**250J**	<10,000	<1,000	<10,000	<100,000	**99J**	**28,000**
MW-5R	07/25/12	**64J**	<10	<100	**4.2J**	<100	<1,000	<100	**43J**
MW-5RR	06/27/13	<10,000	<1,000	<10,000	<1,000	<10,000	<100,000	<10,000	<10,000
	06/27/13	<100H	<10H	<100H	<10H	<100H	<1,000H	<100H	<100H
MW-7RR	07/25/12	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**
	06/27/13	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**
MW-9	07/25/12	NL	NL	NL	NL	NL	NL	NL	NL
	06/27/13	<10,000	<1,000	<10,000S	<1,000	<10,000	<100,000	<10,000	<10,000
	06/27/13	<100H	<10H	<100H	<10H	<100H	<1,000H	<100H	<100H
MW-10	07/25/12	NL	NL	NL	NL	NL	NL	NL	NL
	06/27/13	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-11	07/25/12	<100	<10	<100	<10	<100	<1,000	<100	<100
	06/27/13	<100	<10	<100	<10	<100	<1,00	<100	<100
MW-14	07/25/12	**9,900J**	**460J**	<10,000	<1,000	<10,000	<100,000	**69J**	**3,200J**
	06/27/13	**6,000**	**310J**	<5,000	<500	<5,000	<50,000	**68J**	**2,400J**
MW-15	07/25/12	**13J**	<10	<100	**0.65J**	<100	<1,000	<100	**27J**
	06/27/13	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-16	07/25/12	<100	<10	<100	<10	<100	<1,000	<100	<100
	06/27/13	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-17	07/25/12	<100	<10	<100	**3.6J**	<100	<1,000	<100	<100
	06/27/13	**230J**	**5.9J**	<500	**180**	<500	<5,000	**18J**	<500

Notes:

1. ug/l = micrograms per liter
2. DIPE = Diisopropyl Ether
3. ETBE = Ethyl ter-butyl Ether
4. TAA = tert-Amyl Alcohol
5. TAME = tert-Amyl Methyl Ether
6. TBA = ter-Butyl Alcohol
7. TBF = tert-Butyl Formate
8. NL = Not Located
9. H = Out of Holding Time
10. PROD = Free Phase Petroleum Product
11. "J" values report concentrations above the method detection limits (MDL) and below actual reporting limit (RL).

TABLE 3A
PAGE 2 OF 2
GROUNDWATER ANALYTICAL RESULTS (OXYGENATES)
JUNE 27, 2013 SAMPLING EVENT
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 13-4447
SCDHEC SITE ID NUMBER 10628

Well Number	Sample Date	TAA (µg/l)	TAME (µg/l)	TBF (µg/l)	DIPE (µg/l)	3,3-Dimethyl-1-butanol (µg/l)	Ethanol (µg/l)	ETBE (µg/l)	TBA (µg/l)
MW-18	07/25/12	NL	NL	NL	NL	NL	NL	NL	NL
	06/27/13	<100	<10	<100	**6.5J**	<100	<1,000	<100	<100
MW-19	06/27/13	**75J**	<10	<100	<10	<100	<1,000	<100	**110**
MW-20	06/27/13	**270**	<10	100	**65**	<100	<1,000	<100	**10J**
PW-1R	07/25/12	<100	<10	<100	<10	<100	<1,000	<100	<100
	06/27/13	<100	<10	<100	<10	<100	<1,000	<100	<100
RW-1	07/25/12	**53,000**	<2,000	<20,000	**12,000**	<20,000	<200,000	<20,000	<20,000
	06/27/13	**54,000**	<2,000	<20,000	**10,000**	<20,000	<200,000	<20,000	**610J**
RW-2	07/25/12	**41J**	**1.8J**	<100	<10	<100	<1,000	**2.0J**	**310**
	06/27/13	**740J**	**31J**	<1,000	<100	<1,000	<10,000	**34J**	**4,900**
RW-3	07/25/12	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**
	06/27/13	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**
WSW-1	07/25/12	<100	<10	<100	<10	<100	<1,000	<100	<100
	06/27/13	<100	<10	<100	<10	<100	<1,000	<100	<100
RW-1 (Duplicate)	07/25/12	**54,000**	<1,000	<10,000	**12,000**	<10,000	<100,000	<10,000	**1,400J**
RW-2 (Duplicate)	06/27/13	**690J**	**30J**	<1,000	<100	<1,000	<10,000	**34J**	**4,700**
Field Blank	07/25/12	<100	<10	<100	<10	<100	<1,000	<100	**41J**
	06/27/13	<100	<10	<100	<10	<100	<1,000	<100	<100
Trip Blank	07/25/12	<100	<10	<100	<10	<100	<1,000	<100	<100
	06/27/13	<100	<10	<100	<10	<100	<1,000	<100	<100

Notes:

1. ug/l = micrograms per liter
2. DIPE = Diisopropyl Ether
3. ETBE = Ethyl ter-butyl Ether
4. TAA = tert-Amyl Alcohol
5. TAME = tert-Amyl Methyl Ether
6. TBA = ter-Butyl Alcohol
7. TBF = tert-Butyl Formate
8. NL = Not Located
9. PROD = Free Phase Petroleum Product
10. "J" values report concentrations above the method detection limits (MDL) and below actual reporting limit (RL).

TABLE 4 - AQUIFER CHARACTERISTICS (Page 1 of 2)

SOUTH CAROLINA
Department of Health and Environmental Control (DHEC)

Site Data

SITE ID # _____ COUNTY _____

FACILITY NAME _____

SLUG DATA

See Appendix _____ Table _____ Figure _____ for a list of all data measurements.
(water level logs, etc.)(Complete as appropriate).
Water Level Recovery Data was measured by ORS Interface Probe .
(Hermit Data Logger, Manually with Water Level Indicator, etc.)(List Method)
Complete the following table for each well tested.
COMPLETE A SECOND SHEET IF MORE THAN FOUR WELLS ARE TESTED

Aquifer Characteristics were not obtained as part of this assessment. In order to conform with formatting guidelines provided by the SCDHEC UST Management Division Programmatic Quality Assurance Program Plan (QAPP), this filler table is included to provide report continuity.

Calculations

See Appendix _____ Table _____ Figure _____ for calculations
The method for aquifer calculations was NAVFAC
Calculated values by well were as follows:

Slug Test Conducted in Well(s) number				
Hydraulic Conductivity				cm/sec

Thickness of the aquifer used to calculate hydraulic conductivity was N/A feet.
The aquifer is _____ confined _____ semi-confined _____ water table (Check as Appropriate).
SEE SHEET 3
The estimated seepage velocity is _____ feet per year based on a hydraulic conductivity of _____ cm/sec, a hydraulic gradient of _____ ft/ft, and a porosity of _____ percent for _____ soil.

SUMMARY of SLUG TEST

TABLE 4 - AQUIFER CHARACTERISITCS (Page 2 of 2)

SOUTH CAROLINA
Department of Health and Environmental Control (DHEC)

Site Data

SITE ID # 0 COUNTY 0

FACILITY NAME 0

Hydraulic Conductivity (average)

Hydraulic Conductivity Average = _____ cm/sec
()

_____ ft./day

_____ ft./min

Groundwater Seepage Velocity

V = (Ki)/(Ne)
(ft./day)

* Enter Values in Shaded Areas Only

where:

K = Hydraulic Conductivity (ft./day)
I = Hydraulic Gradient (ft./ft.)
Ne = Effective Permeability

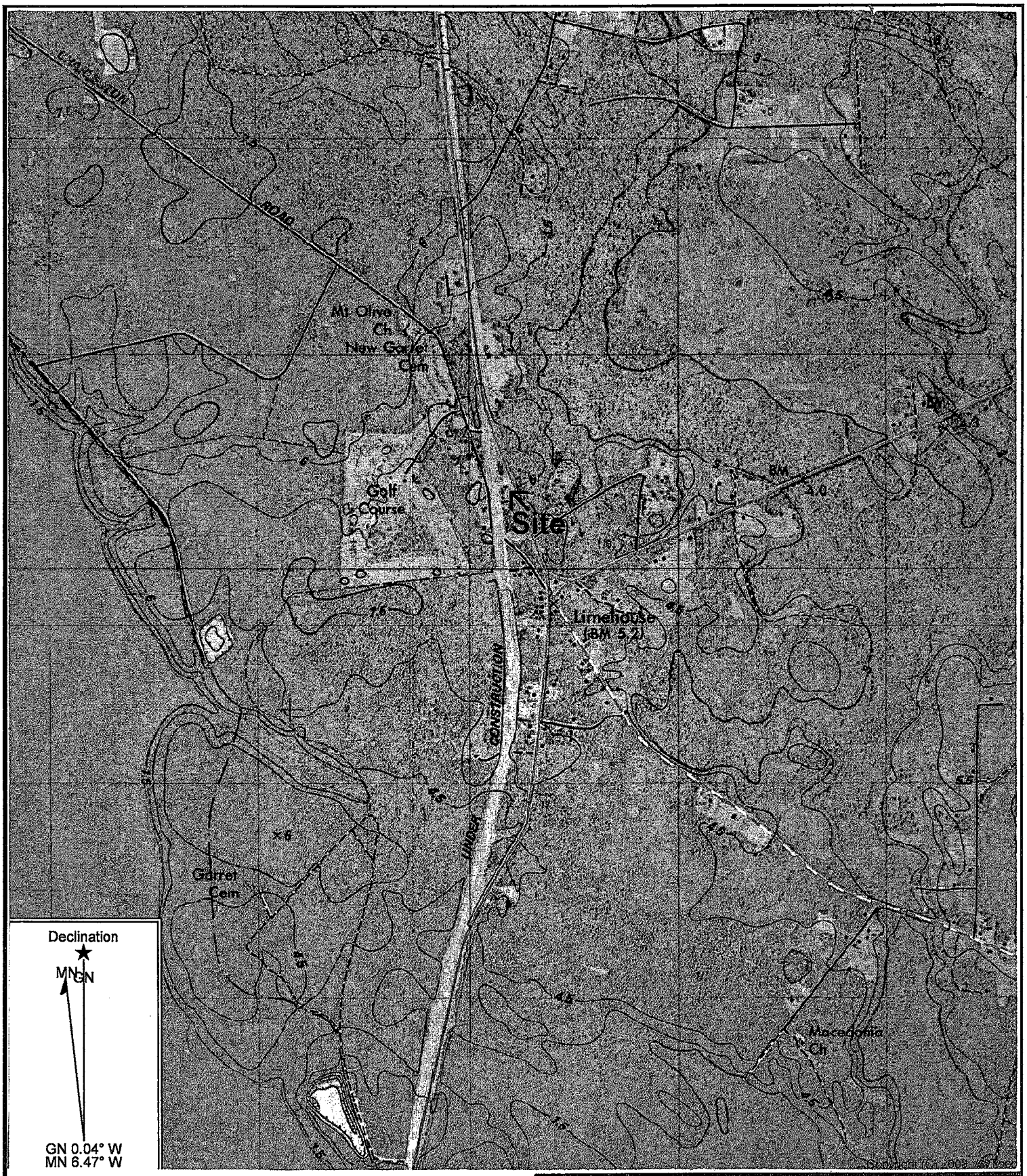
K = _____ ft./day
I = _____ ft./ft.
Ne = _____

V = _____ ft./day _____ ft./year

Groundwater Seepage Velocity Calculations

TABLE 5
SITE CONCEPTUAL MODEL AND POSSIBLE EXPOSURE POINTS
(CURRENT LAND USE)

Potentially Exposed Population	Exposure Route, Medium, and Exposure Point	Pathway Selected for Evaluation?	Reason for Selection or Nonselection
Off-site Resident	Ingestion of groundwater from impacted water well Direct contact with surface soil Inhalation while showering Dermal contact while showering Inhalation of volatiles Ignition of vapors Dermal contact with surface water	A Site Conceptual Model was not required as part of this assessment. In order to conform with formatting guidelines provided by the SCDHEC UST Management Division Programmatic Quality Assurance Program Plan (QAPP), this filler table is included to provide report continuity.	
On-site Resident	Ingestion of groundwater Direct contact with surface soil Inhalation while showering Dermal contact while showering Inhalation of volatiles Ignition of vapors		
Worker	Ingestion of ground water Direct contact with surface soil Inhalation while showering Dermal contact while showering Inhalation of volatiles Ignition of vapors		
Visitor	Ingestion of ground water Direct contact with surface soil Inhalation while showering Dermal contact while showering Inhalation of volatiles Ignition of vapors Dermal contact with surface water		



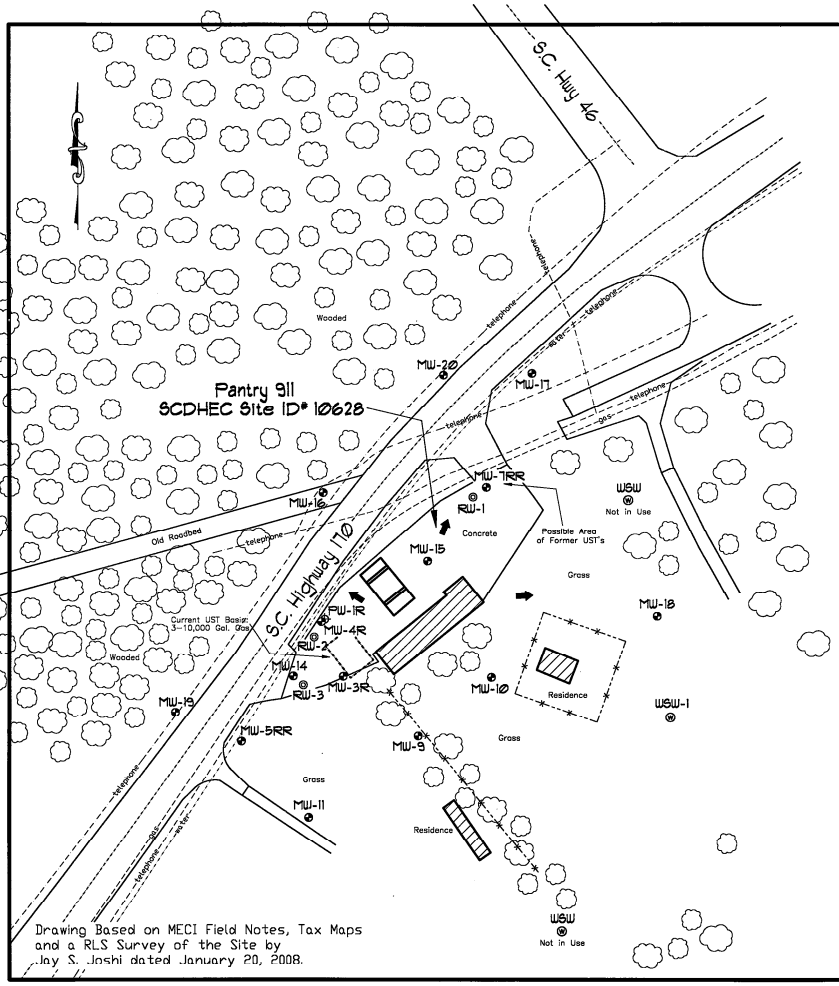
GRAPHIC SCALE

0 1000 2000 4000

1IN = 2000FT

Reference: Limehouse and Hardeeville, South Carolina
Jasper and Pritchardville, South Carolina
USGS 7.5 Min. Quad
Contour Interval—1.5 Meters

Midlands Environmental Consultants, Inc.	Site Location
Pantry 911 6195 South Okatie Highway, Hardeeville, SC SCDHEC Site ID# 10628	
Figure 1	MECI 13-4447



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of 4-inch Recovery Well
- Location of Double Cased Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Existing Underground Storage Tanks
- water — Buried Water Line
- telephone — Under Ground Telephone

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

ALL LOCATIONS ARE APPROXIMATE

Site Base Map

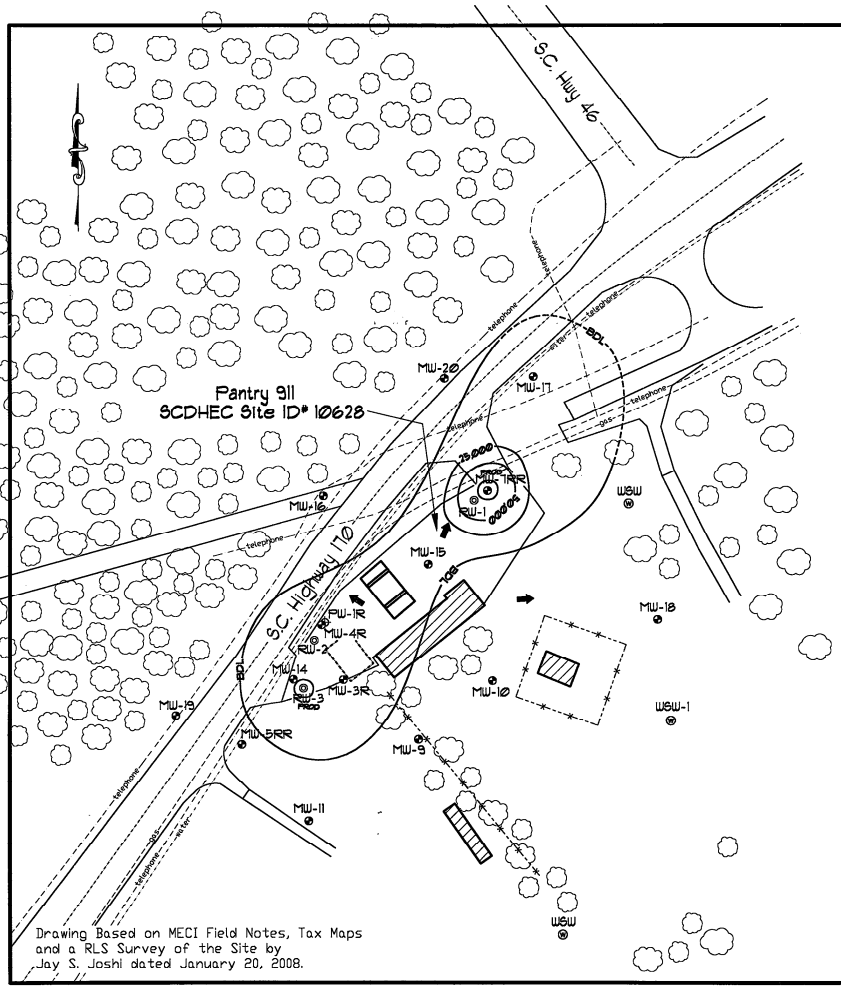
Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 13-4447
DATE July 17, 2013
FIGURE 2

Soil Samples for chemical analysis were not obtained during this assessment. In order to conform with formatting guidelines provided by the SCDHEC UST Management Division Programmatic Quality Assurance Program Plan (QAPP), this filler Figure is included to provide report continuity.

Midlands Environmental Consultants, Inc.	Soil CoC Site Map
Site Name Site Location, South Carolina SCDHEC Site ID: *****	
Figure 3	MECI **-****



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Water Supply Well
- Location of Double Cased "Deep" Monitoring Well
- Estimated Groundwater Flow Direction
- Location of 4-Inch Recovery Well
- Estimated Location of Removed Underground Storage Tanks

Total BTEX Concentration Isopleth (ug/l)

Groundwater CoC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	Naphthalene (ug/l)	MTBE (ug/l)	1,2 DCA (ug/l)	EDB (ug/l)
MW-3R	1,000	4,500E	1,100	7,600	14,200E	350	200	<100	<0.020
MW-4R	4,900	8,800	1,700	5,900	21,300	<500	5,800	<500	<0.021
MW-5RR	<500	<500	<500	<500	BDL	<500	<500	<500	<0.020
MW-5RR	<5.0H	<5.0H	<5.0H	<5.0H	BDL	<5.0H	<5.0H	<5.0H	NT
MW-7RR	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-9	<500	<500	<500	<500	BDL	<500	<500	<500	<0.020
MW-9	<5.0H	<5.0H	<5.0H	<5.0H	BDL	<5.0H	<5.0H	<5.0H	NT
MW-10	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	2.3J	<5.0	<0.020
MW-11	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-14	6,000	4,500	1,800	6,800	19,100	240J	900	<250	<0.020
MW-15	0.51J	<5.0	<5.0	<5.0	0.51J	<5.0	0.70J	<5.0	<0.020
MW-16	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-17	250	<25	45	66	361	<25	<25	10J	<0.020
MW-18	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-19	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	1.5J	<5.0	<0.029
MW-20	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.022
PW-1R	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
RW-1	27,000	31,000	2,600	11,000	71,600	610J	<1,000	<1,000	0.59P
RW-2	1,800	110	870	870	3,650	190	140	<50	<0.020
RW-3	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
WSW-1	<1.0	<1.0	<1.0	<1.0	BDL	<1.0	<1.0	<1.0	<0.020
RW-2Dup	1,900	100	880	880	3,760	190	53J	<50	<0.020
Field Blank	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
Trip Blank	<5.0	<5.0	<5.0	<5.0	BDL	<5.0L	<5.0	<5.0	NT

Notes:
- Groundwater samples collected on June 27, 2013.
- Isopleth Interval = 25,000 ug/l
- BDL = Below Detection Limits
- Monitoring well PW-1R not used in contouring.
- "J" Values included in Total BTEX Calculations
- NL = Not Located
- NT = Not Tested
- PROD = Free Phase Petroleum Detected
- Isopleths Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

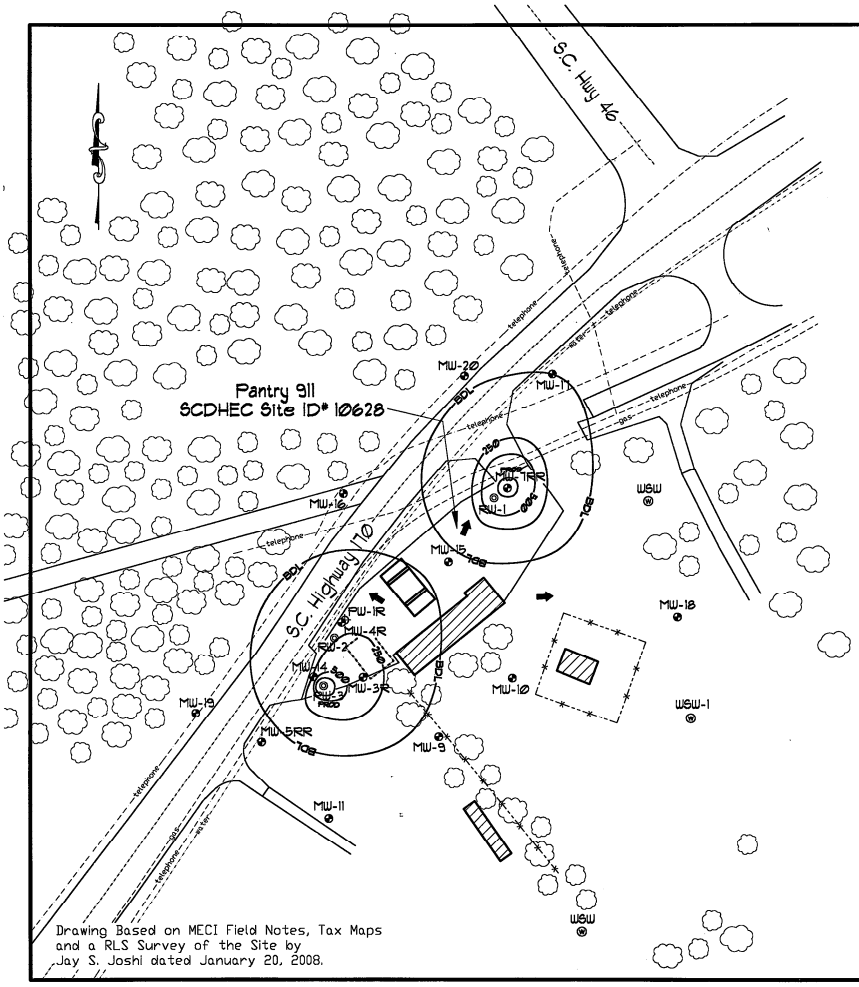
ALL LOCATIONS ARE APPROXIMATE

Groundwater CoC Site Map
(Total BTEX Isopleth)

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 13-4447
DATE July 17, 2013
FIGURE 4



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Water Supply Well
- Location of Double Cased "Deep" Monitoring Well
- Estimated Groundwater Flow Direction
- Location of 4-Inch Recovery Well
- Estimated Location of Removed Underground Storage Tanks
- Naphthalene Concentration Isopleth (ug/l)

Groundwater CoC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	Naphthalene (ug/l)	MTBE (ug/l)	12 DCA (ug/l)	EDB (ug/l)
MW-3R	1,000	4,500E	1,100	7,600	14,200E	350	200	<100	<0.020
MW-4R	4,900	8,800	1,700	5,900	21,300	<500	5,600	<500	<0.021
MW-5RR	<500	<500	<500	<500	BDL	<500	<500	<500	<0.020
MW-5RR	<5.0H	<5.0H	<5.0H	<5.0H	BDL	<5.0H	<5.0H	<5.0H	NT
MW-7RR	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-9	<500	<500	<500	<500	BDL	<500	<500	<500	<0.020
MW-9	<5.0H	<5.0H	<5.0H	<5.0H	BDL	<5.0H	<5.0H	<5.0H	NT
MW-10	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	2.3J	<5.0	<0.020
MW-11	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-14	6,000	4,500	1,800	6,800	19,100	240J	900	<250	<0.020
MW-15	0.51J	<5.0	<5.0	<5.0	0.51J	<5.0	0.70J	<5.0	<0.020
MW-16	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-17	250	<25	45	66	361	<25	<25	10J	<0.020
MW-18	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-19	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	1.5J	<5.0	<0.029
MW-20	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.022
PW-1R	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
RW-1	27,000	31,000	2,600	11,000	71,600	610J	<1,000	<1,000	0.59P
RW-2	1,800	110	870	870	3,650	190	140	<50	<0.020
RW-3	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
WSW-1	<1.0	<1.0	<1.0	<1.0	BDL	<1.0	<1.0	<1.0	<0.020
RW-2Dup	1,900	100	880	880	3,760	190	53J	<50	<0.020
Field Blank	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
Trip Blank	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	NT

Notes:
- Groundwater samples collected on June 27, 2013.
- Isopleth Interval = 250 ug/l
- BDL = Below Detection Limits
- Monitoring well PW-1R not used in contouring.
- "J" Values included in Total BTEX Calculations
- NL = Not Located
- NT = Not Tested
- PROD = Free Phase Petroleum Detected
- Isopleths Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

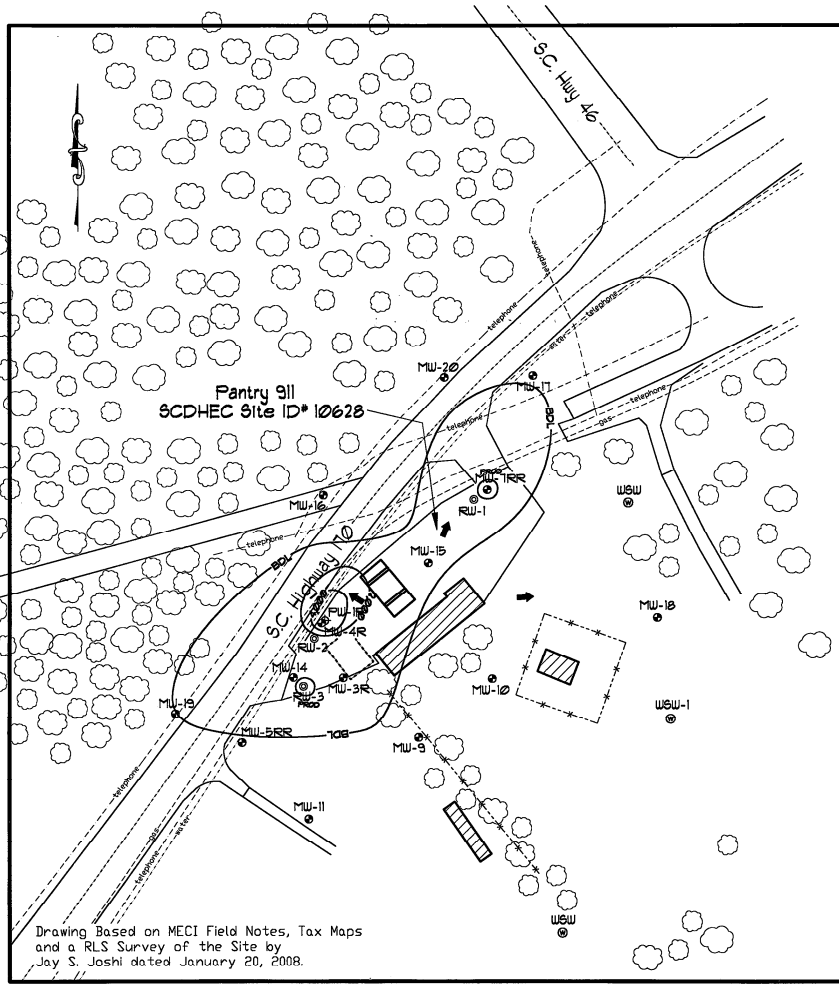
ALL LOCATIONS ARE APPROXIMATE

Groundwater CoC Site Map
(Naphthalene Isopleth)

Pantry 911
6135 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 13-4447
DATE July 17, 2013
FIGURE 4A



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Water Supply Well
- Location of Double Cased "Deep" Monitoring Well
- Estimated Groundwater Flow Direction
- Location of 4-inch Recovery Well
- Estimated Location of Removed Underground Storage Tanks
- MTBE Concentration Isopleth (ug/l)

Groundwater CoC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	Naphthalene (ug/l)	MTBE (ug/l)	12 DCA (ug/l)	EDB (ug/l)
MW-3R	1,000	4,500E	1,100	7,600	14,200E	350	200	<100	<0.020
MW-4R	4,900	8,800	1,700	5,900	21,300	<500	5,800	<500	<0.021
MW-5RR	<500	<500	<500	<500	BDL	<500	<500	<500	<0.020
MW-5RR	<5.0H	<5.0H	<5.0H	<5.0H	BDL	<5.0H	<5.0H	<5.0H	NT
MW-7RR	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-9	<500	<500	<500	<500	BDL	<500	<500	<500	<0.020
MW-9	<5.0H	<5.0H	<5.0H	<5.0H	BDL	<5.0H	<5.0H	<5.0H	NT
MW-10	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	2.3J	<5.0	<0.020
MW-11	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-14	6,000	4,500	1,800	6,800	19,100	240J	900	<250	<0.020
MW-15	0.51J	<5.0	<5.0	<5.0	0.51J	<5.0	0.70J	<5.0	<0.020
MW-16	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-17	250	<25	45	66	361	<25	<25	10J	<0.020
MW-18	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-19	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	1.5J	<5.0	<0.029
MW-20	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.022
PW-1R	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
RW-1	27,000	31,000	2,600	11,000	71,600	610J	<1,000	<1,000	0.59P
RW-2	1,800	110	870	870	3,650	190	140	<50	<0.020
RW-3	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
WSW-1	<1.0	<1.0	<1.0	<1.0	BDL	<1.0	<1.0	<1.0	<0.020
RW-2Dup	1,900	100	880	880	3,760	190	53J	<50	<0.020
Field Blank	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
Trip Blank	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	NT

Notes:
- Groundwater samples collected on June 27, 2013.
- Isopleth Interval = 2,000 ug/l
- BDL = Below Detection Limits
- Monitoring well PW-1R not used in contouring.
- "J" Values included in Total BTEX Calculations
- NL = Not Located
- NT = Not Tested
- PROD = Free Phase Petroleum Detected
- Isopleths Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

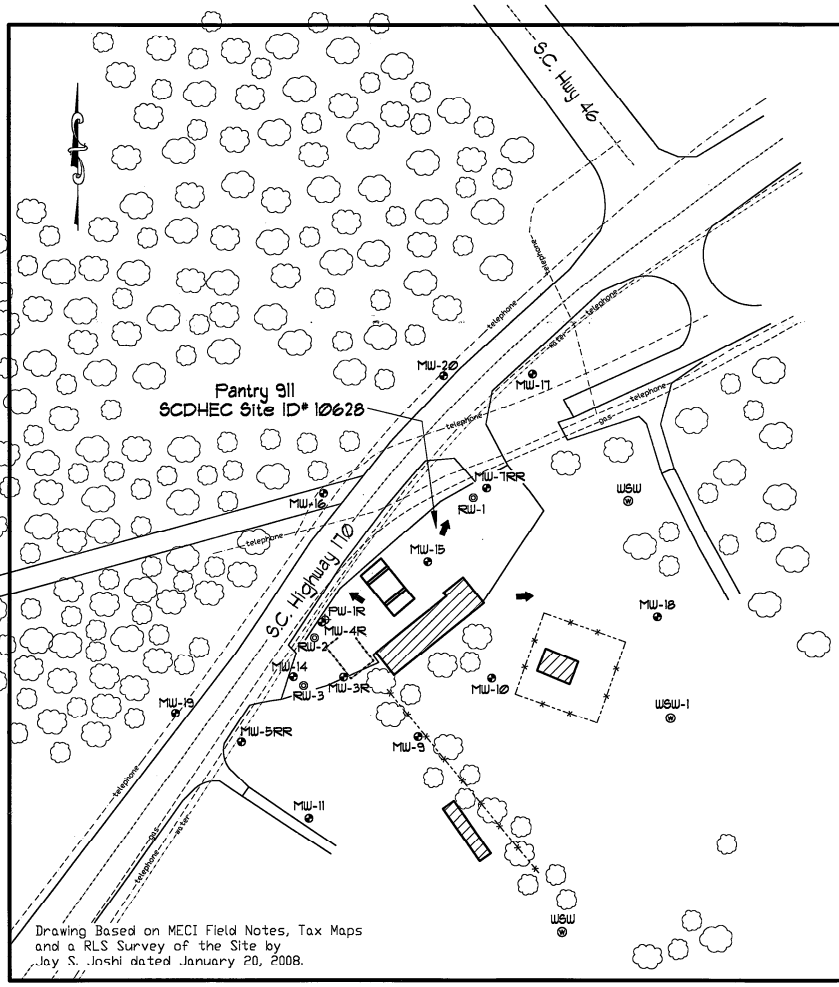
ALL LOCATIONS ARE APPROXIMATE

Groundwater CoC Site Map
(MTBE Isopleth)

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 13-4447
DATE July 17, 2013
FIGURE 4B



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Double Cased "Deep" Monitoring Well
- Location of 4-inch Recovery Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks

Groundwater COC Concentration Data - Oxygenates

Sample #	TAA (ug/l)	TAME (ug/l)	TBF (ug/l)	DIPE (ug/l)	3,3-Dimethyl-1-butanol (ug/l)	Ethanol (ug/l)	ETBE (ug/l)	TBA (ug/l)
MW-3R	540J	45J	<2,000	<200	<2,000	<20,000	9.5J	250J
MW-4R	5,200J	250J	<10,000	<1,000	<10,000	<100,000	99J	28,000
MW-5RR	<10,000	<1,000	<10,000	<1,000	<10,000	<100,000	<10,000	<10,000
MW-5RR	<100H	<10H	<100H	<10H	<100H	<1,000H	<100H	<100H
MW-7RR	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-9	<10,000	<1,000	<10,000S	<1,000	<10,000	<100,000	<10,000	<10,000
MW-9	<100H	<10H	<100H	<10H	<100H	<1,000H	<100H	<100H
MW-10	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-11	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-14	6,000	310J	<5,000	<500	<5,000	<50,000	68J	2,400J
MW-15	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-16	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-17	230J	5.9J	<500	180	<500	<5,000	18J	<500
MW-18	<100	<10	<100	6.5J	<100	<1,000	<100	<100
MW-19	75J	<10	<100	<10	<100	<1,000	<100	110
MW-20	270	<10	<100	65	<100	<1,000	<100	10J
PW-1R	<100	<10	<100	<10	<100	<1,000	<100	<100
RW-1	54,000	<2,000	<20,000	10,000	<20,000	<200,000	<20,000	610J
RW-2	740J	31J	<1,000	<100	<1,000	<10,000	34J	4,900
RW-3	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
WSW-1	<100	<10	<100	<10	<100	<1,000	<100	<100
RW-2 (Dup.)	690J	30J	<1,000	<100	<1,000	<10,000	34J	4,700
Field Blank	<100	<10	<100	<10	<100	<1,000	<100	<100
Trip Blank	<100	<10	<100	<10	<100	<1,000	<100	<100

Notes: Groundwater samples collected on June 27, 2013.

DIPE = Diisopropyl Ether
ETBE = Ethyl tert-butyl Ether
TAA = tert-Amyl Alcohol
TAME = tert-Amy Methyl Ether
TBA = tert-Butyl Alcohol
TBF = tert-Butyl Formate

GRAPHIC SCALE
0 50 100 150 200
1IN = 100FT

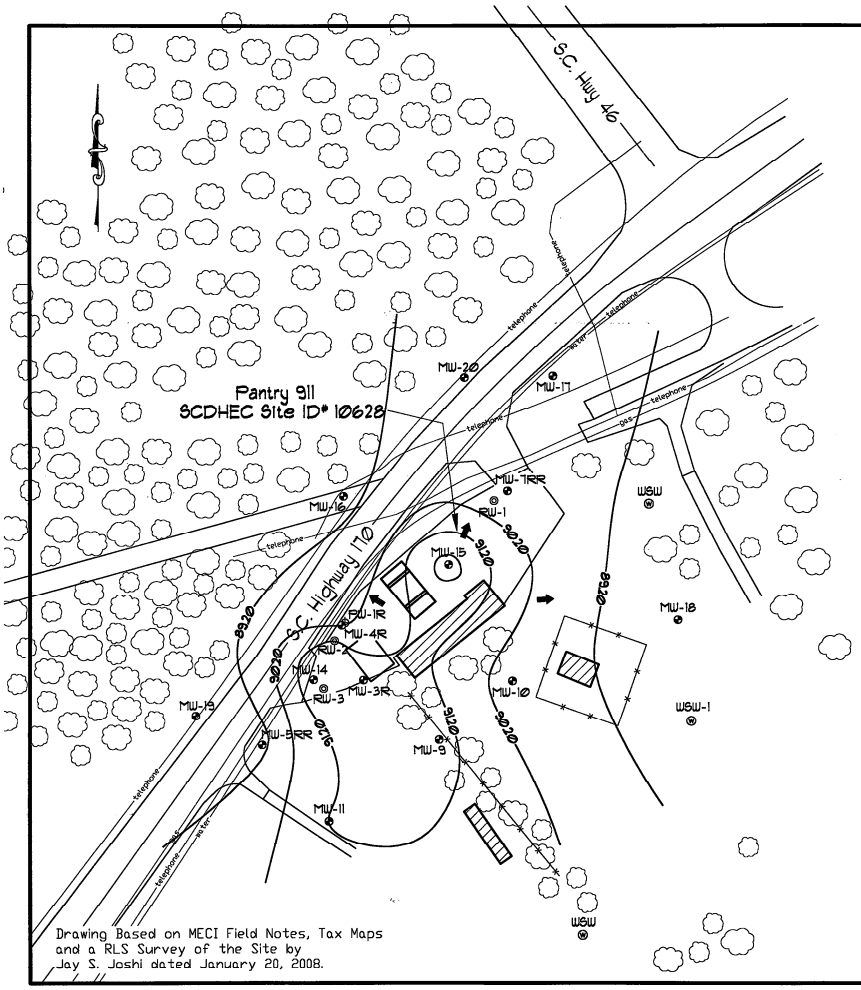
ALL LOCATIONS ARE APPROXIMATE

Groundwater CoC Site Map
(Oxygenates)

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 13-4447
DATE July 17, 2013
FIGURE 4C



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Water Supply Well
- Location of Double Cased "Deep" Monitoring Well
- Estimated Groundwater Flow Direction
- Location of 4-Inch Recovery Well
- Estimated Location of Removed Underground Storage Tanks

Potentiometric Data

Well #	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Well Head Elevation	Groundwater Elevation
MW-3R	2-12	---	3.16	---	94.56	91.40
MW-4R	5-15	---	3.99	---	93.75	89.76
MW-5RR	2-12	---	3.20	---	92.18	88.98
MW-7RR	2-12	6.32	6.34	0.02	95.80	89.48
MW-9	8-18	---	5.05	---	96.73	91.68
MW-10	2-12	---	3.81	---	93.29	89.48
MW-11	2-12	---	0.41	---	91.62	91.21
MW-14	3.05-13.05	---	1.30	---	93.23	91.93
MW-15	2-12	---	3.52	---	96.12	92.60
MW-16	7-17	---	8.41	---	97.02	88.61
MW-17	3-13	---	5.35	---	94.96	89.61
MW-18	2-12	---	2.87	---	91.34	88.47
MW-19	2-12	---	4.14	---	93.01	88.87
MW-20	4-14	---	9.14	---	98.84	89.70
PW-1R	30-35	---	4.80	---	93.47	88.67
RW-1	2-12	---	6.47	---	96.15	89.68
RW-2	2-12	---	2.19	---	93.56	91.37
RW-3	2-12	---	1.44	---	93.22	91.88

Notes: Depth to groundwater measured on June 27, 2012.

Site Datum Based on Assumed Spot Elevation.

Contour Interval = 1.00 Feet

Monitoring well PW-1R not used in contouring.

Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

ALL LOCATIONS ARE APPROXIMATE

Potentiometric Data Site Map
(Groundwater Contour)

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 13-4447
DATE July 17, 2013
FIGURE 5

Construction of Geologic Cross Sections were not part of this assessment. In order to conform with formatting guidelines provided by the SCDHEC UST Management Division Programmatic Quality Assurance Program Plan (QAPP), this filler Figure is included to provide report continuity.

Midlands Environmental Consultants, Inc.	Geologic Cross Sections
Site Name Site Location, South Carolina SCDHEC Site ID: *****	
Figure 6	MECI **-****

APPENDIX A:

SITE SURVEY

This appendix is not applicable to the scope of services presented in the subject report, however this page has been included in order to conform to the SCDHEC UST Management Division Programmatic QAPP and provide report continuity

APPENDIX B:

SAMPLING LOGS, LABORATORY DATA SHEETS, & CHAIN-OF-CUSTODY FORMS

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 6/27/2013

Field Personnel: K. Pudney & G. Globensky

General Weather Conditions: Clear

Ambient Air Temperature: 16.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** MW-3R

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	3.16			feet
Total Well Depth (TWD)	12			feet
Length of the water column (LWC=TWD-DGW)			8.84	feet
1 casing volume (CV=LWC X C)= _____ X		0.163	1.44	gallons
5 casing volume (5 X CV)=			7.20	gallons

Total Volume of Water Purged Before Sampling 0 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	12:10							
pH (s.u.)	4.67							
Specific Conductivity (µmhos/cm)	77.5							
Water Temperature (°C)	25.7							
Dissolved Oxygen	0.73							
Turbidity (NTU)	101.9							
PID readings, if required								

Remarks: Sample Time: 12:10 **No Purge Sample Collected**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 6/27/2013

Field Personnel: K. Pudney & G. Globensky

General Weather Conditions: Clear

Ambient Air Temperature: 16.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** MW-4R

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	3.99			feet
Total Well Depth (TWD)	15			feet
Length of the water column (LWC=TWD-DGW)			11.01	feet
1 casing volume (CV=LWC X C)= _____ X		0.163	1.79	gallons
5 casing volume (5 X CV)=			8.97	gallons

Total Volume of Water Purged Before Sampling 2 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:52	11:56						
pH (s.u.)	4.95	4.81						
Specific Conductivity (µmhos/cm)	238.7	227.3						
Water Temperature (°C)	26.9	24.3						
Dissolved Oxygen	0.49	1.40						
Turbidity (NTU)	10.95	873.1						
PID readings, if required								

Remarks: Sample Time: 11:56 **Dry @ 2.0 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 6/27/2013

Field Personnel: K. Pudney & G. Globensky

General Weather Conditions: Clear

Ambient Air Temperature: 16.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** MW-5RR

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:			feet
Depth to Free Product (DFP)			feet
Depth to Ground Water (DGW)	3.20		feet
Total Well Depth (TWD)	12		feet
Length of the water column (LWC=TWD-DGW)		8.80	feet
1 casing volume (CV=LWC X C)= ____ X	0.163	1.43	gallons
5 casing volume (5 X CV)=		7.17	gallons

Total Volume of Water Purged Before Sampling 2.5 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	12:30	12:35						
pH (s.u.)	4.85	4.72						
Specific Conductivity (µmhos/cm)	167.3	212.9						
Water Temperature (°C)	25.8	26.0						
Dissolved Oxygen	0.69	2.10						
Turbidity (NTU)	212.8	897.3						
PID readings, if required								

Remarks: Sample Time: 12:35 **Dry @ 2.5 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 6/27/2013

Field Personnel: K. Pudney & G. Globensky

General Weather Conditions: Clear

Ambient Air Temperature: 16.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** MW-7RR

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:			feet
Depth to Free Product (DFP)	6.32		feet
Depth to Ground Water (DGW)	6.34		feet
Total Well Depth (TWD)	12		feet
Length of the water column (LWC=TWD-DGW)		5.66	feet
1 casing volume (CV=LWC X C)= _____ X	0.163	0.92	gallons
5 casing volume (5 X CV)=		4.61	gallons

Total Volume of Water Purged Before Sampling 0 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	PROD							
pH (s.u.)	PROD							
Specific Conductivity (µmhos/cm)	PROD							
Water Temperature (°C)	PROD							
Dissolved Oxygen	PROD							
Turbidity (NTU)	PROD							
PID readings, if required								

Remarks: Sample Time: **Free Phase Petroleum Product**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 6/27/2013

Field Personnel: K. Pudney & G. Globensky

General Weather Conditions: Clear

Ambient Air Temperature: 16.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** MW-9

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	5.05			feet
Total Well Depth (TWD)	18			feet
Length of the water column (LWC=TWD-DGW)			12.95	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	2.11	gallons
5 casing volume (5 X CV)=			10.55	gallons

Total Volume of Water Purged Before Sampling 4 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	13:25	13:30						
pH (s.u.)	4.58	5.03						
Specific Conductivity (µmhos/cm)	275.2	416.6						
Water Temperature (°C)	22.6	20.7						
Dissolved Oxygen	1.15	0.66						
Turbidity (NTU)	10.12	567.9						
PID readings, if required								

Remarks: Sample Time: 13:30 **Dry @ 4.0 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 6/27/2013

Field Personnel: K. Pudney & G. Globensky

General Weather Conditions: Clear

Ambient Air Temperature: 16.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** MW-10

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:			feet
Depth to Free Product (DFP)			feet
Depth to Ground Water (DGW)	3.81		feet
Total Well Depth (TWD)	12		feet
Length of the water column (LWC=TWD-DGW)		8.19	feet
1 casing volume (CV=LWC X C)= ____ X	0.163	1.33	gallons
5 casing volume (5 X CV)=		6.67	gallons

Total Volume of Water Purged Before Sampling 0 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	12:55							
pH (s.u.)	3.70							
Specific Conductivity (µmhos/cm)	2,906							
Water Temperature (°C)	21.7							
Dissolved Oxygen	1.54							
Turbidity (NTU)	19.49							
PID readings, if required								

Remarks: Sample Time: 12:55 **No Purge Sample Collected**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 6/27/2013

Field Personnel: K. Pudney & G. Globensky

General Weather Conditions: Clear

Ambient Air Temperature: 16.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** MW-11

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:			feet
Depth to Free Product (DFP)			feet
Depth to Ground Water (DGW)	0.41		feet
Total Well Depth (TWD)	12		feet
Length of the water column (LWC=TWD-DGW)		11.59	feet
1 casing volume (CV=LWC X C)= _____ X	0.163	1.89	gallons
5 casing volume (5 X CV)=		9.45	gallons

Total Volume of Water Purged Before Sampling 3 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	12:40	12:45						
pH (s.u.)	5.63	5.70						
Specific Conductivity (µmhos/cm)	409.9	412.1						
Water Temperature (°C)	26.9	25.2						
Dissolved Oxygen	1.50	0.91						
Turbidity (NTU)	278.9	555.1						
PID readings, if required								

Remarks: Sample Time: 12:45 **Dry @ 3.0 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 6/27/2013

Field Personnel: K. Pudney & G. Globensky

General Weather Conditions: Clear

Ambient Air Temperature: 16.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** MW-14

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:			feet
Depth to Free Product (DFP)			feet
Depth to Ground Water (DGW)	1.30		feet
Total Well Depth (TWD)	13		feet
Length of the water column (LWC=TWD-DGW)		11.70	feet
1 casing volume (CV=LWC X C)= _____ X	0.163	1.91	gallons
5 casing volume (5 X CV)=		9.54	gallons

Total Volume of Water Purged Before Sampling 3 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	12:00	12:05						
pH (s.u.)	SHEEN	SHEEN						
Specific Conductivity (µmhos/cm)	SHEEN	SHEEN						
Water Temperature (°C)	SHEEN	SHEEN						
Dissolved Oxygen	SHEEN	SHEEN						
Turbidity (NTU)	SHEEN	SHEEN						
PID readings, if required								

Remarks: Sample Time: 12:05 **Dry @ 3.0 Gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 6/27/2013

Field Personnel: K. Pudney & G. Globensky

General Weather Conditions: Clear

Ambient Air Temperature: 16.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** MW-15

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	3.52			feet
Total Well Depth (TWD)	12			feet
Length of the water column (LWC=TWD-DGW)			8.48	feet
1 casing volume (CV=LWC X C)= _____ X		0.163	1.38	gallons
5 casing volume (5 X CV)=			6.91	gallons

Total Volume of Water Purged Before Sampling 0 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:24							
pH (s.u.)	5.72							
Specific Conductivity (µmhos/cm)	633							
Water Temperature (°C)	29.0							
Dissolved Oxygen	0.43							
Turbidity (NTU)	18.93							
PID readings, if required								

Remarks: Sample Time: 11:24 **No Purge Sample Collected**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 6/27/2013
Field Personnel: K. Pudney & G. Globensky
General Weather Conditions: Clear

Ambient Air Temperature: 16.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911
Site ID#: 10628 **Monitoring Well #** MW-16
Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:			feet
Depth to Free Product (DFP)			feet
Depth to Ground Water (DGW)	8.41		feet
Total Well Depth (TWD)	17		feet
Length of the water column (LWC=TWD-DGW)		8.59	feet
1 casing volume (CV=LWC X C)= _____ X	0.163	1.40	gallons
5 casing volume (5 X CV)=		7.00	gallons

Total Volume of Water Purged Before Sampling 0 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	13:44							
pH (s.u.)	5.10							
Specific Conductivity (µmhos/cm)	289.5							
Water Temperature (°C)	22.5							
Dissolved Oxygen	0.84							
Turbidity (NTU)	116.9							
PID readings, if required								

Remarks: Sample Time: 13:44 **No Purge Sample Collected**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 6/27/2013

Field Personnel: K. Pudney & G. Globensky

General Weather Conditions: Clear

Ambient Air Temperature: 16.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** MW-17

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	5.35			feet
Total Well Depth (TWD)	13			feet
Length of the water column (LWC=TWD-DGW)			7.65	feet
1 casing volume (CV=LWC X C)= _____ X		0.163	1.25	gallons
5 casing volume (5 X CV)=			6.23	gallons

Total Volume of Water Purged Before Sampling 0 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:00							
pH (s.u.)	5.27							
Specific Conductivity (µmhos/cm)	302.5							
Water Temperature (°C)	25.4							
Dissolved Oxygen	1.58							
Turbidity (NTU)	36.19							
PID readings, if required								

Remarks: Sample Time: 11:00 **No Purge Sample Collected**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 6/27/2013

Field Personnel: K. Pudney & G. Globensky

General Weather Conditions: Clear

Ambient Air Temperature: 16.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** MW-18

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	2.87			feet
Total Well Depth (TWD)	12			feet
Length of the water column (LWC=TWD-DGW)			9.13	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	1.49	gallons
5 casing volume (5 X CV)=			7.44	gallons

Total Volume of Water Purged Before Sampling 0 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	12:40							
pH (s.u.)	5.75							
Specific Conductivity (µmhos/cm)	179.9							
Water Temperature (°C)	21.6							
Dissolved Oxygen	1.40							
Turbidity (NTU)	51.28							
PID readings, if required								

Remarks: Sample Time: 12:40 **No Purge Sample Collected**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 6/27/2013

Field Personnel: K. Pudney & G. Globensky

General Weather Conditions: Clear

Ambient Air Temperature: 16.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** MW-19

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:			feet
Depth to Free Product (DFP)			feet
Depth to Ground Water (DGW)	4.14		feet
Total Well Depth (TWD)	12		feet
Length of the water column (LWC=TWD-DGW)		7.86	feet
1 casing volume (CV=LWC X C)= _____ X	0.163	1.28	gallons
5 casing volume (5 X CV)=		6.41	gallons

Total Volume of Water Purged Before Sampling 1 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	13:50	13:53						
pH (s.u.)	5.30	5.52						
Specific Conductivity (µmhos/cm)	383.9	378.1						
Water Temperature (°C)	25.2	24.0						
Dissolved Oxygen	2.00	1.45						
Turbidity (NTU)	243.50	711.0						
PID readings, if required								

Remarks: Sample Time: 13:53 **Dry @ 1.0 Gallon**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 6/27/2013

Field Personnel: K. Pudney & G. Globensky

General Weather Conditions: Clear

Ambient Air Temperature: 16.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** MW-20

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:			feet
Depth to Free Product (DFP)			feet
Depth to Ground Water (DGW)	9.14		feet
Total Well Depth (TWD)	14		feet
Length of the water column (LWC=TWD-DGW)		4.86	feet
1 casing volume (CV=LWC X C)= ____ X	0.163	0.79	gallons
5 casing volume (5 X CV)=		3.96	gallons

Total Volume of Water Purged Before Sampling 0.5 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	13:40	13:42						
pH (s.u.)	5.29	5.33						
Specific Conductivity (µmhos/cm)	397.6	392.8						
Water Temperature (°C)	23.2	22.9						
Dissolved Oxygen	0.54	0.87						
Turbidity (NTU)	192.5	713.9						
PID readings, if required								

Remarks: Sample Time: 13:42 **Dry @ 0.5 Gallon**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 6/27/2013

Field Personnel: K. Pudney & G. Globensky

General Weather Conditions: Clear

Ambient Air Temperature: 16.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** MW-20

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	4.80			feet
Total Well Depth (TWD)	35			feet
Length of the water column (LWC=TWD-DGW)			30.20	feet
1 casing volume (CV=LWC X C)= _____ X		0.163	4.92	gallons
5 casing volume (5 X CV)=			24.61	gallons

Total Volume of Water Purged Before Sampling 5 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:38	11:47						
pH (s.u.)	6.50	6.64						
Specific Conductivity (µmhos/cm)	366.3	335.6						
Water Temperature (°C)	26.3	24.0						
Dissolved Oxygen	2.16	1.22						
Turbidity (NTU)	94.63	157.8						
PID readings, if required								

Remarks: Sample Time: 11:47 **Dry @ 5.0 Gallon**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 6/27/2013

Field Personnel: K. Pudney & G. Globensky

General Weather Conditions: Clear

Ambient Air Temperature: 16.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** RW-1

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	6.47			feet
Total Well Depth (TWD)	12			feet
Length of the water column (LWC=TWD-DGW)			5.53	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	0.90	gallons
5 casing volume (5 X CV)=			4.51	gallons

Total Volume of Water Purged Before Sampling 0 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:18							
pH (s.u.)	5.36							
Specific Conductivity (µmhos/cm)	430.8							
Water Temperature (°C)	26.5							
Dissolved Oxygen	0.39							
Turbidity (NTU)	29.71							
PID readings, if required								

Remarks: Sample Time: 11:18 **No Purge Sample Collected**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 6/27/2013
Field Personnel: K. Pudney & G. Globensky
General Weather Conditions: Clear

Ambient Air Temperature: 16.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911
Site ID#: 10628 **Monitoring Well #** RW-2
Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	2.19			feet
Total Well Depth (TWD)	12			feet
Length of the water column (LWC=TWD-DGW)			9.81	feet
1 casing volume (CV=LWC X C)= _____ X		0.163	1.60	gallons
5 casing volume (5 X CV)=			8.00	gallons

Total Volume of Water Purged Before Sampling 0 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:32							
pH (s.u.)	6.03							
Specific Conductivity (µmhos/cm)	701							
Water Temperature (°C)	29.1							
Dissolved Oxygen	0.91							
Turbidity (NTU)	112.5							
PID readings, if required								

Remarks: Sample Time: 11:32 **No Purge Sample Collected**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 6/27/2013

Field Personnel: K. Pudney & G. Globensky

General Weather Conditions: Clear

Ambient Air Temperature: 16.0 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** RW-3

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)	1.32			feet
Depth to Ground Water (DGW)	1.44			feet
Total Well Depth (TWD)	12			feet
Length of the water column (LWC=TWD-DGW)			10.56	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	1.72	gallons
5 casing volume (5 X CV)=			8.61	gallons

Total Volume of Water Purged Before Sampling 0 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	PROD							
pH (s.u.)	PROD							
Specific Conductivity (µmhos/cm)	PROD							
Water Temperature (°C)	PROD							
Dissolved Oxygen	PROD							
Turbidity (NTU)	PROD							
PID readings, if required								

Remarks: Sample Time: **Free Phase Petroleum Product**

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

Midlands Environmental Consultants, Inc.
235 Dooley Rd
Lexington, SC 29073
Attention: Bryan Shane

Project Name: **Pantry 911**

Project Number: **12-4034**

Lot Number: **OF28065**

Date Completed: **07/12/2013**

Kelly M. Maberry
Project Manager

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

Case Narrative

Midlands Environmental Consultants, Inc.

Lot Number: OF28065

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Receiving
EDB was not analyzed for the trip blank due to low sample volume (only 2 vials).

Samples -005, -015 and -018 for volatiles analysis contained vials with air bubbles greater than ¼" or 6mm in diameter. The laboratory uses these vials for screening and the vials without bubbles for analysis whenever possible. Condition of samples is documented on the Sample Receipt Checklist (SRC).

Volatiles
The MS associated with sample -004 had tert-butyl formate recovered outside of the acceptance limits. The LCS/LCSD were recovered within the required acceptance limits; therefore, this demonstrates a matrix effect and data quality is not impacted.

The RPD for tert-butyl alcohol in the duplicate associated with sample -001 exceeded method control limits. This is most likely a matrix effect. Insufficient sample volume remained for re-analysis.

Sample -001 had toluene recovered above the instrument's calibration range in the initial analysis. A 5x dilution was analyzed outside of the 14-day holding time and the result was confirmed.

Samples -003 and -004 were initially analyzed at 100x dilutions due to screening data; however, all results were ND. The samples were re-analyzed outside of the holding time and all results were ND. Both sets of data have been reported.

EDB
The sample result for -015 has a P qualifier because the relative percent difference (RPD) between the two dissimilar phase GC columns exceeds 40%. Section 7.10.4 of SW-846 method 8000B states the higher of the two results is reported; however the lower result is reported for this sample. The higher result for sample -015 was 0.97 ug/L.

Sample -001 had the surrogate recovered above the acceptance limits. This reflects a high bias for compounds associated with this surrogate. There were no detections for these compounds in the sample; therefore, there is no impact on data quality and no corrective action is required.

Samples -012 and -013 had sediment in the vials that altered the sample volume.

Sample Summary

Midlands Environmental Consultants, Inc.

Lot Number: OF28065

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	MW-3R	Aqueous	06/27/2013 1210	06/28/2013
002	MW-4R	Aqueous	06/27/2013 1156	06/28/2013
003	MW-5RR	Aqueous	06/27/2013 1235	06/28/2013
004	MW-9	Aqueous	06/27/2013 1325	06/28/2013
005	MW-10	Aqueous	06/27/2013 1255	06/28/2013
006	MW-11	Aqueous	06/27/2013 1245	06/28/2013
007	MW-14	Aqueous	06/27/2013 1205	06/28/2013
008	MW-15	Aqueous	06/27/2013 1124	06/28/2013
009	MW-16	Aqueous	06/27/2013 1344	06/28/2013
010	MW-17	Aqueous	06/27/2013 1100	06/28/2013
011	MW-18	Aqueous	06/27/2013 1240	06/28/2013
012	MW-19	Aqueous	06/27/2013 1353	06/28/2013
013	MW-20	Aqueous	06/27/2013 1342	06/28/2013
014	PW-1R	Aqueous	06/27/2013 1147	06/28/2013
015	RW-1	Aqueous	06/27/2013 1118	06/28/2013
016	RW-2	Aqueous	06/27/2013 1132	06/28/2013
017	WSW-1	Aqueous	06/27/2013 1310	06/28/2013
018	RW-2 Dup	Aqueous	06/27/2013 1132	06/28/2013
019	Field Blank	Aqueous	06/27/2013 1101	06/28/2013
020	Trip Blank	Aqueous	06/27/2013 1105	06/28/2013

(20 samples)

Executive Summary

Midlands Environmental Consultants, Inc.

Lot Number: OF28065

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	MW-3R	Aqueous	tert-Amyl alcohol (TAA)	8260B	540	J	ug/L	6
001	MW-3R	Aqueous	tert-Amyl methyl ether (TAME)	8260B	45	J	ug/L	6
001	MW-3R	Aqueous	Benzene	8260B	1000		ug/L	6
001	MW-3R	Aqueous	Ethylbenzene	8260B	1100		ug/L	6
001	MW-3R	Aqueous	Ethyl-tert-butyl ether (ETBE)	8260B	9.5	J	ug/L	6
001	MW-3R	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	200		ug/L	6
001	MW-3R	Aqueous	Naphthalene	8260B	350		ug/L	6
001	MW-3R	Aqueous	tert-butyl alcohol (TBA)	8260B	250	J	ug/L	6
001	MW-3R	Aqueous	Toluene	8260B	4500	E	ug/L	6
001	MW-3R	Aqueous	Xylenes (total)	8260B	7600		ug/L	6
002	MW-4R	Aqueous	tert-Amyl alcohol (TAA)	8260B	5200	J	ug/L	7
002	MW-4R	Aqueous	tert-Amyl methyl ether (TAME)	8260B	250	J	ug/L	7
002	MW-4R	Aqueous	Benzene	8260B	4900		ug/L	7
002	MW-4R	Aqueous	Ethylbenzene	8260B	1700		ug/L	7
002	MW-4R	Aqueous	Ethyl-tert-butyl ether (ETBE)	8260B	99	J	ug/L	7
002	MW-4R	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	5600		ug/L	7
002	MW-4R	Aqueous	tert-butyl alcohol (TBA)	8260B	28000		ug/L	7
002	MW-4R	Aqueous	Toluene	8260B	8800		ug/L	7
002	MW-4R	Aqueous	Xylenes (total)	8260B	5900		ug/L	7
005	MW-10	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	2.3	J	ug/L	12
007	MW-14	Aqueous	tert-Amyl alcohol (TAA)	8260B	6000		ug/L	14
007	MW-14	Aqueous	tert-Amyl methyl ether (TAME)	8260B	310	J	ug/L	14
007	MW-14	Aqueous	Benzene	8260B	6000		ug/L	14
007	MW-14	Aqueous	Ethylbenzene	8260B	1800		ug/L	14
007	MW-14	Aqueous	Ethyl-tert-butyl ether (ETBE)	8260B	68	J	ug/L	14
007	MW-14	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	900		ug/L	14
007	MW-14	Aqueous	Naphthalene	8260B	240	J	ug/L	14
007	MW-14	Aqueous	tert-butyl alcohol (TBA)	8260B	2400	J	ug/L	14
007	MW-14	Aqueous	Toluene	8260B	4500		ug/L	14
007	MW-14	Aqueous	Xylenes (total)	8260B	6800		ug/L	14
008	MW-15	Aqueous	Benzene	8260B	0.51	J	ug/L	15
008	MW-15	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	0.70	J	ug/L	15
010	MW-17	Aqueous	tert-Amyl alcohol (TAA)	8260B	230	J	ug/L	17
010	MW-17	Aqueous	tert-Amyl methyl ether (TAME)	8260B	5.9	J	ug/L	17
010	MW-17	Aqueous	Benzene	8260B	250		ug/L	17
010	MW-17	Aqueous	1,2-Dichloroethane	8260B	10	J	ug/L	17
010	MW-17	Aqueous	Diisopropyl ether (IPE)	8260B	180		ug/L	17
010	MW-17	Aqueous	Ethylbenzene	8260B	45		ug/L	17
010	MW-17	Aqueous	Ethyl-tert-butyl ether (ETBE)	8260B	18	J	ug/L	17
010	MW-17	Aqueous	Xylenes (total)	8260B	66		ug/L	17
011	MW-18	Aqueous	Diisopropyl ether (IPE)	8260B	6.5	J	ug/L	18
012	MW-19	Aqueous	tert-Amyl alcohol (TAA)	8260B	75	J	ug/L	19
012	MW-19	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	1.5	J	ug/L	19
012	MW-19	Aqueous	tert-butyl alcohol (TBA)	8260B	110		ug/L	19
013	MW-20	Aqueous	tert-Amyl alcohol (TAA)	8260B	270		ug/L	20

Executive Summary (Continued)

Lot Number: OF28065

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
013	MW-20	Aqueous	Diisopropyl ether (IPE)	8260B	65		ug/L	20
013	MW-20	Aqueous	tert-butyl alcohol (TBA)	8260B	10	J	ug/L	20
015	RW-1	Aqueous	tert-Amyl alcohol (TAA)	8260B	54000		ug/L	22
015	RW-1	Aqueous	Benzene	8260B	27000		ug/L	22
015	RW-1	Aqueous	Diisopropyl ether (IPE)	8260B	10000		ug/L	22
015	RW-1	Aqueous	Ethylbenzene	8260B	2600		ug/L	22
015	RW-1	Aqueous	Naphthalene	8260B	610	J	ug/L	22
015	RW-1	Aqueous	tert-butyl alcohol (TBA)	8260B	1400	J	ug/L	22
015	RW-1	Aqueous	Toluene	8260B	31000		ug/L	22
015	RW-1	Aqueous	Xylenes (total)	8260B	11000		ug/L	22
015	RW-1	Aqueous	1,2-Dibromoethane (EDB)	8011	0.59	P	ug/L	22
016	RW-2	Aqueous	tert-Amyl alcohol (TAA)	8260B	740	J	ug/L	23
016	RW-2	Aqueous	tert-Amyl methyl ether (TAME)	8260B	31	J	ug/L	23
016	RW-2	Aqueous	Benzene	8260B	1800		ug/L	23
016	RW-2	Aqueous	Ethylbenzene	8260B	870		ug/L	23
016	RW-2	Aqueous	Ethyl-tert-butyl ether (ETBE)	8260B	34	J	ug/L	23
016	RW-2	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	140		ug/L	23
016	RW-2	Aqueous	Naphthalene	8260B	190		ug/L	23
016	RW-2	Aqueous	tert-butyl alcohol (TBA)	8260B	4900		ug/L	23
016	RW-2	Aqueous	Toluene	8260B	110		ug/L	23
016	RW-2	Aqueous	Xylenes (total)	8260B	870		ug/L	23
018	RW-2 Dup	Aqueous	tert-Amyl alcohol (TAA)	8260B	690	J	ug/L	25
018	RW-2 Dup	Aqueous	tert-Amyl methyl ether (TAME)	8260B	30	J	ug/L	25
018	RW-2 Dup	Aqueous	Benzene	8260B	1900		ug/L	25
018	RW-2 Dup	Aqueous	Ethylbenzene	8260B	880		ug/L	25
018	RW-2 Dup	Aqueous	Ethyl-tert-butyl ether (ETBE)	8260B	34	J	ug/L	25
018	RW-2 Dup	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	140		ug/L	25
018	RW-2 Dup	Aqueous	Naphthalene	8260B	190		ug/L	25
018	RW-2 Dup	Aqueous	tert-butyl alcohol (TBA)	8260B	4700		ug/L	25
018	RW-2 Dup	Aqueous	Toluene	8260B	100		ug/L	25
018	RW-2 Dup	Aqueous	Xylenes (total)	8260B	880		ug/L	25

(76 detections)

Client: **Midlands Environmental Consultants, Inc.**
Description: **MW-3R**
Date Sampled: **06/27/2013 1210**
Date Received: **06/28/2013**

Laboratory ID: **OF28065-001**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	07/10/2013 1710	JAC		24754

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**540**	**J**	**2000**	**130**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**45**	**J**	**200**	**4.0**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**1000**		**100**	**4.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		2000	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		100	6.0	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		200	8.0	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		2000	20	ug/L	1
Ethanol	64-17-5	8260B	ND		20000	660	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**1100**		**100**	**34**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	**637-92-3**	**8260B**	**9.5**	**J**	**2000**	**4.0**	**ug/L**	**1**
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**200**		**100**	**8.0**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**350**		**100**	**34**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**250**	**J**	**2000**	**130**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**4500**	**E**	**100**	**34**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**7600**		**100**	**34**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		100	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	07/06/2013 1914	AMY	07/03/2013 2112	24408

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND	Q	0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane	N	267	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.**
Description: **MW-4R**
Date Sampled: **06/27/2013 1156**
Date Received: **06/28/2013**

Laboratory ID: **OF28065-002**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	100	07/10/2013 1755	JAC		24754

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**5200**	**J**	**10000**	**670**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**250**	**J**	**1000**	**20**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**4900**		**500**	**20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		10000	100	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		500	30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1000	40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		10000	100	ug/L	1
Ethanol	64-17-5	8260B	ND		100000	3300	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**1700**		**500**	**170**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	**637-92-3**	**8260B**	**99**	**J**	**10000**	**20**	**ug/L**	**1**
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**5600**		**500**	**40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		500	170	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**28000**		**10000**	**670**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**8800**		**500**	**170**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**5900**		**500**	**170**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		86	70-130
Bromofluorobenzene		85	70-130
Toluene-d8		90	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	07/06/2013 2017	AMY	07/03/2013 2112	24408

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.021	0.021	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		63	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.**
Description: **MW-5RR**
Date Sampled: **06/27/2013 1235**
Date Received: **06/28/2013**

Laboratory ID: **OF28065-003**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	100	07/10/2013 1818	JAC		24754
2	5030B	8260B	1	07/12/2013 0248	MLH		24901

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		10000	670	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		1000	20	ug/L	1
Benzene	71-43-2	8260B	ND		500	20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		10000	100	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		500	30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1000	40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		10000	100	ug/L	1
Ethanol	64-17-5	8260B	ND		100000	3300	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		500	170	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		10000	20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		500	40	ug/L	1
Naphthalene	91-20-3	8260B	ND		500	170	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		10000	670	ug/L	1
Toluene	108-88-3	8260B	ND		500	170	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		500	170	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		92	70-130	H	112	70-130
Bromofluorobenzene		86	70-130	H	105	70-130
Toluene-d8		93	70-130	H	117	70-130

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	100	07/10/2013 1818	JAC		24754
2	5030B	8260B	1	07/12/2013 0248	MLH		24901

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND	H	100	6.7	ug/L	2
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND	H	10	0.20	ug/L	2
Benzene	71-43-2	8260B	ND	H	5.0	0.20	ug/L	2
tert-Butyl formate (TBF)	762-75-4	8260B	ND	H	100	1.0	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND	H	5.0	0.30	ug/L	2
Diisopropyl ether (IPE)	108-20-3	8260B	ND	H	10	0.40	ug/L	2
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND	H	100	1.0	ug/L	2
Ethanol	64-17-5	8260B	ND	H	1000	33	ug/L	2
Ethylbenzene	100-41-4	8260B	ND	H	5.0	1.7	ug/L	2
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND	H	100	0.20	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND	H	5.0	0.40	ug/L	2
Naphthalene	91-20-3	8260B	ND	H	5.0	1.7	ug/L	2

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.**
Description: **MW-5RR**
Date Sampled: **06/27/2013 1235**
Date Received: **06/28/2013**

Laboratory ID: **OF28065-003**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	100	07/10/2013 1818	JAC		24754
2	5030B	8260B	1	07/12/2013 0248	MLH		24901

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-butyl alcohol (TBA)	75-65-0	8260B	ND	H	100	6.7	ug/L	2
Toluene	108-88-3	8260B	ND	H	5.0	1.7	ug/L	2
Xylenes (total)	1330-20-7	8260B	ND	H	5.0	1.7	ug/L	2

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		92	70-130	H	112	70-130
Bromofluorobenzene		86	70-130	H	105	70-130
Toluene-d8		93	70-130	H	117	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	07/06/2013 2038	AMY	07/03/2013 2112	24408

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.026	0.026	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		78	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.**
Description: **MW-9**
Date Sampled: **06/27/2013 1325**
Date Received: **06/28/2013**

Laboratory ID: **OF28065-004**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	100	07/10/2013 1841	JAC		24754
2	5030B	8260B	1	07/11/2013 2200	MLH		24901

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		10000	670	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		1000	20	ug/L	1
Benzene	71-43-2	8260B	ND		500	20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND	S	10000	100	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		500	30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		1000	40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		10000	100	ug/L	1
Ethanol	64-17-5	8260B	ND		100000	3300	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		500	170	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		10000	20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		500	40	ug/L	1
Naphthalene	91-20-3	8260B	ND		500	170	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		10000	670	ug/L	1
Toluene	108-88-3	8260B	ND		500	170	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		500	170	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130	H	114	70-130
Bromofluorobenzene		84	70-130	H	105	70-130
Toluene-d8		91	70-130	H	121	70-130

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	100	07/10/2013 1841	JAC		24754
2	5030B	8260B	1	07/11/2013 2200	MLH		24901

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND	H	100	6.7	ug/L	2
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND	H	10	0.20	ug/L	2
Benzene	71-43-2	8260B	ND	H	5.0	0.20	ug/L	2
tert-Butyl formate (TBF)	762-75-4	8260B	ND	H	100	1.0	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND	H	5.0	0.30	ug/L	2
Diisopropyl ether (IPE)	108-20-3	8260B	ND	H	10	0.40	ug/L	2
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND	H	100	1.0	ug/L	2
Ethanol	64-17-5	8260B	ND	H	1000	33	ug/L	2
Ethylbenzene	100-41-4	8260B	ND	H	5.0	1.7	ug/L	2
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND	H	100	0.20	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND	H	5.0	0.40	ug/L	2
Naphthalene	91-20-3	8260B	ND	H	5.0	1.7	ug/L	2

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.**
Description: **MW-9**
Date Sampled: **06/27/2013 1325**
Date Received: **06/28/2013**

Laboratory ID: **OF28065-004**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	100	07/10/2013 1841	JAC		24754
2	5030B	8260B	1	07/11/2013 2200	MLH		24901

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-butyl alcohol (TBA)	75-65-0	8260B	ND	H	100	6.7	ug/L	2
Toluene	108-88-3	8260B	ND	H	5.0	1.7	ug/L	2
Xylenes (total)	1330-20-7	8260B	ND	H	5.0	1.7	ug/L	2

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130	H	114	70-130
Bromofluorobenzene		84	70-130	H	105	70-130
Toluene-d8		91	70-130	H	121	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	07/06/2013 2059	AMY	07/03/2013 2112	24408

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		86	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.**
Description: **MW-10**
Date Sampled: **06/27/2013 1255**
Date Received: **06/28/2013**

Laboratory ID: **OF28065-005**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/10/2013 2356	AWM		24808

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**2.3**	**J**	**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		114	70-130
Bromofluorobenzene		106	70-130
Toluene-d8		119	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	07/06/2013 2120	AMY	07/03/2013 2112	24408

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		91	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.**
Description: **MW-11**
Date Sampled: **06/27/2013 1245**
Date Received: **06/28/2013**

Laboratory ID: **OF28065-006**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/11/2013 0018	AWM		24808

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		113	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		119	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	07/06/2013 2141	AMY	07/03/2013 2112	24408

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		83	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.**
Description: **MW-14**
Date Sampled: **06/27/2013 1205**
Date Received: **06/28/2013**

Laboratory ID: **OF28065-007**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	07/11/2013 0338	AWM		24808

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**6000**		**5000**	**340**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**310**	**J**	**500**	**10**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**6000**		**250**	**10**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5000	50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		250	15	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		500	20	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		5000	50	ug/L	1
Ethanol	64-17-5	8260B	ND		50000	1700	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**1800**		**250**	**85**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	**637-92-3**	**8260B**	**68**	**J**	**5000**	**10**	**ug/L**	**1**
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**900**		**250**	**20**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**240**	**J**	**250**	**85**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**2400**	**J**	**5000**	**340**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**4500**		**250**	**85**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**6800**		**250**	**85**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		112	70-130
Bromofluorobenzene		105	70-130
Toluene-d8		123	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	07/06/2013 2202	AMY	07/03/2013 2112	24408

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		69	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.**
Description: **MW-15**
Date Sampled: **06/27/2013 1124**
Date Received: **06/28/2013**

Laboratory ID: **OF28065-008**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/10/2013 1602	JAC		24754

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	**71-43-2**	**8260B**	**0.51**	**J**	**5.0**	**0.20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**0.70**	**J**	**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		95	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		97	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	07/06/2013 2223	AMY	07/03/2013 2112	24408

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		85	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.**
Description: **MW-16**
Date Sampled: **06/27/2013 1344**
Date Received: **06/28/2013**

Laboratory ID: **OF28065-009**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/11/2013 0040	AWM		24808

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		114	70-130
Bromofluorobenzene		103	70-130
Toluene-d8		121	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	07/06/2013 2244	AMY	07/03/2013 2112	24408

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		102	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.**
Description: **MW-17**
Date Sampled: **06/27/2013 1100**
Date Received: **06/28/2013**

Laboratory ID: **OF28065-010**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	07/10/2013 1647	JAC		24754

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**230**	**J**	**500**	**34**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**5.9**	**J**	**50**	**1.0**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**250**		**25**	**1.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		500	5.0	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**10**	**J**	**25**	**1.5**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**180**		**50**	**2.0**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		500	5.0	ug/L	1
Ethanol	64-17-5	8260B	ND		5000	170	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**45**		**25**	**8.5**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	**637-92-3**	**8260B**	**18**	**J**	**500**	**1.0**	**ug/L**	**1**
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		25	2.0	ug/L	1
Naphthalene	91-20-3	8260B	ND		25	8.5	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		500	34	ug/L	1
Toluene	108-88-3	8260B	ND		25	8.5	ug/L	1
Xylenes (total)	**1330-20-7**	**8260B**	**66**		**25**	**8.5**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		86	70-130
Toluene-d8		93	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	07/07/2013 0008	AMY	07/03/2013 2116	24409

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		98	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.**
Description: **MW-18**
Date Sampled: **06/27/2013 1240**
Date Received: **06/28/2013**

Laboratory ID: **OF28065-011**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/11/2013 0103	AWM		24808

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**6.5**	**J**	**10**	**0.40**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		114	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		123	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	07/07/2013 0029	AMY	07/03/2013 2116	24409

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		90	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.**
Description: **MW-19**
Date Sampled: **06/27/2013 1353**
Date Received: **06/28/2013**

Laboratory ID: **OF28065-012**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/11/2013 0125	AWM		24808

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**75**	**J**	**100**	**6.7**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**1.5**	**J**	**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**110**		**100**	**6.7**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		112	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		125	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	07/07/2013 0050	AMY	07/03/2013 2116	24409

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.029	0.029	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		78	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.**
Description: **MW-20**
Date Sampled: **06/27/2013 1342**
Date Received: **06/28/2013**

Laboratory ID: **OF28065-013**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/11/2013 0147	AWM		24808

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**270**		**100**	**6.7**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**65**		**10**	**0.40**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**10**	**J**	**100**	**6.7**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		114	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		124	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	07/07/2013 0111	AMY	07/03/2013 2116	24409

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.022	0.022	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		71	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.**
Description: **PW-1R**
Date Sampled: **06/27/2013 1147**
Date Received: **06/28/2013**

Laboratory ID: **OF28065-014**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/11/2013 0209	AWM		24808

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		112	70-130
Bromofluorobenzene		103	70-130
Toluene-d8		121	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	07/07/2013 0132	AMY	07/03/2013 2116	24409

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		85	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.**
Description: **RW-1**
Date Sampled: **06/27/2013 1118**
Date Received: **06/28/2013**

Laboratory ID: **OF28065-015**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	200	07/11/2013 0400	AWM		24808

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**54000**		**20000**	**1300**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		2000	40	ug/L	1
Benzene	**71-43-2**	**8260B**	**27000**		**1000**	**40**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		20000	200	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1000	60	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**10000**		**2000**	**80**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20000	200	ug/L	1
Ethanol	64-17-5	8260B	ND		200000	6600	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**2600**		**1000**	**340**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		20000	40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1000	80	ug/L	1
Naphthalene	**91-20-3**	**8260B**	**610**	**J**	**1000**	**340**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**1400**	**J**	**20000**	**1300**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**31000**		**1000**	**340**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**11000**		**1000**	**340**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		114	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		124	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	07/07/2013 0153	AMY	07/03/2013 2116	24409

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.59**	**P**	**0.020**	**0.020**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		74	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.**
Description: **RW-2**
Date Sampled: **06/27/2013 1132**
Date Received: **06/28/2013**

Laboratory ID: **OF28065-016**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	07/11/2013 0316	AWM		24808

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**740**	**J**	**1000**	**67**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**31**	**J**	**100**	**2.0**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**1800**		**50**	**2.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		1000	10	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		50	3.0	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		100	4.0	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		1000	10	ug/L	1
Ethanol	64-17-5	8260B	ND		10000	330	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**870**		**50**	**17**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	**637-92-3**	**8260B**	**34**	**J**	**1000**	**2.0**	**ug/L**	**1**
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**140**		**50**	**4.0**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**190**		**50**	**17**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**4900**		**1000**	**67**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**110**		**50**	**17**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**870**		**50**	**17**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		113	70-130
Bromofluorobenzene		103	70-130
Toluene-d8		124	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	07/07/2013 0214	AMY	07/03/2013 2116	24409

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		83	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.** Laboratory ID: **OF28065-017**

Description: **WSW-1** Matrix: **Aqueous**

Date Sampled: **06/27/2013 1310**

Date Received: **06/28/2013**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/11/2013 0231	AWM		24808

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.13	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.15	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.33	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		1.0	0.40	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.33	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.33	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		113	70-130
Bromofluorobenzene		103	70-130
Toluene-d8		123	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	07/07/2013 0235	AMY	07/03/2013 2116	24409

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		78	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
Q = Surrogate failure
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
L = LCS/LCSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
S = MS/MSD failure

Client: **Midlands Environmental Consultants, Inc.**
Description: **RW-2 Dup**
Date Sampled: **06/27/2013 1132**
Date Received: **06/28/2013**

Laboratory ID: **OF28065-018**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	07/11/2013 0253	AWM		24808

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**690**	**J**	**1000**	**67**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**30**	**J**	**100**	**2.0**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**1900**		**50**	**2.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		1000	10	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		50	3.0	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		100	4.0	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		1000	10	ug/L	1
Ethanol	64-17-5	8260B	ND		10000	330	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**880**		**50**	**17**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	**637-92-3**	**8260B**	**34**	**J**	**1000**	**2.0**	**ug/L**	**1**
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**140**		**50**	**4.0**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**190**		**50**	**17**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**4700**		**1000**	**67**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**100**		**50**	**17**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**880**		**50**	**17**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		113	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		124	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	07/07/2013 0256	AMY	07/03/2013 2116	24409

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		83	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.**
Description: **Field Blank**
Date Sampled: **06/27/2013 1101**
Date Received: **06/28/2013**

Laboratory ID: **OF28065-019**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/10/2013 2250	AWM		24808

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		112	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		123	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	07/07/2013 0317	AMY	07/03/2013 2116	24409

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		91	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.**
Description: **Trip Blank**
Date Sampled: **06/27/2013 1105**
Date Received: **06/28/2013**

Laboratory ID: **OF28065-020**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/10/2013 1043	JAC		24754

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		98	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ24754-001
Batch: 24754
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	100	6.7	ug/L	07/10/2013 1021
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	07/10/2013 1021
Benzene	ND		1	5.0	0.20	ug/L	07/10/2013 1021
tert-Butyl formate (TBF)	ND		1	100	1.0	ug/L	07/10/2013 1021
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	07/10/2013 1021
Diisopropyl ether (IPE)	ND		1	10	0.40	ug/L	07/10/2013 1021
3,3-Dimethyl-1-butanol	ND		1	100	1.0	ug/L	07/10/2013 1021
Ethanol	ND		1	1000	33	ug/L	07/10/2013 1021
Ethylbenzene	ND		1	5.0	1.7	ug/L	07/10/2013 1021
Ethyl-tert-butyl ether (ETBE)	ND		1	100	0.20	ug/L	07/10/2013 1021
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	07/10/2013 1021
Naphthalene	ND		1	5.0	1.7	ug/L	07/10/2013 1021
tert-butyl alcohol (TBA)	ND		1	100	6.7	ug/L	07/10/2013 1021
Toluene	ND		1	5.0	1.7	ug/L	07/10/2013 1021
Xylenes (total)	ND		1	5.0	1.7	ug/L	07/10/2013 1021

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		95	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		98	70-130

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ24754-002
Batch: 24754
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1000		1	103	70-130	07/10/2013 0914
tert-Amyl methyl ether (TAME)	50	50		1	100	70-130	07/10/2013 0914
Benzene	50	48		1	96	70-130	07/10/2013 0914
tert-Butyl formate (TBF)	250	210		1	85	70-130	07/10/2013 0914
1,2-Dichloroethane	50	54		1	107	70-130	07/10/2013 0914
Diisopropyl ether (IPE)	50	51		1	103	70-130	07/10/2013 0914
3,3-Dimethyl-1-butanol	1000	1000		1	100	70-130	07/10/2013 0914
Ethanol	5000	5300		1	106	70-130	07/10/2013 0914
Ethylbenzene	50	50		1	100	70-130	07/10/2013 0914
Ethyl-tert-butyl ether (ETBE)	50	50		1	101	70-130	07/10/2013 0914
Methyl tertiary butyl ether (MTBE)	50	49		1	97	70-130	07/10/2013 0914

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ24754-002
Batch: 24754
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Naphthalene	50	48		1	96	70-130	07/10/2013 0914
tert-butyl alcohol (TBA)	1000	1100		1	108	70-130	07/10/2013 0914
Toluene	50	52		1	104	70-130	07/10/2013 0914
Xylenes (total)	100	100		1	102	70-130	07/10/2013 0914

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		93	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		98	70-130

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ24754-003
Batch: 24754
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1000		1	104	1.1	70-130	20	07/10/2013 0936
tert-Amyl methyl ether (TAME)	50	52		1	104	4.2	70-130	20	07/10/2013 0936
Benzene	50	48		1	97	1.0	70-130	20	07/10/2013 0936
tert-Butyl formate (TBF)	250	220		1	88	3.7	70-130	20	07/10/2013 0936
1,2-Dichloroethane	50	55		1	110	2.6	70-130	20	07/10/2013 0936
Diisopropyl ether (IPE)	50	54		1	109	5.3	70-130	20	07/10/2013 0936
3,3-Dimethyl-1-butanol	1000	1000		1	101	1.3	70-130	20	07/10/2013 0936
Ethanol	5000	4600		1	92	15	70-130	20	07/10/2013 0936
Ethylbenzene	50	51		1	101	1.5	70-130	20	07/10/2013 0936
Ethyl-tert-butyl ether (ETBE)	50	52		1	105	3.6	70-130	20	07/10/2013 0936
Methyl tertiary butyl ether (MTBE)	50	50		1	100	2.6	70-130	20	07/10/2013 0936
Naphthalene	50	47		1	94	1.5	70-130	20	07/10/2013 0936
tert-butyl alcohol (TBA)	1000	1100		1	108	0.62	70-130	20	07/10/2013 0936
Toluene	50	53		1	105	1.6	70-130	20	07/10/2013 0936
Xylenes (total)	100	100		1	103	1.4	70-130	20	07/10/2013 0936

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		94	70-130
1,2-Dichloroethane-d4		97	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - Duplicate

Sample ID: OF28065-001DU
Batch: 24754
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Result (ug/L)	Q	Dil	% RPD	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	540	490	J	20	11	20	07/10/2013 1733
tert-Amyl methyl ether (TAME)	45	41	J	20	10	20	07/10/2013 1733
Benzene	1000	920		20	12	20	07/10/2013 1733
tert-Butyl formate (TBF)	ND	ND		20	0.00	20	07/10/2013 1733
1,2-Dichloroethane	ND	ND		20	0.00	20	07/10/2013 1733
Diisopropyl ether (IPE)	ND	ND		20	0.00	20	07/10/2013 1733
3,3-Dimethyl-1-butanol	ND	ND		20	0.00	20	07/10/2013 1733
Ethanol	ND	ND		20	0.00	20	07/10/2013 1733
Ethylbenzene	1100	1000		20	9.3	20	07/10/2013 1733
Ethyl-tert-butyl ether (ETBE)	9.5	8.5	J	20	11	20	07/10/2013 1733
Methyl tertiary butyl ether (MTBE)	200	180		20	10	20	07/10/2013 1733
Naphthalene	350	320		20	9.4	20	07/10/2013 1733
tert-butyl alcohol (TBA)	250	210	+	20	21	20	07/10/2013 1733
Toluene	4500	4000	E	20	10	20	07/10/2013 1733
Xylenes (total)	7600	6900		20	9.9	20	07/10/2013 1733

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		86	70-130
Bromofluorobenzene		87	70-130
Toluene-d8		91	70-130

Volatile Organic Compounds by GC/MS - MS

Sample ID: OF28065-004MS
Batch: 24754
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	ND	100000	87000		100	87	70-130	07/10/2013 1904
tert-Amyl methyl ether (TAME)	ND	5000	4600		100	92	70-130	07/10/2013 1904
Benzene	ND	5000	4500		100	89	70-130	07/10/2013 1904
tert-Butyl formate (TBF)	ND	25000	17000	N	100	68	70-130	07/10/2013 1904
1,2-Dichloroethane	ND	5000	5100		100	102	70-130	07/10/2013 1904
Diisopropyl ether (IPE)	ND	5000	4800		100	96	70-130	07/10/2013 1904
3,3-Dimethyl-1-butanol	ND	100000	93000		100	93	70-130	07/10/2013 1904
Ethanol	ND	500000	430000		100	85	70-130	07/10/2013 1904
Ethylbenzene	ND	5000	4700		100	95	70-130	07/10/2013 1904
Ethyl-tert-butyl ether (ETBE)	ND	5000	4600		100	92	70-130	07/10/2013 1904
Methyl tertiary butyl ether (MTBE)	ND	5000	4300		100	86	70-130	07/10/2013 1904

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: OF28065-004MS
Batch: 24754
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Naphthalene	ND	5000	4300		100	86	70-130	07/10/2013 1904
tert-butyl alcohol (TBA)	ND	100000	94000		100	94	70-130	07/10/2013 1904
Toluene	ND	5000	5000		100	100	70-130	07/10/2013 1904
Xylenes (total)	ND	10000	9700		100	97	70-130	07/10/2013 1904

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		88	70-130
Toluene-d8		94	70-130

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ24808-001
Batch: 24808
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	100	6.7	ug/L	07/10/2013 2228
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	07/10/2013 2228
Benzene	ND		1	5.0	0.20	ug/L	07/10/2013 2228
tert-Butyl formate (TBF)	ND		1	100	1.0	ug/L	07/10/2013 2228
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	07/10/2013 2228
Diisopropyl ether (IPE)	ND		1	10	0.40	ug/L	07/10/2013 2228
3,3-Dimethyl-1-butanol	ND		1	100	1.0	ug/L	07/10/2013 2228
Ethanol	ND		1	1000	33	ug/L	07/10/2013 2228
Ethylbenzene	ND		1	5.0	1.7	ug/L	07/10/2013 2228
Ethyl-tert-butyl ether (ETBE)	ND		1	100	0.20	ug/L	07/10/2013 2228
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	07/10/2013 2228
Naphthalene	ND		1	5.0	1.7	ug/L	07/10/2013 2228
tert-butyl alcohol (TBA)	ND		1	100	6.7	ug/L	07/10/2013 2228
Toluene	ND		1	5.0	1.7	ug/L	07/10/2013 2228
Xylenes (total)	ND		1	5.0	1.7	ug/L	07/10/2013 2228

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		103	70-130
1,2-Dichloroethane-d4		111	70-130
Toluene-d8		120	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ24808-002
Batch: 24808
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	990		1	99	70-130	07/10/2013 2122
tert-Amyl methyl ether (TAME)	50	52		1	103	70-130	07/10/2013 2122
Benzene	50	51		1	102	70-130	07/10/2013 2122
tert-Butyl formate (TBF)	250	280		1	113	70-130	07/10/2013 2122
1,2-Dichloroethane	50	52		1	105	70-130	07/10/2013 2122
Diisopropyl ether (IPE)	50	51		1	103	70-130	07/10/2013 2122
3,3-Dimethyl-1-butanol	1000	1000		1	104	70-130	07/10/2013 2122
Ethanol	5000	5100		1	103	70-130	07/10/2013 2122
Ethylbenzene	50	52		1	105	70-130	07/10/2013 2122
Ethyl-tert-butyl ether (ETBE)	50	53		1	106	70-130	07/10/2013 2122
Methyl tertiary butyl ether (MTBE)	50	54		1	107	70-130	07/10/2013 2122
Naphthalene	50	46		1	92	70-130	07/10/2013 2122
tert-butyl alcohol (TBA)	1000	1000		1	101	70-130	07/10/2013 2122
Toluene	50	53		1	105	70-130	07/10/2013 2122
Xylenes (total)	100	110		1	105	70-130	07/10/2013 2122

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		106	70-130
1,2-Dichloroethane-d4		110	70-130
Toluene-d8		123	70-130

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ24808-003
Batch: 24808
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	980		1	98	1.4	70-130	20	07/10/2013 2144
tert-Amyl methyl ether (TAME)	50	49		1	98	5.0	70-130	20	07/10/2013 2144
Benzene	50	50		1	100	2.2	70-130	20	07/10/2013 2144
tert-Butyl formate (TBF)	250	270		1	107	5.6	70-130	20	07/10/2013 2144
1,2-Dichloroethane	50	50		1	100	4.1	70-130	20	07/10/2013 2144
Diisopropyl ether (IPE)	50	48		1	96	6.2	70-130	20	07/10/2013 2144
3,3-Dimethyl-1-butanol	1000	1000		1	100	4.1	70-130	20	07/10/2013 2144
Ethanol	5000	5000		1	100	2.8	70-130	20	07/10/2013 2144
Ethylbenzene	50	51		1	102	2.4	70-130	20	07/10/2013 2144
Ethyl-tert-butyl ether (ETBE)	50	52		1	103	3.0	70-130	20	07/10/2013 2144
Methyl tertiary butyl ether (MTBE)	50	53		1	105	1.7	70-130	20	07/10/2013 2144

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ24808-003
Batch: 24808
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Naphthalene	50	44		1	87	5.9	70-130	20	07/10/2013 2144
tert-butyl alcohol (TBA)	1000	970		1	97	3.6	70-130	20	07/10/2013 2144
Toluene	50	52		1	103	1.7	70-130	20	07/10/2013 2144
Xylenes (total)	100	100		1	102	3.6	70-130	20	07/10/2013 2144

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		103	70-130
1,2-Dichloroethane-d4		118	70-130
Toluene-d8		122	70-130

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ24808-001
Batch: 24808
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	100	6.7	ug/L	07/10/2013 2228
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	07/10/2013 2228
Benzene	ND		1	1.0	0.13	ug/L	07/10/2013 2228
tert-Butyl formate (TBF)	ND		1	100	1.0	ug/L	07/10/2013 2228
1,2-Dichloroethane	ND		1	1.0	0.15	ug/L	07/10/2013 2228
Diisopropyl ether (IPE)	ND		1	10	0.40	ug/L	07/10/2013 2228
3,3-Dimethyl-1-butanol	ND		1	100	1.0	ug/L	07/10/2013 2228
Ethanol	ND		1	1000	33	ug/L	07/10/2013 2228
Ethylbenzene	ND		1	1.0	0.33	ug/L	07/10/2013 2228
Ethyl-tert-butyl ether (ETBE)	ND		1	100	0.20	ug/L	07/10/2013 2228
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	07/10/2013 2228
Naphthalene	ND		1	1.0	0.40	ug/L	07/10/2013 2228
tert-butyl alcohol (TBA)	ND		1	100	6.7	ug/L	07/10/2013 2228
Toluene	ND		1	1.0	0.33	ug/L	07/10/2013 2228
Xylenes (total)	ND		1	1.0	0.33	ug/L	07/10/2013 2228

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		103	70-130
1,2-Dichloroethane-d4		111	70-130
Toluene-d8		120	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ24808-002
Batch: 24808
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	990		1	99	70-130	07/10/2013 2122
tert-Amyl methyl ether (TAME)	50	52		1	103	70-130	07/10/2013 2122
Benzene	50	51		1	102	70-130	07/10/2013 2122
tert-Butyl formate (TBF)	250	280		1	113	70-130	07/10/2013 2122
1,2-Dichloroethane	50	52		1	105	70-130	07/10/2013 2122
Diisopropyl ether (IPE)	50	51		1	103	70-130	07/10/2013 2122
3,3-Dimethyl-1-butanol	1000	1000		1	104	70-130	07/10/2013 2122
Ethanol	5000	5100		1	103	70-130	07/10/2013 2122
Ethylbenzene	50	52		1	105	70-130	07/10/2013 2122
Ethyl-tert-butyl ether (ETBE)	50	53		1	106	70-130	07/10/2013 2122
Methyl tertiary butyl ether (MTBE)	50	54		1	107	70-130	07/10/2013 2122
Naphthalene	50	46		1	92	70-130	07/10/2013 2122
tert-butyl alcohol (TBA)	1000	1000		1	101	70-130	07/10/2013 2122
Toluene	50	53		1	105	70-130	07/10/2013 2122
Xylenes (total)	100	110		1	105	70-130	07/10/2013 2122

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		106	70-130
1,2-Dichloroethane-d4		110	70-130
Toluene-d8		123	70-130

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ24808-003
Batch: 24808
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	980		1	98	1.4	70-130	20	07/10/2013 2144
tert-Amyl methyl ether (TAME)	50	49		1	98	5.0	70-130	20	07/10/2013 2144
Benzene	50	50		1	100	2.2	70-130	20	07/10/2013 2144
tert-Butyl formate (TBF)	250	270		1	107	5.6	70-130	20	07/10/2013 2144
1,2-Dichloroethane	50	50		1	100	4.1	70-130	20	07/10/2013 2144
Diisopropyl ether (IPE)	50	48		1	96	6.2	70-130	20	07/10/2013 2144
3,3-Dimethyl-1-butanol	1000	1000		1	100	4.1	70-130	20	07/10/2013 2144
Ethanol	5000	5000		1	100	2.8	70-130	20	07/10/2013 2144
Ethylbenzene	50	51		1	102	2.4	70-130	20	07/10/2013 2144
Ethyl-tert-butyl ether (ETBE)	50	52		1	103	3.0	70-130	20	07/10/2013 2144
Methyl tertiary butyl ether (MTBE)	50	53		1	105	1.7	70-130	20	07/10/2013 2144

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ24808-003
Batch: 24808
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Naphthalene	50	44		1	87	5.9	70-130	20	07/10/2013 2144
tert-butyl alcohol (TBA)	1000	970		1	97	3.6	70-130	20	07/10/2013 2144
Toluene	50	52		1	103	1.7	70-130	20	07/10/2013 2144
Xylenes (total)	100	100		1	102	3.6	70-130	20	07/10/2013 2144

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		103	70-130
1,2-Dichloroethane-d4		118	70-130
Toluene-d8		122	70-130

Volatile Organic Compounds by GC/MS - MB

Sample ID: OQ24901-001
Batch: 24901
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	100	6.7	ug/L	07/11/2013 2138
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	07/11/2013 2138
Benzene	ND		1	5.0	0.20	ug/L	07/11/2013 2138
tert-Butyl formate (TBF)	ND		1	100	1.0	ug/L	07/11/2013 2138
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	07/11/2013 2138
Diisopropyl ether (IPE)	ND		1	10	0.40	ug/L	07/11/2013 2138
3,3-Dimethyl-1-butanol	ND		1	100	1.0	ug/L	07/11/2013 2138
Ethanol	ND		1	1000	33	ug/L	07/11/2013 2138
Ethylbenzene	ND		1	5.0	1.7	ug/L	07/11/2013 2138
Ethyl-tert-butyl ether (ETBE)	ND		1	100	0.20	ug/L	07/11/2013 2138
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	07/11/2013 2138
Naphthalene	ND		1	5.0	1.7	ug/L	07/11/2013 2138
tert-butyl alcohol (TBA)	ND		1	100	6.7	ug/L	07/11/2013 2138
Toluene	ND		1	5.0	1.7	ug/L	07/11/2013 2138
Xylenes (total)	ND		1	5.0	1.7	ug/L	07/11/2013 2138

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		105	70-130
1,2-Dichloroethane-d4		112	70-130
Toluene-d8		120	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: OQ24901-002
Batch: 24901
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1000		1	101	70-130	07/11/2013 2031
tert-Amyl methyl ether (TAME)	50	53		1	105	70-130	07/11/2013 2031
Benzene	50	52		1	105	70-130	07/11/2013 2031
tert-Butyl formate (TBF)	250	280		1	114	70-130	07/11/2013 2031
1,2-Dichloroethane	50	52		1	104	70-130	07/11/2013 2031
Diisopropyl ether (IPE)	50	51		1	102	70-130	07/11/2013 2031
3,3-Dimethyl-1-butanol	1000	1000		1	104	70-130	07/11/2013 2031
Ethanol	5000	5000		1	99	70-130	07/11/2013 2031
Ethylbenzene	50	52		1	103	70-130	07/11/2013 2031
Ethyl-tert-butyl ether (ETBE)	50	55		1	111	70-130	07/11/2013 2031
Methyl tertiary butyl ether (MTBE)	50	55		1	110	70-130	07/11/2013 2031
Naphthalene	50	47		1	94	70-130	07/11/2013 2031
tert-butyl alcohol (TBA)	1000	1000		1	102	70-130	07/11/2013 2031
Toluene	50	53		1	105	70-130	07/11/2013 2031
Xylenes (total)	100	100		1	104	70-130	07/11/2013 2031

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		106	70-130
1,2-Dichloroethane-d4		108	70-130
Toluene-d8		122	70-130

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ24901-003
Batch: 24901
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	970		1	97	4.5	70-130	20	07/11/2013 2054
tert-Amyl methyl ether (TAME)	50	51		1	101	4.1	70-130	20	07/11/2013 2054
Benzene	50	53		1	105	0.61	70-130	20	07/11/2013 2054
tert-Butyl formate (TBF)	250	270		1	109	4.4	70-130	20	07/11/2013 2054
1,2-Dichloroethane	50	50		1	101	3.0	70-130	20	07/11/2013 2054
Diisopropyl ether (IPE)	50	50		1	100	2.2	70-130	20	07/11/2013 2054
3,3-Dimethyl-1-butanol	1000	990		1	99	5.1	70-130	20	07/11/2013 2054
Ethanol	5000	4700		1	94	5.3	70-130	20	07/11/2013 2054
Ethylbenzene	50	52		1	104	0.94	70-130	20	07/11/2013 2054
Ethyl-tert-butyl ether (ETBE)	50	53		1	107	3.6	70-130	20	07/11/2013 2054
Methyl tertiary butyl ether (MTBE)	50	54		1	108	1.9	70-130	20	07/11/2013 2054

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: OQ24901-003
Batch: 24901
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Naphthalene	50	46		1	92	2.9	70-130	20	07/11/2013 2054
tert-butyl alcohol (TBA)	1000	990		1	99	3.7	70-130	20	07/11/2013 2054
Toluene	50	54		1	108	2.9	70-130	20	07/11/2013 2054
Xylenes (total)	100	100		1	104	0.36	70-130	20	07/11/2013 2054

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		105	70-130
1,2-Dichloroethane-d4		111	70-130
Toluene-d8		126	70-130

Volatile Organic Compounds by GC/MS - MS

Sample ID: OF28065-001MS
Batch: 24901
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	540	50000	49000		50	95	70-130	07/12/2013 0523
tert-Amyl methyl ether (TAME)	45	2500	2900		50	114	70-130	07/12/2013 0523
Benzene	1000	2500	4100		50	117	70-130	07/12/2013 0523
tert-Butyl formate (TBF)	ND	13000	12000		50	96	70-130	07/12/2013 0523
1,2-Dichloroethane	ND	2500	2800		50	105	70-130	07/12/2013 0523
Diisopropyl ether (IPE)	ND	2500	2800		50	114	70-130	07/12/2013 0523
3,3-Dimethyl-1-butanol	ND	50000	47000		50	94	70-130	07/12/2013 0523
Ethanol	ND	250000	240000		50	98	70-130	07/12/2013 0523
Ethylbenzene	1100	2500	4200		50	116	70-130	07/12/2013 0523
Ethyl-tert-butyl ether (ETBE)	9.5	2500	3100		50	123	70-130	07/12/2013 0523
Methyl tertiary butyl ether (MTBE)	200	2500	3500		50	129	70-130	07/12/2013 0523
Naphthalene	350	2500	2200		50	73	70-130	07/12/2013 0523
tert-butyl alcohol (TBA)	250	50000	51000		50	101	70-130	07/12/2013 0523
Toluene	4500	2500	8600		50	126	70-130	07/12/2013 0523
Xylenes (total)	7600	5000	15000		50	114	70-130	07/12/2013 0523

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		119	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		127	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: OF28065-001MD
Batch: 24901
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	540	50000	49000		50	97	1.8	70-130	20	07/12/2013 0545
tert-Amyl methyl ether (TAME)	45	2500	2800		50	110	2.9	70-130	20	07/12/2013 0545
Benzene	1000	2500	4000		50	111	3.7	70-130	20	07/12/2013 0545
tert-Butyl formate (TBF)	ND	13000	12000		50	94	2.8	70-130	20	07/12/2013 0545
1,2-Dichloroethane	ND	2500	2700		50	100	4.4	70-130	20	07/12/2013 0545
Diisopropyl ether (IPE)	ND	2500	2700		50	109	4.9	70-130	20	07/12/2013 0545
3,3-Dimethyl-1-butanol	ND	50000	46000		50	93	1.4	70-130	20	07/12/2013 0545
Ethanol	ND	250000	240000		50	95	2.7	70-130	20	07/12/2013 0545
Ethylbenzene	1100	2500	4100		50	112	2.2	70-130	20	07/12/2013 0545
Ethyl-tert-butyl ether (ETBE)	9.5	2500	3000		50	120	3.1	70-130	20	07/12/2013 0545
Methyl tertiary butyl ether (MTBE)	200	2500	3300		50	124	3.4	70-130	20	07/12/2013 0545
Naphthalene	350	2500	2200		50	73	0.13	70-130	20	07/12/2013 0545
tert-butyl alcohol (TBA)	250	50000	51000		50	101	0.69	70-130	20	07/12/2013 0545
Toluene	4500	2500	8200		50	110	4.7	70-130	20	07/12/2013 0545
Xylenes (total)	7600	5000	15000		50	114	0.28	70-130	20	07/12/2013 0545

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		108	70-130
Bromofluorobenzene		103	70-130
Toluene-d8		125	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MB

Sample ID: OQ24408-001
Batch: 24408
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 07/03/2013 2112

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
1,2-Dibromoethane (EDB)	ND		1	0.020	0.020	ug/L	07/06/2013 1441

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		91	57-137

EDB & DBCP by Microextraction - LCS

Sample ID: OQ24408-002
Batch: 24408
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 07/03/2013 2112

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	0.25	0.21		1	84	60-140	07/06/2013 1502

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		90	57-137

EDB & DBCP by Microextraction - MS

Sample ID: OF28065-001MS
Batch: 24408
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 07/03/2013 2112

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	ND	0.25	0.26		1	104	60-140	07/06/2013 1935

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane	N	249	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MSD

Sample ID: OF28065-001MD
Batch: 24408
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 07/03/2013 2112

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
1,2-Dibromoethane (EDB)	ND	0.26	0.21	+	1	81	22	60-140	20	07/06/2013 1956

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane	N	272	57-137

EDB & DBCP by Microextraction - MB

Sample ID: OQ24409-001
Batch: 24409
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 07/03/2013 2116

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
1,2-Dibromoethane (EDB)	ND		1	0.020	0.020	ug/L	07/06/2013 2326

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		96	57-137

EDB & DBCP by Microextraction - LCS

Sample ID: OQ24409-002
Batch: 24409
Analytical Method: 8011
Matrix: Aqueous
Prep Method: 8011
Prep Date: 07/03/2013 2116

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	0.25	0.22		1	87	60-140	07/06/2013 2347

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		89	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Chain of Custody Record

Number 17034

Client: MECI	Report to Contact: B. Shane	Sampler (Printed Name): GAVIN GLOBENSKY	Quote No.
Address: 235-B Dooley Road	Telephone No. / Fax No. / Email	Waybill No.	Page 1 of 3
City: Lexington State: SC Zip Code: 29072	Preservative: 1. Unpres. 2. Na2S2O3 3. H2SO4 4. HNO3 5. HCl 6. Na Bis. 7. NaOH		Number of Containers
Project Name: Pantry 911			Bottle (See Instructions on back)
Project Number	P.O. Number		Preservative
			Lot No. 0F24uGL

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	GW	DW	WW	S	Other	BTEX, Naph, MTBE (8260B)	1,2 DCA	Oxygenates	EDB (8011)	Ethanol	Remarks / Cooler ID
MW-3R	6/27	12:10	G	X					X	X	X	X	X	
MW-4R	|	11:56	G	X					X	X	X	X	X	
MW-5RR	|	12:35	G	X					X	X	X	X	X	
MW-7RR	|													
MW-9	|	13:25	G	X					X	X	X	X	X	
MW-10	|	12:55	|	|					|	|	|	|	|	
MW-11	|	12:45	|	|					|	|	|	|	|	
MW-14	|	12:05	|	|					|	|	|	|	|	
MW-15	|	11:24	|	|					|	|	|	|	|	
MW-16	6/27	13:44	G	X					X	X	X	X	X	

Turn Around Time Required (Prior lab approval required for expedited TAT): ☐ Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab

QC Requirements (Specify)

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

	Date	Time		Date	Time
1. Relinquished by / Sampler: [signature]	6/27/13	17:00	1. Received by: [signature]	6-27-13	1700
2. Relinquished by: [signature]	6-28-13	1345	2. Received by: [signature]	6-28-13	1345
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by: [signature]	6/28/13	1611	4. Laboratory Received by: [signature]	6/24/13	1611

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY: Received on ice (Check) ☑ Yes ☐ No ☐ Ice Pack; Receipt Temp. 1.0 °C; Temp. Blank ☐ Y / ☐ N

SHEALY ENVIRONMENTAL SERVICES, INC.

Chain of Custody Record

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number 17035

Client: MECF	Report to Contact: B. Shaw	Sampler (Printed Name): GAVIN GLOBENSKY	Quote No.
Address: 235-B Dooley Road	Telephone No. / Fax No. / Email	Waybill No	Page 2 of 3
City: Lexington State: SC Zip Code: 29072	Preservative: 1. Unpres 2. NaOH/ZnA 3. H2SO4 4. HNO3 5. HCl 6. Na Thio. 7. NaOH		Number of Containers / Bottle (See Instructions on back) / Preservative
Project Name: Pantry 911			Lot No. 6F29065
Project Number	P.O Number		

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	GW	DW	WW	S	Other	Oxygenates (Blend)	1,2 DCA	8 oxygenates	EDB (8011)	Ethanol	Remarks / Cooler ID
MW-17	6/27	11:00	G	X					X	X	X	X	X	
MW-18		12:40												
MW-19		13:58												
MW-20		13:42												
PW-1R		11:47												
RW-1		11:18												
RW-2		11:32		X					X	X	X	X	X	
RW-3				X										
WSW-1		13:10			X				X	X	X	X	X	1ppb; LDLs
RW-2 Dup.	6/27	11:32	G	X					X	X	X	X	X	

Turn Around Time Required (Prior lab approval required for expedited TAT): ☐ Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client ☐ Dispose by Lab

QC Requirements (Specify)

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

	Date	Time		Date	Time
1. Relinquished by / Sampler: [signature]	6/27/13	17:00	1. Received by: [signature]	6-27-13	1700
2. Relinquished by: [signature]	6-28-13	1545	2. Received by: [signature]	6-28-13	1545
3. Relinquished by			3. Received by		
4. Relinquished by: [signature]	6/28/13	1641	4. Laboratory Received by: [signature]	6/28/13	1641

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY: Received on Ice (Check) ☑ Yes ☐ No ☐ Ice Pack; Receipt Temp. 3 °C; Temp Blank ☐ Y ☐ N

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Chain of Custody Record

Number 17036

Client: MECI	Report to Contact: B. Shane	Sampler (Printed Name): GAVIN GLOBENSKY	Quote No.
Address: 235-B Pooley Road	Telephone No. / Fax No. / Email	Waybill No.	Page 3 of 3
City: Lexington State: SC Zip Code: 29072	Preservative: 1. Unpres. 4. HNO3 7. NaOH; 2. NaOH/ZnA 5. HCL; 3. H2SO4 6. Na Thio.		Number of Containers / Bottle (See Instructions on back) / Preservative
Project Name: Pantry 911			Lot No. 0729 06
Project Number	P.O. Number		

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix GW	DW	WW	S	Other	BTEX, Napth, MTBE (Oxygenates)	1,2 DCA	8 oxygenates	EDB (8011)	ETHANOL	Remarks / Cooler ID
Field Blank	6/27	11:01	G	X					X	X	X	X	X	
Trip Blank	6/27	11:05	G	X					X	X	X	X	X	

Turn Around Time Required (Prior lab approval required for expedited TAT): ☐ Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab

QC Requirements (Specify)

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

Relinquished by	Date	Time	Received by	Date	Time
1. Relinquished by / Sampler: [signature]	6/27/13	17:00	1. Received by: [signature]	6-27-13	1700
2. Relinquished by: [signature]	6-28-13	1345	2. Received by: [signature]	6-28-13	1345
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by: [signature]	6/28/13	1611	4. Laboratory Received by: [signature]	6/28/13	1611

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY: Received on Ice (Check) ☑ Yes ☐ No ☐ Ice Pack | Receipt Temp. 1.0 °C | Temp. Blank Y / N

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Receipt Checklist (SRC)

Client: Midlands   Cooler Inspected by/date: [signature] 6/28/13   Lot #: QF28064

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Airborne Exp ☐ Other

Yes ☐	No ☐		1. Were custody seals present on the cooler?
Yes ☐	No ☑		2. If custody seals were present, were they intact and unbroken?

Cooler ID/temperature upon receipt 3/4.0/3.0 °C ___/___ °C ___/___ °C ___/___ °C

Method: ☐ Temperature Blank ☑ Against Bottles

Method of coolant: ☑ Wet Ice ☐ Blue Ice ☐ Dry Ice ☐ None

If response is No (or Yes for 14, 15, 16), an explanation/resolution must be provided.

Yes ☐	No ☐	NA ☑	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: ________. (For coolers received via commercial courier, PMs are to be notified immediately.
Yes ☐	No ☐	NA ☑	4. Is the commercial courier's packing slip attached to this form?
Yes ☑	No ☐		5. Were proper custody procedures (relinquished/received) followed?
Yes ☐	No ☐	NA ☑	5a Were samples relinquished by client to commercial courier?
Yes ☑	No ☐		6. Were sample IDs listed?
Yes ☑	No ☐		7. Was collection date & time listed?
Yes ☑	No ☐		8. Were tests to be performed listed on the COC?
Yes ☑	No ☐		9. Did all samples arrive in the proper containers for each test?
Yes ☑	No ☐		10. Did all container label information (ID, date, time) agree with COC?
Yes ☑	No ☐		11. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes ☑	No ☐		12. Was adequate sample volume available?
Yes ☑	No ☐		13. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes ☐	No ☑		14. Were any samples containers missing?
Yes ☐	No ☑		15. Were there any excess samples not listed on COC?
Yes ☑	No ☑	NA ☐	16. Were bubbles present >"pea-size" (¼"or 6mm in diameter) in any VOA vials?
Yes ☐	No ☐	NA ☑	17. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes ☐	No ☐	NA ☑	18. Were all cyanide and/or sulfide samples received at a pH >12?
Yes ☐	No ☐	NA ☑	19. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes ☐	No ☐	NA ☑	20. Were collection temperatures documented on the COC for NC samples?
Yes ☐	No ☐	NA ☑	21. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations etc.) correctly transcribed from the COC into the comment section in LIMS?

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) ________ were received incorrectly preserved and were adjusted accordingly in sample receiving with ________ (H_2SO_4,HNO_3,HCl,NaOH) with the SR # (number)

Sample(s) -005(1) - 015(1) - 016(3) were received with bubbles >6 mm in diameter.

Sample(s) ________ were received with TRC >0.2 mg/L for NH3/TKN/cyanide/phenol

Sample labels verified by: [signature]   Date: 6/28/13

Corrective Action taken, if necessary:

Was client notified: Yes ☐ No ☐   Did client respond: Yes ☐ No ☐

SESI employee: ________   Date of response: ________

Comments: ________

APPENDIX C:

TAX MAP

This appendix is not applicable to the scope of services presented in the subject report, however this page has been included in order to conform to the SCDHEC UST Management Division Programmatic QAPP and provide report continuity

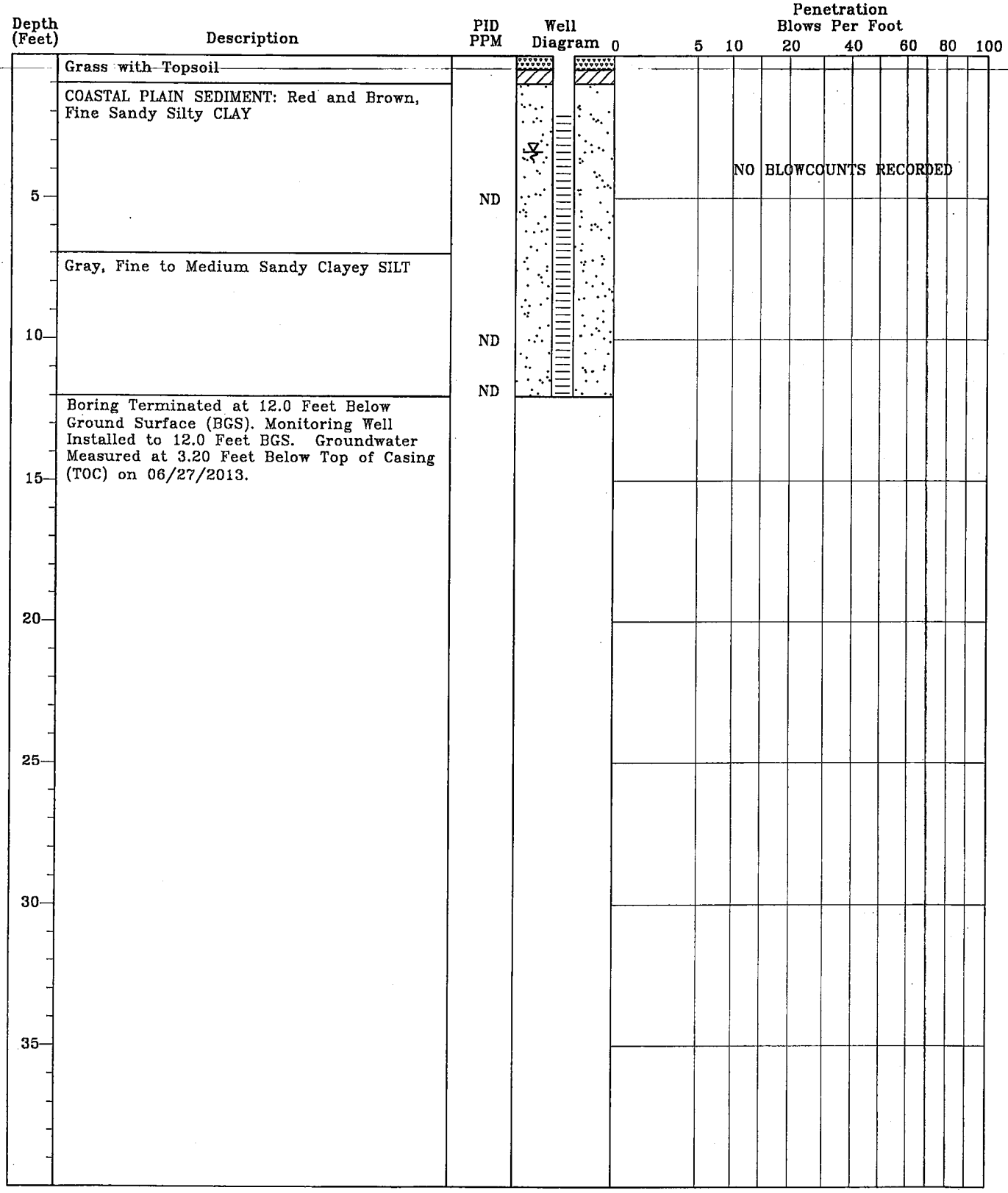
APPENDIX D:

SOIL BORING/FIELD SCREENING LOGS & 1903 FORMS

This appendix is not applicable to the scope of services presented in the subject report, however this page has been included in order to conform to the SCDHEC UST Management Division Programmatic QAPP and provide report continuity

APPENDIX E:

WELL COMPLETION LOGS & 1903 FORMS



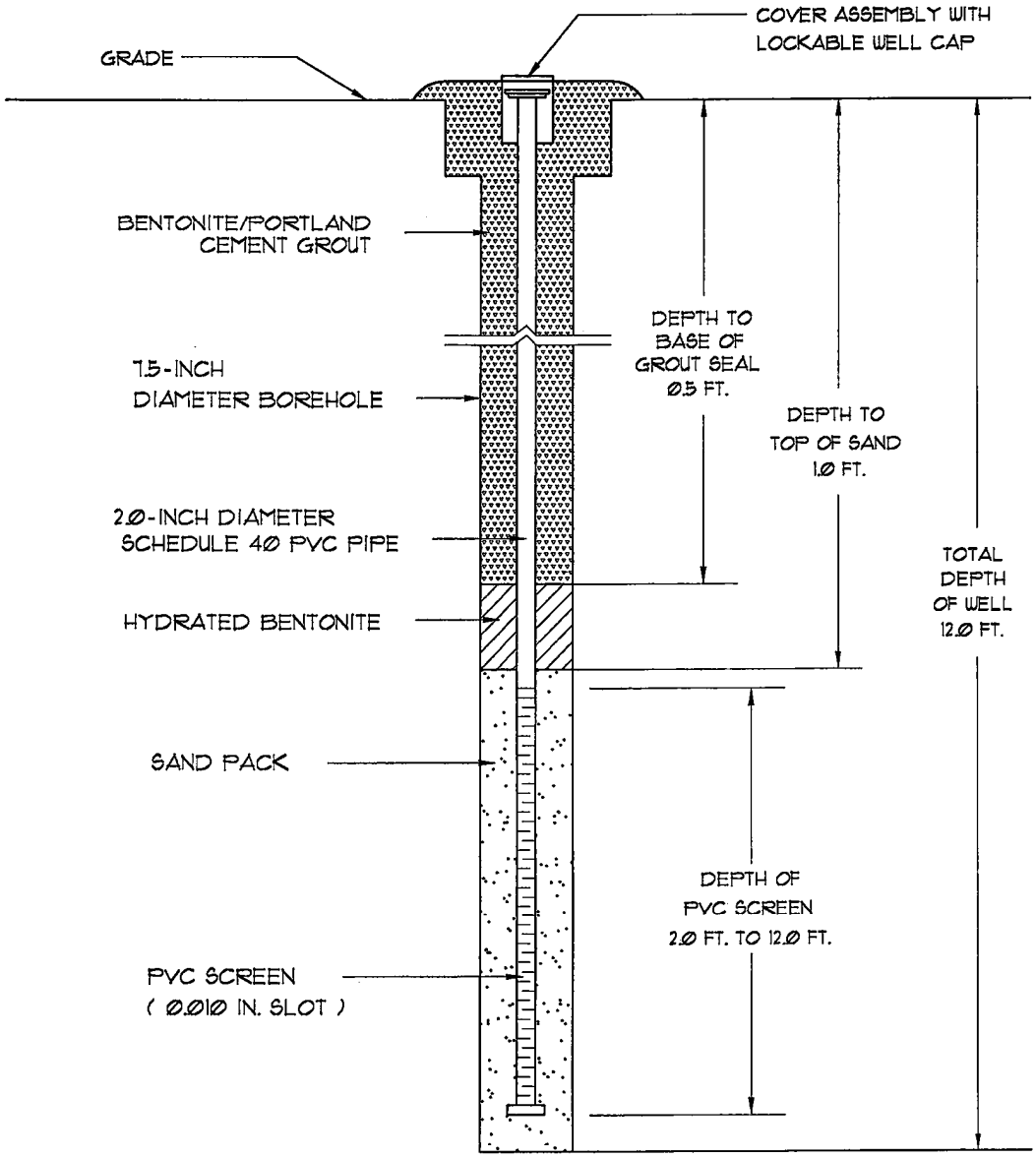
TEST BORING RECORD
Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID# 10628
MECI Project Number 13-4447

Boring Number:	MW-5RR (10628)
Date Drilled:	06/19/2013
Drilled By:	Environmental Drilling & Probing Service
Logged By:	P. Boylan

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

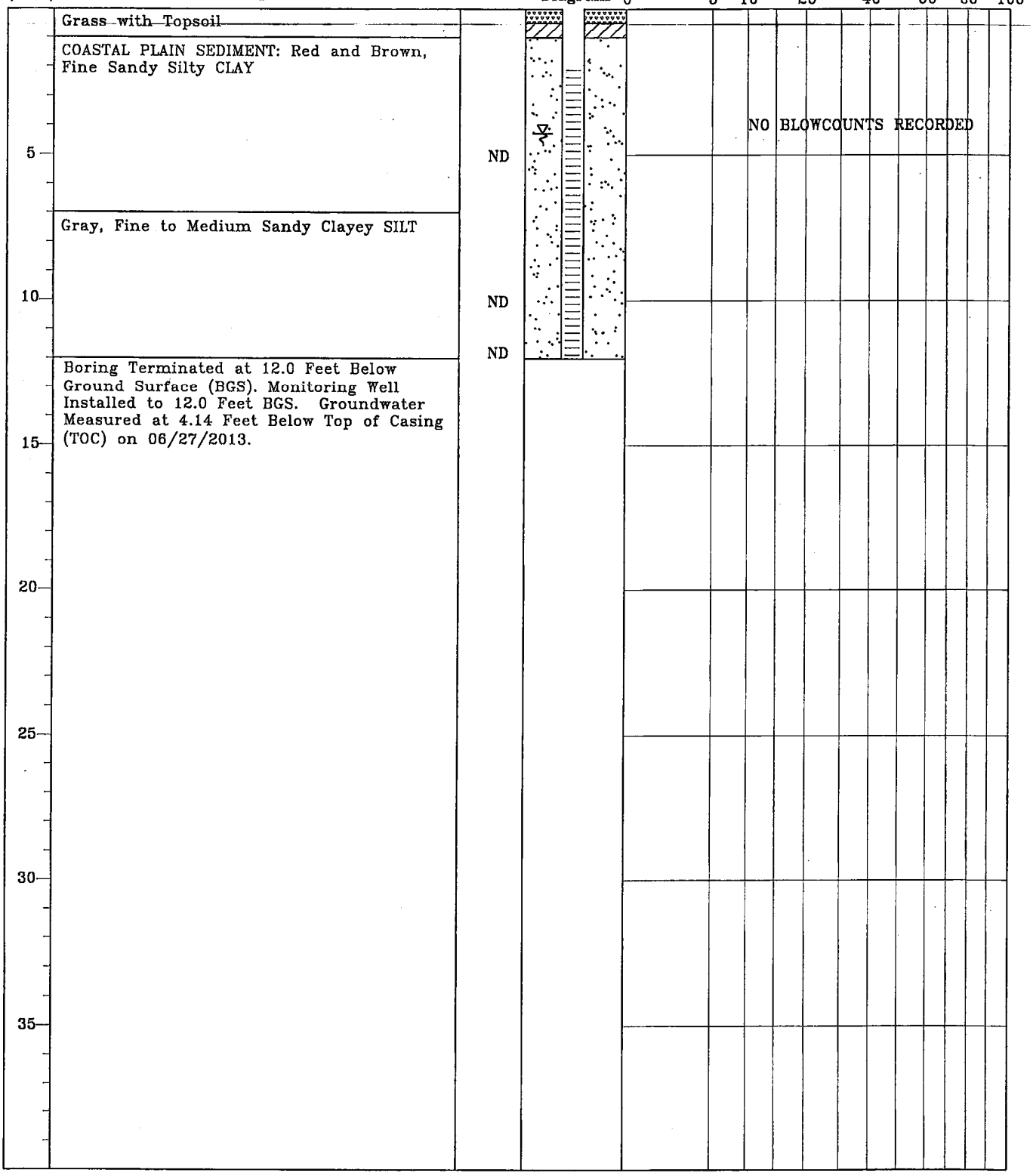
MONITORING WELL INSTALLATION RECORD

Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID# 10628
MECI Project Number 13-4447



Well Number:	MW-5RR (10628)
Date Drilled:	06/19/2013
Drilled By:	Environmental Drilling & Probing Services
Driller: D. Brown	S.C. I.D. #: B 02053
Logged By:	P. Boylan

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



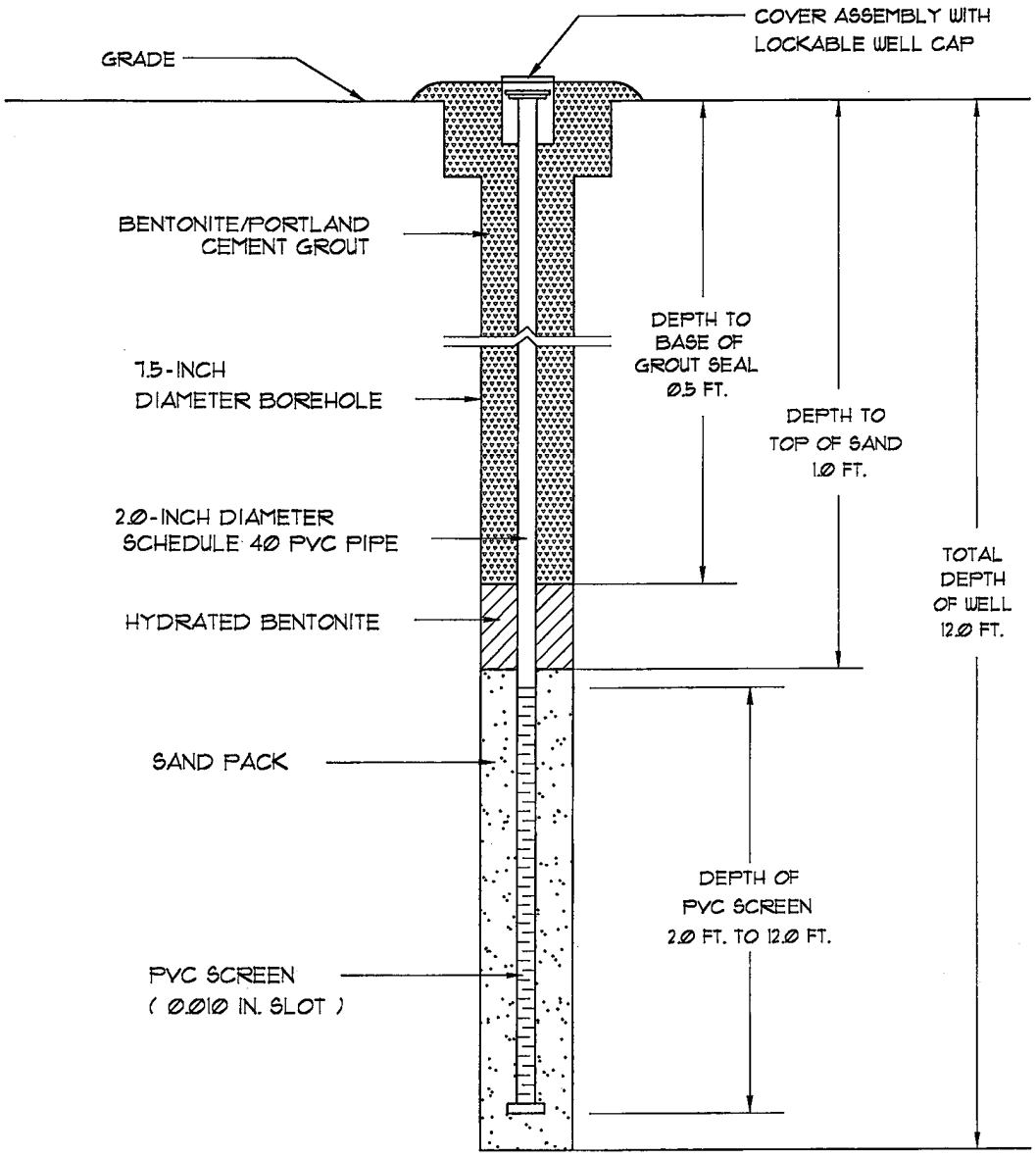
TEST BORING RECORD
Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID# 10628
MECI Project Number 13-4447

Boring Number:	MW-19 (10628)
Date Drilled:	06/19/2013
Drilled By:	Environmental Drilling & Probing Service
Logged By:	P. Boylan

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

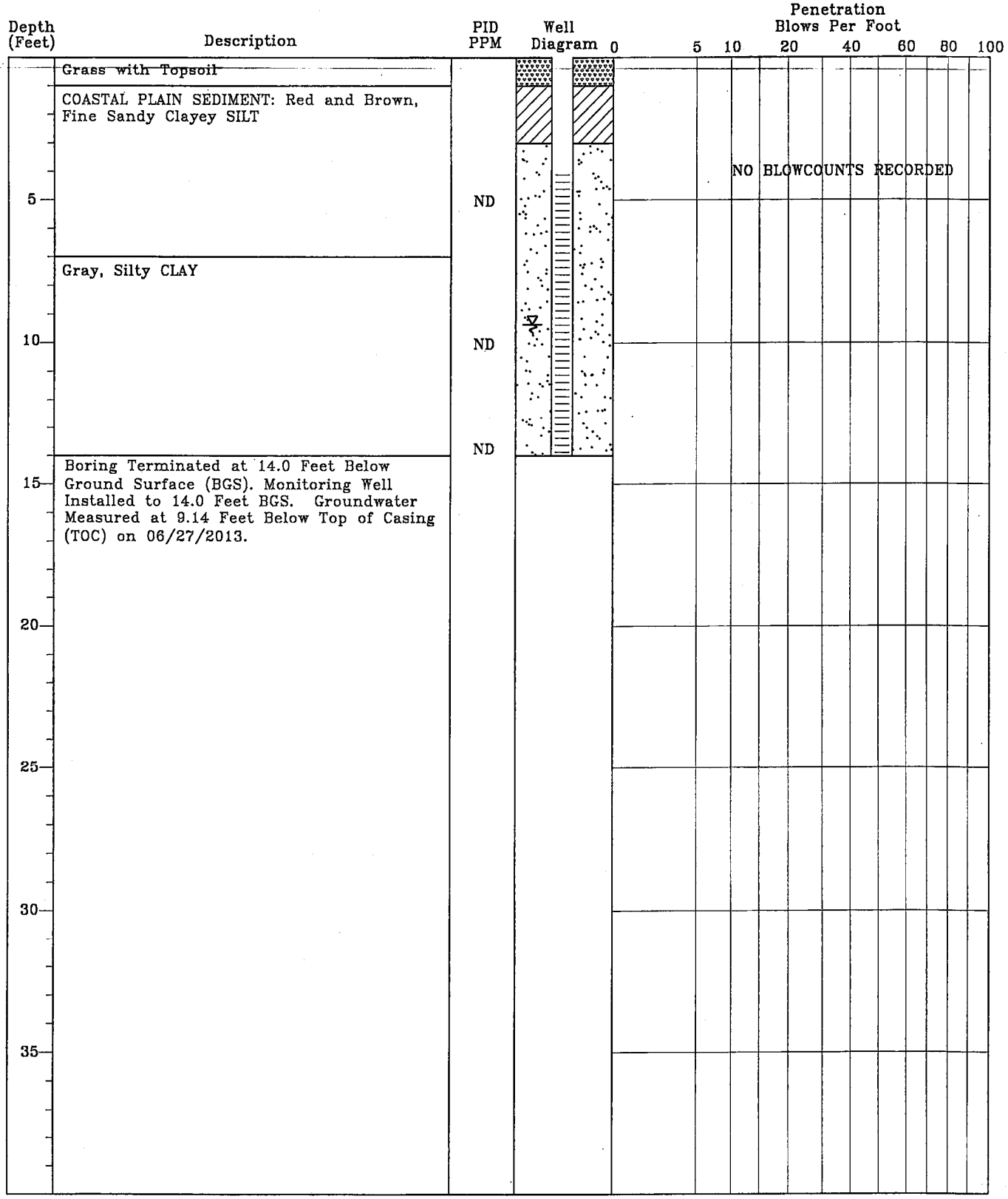
MONITORING WELL INSTALLATION RECORD

Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID# 10628
MECI Project Number 13-4447



Well Number:	MW-19 (10628)
Date Drilled:	06/19/2013
Drilled By:	Environmental Drilling & Probing Services
Driller: D. Brown	S.C. I.D. #: B 02053
Logged By:	P. Boylan

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



TEST BORING RECORD

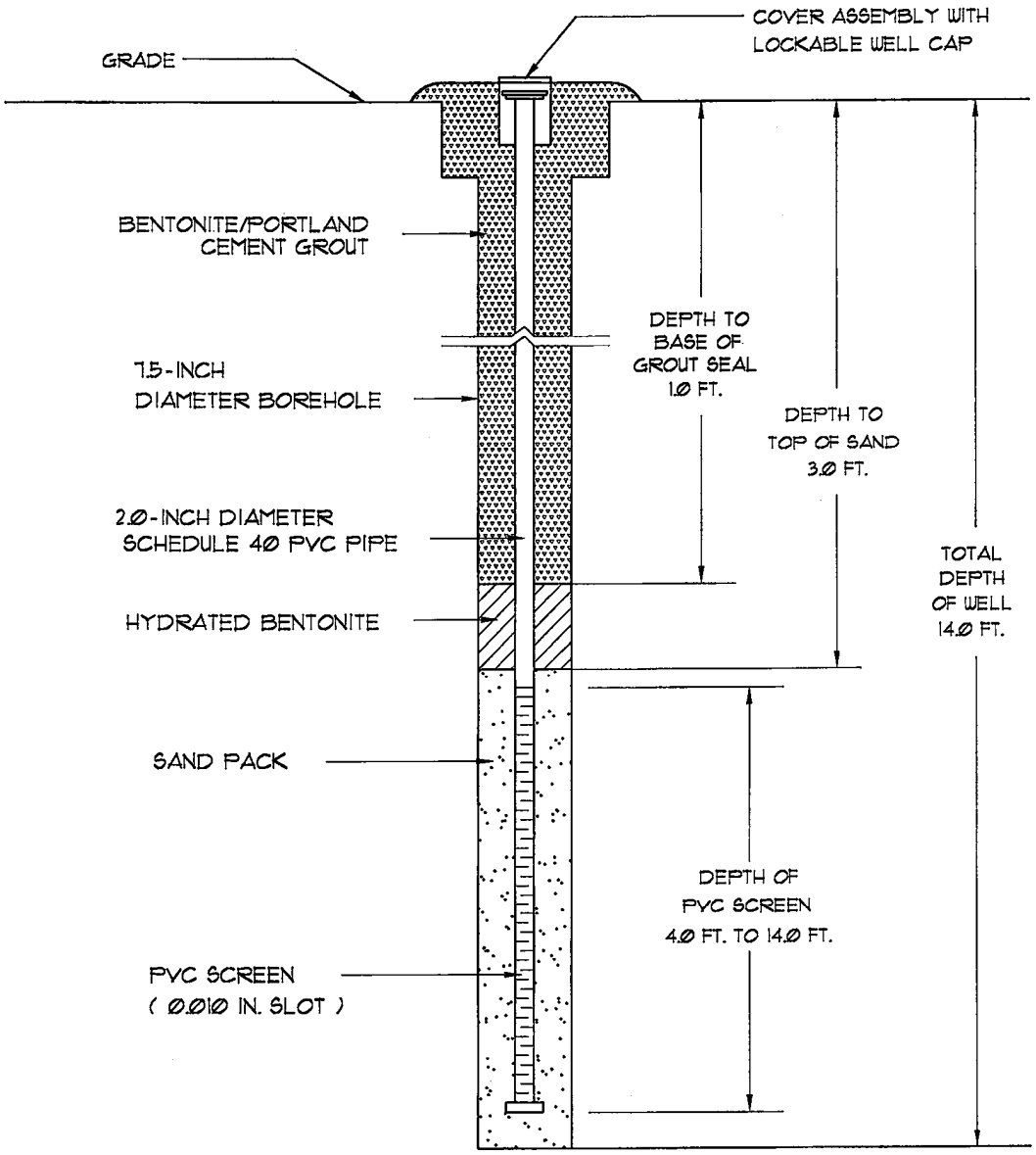
Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID# 10628
MECI Project Number 13-4447

Boring Number:	MW-20 (10628)
Date Drilled:	06/19/2013
Drilled By:	Environmental Drilling & Probing Service
Logged By:	P. Boylan

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

MONITORING WELL INSTALLATION RECORD

Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID# 10628
MECI Project Number 13-4447



Well Number:	MW-20 (10628)
Date Drilled:	06/19/2013
Drilled By:	Environmental Drilling & Probing Services
Driller: D. Brown	S.C. I.D. #: B 02053
Logged By:	P. Boylan

Prepared By:
Midlands Environmental Consultants, Inc.
235-B Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 Fax: 808-2048

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29227-8034
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER: MW-5RR

4. ABANDONMENT: ☐ Yes ☐ No
Give Details Below
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Grass and Topsoil	0.5	0.5
Red amd Brown, Fine Sandy		
Silty CLAY	5.5	6.0
Gray, Fine to Meidum Sandy		
Clayey SILT	6.0	12.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-5RR

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: UMW-25036

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 12.0 ft. Date Started: 06/19/2013 Date Completed: 06/19/2013

10. CASING: ☐ Threaded ☐ Welded
Diam.: 2"
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 2.0 ft. depth
_____ in. to _____ ft. depth
Height: Above/Below Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: Schedule 40 PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 10'
Set Between: 2.0 ft. and 12.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL 3.20 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from 1.0 ft. to 12.0 ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 0.5 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe_____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: David Brown CERT. NO.: 02053
Address: (Print) Level: A B ✓ C D (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: David Brown (Well Driller) Date: 07/17/2013

If D Level Driller, provide supervising driller's name:

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

DHEC
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29227-8034
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER: MW-19

4. ABANDONMENT: ☐ Yes ☐ No
Give Details Below
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Grass and Topsoil	0.5	0.5
Red amd Brown, Fine Sandy		
Silty CLAY	5.5	6.0
Gray, Fine to Meidum Sandy		
Clayey SILT	6.0	12.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-19

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: UMW-25036

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 12.0 ft. Date Started: 06/19/2013 Date Completed: 06/19/2013

10. CASING: ☐ Threaded ☐ Welded
Diam.: 2"
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 2.0 ft. depth
_____ in. to _____ ft. depth
Height: Above/Below Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: Schedule 40 PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 10'
Set Between: 2.0 ft. and 12.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL 3.20 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from 1.0 ft. to 12.0 ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 0.5 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe_____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: David Brown CERT. NO.: 02053
Address: (Print) Level: A B ✓ C D (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Signed: David Brown Well Driller Date: 07/17/2013
If D Level Driller, provide supervising driller's name:

DHEC 1903 (03/2004) COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29227-8034
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER: MW-20

4. ABANDONMENT: ☐ Yes ☐ No
Give Details Below
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Grass and Topsoil	0.5	0.5
Red amd Brown, Fine Sandy		
Clayey SILT	5.5	6.0
Gray, Silty CLAY	8.0	14.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-20

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: UMW-25036

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 14.0 ft. Date Started: 06/19/2013 Date Completed: 06/19/2013

10. CASING: ☐ Threaded ☐ Welded
Diam.: 2"
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
2.0 in. to 4.0 ft. depth
_____ in. to _____ ft. depth
Height: Above/Below Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: Schedule 40 PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 10'
Set Between: 4.0 ft. and 14.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL 9.14 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from 3.0 ft. to 14.0 ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other _____
Depth: From 0.0 ft. to 1.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe_____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: David Brown CERT. NO.: 02053
Address: (Print) Level: A B ✓ C D (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: David Brown Date: 07/17/2013
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

APPENDIX F:

AQUIFER EVALUATION SUMMARY FORMS, DATA, GRAPHS, EQUATIONS

This appendix is not applicable to the scope of services presented in the subject report, however this page has been included in order to conform to the SCDHEC UST Management Division Programmatic QAPP and provide report continuity

APPENDIX G:

DISPOSAL MANIFEST

Midlands
Environmental
Consultants, Inc.

July 17, 2013

Re: Treatment of Purge Water
Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID Number 10628
MECI Project Number 13-4447

To Whom It May Concern;

Midlands Environmental Consultants, Inc. is providing the following letter as certification that treatment of the referenced purge water complied with the conditions of "Proposed Conditions for Use of Portable Activated Carbon Units for the Treatment of Small Volumes of Petroleum Hydrocarbon Contaminated Groundwater", as described in the following:

Applicability:

Groundwater treated was obtained as a result development of wells and sampling.

Conditions:

1. The purge/bail water from all wells is mixed before usage of the Activated Carbon Unit.
2. No free-product was detected in any of the purge water drums.
3. Analytical results of from well sampling show average concentrations of petroleum hydrocarbon constituents less than 5000 parts per billion (ppb) Benzene and less than 20,000 ppb total BTEX.
4. The existing carbon pack will be replaced/reactivated every 5,000 gallons.
5. Record of usage is maintained by Contractor.
6. Any and all recommendations and conditions issued by the Manufacturer have been adhered to.
7. Any and all recommendations and conditions (even on a site by site basis) issued by the SCDHEC must be adhered to.

All purge waters were treated on-site using an up-flow treatment drum loaded with 30 pounds of activated carbon. Carbon will be loaded to a maximum of 3 pounds of total organic compounds or 5,000 gallons of development/purge water, whichever occurs first.

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

A total of 15.0 gallons were treated on June 19, 2013 during the drilling of replacement wells at the referenced site.

A total of 21.0 gallons were treated on June 27, 2013 during the sampling event at the referenced site.

A total of 36.0 gallons were treated during assessment activities at the referenced site

Midlands Environmental also tracks cumulative organic compounds adsorbed on the activated carbon to ensure the capacity of carbon mass is not over-charged. This data is available upon request.

Should you have any questions or comments, please contact the undersigned.

Sincerely,
Midlands Environmental Consultants, Inc.

Courtney M. Sanders
Staff Biologist

WASTE MANAGEMENT

Richland County LF
1047 Highway Church Road
Elgin, SC, 29045
Ph: (803) 788-3054

Original
Ticket# 1249176

Customer Name	MIDLANDSENVIRON MIDLANDS ENVI	Carrier	MIDLANDSENVIRON MIDLANDS ENVIRONMENT
Ticket Date	06/28/2013	Vehicle#	1
Payment Type	Credit Account	Container	
Manual Ticket#		Driver	
Hauling Ticket#		Check#	
Route		Billing #	0000469
State Waste Code		Gen EPA ID	
Manifest	0		
Destination			
PO			
Profile	VA2718 (SOIL FROM UST ASSESSMENT)		
Generator	126-MIDLANDSENVIRONMENTAL MIDLANDS ENVIRONMENTAL		

	Time	Scale	ScaleMaster		
In	06/28/2013 10:15:49	Scale1	joyce	Gross	13820 lb
Out	06/28/2013 10:38:24	Scale1	yhoke	Tare	9920 lb
				Net	3900 lb
				Tons	1.95

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	SOIL-Cont. Soil -	100	1.95	Tons				32-LEXINGT
2	FUEL-Fuel Surcharg	100		%				32-LEXINGT
3	EVF-P-Standard Env	100		%				32-LEXINGT
4	RCR-P-Regulatory C	100		%				32-LEXINGT

Total Fees
Total Ticket

SIGNATURE

403WM

SPECIAL WASTE MANIFEST

WASTE ID NUMBER VA2718	*Richland Landfill* 1047 Highway Church Road Elgin, SC 29045
EXPIRATION DATE November 17, 2013	Special Waste Phone: 803-744-3346 Fax: 866-904-7194
Prepared by:	Karen Truett/Carol Weldon

GENERATOR OF WASTE: Midlands Env. Consultants, Inc. - Various

CUSTOMER Midlands Env. Consultants — ACCOUNT NUMBER: 820-469

LOCATION OF WASTE: Site Address:

CITY: Lexington — COUNTY: Lexington

PHONE NUM 803-808-2043 — CONTACT: Bryan Shane

FAX NUMBER:

GENERATOR'S SIGNATURE [signature] — DATE: 6/28/13

TRANSPORTER OF WASTE: MECI

DATE: 6/28/13 — TRUCK NUMBER: 1

DRIVER'S SIGNATURE [signature]

**** TO BE COMPLETED BY RICHLAND LANDFILL******

DISPOSAL SITE: RICHLAND LANDFILL ELGIN, SC

Waste Class: Soil

DESCRIPTION OF WASTE: Soil from UST Assessment

TICKET NUMBER: 249176

RECEIVED BY: JM

1/4 Pantry 911 / Newberry Law 3/4

APPENDIX H:

LOCAL ZONING REGULATIONS

This appendix is not applicable to the scope of services presented in the subject report, however this page has been included in order to conform to the SCDHEC UST Management Division Programmatic QAPP and provide report continuity

APPENDIX I:

FATE AND TRANSPORT MODELING

This appendix is not applicable to the scope of services presented in the subject report, however this page has been included in order to conform to the SCDHEC UST Management Division Programmatic QAPP and provide report continuity

APPENDIX J:

ACCESS AGREEMENTS

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

Encroachment Permit

Permit No : 154222
Permit Decision Date : 5/30/2013
Expiration Date : 5/30/2014

Type
Permit :ENVIRONMENTAL

Location:

District	Work County	Type	Route	Aux	Begin MP	End MP
	Jasper, SC					

Contact Information

Applicant: Midlands Environmental Consultants Inc. Phone: 8038082043
Contact: John Bryant
Address: 235-B Dooley Road,
City: Lexington State: SC Zip: 29073

Comments

Along the DOT out of wheel path. Monitoring wells will be installed along Hwy 170, see Figure 2 for well locations.

Special Provisions:

9999 - See Attached for Additional Special Provisions

Application for Encroachment Permit

S.C. Department of Transportation
Form 637 (Rev 05/2013)

Form Use Instructions

Contact Information

Applicant:	Midlands Environmental Consultants, Inc.		
Street:	235-B Dooley Road		
City:	Lexington		
State:	SC	**Zip Code:**	29073
Phone:	(803)-808-2043	**Fax:**	(803)-808-2048
Email:	jcb@meci.net		
Contact:	John Bryant		

Project Location

Primary County: Jasper *SCDOT Street Finder*

County	Road Name
Jasper	SOUTH OKATIE HIGHWAY

1. Type of Encroachment: ENVIRONMENTAL

Groundwater Monitoring Well installation along Hwy 170 (South Okatie Hwy) in Hardeeville, SC.

2. Description of Location:

Along the DOT out of wheel path. Monitoring wells will be installed along Hwy 170, see Figure 2 for well locations.

(Attach sketch indicating roadway features such as: pavement width, shoulder width, sidewalk and curb and gutter location, significant drainage structure, north arrow, right of way width, and location of the proposed encroachment with respect to the roadway centerline and the nearest intersecting road on the State system.)

Customer Agreement

3. The undersigned applicant hereby requests the SCDOT to permit encroachment on the SCDOT right of way as described herein. It is expressly understood that the encroachment, if and when constructed, shall be installed in accordance with the sketch attached hereto and made a part hereof. The applicant agrees to comply with and be bound by the SCDOT's "A Policy for Accommodating Utilities on Highways Rights of way", "Standard Specifications for Highway Construction", the "General Provisions" and "Special

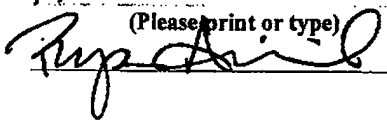
Provisions", attached hereto or made a part hereof by reference, during the installation, operation and maintenance of said encroachment within the SCDOT's Right of Way. DISCHARGES OF STORM WATER AND NON-STORM WATER: Work within State Highway right-of-way shall be conducted in compliance with all applicable requirements of the National Pollutant Discharge Elimination System (NPDES) permit(s) issued to the Department of Transportation (Department), to govern the discharge of storm water and non-storm water from its properties. Work shall also be in compliance with all other applicable Federal, State and Local laws and regulations, and with the Department's Encroachment Permits

Manual and encroachment permit. The encroachment permit will not be issued until the applicant has received an NPDES construction permit from SC Department of Health and Environmental Control.

The applicant agrees to comply with all current SCDOT Standards Specifications for Highway Construction including all Supplemental Technical Specifications. The applicant hereby further agrees, and binds his/her/its heirs, personal representatives, successors, assigns, to assume any and all liability for accidents or injuries to persons, or damage to property, including the highway, that may be caused by the construction, maintenance, use, moving or removing of the physical appurtenances contemplated herein, and the applicant agrees to indemnify and hold SCDOT harmless from and against any and all claims for personal injury and/or property damage which may be sustained by person by reason of the construction, maintenance or existence of said encroachment on the SCDOT's right of way.

Applicant's Name: Ryan Ariail **Date:** 5-23-2013

(Please print or type)

Applicant's Sig:  **Title:** Staff Biologist

For Office Use Only

For Office Use Only

In accordance with your request and subject to all the provisions, terms, conditions, and restrictions stated in the application and the general and special provisions attached hereto, the SCDOT hereby approves your application for an encroachment permit. This permit shall become null and void unless the work contemplated herein shall have been completed prior to:

☐ See Attached Special Provision and/or Permit Requirements

NPDES Permit Nbr:

(Date received by res. Maint. Engr.)	(SCDOT Approval)	(Date)
☐ Resident Maintenance Engineer		☐ Deputy Secretary for Engineering
☐ District Engineering Administrator		☐ District Maint./Constr. Engineer

General Provisions

Application for Encroachment Permit
General Provisions

1. **DEFINITIONS: The word "Permittee" used herein shall mean the name of the person, firm, or corporation to whom this permit is addressed, his, her, its, heirs, personal representatives, successors and assigns. The word "DEPARTMENT" shall mean the South Carolina Department of Transportation.**
2. **NOTICE PRIOR TO STARTING WORK: Before starting the work contemplated herein within the limits of the highway right of way, the Department's Resident Maintenance Engineer in the county in which the proposed work is located shall be notified 24 hours in advance so that he may be present while the work is under way.**
3. **PERMIT SUBJECT TO INSPECTION: This permit shall be kept at the site of the work at all times while said work is under way and must be shown to any representative of the Department or law enforcement officer on demand.**
4. **PROTECTION OF HIGHWAY TRAFFIC: The applicant shall be responsible for the protection of the highway traffic at all times during the construction, maintenance, removing or moving of the encroachment permitted herein. Detours, barricades, warning signs and flagmen, as necessary, shall be provided by and at the expense of the Permittee and shall be in accordance with the "Manual on Uniform Traffic Control Devices" (MUTCD). The work shall be planned and carried out so that there will be the least possible inconvenience to the motoring public. The Permittee agrees to observe all rules and regulations of the Department while carrying on the work contemplated herein and take all other precautions that circumstances warrant.**
5. **STANDARDS OF CONSTRUCTION: All work shall conform to the Department's standards of construction and shall be performed in a workman-like manner. The applicant shall make adequate provisions for maintaining the proper drainage of the highway as it may be affected by the encroachment permitted herein. All work shall be subject to the supervision and satisfaction of the Department.**
6. **FUTURE MOVING OF PHYSICAL APPURTENANCES: If, in the opinion of the State Highway Engineer, it should ever become necessary to move or remove the physical appurtenances, or any part thereof contemplated herein, on account of change in location of the highway, widening of the highway, or for any other sufficient reason, such moving shall be done on demand of the Department at the expense of the Permittee.**
7. **RESTORATION OF HIGHWAY FACILITIES UPON MOVING OR REMOVING OF PHYSICAL APPURTENANCES: If, and when, the physical appurtenances contemplated herein shall be moved or removed, either on the demand of the Department or at the option of the Permittee, the highway and facilities shall immediately be restored to their original condition at the expense of the Permittee.**
8. **COSTS: All work in connection with the construction, maintenance, moving or removing of the physical appurtenances contemplated herein shall be done by and at the expense of the Permittee.**
9. **ADDITIONAL PERMISSIONS: (a) It is distinctly understood that this permit does not in any way grant or release any rights lawfully possessed by the abutting property owners. The Permittee shall secure any such rights, as necessary, from said abutting property owners. (b) The Permittee shall be responsible for obtaining all other approvals or permits necessary for installation of the encroachment from other government entities. (c) There shall be no excavation of soil nearer than two feet to any public utility line or appurtenant facility except with the consent of the owner thereof, or except upon special permission of this Department after an opportunity to be heard is given the owner of such line or appurtenant facility.**
10. **ADDITIONAL WORK PERFORMANCE: (a) All crossings over the highway shall be constructed in accordance with "Specifications for Overhead Crossings of Light and Power Transmission Lines and Telegraph Lines over each other and over Highway Rights of Way in South Carolina," as approved by the Public Service Commission of South Carolina and**

effective as of date of this permit.
(b) All tunneling, boring, or jacking shall be done in such a way as not to disturb the highway surfacing. (c) No pavement shall be cut unless specifically authorized herein. (d) No excavation shall be nearer than three feet to the edge of pavement unless specifically authorized herein.
(e) Underground facilities will be located at minimum depths as defined in the "Utility Accommodations Manual" for the transmittant, generally as follows: 4 feet minimum for hazardous or dangerous transmittant, 3 feet minimum for other lines. The Department may approve shallower depths if adequate protection is provided. Such approval must be obtained in writing. (f) Service and other small diameter pipes shall be jacked, driven, or otherwise forced underneath the pavements on any surfaced road without disturbing the pavement. The section under the highway pavement and within a distance of three (3) feet on either side shall be continuous without joints.

11. ACCESS:
(a) Permittee is responsible for maintaining reasonable access to private driveways during construction. (b) It is expressly provided that, with respect to any limited access highway, the Permittee shall not have or gain access from the main traveled way of the highway, or the on or off ramps to such facility, except upon approval by the Department.
12. DRIVEWAYS:
(a) The existing crown of the highway shall be continued to the outside shoulder line of the highway. (b) If the driveway or approach is concrete pavement, the pavement shall be constructed at least 6 inches thick and with a minimum of class 2500 concrete. There shall be a bituminous expansion joint, not less than 3/4 inches in thickness, placed between the highway paving and the paving of the approach for the full width of the approach.
13. BEAUTIFICATION:
(a) All trees, plants, flowers, etc. shall be placed in accordance with the provisions specifically stipulated herein.
(b) All trees, plants, flowers, etc. shall be maintained by, and at the expense of, the Permittee and the provisions of this permit shall become null and void, if and when said Permittee ceases to maintain aid trees, plants, flowers, etc.
14. AS-BUILT PLANS:
(a) The applicant shall provide the Department with survey-quality as-built plans in accordance with the requirements set forth in the Department's "A Policy for Accommodating Utilities on Highway Rights of Way".

APPENDIX K:

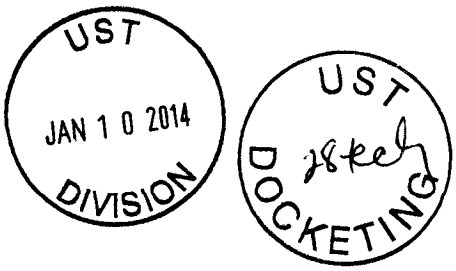
DATA VERIFICATION CHECKLIST

Contractor Checklist

Item#	Item	Yes	No	N/A
1	Are Facility Name, Permit #, and address provided?	X		
2	Is UST Owner/Operator name, address, & phone number provided?	X		
3	Is name, address, & phone number of current property owner provided?	X		
4	Is the DHEC Certified UST Site Rehabilitation Contractor's Name, Address, telephone number, and certification number provided?	X		
5	Is the name, address, telephone number, and certification number of the well driller that installed borings/monitoring wells provided?	X		
6	Is the name, address, telephone number, and certification number of the certified laboratory(ies) performing analytical analyses provided?	X		
7	Has the facility history been summarized?	X		
8	Has the regional geology and hydrogeology been described?	X		
9	Are the receptor survey results provided as required?			X
10	Has current use of the site and adjacent land been described?	X		
11	Has the site-specific geology and hydrogeology been described?	X		
12	Has the primary soil type been described?	X		
13	Have field screening results been described?			X
14	Has a description of the soil sample collection and preservation been detailed?			X
15	Has the field screening methodology and procedure been detailed?			X
16	Has the monitoring well installation and development dates been provided?	X		
17	Has the method of well development been detailed?	X		
18	Has justification been provided for the locations of the monitoring wells?	X		
19	Have the monitoring wells been labeled in accordance with the UST QAPP guidelines?	X		
20	Has the groundwater sampling methodology been detailed?	X		
21	Have the groundwater sampling dates and groundwater measurements been provided? (Table 2 & Figure 5)	X		
22	Has the purging methodology been detailed?	X		
23	Has the volume of water purged from each well been provided along with measurements to verify that purging is complete? (Appendix B)	X		
24	If free-product is present, has the thickness been provided?	X		
25	Does the report include a brief discussion of the assessment done and the results?	X		
26	Does the report include a brief discussion of the aquifer evaluation and results?			X
27	Does the report include a brief discussion of the fate & transport models used?			X

Item#	Item	Yes	No	N/A
28	Are the site-conceptual model tables included? (Tier 1 Risk Evaluation)			X
29	Have the exposure pathways been analyzed? (Tier 2 Risk Evaluation)			X
30	Have the SSTLs for each compound and pathway been calculated? (Tier 2 Risk Evaluation)			X
31	Have recommendations for further action been provided and explained?	X		
32	Has the soil analytical data for the site been provided in tabular format? (Table 1)			X
33	Has the potentiometric data for the site been provided in tabular format? (Table 2)	X		
34	Has the current and historical laboratory data been provided in tabular format? (Tables 3 & 3A)	X		
35	Have the aquifer characteristics been provided and summarized on the appropriate form? (Appendix F)			X
36	Have the Site conceptual model tables been included? (Tier 1 Risk Evaluation)			X
37	Has the topographic map been provided with all required elements? (Figure 1)	X		
38	Has the site base map been provided with all required elements? (Figure 2)	X		
39	Have the CoC site maps been provided? (Figures 4, 4A, 4B, 4C)	X		
40	Has the site potentiometric map been provided? (Figure 5)	X		
41	Have the geologic cross-sections been provided? (Figure 6)			X
42	Have maps showing the predicted migration of the CoCs through time been provided? (Tier 2 Risk Evaluation)			X
43	Has the site survey been provided and include all necessary elements? (Appendix A)			X
44	Have the sampling logs, chain of custody forms, and the analytical data package been included with all required elements? (Appendix B)	X		
45	Is the laboratory performing the analyses properly certified?	X		
46	Has the tax map been included with all necessary elements? (Appendix C)			X
47	Have the soil boring/field screening logs been provided? (Appendix E)			X
48	Have the well completion logs and SCDHEC Form 1903 been provided? (Appendix E)	X		
49	Have the aquifer evaluation forms, data, graphs, equations, etc. been provided? (Appendix F)			X
50	Have the disposal manifests been provided? (Appendix G)	X		
51	Has a copy of the local zoning regulations been provided? (Appendix H)			X
52	Has all fate and transport modeling been provided? (Appendix I)			X
53	Have copies of all access agreements obtained by the contractor been provided? (Appendix J)	X		
54	Has a copy of this form been attached to the final report and are explanations for any missing or incomplete data been provided? (Appendix K)	X		

July 17, 2013



Re: Treatment of Purge Water
Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID Number 10628
MECI Project Number 13-4447

To Whom It May Concern;

Midlands Environmental Consultants, Inc. is providing the following letter as certification that treatment of the referenced purge water complied with the conditions of "Proposed Conditions for Use of Portable Activated Carbon Units for the Treatment of Small Volumes of Petroleum Hydrocarbon Contaminated Groundwater", as described in the following:

Applicability:

Groundwater treated was obtained as a result development of wells and sampling.

Conditions:

1. The purge/bail water from all wells is mixed before usage of the Activated Carbon Unit.
2. No free-product was detected in any of the purge water drums.
3. Analytical results of from well sampling show average concentrations of petroleum hydrocarbon constituents less than 5000 parts per billion (ppb) Benzene and less than 20,000 ppb total BTEX.
4. The existing carbon pack will be replaced/reactivated every 5,000 gallons.
5. Record of usage is maintained by Contractor.
6. Any and all recommendations and conditions issued by the Manufacturer have been adhered to.
7. Any and all recommendations and conditions (even on a site by site basis) issued by the SCDHEC must be adhered to.

All purge waters were treated on-site using an up-flow treatment drum loaded with 30 pounds of activated carbon. Carbon will be loaded to a maximum of 3 pounds of total organic compounds or 5,000 gallons of development/purge water, whichever occurs first.

A total of 15.0 gallons were treated on June 19, 2013 during the drilling of replacement wells at the referenced site.

A total of 21.0 gallons were treated on June 27, 2013 during the sampling event at the referenced site.

A total of 36.0 gallons were treated during assessment activities at the referenced site

Midlands Environmental also tracks cumulative organic compounds adsorbed on the activated carbon to ensure the capacity of carbon mass is not over-charged. This data is available upon request.

Should you have any questions or comments, please contact the undersigned.

Sincerely,
Midlands Environmental Consultants, Inc.

Courtney M. Sanders
Staff Biologist

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

JAN 14 2014

MR DONNIE MALPHRUS
MALPHRUS ENTERPRISES
6195 SOUTH OKATIE HWY
HARDEEVILLE SC 29927-8034

UST 29 tech DOCKETING

Re: **AFVR Directive**
Pantry 911, 6195 South Okatie Highway, Hardeeville, SC 29927-8034
UST Permit #10628; CA #47366
Release reported April 28, 1995
Assessment Report received August 1, 2013
Jasper County

Dear Mr. Malphrus,

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (Agency) recognizes your commitment to continue work at this site utilizing Midlands Environmental Consultants, Inc. In accordance with Section 280.64 of the South Carolina Underground Storage Tank Control Regulations, two (2) 48-hour and one (1) 24-hour Aggressive Fluid and Vapor Recovery (AFVR) events may commence as outlined in the UST Quality Assurance Program Plan (QAPP) Revision 2.0. **Please be aware that the AFVR Procedures have been updated.** Monitoring wells MW-7RR and RW-1 should be utilized during the first 48-hour event, monitoring wells MW-14 and RW-3 should be utilized during the second 48-hour event, and monitoring wells MW-4R and RW-2 should be utilized during the 24-hour event. Please have your contractor conduct the two 48-hour events consecutively and the 24-hour event within 7 days following the first two. The stingers shall be lowered at six inch intervals starting at the water table interface to a maximum depth of 10 feet in the wells. A copy of Agency QAPP Version 2.0 for the Underground Storage Tank Division is available at http://www.dhec.sc.gov/environment/lwm/usthome/QAPP.htm.

As soon as the beginning date of the event has been scheduled, please contact John Bryant at bryantjc@dhec.sc.gov

The AFVR Report should be submitted within 60 days from the date of this correspondence. Please note that all applicable South Carolina certification requirements apply to the services and report preparation. All site rehabilitation activities must be performed and submitted by a South Carolina Certified Underground Storage Tank Site Rehabilitation Contractor.

Cost Agreement #47366 has been approved in the amount shown on the enclosed cost agreement. Midlands Environmental Consultants, Inc. can submit an invoice for direct billing from the State Underground Petroleum Environmental Response Bank (SUPERB) Account. If the invoice and completed report are not submitted within 120 days from the date of this letter, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available.

Please note that Sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that no costs will be allowed unless prior approval is obtained from the UST Management Division. If for any reason additional tasks will be completed, these additional tasks and the associated cost must be preapproved by the Agency for the cost to be paid. The Agency reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria. Further, the Agency reserves the right to question and/or reject costs if deemed unreasonable and the right to audit project records at any time during the project or after completion of work.

The Agency grants preapproval for transportation of virgin petroleum-contaminated groundwater from the referenced site to a permitted treatment facility.

On all correspondence concerning this site, please reference UST Permit #10628 and CA #47366. If you have any questions, please contact me at (803) 898-0606 or by e-mail at bryantjc@dhec.sc.gov.

Sincerely,

John C. Bryant, Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

enc: Approved Cost Agreement

cc: Midlands Environmental Consultants, Inc., PO Box 854, Lexington, SC 29071 (w/enc)
Technical File (with enclosure)

Approved Cost Agreement 47366

Facility: 10628 PANTRY 911

BRYANTJC

PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
19 RPT/PROJECT MNGT & COORDINATIO						
			PERC REPORT PREPARATION	0.1000	27,318.25	2,731.83
23 EFR						
			A2 24 HOUR EVENT	1.0000	3,515.00	3,515.00
			A3 48 HOUR EVENT	2.0000	6,265.00	12,530.00
			C2 OFF GAS TREATMENT 24 HOUR	1.0000	241.50	241.50
			C3 OFF GAS TREATMENT 48 HOUR	2.0000	327.00	654.00
			D SITE RECONNAISSANCE	1.0000	203.25	203.25
			F EFFLUENT DISPOSAL	30,000.0000	0.30	9,000.00
			G AFVR EQUIPMENT MOB	3.0000	391.50	1,174.50
					Total Amount	30,050.08

Midlands
Environmental
Consultants, Inc.

May 13, 2014

Mr. John C. Bryant, Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Aggressive Fluid Vapor Recovery Report
Pantry 911
6195 South Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID # 10628; CA# 47366
MECI Project Number 14-4750
Certified Site Rehabilitation Site Contractor UCC-0009

Dear Mr. Bryant,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel commenced two 48-Hour and one 24-Hour Aggressive Fluid Vapor Recovery (AFVR) events at the Pantry 911 on April 28th, 2014, and concluded the event on May 3rd, 2014. The first 48-Hour event was conducted on wells MW-7RR/RW-1, the second 48-Hour event was conducted on MW-14/RW-3, and the final 24-Hour event was conducted on MW-4R/RW-2. These AFVR events were conducted to reduce elevated dissolved CoC concentrations. Prior to each AFVR event, groundwater was gauged utilizing a Heron H. Oil/Water Interface Meter. The following table presents depth to water, depth to product, and product thickness measurements obtained prior to the commencement of the each event:

Pre-AFVR Well Data			
Well ID#	***Depth to Product (ft.)***	***Depth to Water (ft.)***	***Product Thickness (ft.)***
MW-7RR	Not Detected	4.97	Not Detected
RW-1	Not Detected	5.22	Not Detected
MW-14	Not Detected	0.87	Not Detected
RW-3	Not Detected	1.72	Not Detected
MW-4R	Not Detected	3.16	Not Detected
RW-2	Not Detected	2.09	Not Detected

Each event was continuously conducted for the appropriate duration by MECI personnel utilizing a vacuum extraction unit. Following each extended AFVR event, free product and groundwater levels were measured and recorded. The following table presents the post-AFVR free product and groundwater measurements obtained after completion of the AFVR event:

Post-AFVR Well Data			
Well ID#	***Depth to Product (ft.)***	***Depth to Water (ft.)***	***Product Thickness (ft.)***
MW-7RR	Not Detected	8.79	Not Detected
RW-1	Not Detected	10.83	Not Detected
MW-14	Not Detected	10.43	Not Detected
RW-3	Not Detected	10.62	Not Detected
MW-4R	Not Detected	9.17	Not Detected
RW-2	Not Detected	8.94	Not Detected

MECI treated the off gas produced during the AFVR event using an activated carbon filter system, which achieved an average calculated reduction rate of 98.69% throughout the duration of the referenced events. Calculated total petroleum hydrocarbons removed during the events were 60.83 pounds or approximately 10.51 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 0.63 pounds per hour. Concentrations of off gas (Pre-Treatment) produced during the event were recorded from 671 parts per million by volume (PPM) to 1,482 PPM. Vacuum readings were recorded at a range of 23.0 to 25.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1A, Table 1B and Table 1C.

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2A, Table 2B and Table 2C. Monitoring well locations are depicted on attached Figure 2.

A total of 3,800 gallons of liquid was removed from the site during this event. Free phase product was not observed in the holding tank at the end the referenced event. The 2,600 gallons of fluids were transported to U.S. Water in Goose Creek, SC for disposal and 1,200 gallons of fluids were transported to Regulatory Solutions, Inc. of Gaston, S.C. for disposal. Disposal manifests for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI, Mr. Donnie Malphrus of Malphrus Enterprises, and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Kyle V. Pudney
Staff Biologist

Jeff L. Coleman
Senior Scientist

Attachments:

TABLE 1A
AFVR MONITORING DATA
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 14-4750
SCDHEC SITE ID NUMBER 10628

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements: Pre-Treatment Concentration (PPM)	Post-Treatment Concentration (PPM)	Treatment Reduction Rate (%)	Offgas Velocity (ft/min)	Flow Rate (CFM)	Removal Rate (Lbs/Hr)	Interval Removal (Lbs)
MW-7RR	04/28/14	10:30	0.50	25.0	688	0.0	100.00%	390	35.10	0.29	0.14
RW-1	04/28/14	11:00	0.50	25.0	694	2.0	99.71%	410	36.90	0.31	0.15
	04/28/14	11:30	0.50	25.0	699	3.2	99.54%	430	38.70	0.32	0.16
▼	04/28/14	12:00	0.50	25.0	711	3.4	99.52%	390	35.10	0.30	0.15
	04/28/14	12:30	0.50	25.0	714	3.7	99.48%	410	36.90	0.32	0.16
	04/28/14	13:00	0.50	25.0	721	4.7	99.35%	420	37.80	0.33	0.16
▼	04/28/14	13:30	0.50	25.0	732	4.9	99.33%	440	39.60	0.35	0.17
	04/28/14	14:00	0.50	25.0	739	5.1	99.31%	430	38.70	0.34	0.17
	04/28/14	14:30	0.50	25.0	743	5.4	99.27%	410	36.90	0.33	0.16
▼	04/28/14	15:00	0.50	25.0	747	5.7	99.24%	380	34.20	0.31	0.15
	04/28/14	15:30	0.50	25.0	752	5.8	99.23%	410	36.90	0.33	0.17
	04/28/14	16:00	0.50	25.0	761	6.0	99.21%	420	37.80	0.35	0.17
▼	04/28/14	16:30	0.50	25.0	764	6.0	99.21%	410	36.90	0.34	0.17
▼	04/28/14	17:00	0.50	25.0	767	5.8	99.24%	410	36.90	0.34	0.17
	04/28/14	17:30	0.50	25.0	770	6.0	99.22%	390	35.10	0.32	0.16
	04/28/14	18:00	0.50	25.0	771	6.3	99.18%	410	36.90	0.34	0.17
▼	04/28/14	18:30	0.50	25.0	779	6.4	99.18%	390	35.10	0.33	0.16
	04/28/14	19:30	1.00	25.0	774	6.7	99.13%	410	36.90	0.34	0.34
	04/28/14	20:30	1.00	25.0	778	6.9	99.11%	390	35.10	0.33	0.33
	04/28/14	21:30	1.00	25.0	779	7.1	99.09%	380	34.20	0.32	0.32
▼	04/28/14	22:30	1.00	25.0	784	7.2	99.08%	390	35.10	0.33	0.33
	04/28/14	23:30	1.00	23.0	786	7.4	99.06%	400	36.00	0.34	0.34
	04/29/14	0:30	1.00	23.0	790	7.5	99.05%	400	36.00	0.34	0.34
	04/29/14	1:30	1.00	23.0	792	7.7	99.03%	410	36.90	0.35	0.35
	04/29/14	2:30	1.00	23.0	795	7.9	99.01%	420	37.80	0.36	0.36
	04/29/14	3:30	1.00	23.0	797	8.1	98.98%	420	37.80	0.36	0.36
▼	04/29/14	4:30	1.00	23.0	799	8.1	98.99%	420	37.80	0.36	0.36
	04/29/14	5:30	1.00	23.0	804	8.1	98.99%	420	37.80	0.36	0.36
	04/29/14	6:30	1.00	23.0	807	8.2	98.98%	430	38.70	0.37	0.37
	04/29/14	7:30	1.00	23.0	809	8.3	98.97%	420	37.80	0.37	0.37
	04/29/14	8:30	1.00	23.0	812	8.4	98.97%	420	37.80	0.37	0.37
	04/29/14	9:30	1.00	23.0	813	8.7	98.93%	430	38.70	0.38	0.38
▼	04/29/14	10:30	1.00	25.0	844	8.9	98.95%	430	38.70	0.39	0.39
	04/29/14	12:30	2.00	25.0	862	10.1	98.83%	430	38.70	0.40	0.80
	04/29/14	14:30	2.00	25.0	994	12.2	98.77%	440	39.60	0.47	0.94
	04/29/14	16:30	2.00	25.0	1,339	12.3	99.08%	430	38.70	0.62	1.24
	04/29/14	18:30	2.00	25.0	1,342	12.4	99.08%	440	39.60	0.64	1.28
	04/29/14	20:30	2.00	25.0	1,357	12.8	99.06%	450	40.50	0.66	1.32
	04/29/14	22:30	2.00	25.0	1,402	13.1	99.07%	420	37.80	0.64	1.27
	04/30/14	0:30	2.00	25.0	1,415	13.3	99.06%	420	37.80	0.64	1.28
	04/30/14	2:30	2.00	25.0	1,427	13.5	99.05%	420	37.80	0.65	1.29
	04/30/14	4:30	2.00	25.0	1,441	13.6	99.06%	420	37.80	0.65	1.31
	04/30/14	6:30	2.00	25.0	1,462	13.6	99.07%	410	36.90	0.65	1.29
	04/30/14	8:30	2.00	25.0	1,476	13.8	99.07%	410	36.90	0.65	1.31
	04/30/14	10:30	2.00	25.0	1,482	13.6	99.08%	410	36.90	0.66	1.31

Well Data:			Pre AFVR Event		Post AFVR Event			Corrected Depth
Well No.	Diameter (in)	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	to Water Change (ft)
MW-7RR	2"	2-12	***	4.97	***	***	8.79	***	-3.82
RW-1	4"	2-12	***	5.22	***	***	10.83	***	-5.61

Vacuum Truck Information		Well ID	Initial Stinger Depth (ft)
Contractor:	MECI	MW-7RR	6.00
Truck Operator:	W. Huss	RW-1	7.00
	T. Elder		
Stack I.D. (feet)	0.33 feet		

Notes:
▼ = Stinger Depth lowered 0.50 Feet
(Maximum Stinger Depth = 10.00 Feet)

Recovery / Disposal Information		
Hydrocarbons Removed (vapor):	23.11	Pounds
Hydrocarbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	3.99	Equivilant Gallons
Molecular Weight Utilized:	75	g / mole
Total Liquids Removed	1,520	Gallons
Disposal Facility	Regulatory Solutions, Inc./U.S Water Recovery	
Average Treatment System Reduction Rate:	99.15%	

TABLE 1B
AFVR MONITORING DATA
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 14-4750
SCDHEC SITE ID NUMBER 10628

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements: Pre-Treatment Concentration (PPM)	Post-Treatment Concentration (PPM)	Treatment Reduction Rate (%)	Offgas Velocity (ft/min)	Flow Rate (CFM)	Removal Rate (Lbs/Hr)	Interval Removal (Lbs)
MW-14	04/30/14	11:00	0.50	25.0	715	12.8	98.21%	400	36.00	0.31	0.15
RW-3	04/30/14	11:30	0.50	25.0	721	12.7	98.24%	390	35.10	0.30	0.15
▼	04/30/14	12:00	0.50	25.0	737	12.9	98.25%	410	36.90	0.33	0.16
	04/30/14	12:30	0.50	25.0	762	13.1	98.28%	380	34.20	0.31	0.16
	04/30/14	13:00	0.50	25.0	781	13.2	98.31%	410	36.90	0.35	0.17
	04/30/14	13:30	0.50	25.0	801	13.2	98.35%	420	37.80	0.36	0.18
▼	04/30/14	14:00	0.50	25.0	816	13.1	98.39%	430	38.70	0.38	0.19
	04/30/14	14:30	0.50	25.0	825	13.3	98.39%	420	37.80	0.37	0.19
	04/30/14	15:00	0.50	25.0	941	13.6	98.55%	430	38.70	0.44	0.22
	04/30/14	15:30	0.50	25.0	957	13.5	98.59%	420	37.80	0.43	0.22
▼	04/30/14	16:00	0.50	25.0	972	13.7	98.59%	410	36.90	0.43	0.22
	04/30/14	16:30	0.50	25.0	987	13.6	98.62%	420	37.80	0.45	0.22
	04/30/14	17:00	0.50	25.0	1,005	13.8	98.63%	440	39.60	0.48	0.24
▼	04/30/14	17:30	0.50	25.0	1,027	14.1	98.63%	410	36.90	0.45	0.23
	04/30/14	18:00	0.50	25.0	1,041	13.9	98.66%	430	38.70	0.48	0.24
	04/30/14	18:30	0.50	25.0	1,059	13.8	98.70%	400	36.00	0.46	0.23
▼	04/30/14	19:00	0.50	25.0	1,069	14.1	98.68%	420	37.80	0.48	0.24
	04/30/14	20:00	1.00	25.0	1,082	13.9	98.72%	450	40.50	0.53	0.53
▼	04/30/14	21:00	1.00	25.0	1,098	14.1	98.72%	430	38.70	0.51	0.51
	04/30/14	22:00	1.00	25.0	1,117	14.2	98.73%	440	39.60	0.53	0.53
	04/30/14	23:00	1.00	25.0	1,092	13.9	98.73%	430	38.70	0.51	0.51
▼	05/01/14	0:00	1.00	25.0	1,121	14.1	98.74%	450	40.50	0.54	0.54
	05/01/14	1:00	1.00	25.0	1,132	14.2	98.75%	440	39.60	0.54	0.54
	05/01/14	2:00	1.00	25.0	1,118	14.0	98.75%	440	39.60	0.53	0.53
▼	05/01/14	3:00	1.00	25.0	1,097	13.9	98.73%	430	38.70	0.51	0.51
	05/01/14	4:00	1.00	25.0	1,104	14.2	98.71%	440	39.60	0.52	0.52
	05/01/14	5:00	1.00	25.0	1,120	14.3	98.72%	440	39.60	0.53	0.53
▼	05/01/14	6:00	1.00	25.0	1,136	14.4	98.73%	450	40.50	0.55	0.55
	05/01/14	7:00	1.00	25.0	1,139	15.0	98.68%	450	40.50	0.55	0.55
	05/01/14	8:00	1.00	25.0	1,147	14.8	98.71%	460	41.40	0.57	0.57
▼	05/01/14	9:00	1.00	25.0	1,161	15.1	98.70%	460	41.40	0.58	0.58
	05/01/14	10:00	1.00	25.0	1,152	14.7	98.72%	440	39.60	0.55	0.55
▼	05/01/14	11:00	1.00	25.0	1,097	15.1	98.62%	450	40.50	0.53	0.53
▼	05/01/14	13:00	2.00	25.0	1,123	14.8	98.68%	440	39.60	0.53	1.07
	05/01/14	15:00	2.00	25.0	1,141	14.8	98.70%	450	40.50	0.55	1.11
▼	05/01/14	17:00	2.00	25.0	1,178	14.9	98.74%	440	39.60	0.56	1.12
	05/01/14	19:00	2.00	25.0	1,217	15.1	98.76%	460	41.40	0.60	1.21
▼	05/01/14	21:00	2.00	25.0	1,232	15.3	98.76%	470	42.30	0.63	1.25
▼	05/01/14	23:00	2.00	25.0	1,241	15.2	98.78%	480	43.20	0.64	1.29
▼	05/02/14	1:00	2.00	25.0	1,257	15.4	98.77%	490	44.10	0.67	1.33
▼	05/02/14	3:00	2.00	25.0	1,269	15.6	98.77%	480	43.20	0.66	1.32
	05/02/14	5:00	2.00	25.0	1,282	15.7	98.78%	480	43.20	0.66	1.33
▼	05/02/14	7:00	2.00	25.0	1,291	15.9	98.77%	500	45.00	0.70	1.39
▼	05/02/14	9:00	2.00	25.0	1,299	16.1	98.76%	490	44.10	0.69	1.37
	05/02/14	11:00	2.00	25.0	1,312	16.2	98.77%	500	45.00	0.71	1.42

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-14	2"	3.05-13.05	***	0.87	***	***	10.43	***	-9.56
RW-3	4"	2-12	***	1.72	***	***	10.62	***	-8.90

Vacuum Truck Information		Well ID	Initial Stinger Depth (ft)
Contractor:	MECI	MW-14	1.50
Truck Operator:	D. McCartha	RW-3	2.50
	F. Mitlin		
Stack I.D. (feet)	0.33 feet		

Notes:

▼= Stinger Depth lowered 0.50 Feet
(Maximum Stinger Depth = 10.00 Feet)

Recovery / Disposal Information		
Hydrocarbons Removed (vapor):	27.20	Pounds
Hydrocarbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	4.70	Equivilant Gallons
Molecular Weight Utilized:	75	g / mole
Total Liquids Removed	1,520	Gallons
Disposal Facility	Regulatory Solutions, Inc./U.S Water Recovery	
Average Treatment System Reduction Rate:	98.63%	

TABLE 1C
AFVR MONITORING DATA
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 14-4750
SCDHEC SITE ID NUMBER 10628

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements: Pre-Treatment Concentration (PPM)	Post-Treatment Concentration (PPM)	Treatment Reduction Rate (%)	Offgas Velocity (ft/min)	Flow Rate (CFM)	Removal Rate (Lbs/Hr)	Interval Removal (Lbs)
MW-4R	05/02/14	11:30	0.50	25.0	671	12.3	98.17%	350	31.50	0.25	0.13
RW-2	05/02/14	12:00	0.50	25.0	678	12.1	98.22%	360	32.40	0.26	0.13
	05/02/14	12:30	0.50	25.0	685	12.2	98.22%	380	34.20	0.28	0.14
▼	05/02/14	13:00	0.50	25.0	692	12.3	98.22%	370	33.30	0.28	0.14
	05/02/14	13:30	0.50	25.0	698	12.3	98.24%	380	34.20	0.29	0.14
	05/02/14	14:00	0.50	25.0	719	12.7	98.23%	390	35.10	0.30	0.15
▼	05/02/14	14:30	0.50	25.0	728	12.9	98.23%	390	35.10	0.31	0.15
	05/02/14	15:00	0.50	25.0	741	13.1	98.23%	410	36.90	0.33	0.16
	05/02/14	15:30	0.50	25.0	758	13.2	98.26%	410	36.90	0.34	0.17
▼	05/02/14	16:00	0.50	25.0	773	13.3	98.28%	420	37.80	0.35	0.18
	05/02/14	16:30	0.50	25.0	785	13.2	98.32%	440	39.60	0.37	0.19
	05/02/14	17:00	0.50	25.0	798	13.3	98.33%	430	38.70	0.37	0.19
▼	05/02/14	17:30	0.50	25.0	811	13.6	98.32%	450	40.50	0.39	0.20
	05/02/14	18:00	0.50	25.0	826	13.9	98.32%	440	39.60	0.39	0.20
	05/02/14	18:30	0.50	25.0	847	14.2	98.32%	430	38.70	0.39	0.20
▼	05/02/14	19:00	0.50	25.0	863	14.4	98.33%	440	39.60	0.41	0.21
	05/02/14	19:30	0.50	25.0	881	14.7	98.33%	420	37.80	0.40	0.20
▼	05/02/14	20:30	1.00	25.0	897	14.9	98.34%	450	40.50	0.44	0.44
▼	05/02/14	21:30	1.00	25.0	908	15.1	98.34%	470	42.30	0.46	0.46
▼	05/02/14	22:30	1.00	25.0	917	15.4	98.32%	460	41.40	0.46	0.46
▼	05/02/14	23:30	1.00	25.0	942	15.5	98.35%	450	40.50	0.46	0.46
▼	05/03/14	0:30	1.00	25.0	964	15.5	98.39%	450	40.50	0.47	0.47
	05/03/14	1:30	1.00	25.0	961	15.7	98.37%	460	41.40	0.48	0.48
▼	05/03/14	2:30	1.00	25.0	1,014	15.9	98.43%	470	42.30	0.51	0.51
▼	05/03/14	3:30	1.00	25.0	988	16.1	98.37%	460	41.40	0.49	0.49
▼	05/03/14	4:30	1.00	25.0	973	16.2	98.34%	450	40.50	0.47	0.47
▼	05/03/14	5:30	1.00	25.0	1,010	16.3	98.39%	450	40.50	0.49	0.49
▼	05/03/14	6:30	1.00	25.0	994	16.5	98.34%	450	40.50	0.48	0.48
▼	05/03/14	7:30	1.00	25.0	991	16.5	98.34%	470	42.30	0.50	0.50
	05/03/14	8:30	1.00	25.0	988	16.7	98.31%	450	40.50	0.48	0.48
▼	05/03/14	9:30	1.00	25.0	974	16.9	98.26%	460	41.40	0.48	0.48
▼	05/03/14	10:30	1.00	25.0	966	17.1	98.23%	470	42.30	0.49	0.49
	05/03/14	11:30	1.00	25.0	961	17.2	98.21%	480	43.20	0.50	0.50

Well Data: Well No.	Diameter (in)	Screened Interval (ft)	Pre AFVR Event: Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Post AFVR Event: Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Corrected Depth to Water Change (ft)
MW-4R	2"	5-15	***	3.16	***	***	9.17	***	-6.01
RW-2	4"	2-12	***	2.09	***	***	8.94	***	-6.85

Vacuum Truck Information		Well ID	Initial Stinger Depth (ft)
Contractor:	MECI	MW-4R	1.50
Truck Operator:	D. McCartha W. Huss	RW-2	2.50
Stack I.D. (feet)	0.33 feet		

Notes:
▼= Stinger Depth lowered 0.50 Feet
(Maximum Stinger Depth = 10.00 Feet)

Recovery / Disposal Information		
Hydrocarbons Removed (vapor):	10.52	Pounds
Hydrocarbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	1.82	Equivilant Gallons
Molecular Weight Utilized:	75	g / mole
Total Liquids Removed	760	Gallons
Disposal Facility	Regulatory Solutions, Inc./U.S Water Recovery	
Average Treatment System Reduction Rate:	98.30%	

TABLE 2A
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 14-4750
SCDHEC SITE ID NUMBER 47366

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-4R	MW-15	MW-16
Nearest Extraction Well:		RW-1	RW-1	RW-1
Approximate Distance:		205 ft	82 ft	156 ft
Time	Elapsed Time	Differential Pressure Readings (inches of water)		
Prior to AFVR		0.0	0.0	0.0
10:30	0.0	0.0	0.0	0.0
11:00	0.5	0.0	0.0	0.0
11:30	1.0	0.0	0.0	0.0
12:00	1.5	0.0	0.0	0.0
12:30	2.0	0.0	0.0	0.0
13:00	2.5	0.0	0.0	0.0
13:30	3.0	0.0	0.0	0.0
14:00	3.5	0.0	0.0	0.0
14:30	4.0	0.0	0.0	0.0
15:00	4.5	0.0	0.0	0.0
15:30	5.0	0.0	0.0	0.0
16:00	5.5	0.0	0.0	0.0
16:30	6.0	0.0	0.0	0.0
17:00	6.5	0.0	0.0	0.0
17:30	7.0	0.0	0.0	0.0
18:00	7.5	0.0	0.0	0.0
18:30	8.0	0.0	0.0	0.0
19:30	9.0	0.0	0.0	0.0
20:30	10.0	0.0	0.0	0.0
21:30	11.0	0.0	0.0	0.0
22:30	12.0	0.0	0.0	0.0
23:30	13.0	0.0	0.0	0.0
0:30	14.0	0.0	0.0	0.0
1:30	15.0	0.0	0.0	0.0
2:30	16.0	0.0	0.0	0.0
3:30	17.0	0.0	0.0	0.0
4:30	18.0	0.0	0.0	0.0
5:30	19.0	0.0	0.0	0.0
6:30	20.0	0.0	0.0	0.0
7:30	21.0	0.0	0.0	0.0
8:30	22.0	0.0	0.0	0.0
9:30	23.0	0.0	0.0	0.0
10:30	24.0	0.0	0.0	0.0
12:30	26.0	0.0	0.0	0.0
14:30	28.0	0.0	0.0	0.0
16:30	30.0	0.0	0.0	0.0
18:30	32.0	0.0	0.0	0.0
20:30	34.0	0.0	0.0	0.0
22:30	36.0	0.0	0.0	0.0
0:30	38.0	0.0	0.0	0.0
2:30	40.0	0.0	0.0	0.0
4:30	42.0	0.0	0.0	0.0
6:30	44.0	0.0	0.0	0.0
8:30	46.0	0.0	0.0	0.0
10:30	48.0	0.0	0.0	0.0
Maximum Change:		0.0	0.0	0.0

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-4R	MW-15	MW-16
Nearest Extraction Well:		RW-1	RW-1	RW-1
Approximate Distance:		205 ft	82 ft	156 ft
Time	Elapsed Time	Depth to Liquid (feet below of casing):		
Prior to AFVR		2.71	2.70	6.91
14:30	4 hours	2.72	2.71	6.86
18:30	8 hours	2.74	2.75	6.82
22:30	12 hours	2.74	2.77	6.80
2:30	16 hours	2.77	2.53	6.80
6:30	20 hours	2.84	2.46	6.82
10:30	24 hours	2.94	2.43	6.84
14:30	28 hours	2.95	2.43	6.85
18:30	32 hours	2.94	2.43	6.86
22:30	36 hours	2.93	2.42	6.87
2:30	40 hours	2.95	2.41	6.87
6:30	44 hours	2.99	2.41	6.88
10:30	48 hours	3.00	2.41	6.91
Maximum Change:		-0.29	0.29	0.11

TABLE 2B
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 14-4750
SCDHEC SITE ID NUMBER 47366

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		PW-1R	MW-3R	MW-4R
Nearest Extraction Well:		MW-14	RW-3	MW-14
Approximate Distance:		68 ft	42 ft	64 ft
Time	Elapsed Time	Differential Pressure Readings (inches of water)		
Prior to AFVR		0.0	0.0	0.0
11:00	0.0	0.0	0.0	0.0
11:30	0.5	0.0	0.0	0.0
12:00	1.0	0.0	0.0	0.0
12:30	1.5	0.0	0.0	0.0
13:00	2.0	0.0	0.0	0.0
13:30	2.5	0.0	0.0	0.0
14:00	3.0	0.0	0.0	0.0
14:30	3.5	0.0	0.0	0.0
15:00	4.0	0.0	0.0	0.0
15:30	4.5	0.0	0.0	0.0
16:00	5.0	0.0	0.0	0.0
16:30	5.5	0.0	0.0	0.0
17:00	6.0	0.0	0.0	0.0
17:30	6.5	0.0	0.0	0.0
18:00	7.0	0.0	0.0	0.0
18:30	7.5	0.0	0.0	0.0
19:00	8.0	0.0	0.0	0.0
20:00	9.0	0.0	0.0	0.0
21:00	10.0	0.0	0.0	0.0
22:00	11.0	0.0	0.0	0.0
23:00	12.0	0.0	0.0	0.0
0:00	13.0	0.0	0.0	0.0
1:00	14.0	0.0	0.0	0.0
2:00	15.0	0.0	0.0	0.0
3:00	16.0	0.0	0.0	0.0
4:00	17.0	0.0	0.0	0.0
5:00	18.0	0.0	0.0	0.0
6:00	19.0	0.0	0.0	0.0
7:00	20.0	0.0	0.0	0.0
8:00	21.0	0.0	0.0	0.0
9:00	22.0	0.0	0.0	0.0
10:00	23.0	0.0	0.0	0.0
11:00	24.0	0.0	0.0	0.0
13:00	26.0	0.0	0.0	0.0
15:00	28.0	0.0	0.0	0.0
17:00	30.0	0.0	0.0	0.0
19:00	32.0	0.0	0.0	0.0
21:00	34.0	0.0	0.0	0.0
23:00	36.0	0.0	0.0	0.0
1:00	38.0	0.0	0.0	0.0
3:00	40.0	0.0	0.0	0.0
5:00	42.0	0.0	0.0	0.0
7:00	44.0	0.0	0.0	0.0
9:00	46.0	0.0	0.0	0.0
11:00	48.0	0.0	0.0	0.0
Maximum Change:		0.0	0.0	0.0

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		PW-1R	MW-3R	MW-4R
Nearest Extraction Well:		MW-14	RW-3	MW-14
Approximate Distance:		68 ft	42 ft	64 ft
Time	Elapsed Time	Depth to Liquid (feet below of casing):		
Prior to AFVR		2.31	2.32	3.03
15:00	4 hours	2.31	2.40	3.03
19:00	8 hours	2.31	2.58	3.03
23:00	12 hours	2.31	2.64	3.03
3:00	16 hours	2.31	2.69	3.03
7:00	20 hours	2.42	2.72	3.05
11:00	24 hours	2.94	2.73	3.10
15:00	28 hours	2.97	3.00	3.10
19:00	32 hours	2.97	3.16	3.10
23:00	36 hours	2.97	3.17	3.10
3:00	40 hours	2.97	3.18	3.11
7:00	44 hours	2.94	3.19	3.12
11:00	48 hours	2.94	3.28	3.16
Maximum Change:		-0.63	-0.96	-0.13

TABLE 2C
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 14-4750
SCDHEC SITE ID NUMBER 47366

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		PW-1R	MW-3R	MW-15
Nearest Extraction Well:		MW-4R	RW-2	MW-4R
Approximate Distance:		4 ft	51 ft	127 ft
Time	Elapsed Time	Differential Pressure Readings (inches of water)		
Prior to AFVR		0.0	0.0	0.0
11:30	0.0	0.0	0.0	0.0
12:00	0.5	0.0	0.0	0.0
12:30	1.0	0.0	0.0	0.0
13:00	1.5	0.0	0.0	0.0
13:30	2.0	0.0	0.0	0.0
14:00	2.5	0.0	0.0	0.0
14:30	3.0	0.0	0.0	0.0
15:00	3.5	0.0	0.0	0.0
15:30	4.0	0.0	0.0	0.0
16:00	4.5	0.0	0.0	0.0
16:30	5.0	0.0	0.0	0.0
17:00	5.5	0.0	0.0	0.0
17:30	6.0	0.0	0.0	0.0
18:00	6.5	0.0	0.0	0.0
18:30	7.0	0.0	0.0	0.0
19:00	7.5	0.0	0.0	0.0
19:30	8.0	0.0	0.0	0.0
20:30	9.0	0.0	0.0	0.0
21:30	10.0	0.0	0.0	0.0
22:30	11.0	0.0	0.0	0.0
23:30	12.0	0.0	0.0	0.0
0:30	13.0	0.0	0.0	0.0
1:30	14.0	0.0	0.0	0.0
2:30	15.0	0.0	0.0	0.0
3:30	16.0	0.0	0.0	0.0
4:30	17.0	0.0	0.0	0.0
5:30	18.0	0.0	0.0	0.0
6:30	19.0	0.0	0.0	0.0
7:30	20.0	0.0	0.0	0.0
8:30	21.0	0.0	0.0	0.0
9:30	22.0	0.0	0.0	0.0
10:30	23.0	0.0	0.0	0.0
11:30	24.0	0.0	0.0	0.0
Maximum Change:		0.0	0.0	0.0

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		PW-1R	MW-3R	MW-15
Nearest Extraction Well:		MW-4R	RW-2	MW-4R
Approximate Distance:		4 ft	51 ft	127 ft
Time	Elapsed Time	Depth to Liquid (feet below of casing):		
Prior to AFVR		2.94	3.28	2.43
15:30	4 hours	3.05	2.95	2.43
19:30	8 hours	3.11	2.76	2.43
23:30	12 hours	3.12	2.76	2.43
3:30	16 hours	3.14	2.78	2.43
7:30	20 hours	3.15	2.80	2.44
11:30	24 hours	3.16	2.81	2.45
Maximum Change:		-0.22	0.52	-0.02

US Water Recovery

Non-Hazardous Manifest: Waste Water or Drums

Number:

1. Generator's EPA ID# (if applicable): Waste ID Number:

2. Generator's Name and Mailing Address: KANGAROO EXPRESS BP
6195 SOUTH OKATIE HWY
HARDEEVILLE SC
Phone ( )
P O #:

3. Agent of Generator and Mailing Address: MIDLANDS ENV.
COLUMBIA SC
Phone ( )
P O #:

4. Transporter Company Name: GOODSELL TRANSPORT
511 OLD MT. HOLLY RD
GOOSE CREEK
Phone ( )
Truck & Trailer License Number:

5. Transporter U.S. EPA ID#:

6. Facility Name and Site Address:
US Water Recovery
511 Old Mt. Holly Rd.
Goose Creek, SC 29445
Phone: (843) 797-8674
Fax: (843) 797-2126

Mailing Address:
US Water Recovery
511 Old Mt. Holly Rd.
Goose Creek, SC 29445
Phone: (843) 797-3111
Fax: (843) 797-1884

7 Facility U.S. EPA ID#:

Start Level: End Level: Total Gallons: Tank Number

8. U.S. DOT Description	Container No.	Container Type	Unit	Quantity
a. Non-Hazardous, non-regulated waste water	101	VT	GAL	2600

9. Generator's Certification: I hereby declare that the contents of this consignment are not hazardous by definition or listing and are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and the laws of the State of South Carolina. I further certify that the contents of this consignment are as represented by the description contained on the Waste Profile Form previously submitted to and approved by the Designated Facility.

Printed/Typed Name: David McCranie Signature: David McCranie Date:

10. Transporter Acknowledgement of Receipt of Materials
Printed/Typed Name: PAUL GOODSELL Signature: Paul Goodsell Date: 5-2-14

11. Discrepancy Indication space:

12. Facility Owner or Operator: Certification of Receipt of Materials
Printed/Typed Name: Signature: Date

White - Facility Yellow - Office Pink - Transporter Blue - Generator

10266

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	1	803-926-0089	19543

GENERATOR

5. Generator's Name and Mailing Address
Midlands Environmental Consultants
P.O. Box 854
Lexington, SC 29071-
803- 808-2043
Generator's Phone:

Generator's Site Address (if different than mailing address)
235 Dooley Road
Lexington, SC 29073

6. Transporter 1 Company Name
Regulatory Solutions, Inc 803-926-0089

U.S. EPA ID Number

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
Regulatory Solutions, Inc.
40 Pascon Court
Gaston, SC, 29053-
803-926-0089
Facility's Phone:

U.S. EPA ID Number

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	NON-RCRA, NON-DOT REGULATED MATERIAL 10562 - 1045	1	T T	2625	G	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Pantry 911 - UST Permit # 10628 1,200 gallons
Former JR Deli - UST Permit # 10503 1,425 gallons

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name | Signature | Month 5 | Day 16 | Year 14

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name Chris Hare | Signature | Month 5 | Day 16 | Year 14

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)

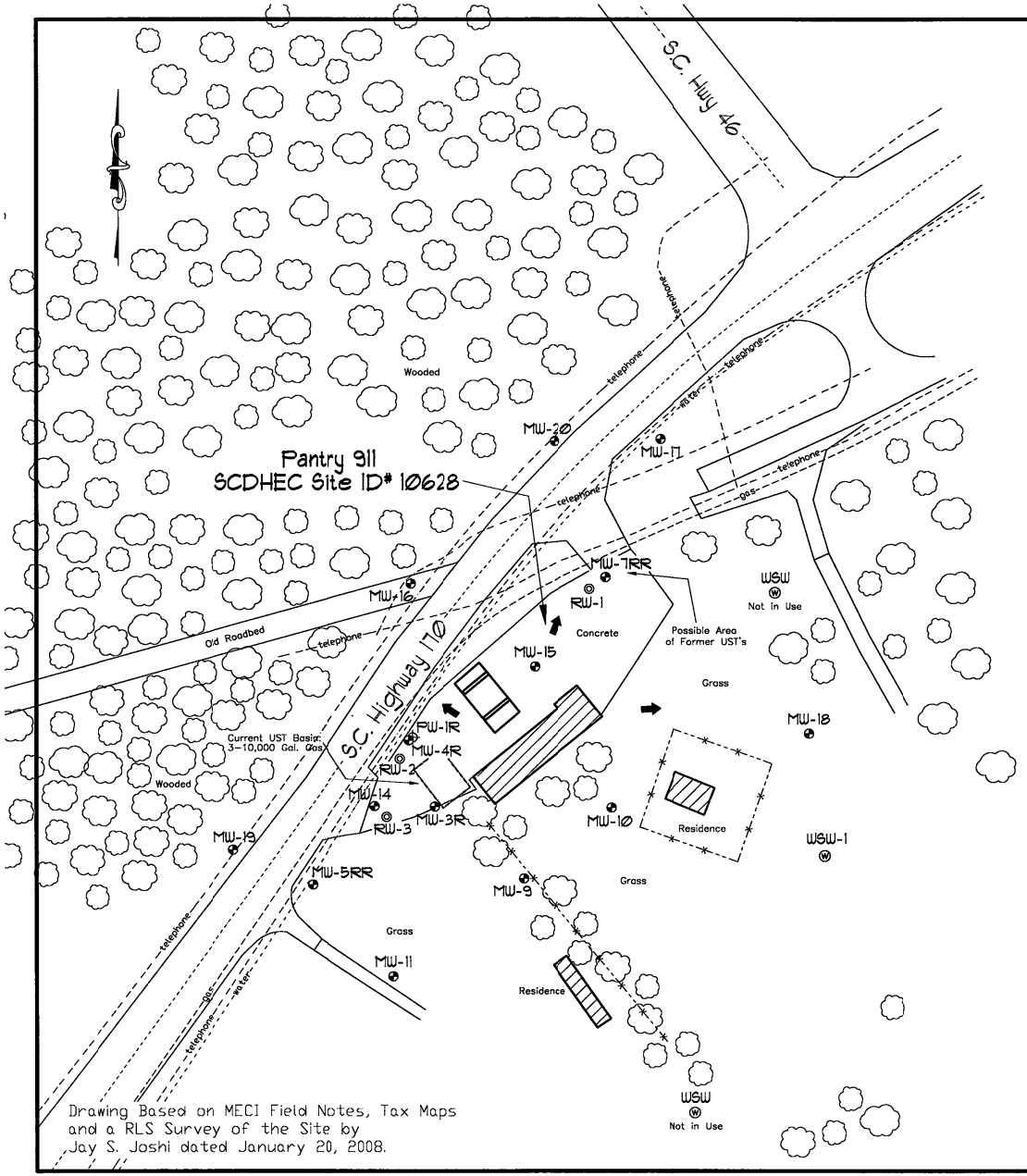
U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) | Month | Day | Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name | Signature | Month | Day | Year



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of 4-inch Recovery Well
- Location of Double Cased Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Existing Underground Storage Tanks
- water — Buried Water Line
- telephone — Under Ground Telephone

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

ALL LOCATIONS ARE APPROXIMATE

Site Base Map

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 14-4750
DATE May 13, 2014
FIGURE 2

D H E C

PROMOTE PROTECT PROSPER

Catherine B Templeton, Director

Promoting and protecting the health of the public and the environment

MR DONNIE MALPHRUS
MALPHRUS ENTERPRISES
6195 SOUTH OKATIE HWY
HARDEEVILLE SC 29927-8034

JUN 0 4 2014

UST 31 tech DOCKETING

Re: **Site Specific Work Plan Request**
Pantry 911, 6195 South Okatie Highway, Hardeeville, SC 29927-8034
UST Permit # 10628
Release reported April 28, 1995
AFVR Report received May 21, 2014
Jasper County

Dear Mr. Malphrus:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (Agency) has reviewed the referenced report. The report indicates the presence of chemicals of concern in the groundwater.

To determine what risk the referenced release may pose to the environment and public health, and in accordance with Section 280.65 of the South Carolina Underground Storage Tank Control Regulations, implementation of a groundwater sampling event as outlined in the UST Quality Assurance Program Plan (QAPP) Revision 2.0 is necessary. All monitoring wells and water supply wells associated with the release should be sampled for BTEX, naphthalene, MtBE, 1,2-DCA, 8-Oxygenates and EDB. The groundwater sampling event should be conducted in accordance with the UST QAPP and must be conducted in compliance with all applicable regulations. A copy of the Agency's QAPP for the Underground Storage Tank Division is available at http://www.scdhec.gov/environment/lwm/usthome/Qapp.htm.

Please have your contractor complete and submit the Site Specific Work Plan and Cost Agreement within thirty (30) days of the date of this letter. The Site Specific Work Plan form can be found at http://www.dhec.sc.gov/administration/library/D-0653.pdf. Every component may not be necessary to complete the above scope of work. The State Underground Petroleum Environmental Response Bank (SUPERB) Account allowable cost for each component is included on the Assessment Component Cost Agreement Form. **Please note that technical and financial preapproval from the Agency must be issued before work begins**.

On all correspondence regarding this site, please reference UST Permit #10628. If you have questions or need additional information, feel free to call me at (803) 898-0606.

Sincerely,

John C. Bryant, Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

cc: Midlands Environmental Consultants, Inc., PO Box 854, Lexington, SC 29071
Technical File

Midlands Environmental Consultants, Inc.

June 27, 2014

Mr. John Bryant, Hydrogeologist
Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Site-Specific Work Plan
Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID Number 10628
MECI Project Number 14-4855
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Bryant,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Site-Specific Work Plan for the referenced site.

On June 20, 2014, MECI personnel performed a site visit to the subject site to evaluate site conditions, locate monitoring wells and identify potential problems for future sampling activities.

If you have any question or comments please feel free to contact us at 803-808-2043.

Sincerely,
Midlands Environmental Consultants, Inc.

For
Kyle V. Pudney
Staff Biologist

Jeff L. Coleman
Senior Scientist

Post Office Box 854, Lexington SC 29071 • 231 Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

Midlands Environmental Consultants, Inc.

D H E C
PROMOTE PROTECT PROSPER

Site-Specific Work Plan for Approved ACQAP
Underground Storage Tank Management Division

To: Mr. John Bryant (SCDHEC Project Manager)
From: Mr. Jeff Coleman (Contractor Project Manager)
Contractor: Midlands Environmental Consultants, Inc. UST Contractor Certification Number: 009

Facility Name: Pantry 911 UST Permit #: 10628
Facility Address: 6195 South Okatie Highway, Hardeeville, SC 29927-8034
Responsible Party: Malphrus Enterprises Phone: (843)-263-3050
RP Address: 2789 North Okatie Highway, Ridgeland, SC 29936
Property Owner (if different): SAA
Property Owner Address: SAA
Current Use of Property: Active Gas Station

Scope of Work (Please check all that apply)

☐ IGWA ☐ Tier II ☑ Groundwater Sampling ☐ GAC
☐ Tier I ☐ Monitoring Well Installation ☐ Other _____

Analyses (Please check all that apply)

Groundwater/Surface Water:

☑ BTEXNMDCA (8260B) ☐ Lead ☐ BOD ☐ Methane
☑ Oxygenates (8260B) ☐ 8 RCRA Metals ☐ Nitrate ☐ Ethanol
☑ EDB (8011) ☐ TPH ☐ Sulfate ☐ Dissolved Iron
☐ PAH (8270D) ☐ pH ☐ Other _____

Soil:

☐ BTEXN ☐ 8 RCRA Metals ☐ TPH-DRO (3550B/8015B) ☐ Grain Size
☐ PAH ☐ Oil & Grease (9071) ☐ TPH-GRO (5030B/8015B) ☐ TOC

Air:

☐ BTEXN

Sample Collection (Estimate the number of samples of each matrix that are expected to be collected.)

_____ Soil 2 Water Supply Wells _____ Air 1 Field Blank
18 Monitoring Wells _____ Surface Water 2 Duplicate 1 Trip Blank

Field Screening Methodology

Estimate number and total completed depth for each point, and include their proposed locations on the attached map.

# of shallow points proposed: _____ Estimated Footage: _____ feet per point
# of deep points proposed: _____ Estimated Footage: _____ feet per point
Field Screening Methodology: _____

Permanent Monitoring Wells

Estimate number and total completed depth for each well, and include their proposed locations on the attached map.

# of shallow wells: _____ Estimated Footage: _____ feet per point
# of deep wells: _____ Estimated Footage: _____ feet per point
# of recovery wells: _____ Estimated Footage: _____ feet per point
Monitoring Well development method (consistent with SOP): _____
Comments, if warranted:

_____
_____
_____

UST Permit #: 10628 Facility Name: Pantry 911

Implementation Schedule (Number of calendar days from approval)
Field Work Start-Up: 7/11/2014 Field Work Completion: 8/11/2014
Report Submittal: 9/11/2014 # of Copies Provided to Property Owners: 2

Aquifer Characterization
Pump Test: ☐ Slug Test: ☐ (Check one and provide explanation below for choice)

Investigation Derived Waste Disposal
Soil: _____ Tons Purge Water: 400.0 Gallons
Drilling Fluids: _____ Gallons Free-Phase Product: _____ Gallons

Additional Details For This Scope of Work
For example, list wells to be sampled, wells to be abandoned/repaired, well pads/bolts/caps to replace, details of AFVR event, etc.
-Monitoring well MW-17 was not located during the site visit; however if this well is found during sampling activities, it will be sampled accordingly.

-All other sampling locales were located.

-A total of six bolts and one well lid is needed to properly secure monitoring wells at the subject site.

Compliance With Annual Contractor Quality Assurance Plan (ACQAP)
Yes Laboratory as indicated in ACQAP? (Yes/No) If no, indicate laboratory information below.
Name of Laboratory: _____
SCDHEC Certification Number: _____
Name of Laboratory Director: _____

N/A Well Driller as indicated in ACQAO? (Yes/No) If no, indicate driller information below.
Name of Well Driller: _____
SCLLR Certification Number: _____

N/A Other variations from ACQAP. Please describe below.

Attachments
1. Attach a copy of the relevant portion of the USGS topographic map showing the site location.
2. Prepare a site base map. This map must be accurately scaled, but does not need to be surveyed. The map must include the following:
   - North Arrow
   - Location of property lines
   - Location of buildings
   - Previous soil sampling locations
   - Previous monitoring well locations
   - Proposed soil boring locations
   - Proposed monitoring well locations
   - Legend with facility name and address, UST permit number, and bar scale
   - Streets or highways (indicate names and numbers)
   - Location of all present and former ASTs and USTs
   - Location of all potential receptors
3. Assessment Component Cost Agreement, SCDHEC Form D-3664

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

ASSESSMENT COMPONENT COST AGREEMENT

SOUTH CAROLINA

Department of Health and Environmental Control

Underground Storage Tank Management Division

State Underground Petroleum Environmental Response Bank Account

May 15, 2014

Facility Name: Pantry 911

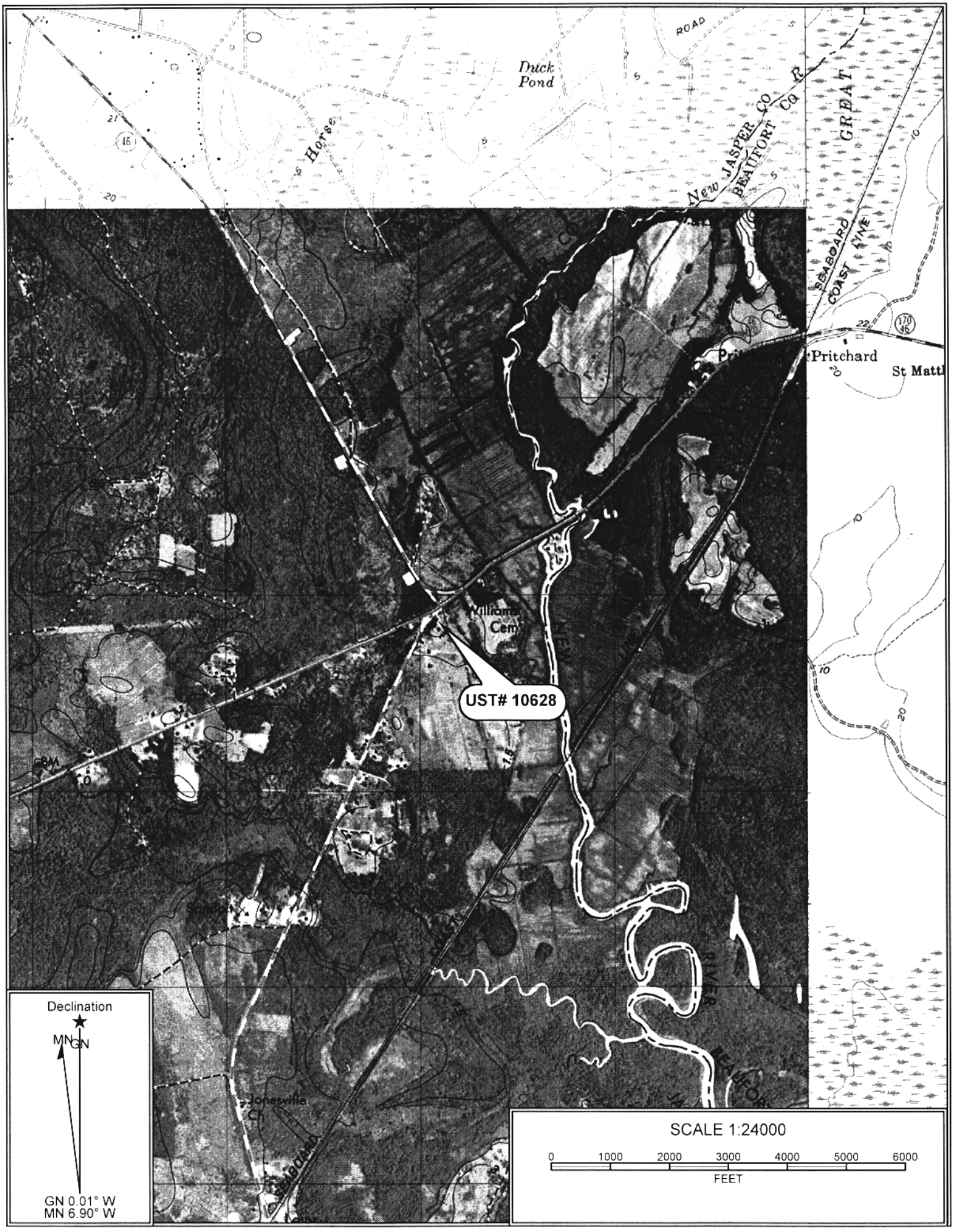
UST Permit #: 10628 **Cost Agreement #:**

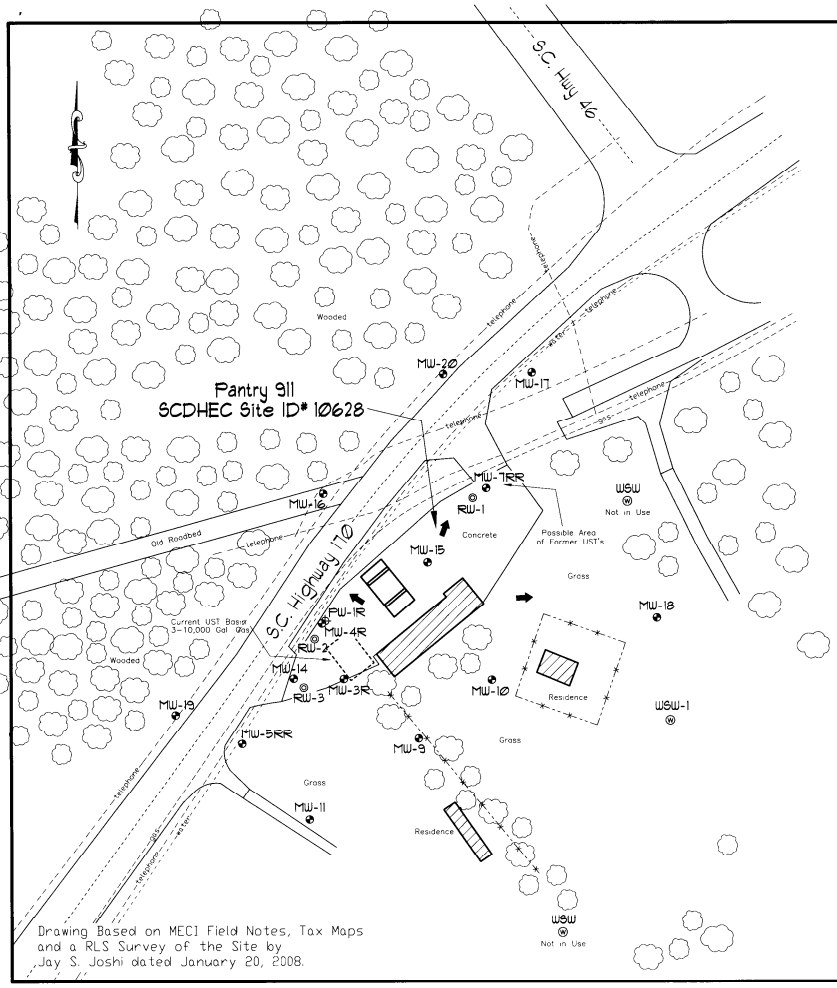
ITEM	QUANTITY	UNIT	UNIT PRICE		TOTAL
1. **Plan Preparation**					
A1. Site-specific Work Plan	1	each	$150.00		$150.00
B1. Tax Map		each	$70.00		$0.00
C1. Tier II or Comp. Plan /QAPP Appendix B		each	$250.00		$0.00
2. A1. **Receptor Survey ***		each	$551.00		$0.00
3. **Survey (500 ft x 500 ft)**					
A1. Comprehensive Survey		each	$1,040.00		$0.00
B. Subsurface Geophysical Survey					
1B. < 10 meters below grade		each	$1,300.00		$0.00
2B. > 10 meters below grade		each	$2,310.00		$0.00
C1. Geophysical UST or Drum Survey		each	$910.00		$0.00
4. **Mob/Demob**					
A1. Equipment		each	$1,020.00		$0.00
B1. Personnel	3	each	$423.00		$1,269.00
C1. Adverse Terrain Vehicle		each	$500.00		$0.00
5. A1. **Soil Borings (hand auger)***		foot	$5.00		$0.00
6. **Soil Borings (requiring equipment, push technology, etc)* or Field Screening (including water ssample, soil sample, soil gas sample, etc.)***					
AA. Standard		per foot	$15.00		$0.00
C1. Fractured Rock		per foot	$20.20		$0.00
7. A1. **Soil Leachability Model**		each	$60.00		$0.00
8. **Abandonment (per foot)***					
A1. 2" diameter or less		per foot	$3.10		$0.00
B1. Greater than 2" to 6" diameter		per foot	$4.50		$0.00
C1. Dug/Bored well (up to 6 feet diameter)		per foot	$15.00		$0.00
9. **Well Installation (per foot)***					
A1. Water Table (hand augered)		per foot	$10.60		$0.00
B1. Water Table (drill rig)		per foot	$38.00		$0.00
CC. Telescoping		per foot	$50.00		$0.00
DD. Rock Drilling		per foot	$58.00		$0.00
E1. 2" Rock Coring		per foot	$30.90		$0.00
G1. Rock Multi-sampling ports/screens		per foot	$33.40		$0.00
HH. Recovery Well (4" diameter)		per foot	$45.00		$0.00
II. Pushed Pre-packed screen (1.25" dia)		per foot	$15.00		$0.00
J1. Rotosonic (2" diameter)		per foot	$44.00		$0.00
K. Re-develop Existing Well		per foot	$11.00		$0.00
10. **Groundwater Sample Collection / Gauge Depth to Water or Product ***					
A1. Groundwater Purge	18	per well/receptor	$60.00		$1,080.00
B1. Air or Vapors		per receptor	$12.00		$0.00
C1. Water Supply	2	per well/receptor	$22.00		$44.00
D1. Groundwater No Purge or Duplicate		per well/receptor	$28.00		$0.00
E1. Gauge Well only		per well	$7.00		$0.00
F1. Sample Below Product		per well	$12.00		$0.00
G1. Passive Diffusion Bag		each	$26.00		$0.00
H1. Field Blank	1	each	$24.60		$24.60

11. Laboratory Analyses-Groundwater					
A2. BTEXNM+Oxyg's+1,2 DCA+Eth(8260B)	24	per sample	$122.00		$2,928.00
AA1. Lead, Filtered		per sample	$13.80		$0.00
B2. Rush EPA Method 8260B (All of item A.)		per sample	$153.60		$0.00
C2. Trimethal, Butyl, and Isopropyl Benzenes		per sample	$36.40		$0.00
D1. PAH's		per sample	$60.60		$0.00
E1. Lead		per sample	$16.00		$0.00
F1. EDB by EPA 8011	23	per sample	$45.20		$1,039.60
FF1. EDB by EPA Method 8011 Rush		per sample	$68.20		$0.00
G1. 8 RCRA Metals		per sample	$63.40		$0.00
H1. TPH (9070)		per sample	$41.00		$0.00
II. pH		per sample	$5.20		$0.00
J1. BOD		per sample	$20.00		$0.00
PP. Ethanol		per sample	$14.80		$0.00
11. **Analyses-Soil**					
Q1. BTEX + Naphth.		per sample	$64.00		$0.00
R1. PAH's		per sample	$64.04		$0.00
S1. 8 RCRA Metals		per sample	$56.40		$0.00
U1. TPH-DRO (3550C/8015C)		per sample	$40.00		$0.00
V1. TPH- GRO (5030B/8015C)		per sample	$35.96		$0.00
W1. Grain size/hydrometer		per sample	$104.00		$0.00
X1. Total Organic Carbon		per sample	$30.60		$0.00
11. **Analyses-Air**					
Y1. BTEX + Naphthalene		per sample	$216.00		$0.00
11. **Analyses-Free Phase Product**					
Z1. Hydrocarbon Fuel Identification		per sample	$357.00		$0.00
12. **Aquifer Characterization**					
A1. Pumping Test*		per hour	$23.00		$0.00
B1. Slug Test*		per test	$191.00		$0.00
C1. Fractured Rock		per test	$100.00		$0.00
13. A1. **Free Product Recovery Rate Test***		each	$38.00		$0.00
14. **Fate/Transport Modeling**					
A1. Mathematical Model		each	$100.00		$0.00
B1. Computer Model		each	$100.00		$0.00
15. **Risk Evaluation**					
A. Tier I Risk Evaluation		each	$300.00		$0.00
B1. Tier II Risk Evaluation		each	$100.00		$0.00
16. A1. **Subsequent Survey***		each	$260.00		$0.00
17. **Disposal (gallons or tons)***					
AA. Wastewater		gallon	$0.56		$0.00
BB. Free Product		gallon	$0.50		$0.00
C1. Soil Treatment/Disposal		ton	$60.00		$0.00
D1. Drilling fluids		gallon	$0.42		$0.00
18. **Miscellaneous (attach receipts)**					
		each	$0.00		$0.00
		each	$0.00		$0.00
		each	$0.00		$0.00
20. **Tier I Assessment (Use DHEC 3665 form)**		standard			$0.00
21. **IGWA (Use DHEC 3666 form)**		standard			$0.00
22. **Corrective Action (Use DHEC 3667 form)**		PFP Bid			$0.00

23. **Aggressive Fluid & Vapor Recovery (AFVR)**					
A1. 8-hour Event*		each	$1,375.00		$0.00
AA. 24-hour Event*		each	$3,825.00		$0.00
A3. 48-hour Event*		each	$6,265.00		$0.00
A4. 96-hour Event*		each	$12,567.50		$0.00
C1. Off-gas Treatment 8 hour		per event	$122.50		$0.00
C2. Off-gas Treatment 24 hour		per event	$241.50		$0.00
C3. Off-gas Treatment 48 hour		per event	$327.00		$0.00
C4. Off-gas Treatment 96 hour		per event	$780.00		$0.00
D. Site Reconnaissance		each	$203.25		$0.00
E1. Additional Hook-ups		each	$25.75		$0.00
F1. Effluent Disposal		gallon	$0.44		$0.00
G. AFVR Mobilization/Demobilization		each	$391.50		$0.00
24. **Granulated Activated Carbon (GAC) filter system installation & service:**					
A1. New GAC System Installation*		each	$1,900.00		$0.00
BB. Refurbished GAC Sys. Install*		each	$900.00		$0.00
C1. Filter replacement/removal*		each	$350.00		$0.00
DD. GAC System removal, cleaning, & refurbishment*		each	$275.00		$0.00
E1. GAC System housing*		each	$250.00		$0.00
F. In-line particulate filter		each	$150.00		$0.00
G1. Additional piping & fittings		foot	$1.50		$0.00
25. **Well Repair**					
A1. Additional Copies of the Report Delivered	2	each	$50.00		$100.00
B1. Repair 2x2 MW pad*		each	$50.00		$0.00
C1. Repair 4x4 MW pad*		each	$88.00		$0.00
D1. Repair well vault*		each	$118.00		$0.00
F1. Replace well cover bolts	6	each	$2.60		$15.60
G. Replace locking well cap & lock	1	each	$15.00		$15.00
H1. Replace/Repair stick-up*		each	$134.00		$0.00
I1. Convert Flush-mount to Stick-up*		each	$150.00		$0.00
J1. Convert Stick-up to Flush-mount*		each	$130.00		$0.00
K1. Replace missing/illegible well ID plate		each	$12.00		$0.00
Report Prep & Project Management	12%	percent	$6,665.80		$799.90
TOTAL					$7,465.70

*The appropriate mobilization cost can be added to complete these tasks, as necessary


Duck Pond
Horse
ROAD
NEW JASPER CO
BEAUFORT CO
R
GREAT
SEABOARD COAST LINE
Pritchard
St Matt
UST# 10628
Jonesville Ch
SEABOARD
RIVER
Declination
MN
GN
GN 0.01° W
MN 6.90° W
SCALE 1:24000
0 1000 2000 3000 4000 5000 6000
FEET



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of 4-inch Recovery Well
- Location of Double Cased Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Existing Underground Storage Tanks
- water — Buried Water Line
- telephone — Under Ground Telephone

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

ALL LOCATIONS ARE APPROXIMATE

Site Base Map

Pantry 911
6135 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

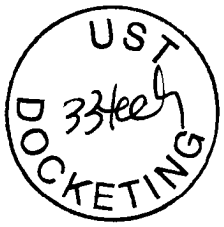
Midlands Environmental Consultants, Inc.

JOB NO 13-4447
DATE July 17, 2013
FIGURE 2

D H E C
PROMOTE PROTECT PROSPER
Catherine B Templeton, Director
Promoting and protecting the health of the public and the environment

DONNIE B. MALPHRUS ENTERPRISES
ATTN: DONNIE MALPHRUS
PO BOX 488
Hardeeville SC 2927-0488

JUL 0 2 2014



Re: **Groundwater Sampling Directive**
Pantry #911, 6195 South Okatie Highway, Hardeeville, SC 29927-8034
UST Permit # 10628; CA# 48279
Release Reported April 28, 1995
Site Specific Work Plan received July 1, 2014
Jasper County

Dear Mr. Malphrus:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (Agency) has reviewed the referenced Site Specific Work Plan submitted on your behalf by Midlands Environmental. The next appropriate scope of work at the site is a comprehensive groundwater sampling event. All work should be conducted in accordance with the UST Quality Assurance Program Plan (QAPP) Revision 2.0, and must be conducted in compliance with all applicable regulations. A copy of the Agency QAPP Revision 2.0, for the UST Management Division is available at http://www.scdhec.gov/environment/lwm/usthome/Qapp.htm.

Groundwater sampling activities at the site should begin immediately upon receipt of this letter. Cost agreement # 48279 has been approved for the amount shown on the enclosed cost agreement form for sampling all monitoring wells associated with the referenced release. Groundwater samples should be collected and analyzed for BTEX, naphthalene, MtBE, 8 oxygenates, 1,2 DCA, and EDB. Analyses should be in accordance with Appendix E of the QAPP to include duplicate samples, field and trip blanks.

In accordance with the QAPP, a weekly status report of the project should be provided via e-mail. If any quality assurance problems arise, you must contact me within 24 hours via phone or e-mail. In addition, a discussion of the problem(s) encountered, including quality assurance problems, the actions taken, and the results must be included in the final report submitted to the UST Management Division.

The Monitoring Report, contractor checklist (QAPP Appendix K), and invoice are due within 60 days from the date of this letter. The report submitted at the completion of these activities should include the required information outlined in the QAPP. Please note that all applicable South Carolina certification requirements apply to the services and report preparation. All site rehabilitation activities must be performed and submitted by a South Carolina Certified Underground Storage Tank Site Rehabilitation Contractor.

Midlands Environmental can submit an invoice for direct payment from State Underground Petroleum Environmental Response Bank (SUPERB) Account for pre-approved costs. By law, the SUPERB Account cannot compensate any costs that are not pre-approved. Please note that applicable South Carolina certification requirements regarding laboratory services and report preparation must be satisfied. If the invoice is not submitted within 120 days from the date of this letter, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available.

Please note that Sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that no costs will be allowed unless prior approval from the Agency is obtained. If for any reason additional tasks will be completed, these additional tasks and the associated cost must be pre-approved by the Agency for the cost to be paid. The Agency reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria. Further, the Agency reserves the right to question and/or reject costs if deemed unreasonable and the right to audit project records at any time during the project or after completion of work.

Please note, if unnecessary dilutions are completed resulting in reporting limits of individual chemical of concern (CoC) in excess of Risk-Based Screening Levels (RBSLs), the data cannot be used. In those cases, the Division may deny payment for any non-detect analysis where the reporting limit exceeds the RBSL. The UST Management Division encourages the use of 'J' values as necessary so the appropriate action can be determined for a release.

The Agency grants pre-approval for transportation of virgin petroleum impacted soil and groundwater from the referenced site to a permitted treatment facility. The transport and disposal must be conducted in accordance with the QAPP. If the CoC concentrations based on laboratory analysis are below RBSLs, please contact the project manager for approval to dispose of soil and/or groundwater on site. The SUPERB Account will not reimburse for transportation or treatment of soil and/or groundwater with concentrations below RBSLs.

On all correspondence regarding this site, please reference UST Permit # 10628. If you have any questions regarding this correspondence, please contact me by telephone at (803) 898-0606, by fax at (803) 898-0673, or by e-mail at bryantjc@dhec.sc.gov.

Sincerely,

John C. Bryant, Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

enc: Approved Cost Agreement

cc: Midlands Environmental Consultants, Inc., PO Box 854, Lexington, SC 29071 (with enc.)
Technical File (with enc.)

Approved Cost Agreement 48279

Facility: 10628 PANTRY 911

BRYANTJC

PO Number

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
01 PLAN						
		A1	SITE SPECIFIC WORK PLAN	1.0000	150 00	150.00
04 MOB/DEMOB						
		B1	PERSONNEL	3.0000	423.00	1,269 00
10 SAMPLE COLLECTION						
		A1	GROUNDWATER (PURGE)	18 0000	60.00	1,080.00
		C1	WATER SUPPLY	2 0000	22.00	44 00
		D1	GROUNDWATER NO PURGE/DUPLICATE	2 0000	28.00	56 00
		H1	FIELD BLANK	1 0000	24.60	24.60
11 ANALYSES	GW GROUNDWATER					
		A2	BTEXNM+OXYGS+1,2-DCA+ETH-8260B	25 0000	122.00	3,050.00
		F1	EDB BY 8011	23.0000	45.20	1,039.60
19 RPT/PROJECT MNGT & COORDINATIO						
		PRT	REPORT PREPARATION	0.1200	6,843.80	821 26
25 WELL REPAIR						
		A1	ADDITIONAL COPIES OF REPORT	2 0000	50.00	100.00
		F1	REPLACE WELL COVER BOLTS	6 0000	2 60	15.60
		G	REPLACE LOCKING WELL CAP & LOC	1.0000	15 00	15.00
				Total Amount		7,665 06

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

ATTN: KIM MALPHRUS
KIM MALPHRUS REALTY
2788 NORTH OKATIE HIGHWAY
RIDGELAND, SC 29936

JUL 2 5 2014

Re: **Letter of Concern**
Pantry 911, 6195 South Okatie Highway, Hardeeville, SC 29927-8034
UST Permit # 10628
E-Mail Request Received July 25, 2014
Jasper County

Dear Ms. Malphrus:

You requested that this office provide you with an update on the environmental conditions at the above referenced facility.

We received a report on April 28, 1995 documenting petroleum chemicals of concern in the subsurface in the vicinity of the former underground storage tanks. Our records revealed that three underground storage tank (USTs) owned by Malphrus Enterprises were in operation at the time of the release (April 28, 1995). In response to the initial report of petroleum chemicals of concern, we directed Malphrus Enterprises, as the party responsible for performing this activity under state and federal law, to assess the extent and severity of the contamination. In the near future a groundwater sampling report will be provided.

The UST Division would also like to clarify for you the financial and liability issues surrounding the petroleum chemicals of concern at this facility. The release of petroleum products from the UST is qualified to receive funding from the State Underground Petroleum Environmental Response Bank (SUPERB) Account. This means that reasonable costs up to $1,000,000 can be paid by the SUPERB Account for site rehabilitation actions associated with this release.

In 1997, the General Assembly amended Section 80 (B) of the SUPERB Act to clarify that persons who hold "indicia of ownership" primarily to protect a security interest in property impacted by a release from a UST are exempt from the requirements to conduct site rehabilitation activities other than necessary abatement actions to eliminate any imminent threat to human health or the environment. The "indicia of ownership" exemption includes those persons who acquire title to the property through foreclosure or other means necessary to protect their security interest, provided that person does not participate in the management of the UST and is not otherwise engaged in petroleum production, marketing, or refining. This applies equally to subsequent lenders who acquire the USTs and property through foreclosure in the future.

The Division is not aware of any laws or regulations that prohibit the use or development of properties where a petroleum release has occurred. Any future work required by the Agency should not cause any damage to the building, disrupt deliveries, prevent access to customers, or block main access routes. To further assure you, any required activities associated with the petroleum release would be performed by a SC Certified Site Rehabilitation Contractor who maintains specific levels of insurance coverage for General and Professional Liability and Pollution/Property Damage. Such coverage is required by Section IV of the SUPERB Site Rehabilitation and Fund Access Regulations R. 61-98.

If you have any questions, please contact me at (803) 898-0606. I can also be reached by email at bryantjc@dhec.sc.gov.

Sincerely,

John Bryant, Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

cc: Midlands Environmental Consultants, Inc, PO Box 854, Lexington, SC 29071
Technical File

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

ATTN: BRENT PUZAK
THE PANTRY INC
305 GREGSON DRIVE
PO BOX 8019
CARY, NC 27511

JUL 2 8 2014

Re: **Letter of Concern**
Pantry 911, 6195 South Okatie Highway, Hardeeville, SC 29927-8034
UST Permit # 10628
E-Mail Request Received July 25, 2014
Jasper County

Dear Mr. Puzak:

You requested that this office provide you with an update on the environmental conditions at the above referenced facility.

We received a report on April 28, 1995 documenting petroleum chemicals of concern in the subsurface in the vicinity of the former underground storage tanks. Our records revealed that three underground storage tank (USTs) owned by Malphrus Enterprises were in operation at the time of the release (April 28, 1995). In response to the initial report of petroleum chemicals of concern, we directed Malphrus Enterprises, as the party responsible for performing this activity under state and federal law, to assess the extent and severity of the contamination. In the near future a groundwater sampling report will be provided.

The UST Division would also like to clarify for you the financial and liability issues surrounding the petroleum chemicals of concern at this facility. The release of petroleum products from the UST is qualified to receive funding from the State Underground Petroleum Environmental Response Bank (SUPERB) Account. This means that reasonable costs up to $1,000,000 can be paid by the SUPERB Account for site rehabilitation actions associated with this release.

In 1997, the General Assembly amended Section 80 (B) of the SUPERB Act to clarify that persons who hold "indicia of ownership" primarily to protect a security interest in property impacted by a release from a UST are exempt from the requirements to conduct site rehabilitation activities other than necessary abatement actions to eliminate any imminent threat to human health or the environment. The "indicia of ownership" exemption includes those persons who acquire title to the property through foreclosure or other means necessary to protect their security interest, provided that person does not participate in the management of the UST and is not otherwise engaged in petroleum production, marketing, or refining. This applies equally to subsequent lenders who acquire the USTs and property through foreclosure in the future.

The Division is not aware of any laws or regulations that prohibit the use or development of properties where a petroleum release has occurred. Any future work required by the Agency should not cause any damage to the building, disrupt deliveries, prevent access to customers, or block main access routes. To further assure you, any required activities associated with the petroleum release would be performed by a SC Certified Site Rehabilitation Contractor who maintains specific levels of insurance coverage for General and Professional Liability and Pollution/Property Damage. Such coverage is required by Section IV of the SUPERB Site Rehabilitation and Fund Access Regulations R. 61-98.

If you have any questions, please contact me at (803) 898-0606. I can also be reached by email at bryantjc@dhec.sc.gov.

Sincerely,

John Bryant, Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

cc: Midlands Environmental Consultants, Inc, PO Box 854, Lexington, SC 29071
Cardno ATC, Jesse Keeffe, 400 Northeast Drive, Unit Q, Columbia, SC 29203
Technical File

REPORT OF GROUNDWATER SAMPLING AND CHEMICAL ANALYSES

Pantry 911
6195 South Okatie Highway
Hardeeville, South Carolina
SCDHEC SITE ID 10628
CA # 48279

Prepared By:

Midlands
Environmental
Consultants, Inc.
231 Dooley Road, Lexington, SC 29073
(803) 808-2043 fax: 808-2048

July 25, 2014

MECI Project No. 14-4855

REPORT OF MONITORING WELL INSTALLATION, GROUNDWATER SAMPLING AND CHEMICAL ANALYSES

Pantry 911
6195 South Okatie Highway
Hardeeville, South Carolina
SCDHEC SITE ID 10628
CA # 48279

Prepared By:

Midlands Environmental Consultants, Inc.
231 Dooley Road, Lexington, SC 29073
(803) 808-2043 fax: 808-2048

July 25, 2014

MECI Project No. 14-4855

Midlands
Environmental
Consultants, Inc.

July 25, 2014

Mr. John C. Bryant, Hydrogeologist
Corrective Action Section
Assessment & Corrective Action Division
Underground Storage Tank Program
Bureau of Land & Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Report of Monitoring Well Installation, Groundwater Sampling and Chemical Analyses
Pantry 911
6195 South Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID# 10628, CA # 48279
MECI Project Number 14-4855
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Bryant,

On behalf of Mr. Donnie Malphrus of Malphrus Enterprises, Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Report of Monitoring Well Installation, Ground Water Sampling and Chemical Analysis for the referenced site. This report describes assessment activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines, including adherence to the UST Division Programmatic Quality Assurance Program Plan (QAPP).

Midlands Environmental appreciates the opportunity to offer our professional environmental services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman
Senior Scientist

Bryan T. Shane, P.G.
Principal Geologist

Post Office Box 854, Lexington SC 29071 • 231 Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

TABLE OF CONTENTS

TABLE OF CONTENTS (cont.)

NOTE: ITEMS LISTED WITH AN ** BESIDE IT WERE NOT NEEDED AS A PART OF THIS SCOPE OF WORK

1.0 INTRODUCTION

A. **Owner/Operator Information**

Facility Name:	Malphrus Enterprises UST Permit #: 10628
Facility Address:	6195 South Okatie Highway, Hardeeville, SC 29927
Name:	Mr. Donnie Malphrus
Address:	2789 North Okatie Highway, Ridgeland, SC 29936
Telephone #:	(843) 263-3050

B. **Property Owner Information**

Name	Malphrus Enterprises
Address	2789 North Okatie Highway, Ridgeland, SC 29936
Telephone #	(843) 263-3050

C. **Contractor Information**

Name:	Midlands Environmental Consultants, Inc.
Certification #:	9
Address:	P. O. Box 854, Lexington, SC 29071
Telephone #:	(803) 808-2043

D. **SCDHEC Certified Well Driller**

Name:	N/A
Driller:	N/A
Certification #:	N/A
Address:	N/A
Telephone #:	N/A

E. **SCDHEC Certified Laboratory**

Name:	Shealy Environmental Services, Inc.
Certification #:	32010
Address:	106 Vantage Point Drive, West Columbia, SC 29172
Telephone #:	(803) 791-9700

1.1 PROJECT INFORMATION

The subject site (Pantry 911) is located at 6195 South Okatie Highway, Hardeeville, Jasper County, South Carolina. The subject site maintains one 10,000 gallon regular unleaded gasoline underground storage tank (UST), one 10,000 gallon premium gasoline, and one 10,000 gallon diesel UST. These UST's were given a compliance date of March 7, 2012. The South Carolina Department of Health and Environmental Control (SCDHEC) reported a release of petroleum product from these UST's in April of 1995 and confirmed the release in March of 1996. The subject site is currently rated a Class 2BB.

Prior to commencement of the field activities described in this document, a Site Specific Work Plan was completed by MECI personnel, submitted to SCDHEC and approved by the SCDHEC project manager.

The above project information is based on MECI field notes and SCDHEC files.

2.0 SURROUNDING PROPERTY USAGE

The site is located outside the town limits of Hardeeville, South Carolina. The property is currently operating as an active gasoline service station (Pantry 911). South Okatie Highway (S.C. Highway 46) forms the western and northern borders of the subject property, beyond which are wooded and undeveloped properties. South and east of the subject property are residential properties and wooded areas.

3.0 AREA GEOLOGY AND HYDROGEOLOGY

The project site is located in the Atlantic Coastal Plain Physiographic Province. The soils in this province are generally interbedded silts, sands and clays that have been deposited during successive advances and retreats of the ocean over the past several million years. This interbedding can cause perched water and makes hydrogeological interpretation difficult.

In this geologic setting, the uppermost aquifer is the surficial aquifer of sands with lenses and layers of clays and silts. Water occupies the interstices between the formation particles and is in hydrostatic balance with the atmosphere at the water table surface.

Local precipitation is the source of freshwater recharge to the Coastal Plain formations. Groundwater recharge varies considerably over the region and is attributed to the differences in precipitation and to the variability in the infiltration rates.

Coastal Plain formations generally dip toward the Atlantic Ocean. Consequently, regional groundwater movement is to the southeast. On a regional scale, hydraulic gradients are relatively low.

Locally, in the surficial aquifer, groundwater discharges into streams, lakes or springs where the groundwater table intersects lows occupied by these water bodies. Current groundwater elevation data reveal a radial flow pattern to the west, north, and east.

3.1 LOCAL SUBSURFACE CONDITIONS

Coastal plain sediments were encountered during previous drilling activities conducted at the site. The soils encountered during previous assessment activities generally consisted sandy clays and silts.

On July 10, 2014, stabilized groundwater levels were measured in the monitoring wells. Depth to groundwater ranged from 1.74 to 11.17 feet below top of casing in the wells measured. The groundwater measurements are summarized in tabular form in Table 2 and on Figure 5. Groundwater levels may fluctuate several feet with seasonal and rainfall variations and with change in the water level of adjacent drainage features. Normally, the highest groundwater levels occur in late winter and spring. The lowest levels occur in late summer and fall.

4.0 FIELD EXPLORATION

Field exploration conducted at the site included:

- Sampling of groundwater monitoring wells;
- collection of one water supply well sample;

- chemical analyses of water samples;

The monitoring well locations were selected based on SCDHEC project manager instructions, existing site conditions, and drilling accessibility.

4.1 MONITORING WELL SAMPLING AND CHEMICAL ANALYSES

On July 10, 2014, MECI personnel collected groundwater samples from fifteen (15) monitoring wells at the subject site. Monitoring wells MW-7RR and RW-1 were gauged and determined to contain measurable free phase petroleum product. Monitoring well MW-17 was not located during sampling activities. Based on a request by SCDHEC personnel, all monitoring were to be purged prior to sample collection. Fifteen (15) monitoring wells were purged prior to sampling. Purging was completed by bailing three to five well volumes of water from the well, until pH, conductivity, dissolved oxygen, temperature, and turbidity stabilized or until all available water was evacuated from the well, whichever occurred first. Sampling/purging was completed utilizing a prepackaged, clear, disposable polyethylene bailer and nylon rope. A new set of nitrile gloves were worn at each monitoring well, and at all time samples were handled. Field measurements of pH, conductivity, dissolved oxygen, water temperature, and turbidity were obtained before well sampling process. MECI utilized YSI550A meter for DO (mg/L) and temperature readings (°C) and YSI63 meters for pH and conductivity (uS) readings. The attached Field Data Information Sheets presents the results of the field measurements obtained during purging processes and Table 2 presents the results of the potentiometric data collected prior to the sampling processes. The wells were sampled in accordance with SCDHEC's Quality Assurance Program Plan for the Underground Storage Tank Management Division (QAPP, Revision 2.0) and MECI's Standard Operating Procedures (MECI SOP, Dated January 2014). Groundwater samples obtained were sent to Shealy Environmental Services, Inc. of West Columbia, SC (SCDHEC Laboratory Certification #32010) for analysis.

The following sampling matrix contains well development and requested analyses for each well:

Monitoring Well	Purge	No Purge	Gauge Well Only	Not Located	BTEX, Naphthalene, MTBE (EPA Method 8260-B)	8 Oxygenates (EPA Method 8260-B)	1,2 DCA (EPA Method 8260-B)	Ethanol (EPA Method 8260-B)	EDB (EPA Method 8011)	Total Lead (EPA Method 6010)	Filtered Lead (EPA Method 6010)	8 RCRA Metals (EPA Method 6010)	TPH (EPA Method 9071)	PAH's (EPA Method 8270)
					Analyte Sampled									
MW-3R	X				X	X	X	X	X					
MW-4R	X				X	X	X	X	X					
MW-5RR	X				X	X	X	X	X					
MW-7RR			X											
MW-9	X				X	X	X	X	X					
MW-10	X				X	X	X	X	X					
MW-11	X				X	X	X	X	X					

Notes: BTEX = benzene, toluene, ethylbenzene, & total xylenes MTBE=methyl tertiary butyl ether 1,2 DCA = 1,2 dicloroethane
PAH = polycyclic aromatic hydrocarbons

** = Indicates Field Duplicate

Monitoring Well	Purge	No Purge	Gauge Well Only	Not Located	BTEX, Naphthalene, MTBE (EPA Method 8260-B)	8 Oxygenates (EPA Method 8260-B)	1,2 DCA (EPA Method 8260-B)	Ethanol (EPA Method 8260-B)	EDB (EPA Method 8011)	Total Lead (EPA Method 6010)	Filtered Lead (EPA Method 6010)	8 RCRA Metals (EPA Method 6010)	TPH (EPA Method 9071)	PAH's (EPA Method 8270)
					Analyte Sampled									
MW-14	X				X	X	X	X	X					
MW-15	X				X	X	X	X	X					
MW-16	X				X	X	X	X	X					
MW-17				X										
MW-18	X				X	X	X	X	X					
MW-19	X				X	X	X	X	X					
MW-20	X				X	X	X	X	X					
PW-1R	X				X	X	X	X	X					
RW-1			X											
RW-2	X				X	X	X	X	X					
RW-3	X				X	X	X	X	X					
RW-3R Dup. **		X			X	X	X	X	X					
Field Blank		X			X	X	X	X	X					
Trip Blank					X	X	X	X						

Notes: BTEX = benzene, toluene, ethylbenzene, & total xylenes MTBE=methyl tertiary butyl ether 1,2 DCA = 1,2 dicloroethane
PAH = polycyclic aromatic hydrocarbons

** = Indicates Field Duplicate

The results of the laboratory analyses are summarized in Table 3 & 3A and presented in Appendix B.

Purge water produced by the purging process was treated on-site utilizing a granular activated carbon unit. A total of 66.0 gallons of purge water was disposed of in this manner. A disposal manifest for the referenced purge water is presented in Appendix G.

4.2 WATER SUPPLY WELL SAMPLING AND CHEMICAL ANALYSIS

On July 10, 2014, MECI personnel collected one (1) water supply well sample. This water supply well (WSW-1) is located approximately 350 feet east of the current UST basin. The following matrix contains well status, owner(s), and tax map identification numbers:

Water Supply Well Number	Well Owner	Jasper County Tax Map Number:	Notes:	Well Status
WSW-1	Stella Crosby Jeffers	039-00-10-029	Sampled (274 New River Rd.)	Active

The samples obtained from WSW-1 were analyzed for volatile organic compounds including BTEX, naphthalene, and methyl-tertiary-butyl-ether, 1,2 DCA, 8 Oxygenates (EPA Method 8260B) and EDB

(EPA Method 8011). Results of the laboratory analyses are summarized in Table 3, Table 3A, Figure 4, and Figure 4A. The laboratory reports are also presented in Appendix B.

5.0 TEST RESULTS AND EVALUATION

The following sections discuss groundwater test results for the subject site.

5.1 GROUNDWATER ANALYTICAL RESULTS

As discussed in Section 4.1, groundwater samples obtained from the monitoring wells during the July 10th, 2014 comprehensive groundwater sampling event were analyzed for dissolved phase petroleum constituents. During sampling activities monitoring well MW-17 was unable to be located. Monitoring wells MW-7RR and RW-1 were located; however both monitoring wells contained measurable free phase petroleum product and were not sampled below the product layer. The analytical results indicate petroleum impact to the surficial aquifer ("Shallow" Zone), with the highest dissolved concentrations being detected in the area of MW-14. Of the fifteen monitoring wells sampled, five wells (MW-3R, MW-4R, MW-14, RW-2 and RW-3) detected petroleum constituents above Risked Based Screening Levels (RBSL's). Petroleum constituents detected above the established RBSL include:

Compound	***RBSL (ug/l)***	***Wells Above RBSL***
Benzene	5	MW-3R, MW-4R, MW-14, RW-2 & RW-3
Toluene	1,000	MW-3R, MW-4R, MW-14, RW-2 & RW-3
Ethylbenzene	700	MW-3R, MW-4R, MW-14, RW-2 & RW-3
Total Xylenes	10,000	MW-14 & RW-3
Naphthalene	25	MW-3R, MW-4R, MW-14, RW-2 & RW-3
MTBE	40	MW-3R, MW-4R, MW-14, RW-2 & RW-3
EDB	0.05	MW-3R

In addition, the analytical results also detected petroleum constituents above the laboratory method detection limit or "J" values in monitoring wells MW-5R, MW-9, MW-10 & MW-15; however the concentrations detected did not exceed the RBSL. The results of the analyses for each monitoring well and specific parameters are listed on Table 3, Table 3A, and provided in Appendix B.

5.2 WATER SUPPLY WELL ANALYTICAL RESULTS

As discussed in section 4.2, water samples were obtained from WSW-1 during the July 10th, 2014 groundwater sampling event. The samples obtained from the above mentioned water supply well was analyzed for petroleum constituents. The laboratory results from the samples obtained did not indicate petroleum impact and all petroleum compounds were below detection limits. The results of the analysis for the water supply well and specific parameters are listed on Table 3, Table 3A, and provided in the laboratory reports (Appendix B).

6.0 ASSESSMENT SUMMARY & RECOMMENDATIONS

Based on the results of our assessment activities, it appears that impact to the surficial aquifer has occurred due to a release of petroleum hydrocarbons. The highest concentrations of dissolved phase contaminants appear to be located near the former dispenser islands and former tank basin. The

contaminants appear to be gasoline range constituents. Current groundwater elevation data reveal a radial flow pattern to the west, north, and east.

During sampling activities monitoring wells MW-17 was unable to be located. Monitoring wells MW-7RR and RW-1 were located; however both monitoring wells contained measurable free phase petroleum product and were not sampled below the product layer. Monitoring well MW-7RR had a product thickness of 0.13 feet and RW-1 had a product thickness of 0.15 feet. The analytical results indicate petroleum impact to the surficial aquifer ("Shallow" Zone), with the highest dissolved concentrations being detected in the area of MW-14. Of the fifteen monitoring wells sampled, five wells (MW-3R, MW-4R, MW-14, RW-2 and RW-3) detected petroleum constituents above Risked Based Screening Levels (RBSL's). Petroleum constituents detected above the established RBSL include:

Compound	***RBSL (ug/l)***	***Wells Above RBSL***
Benzene	5	MW-3R, MW-4R, MW-14, RW-2 & RW-3
Toluene	1,000	MW-3R, MW-4R, MW-14, RW-2 & RW-3
Ethylbenzene	700	MW-3R, MW-4R, MW-14, RW-2 & RW-3
Total Xylenes	10,000	MW-14 & RW-3
Naphthalene	25	MW-3R, MW-4R, MW-14, RW-2 & RW-3
MTBE	40	MW-3R, MW-4R, MW-14, RW-2 & RW-3
EDB	0.05	MW-3R

In addition, the analytical results also detected petroleum constituents above the laboratory method detection limit or "J" values in monitoring wells MW-5R, MW-9, MW-10 & MW-15; however the concentrations detected did not exceed the RBSL. The results of the analyses for each monitoring well and specific parameters are listed on Table 3, Table 3A, and provided in Appendix B.

Figure 4 depicts graphically the concentrations of Total BTEX dissolved in the surficial aquifer at the site. Figure 4A depicts graphically the concentrations of Naphthalene dissolved in the surficial aquifer at the site. Figure 4B depicts graphically the concentrations of MTBE dissolved in the surficial aquifer at the site. Figure 4C presents the analytical results for the eight Oxygenates.

Groundwater elevation data for the July 10, 2014, gauging event was plotted, and points of equal elevation were interpolated between the monitoring wells. A groundwater contour map of the surficial aquifer was thus prepared and is presented on Figure 5. Current groundwater elevation data reveal a radial flow pattern to south, west, and the east.

Since the June 2013 groundwater sampling event, analytical results from the source area monitoring wells and perimeter monitoring wells have generally remained constant with a slight increase in monitoring well MW-14 and RW-2. This increase in dissolved phased CoC's may be the result of water fluctuation. A slight reduction of total CoC concentrations has occurred in the source area monitoring well MW-4R. This reduction may the direct result of successful Aggressive Fluid Vapor Recovery Events conducted on MW-4R in April of 2014. Based on the concentrations detected in MW-17 in June 2013, the contaminant plume is currently not defined to the north. MECI recommends installing additional monitoring wells to the north of MW-17. Additionally, MECI recommends a series of extended Aggressive Fluid Vapor Recovery (AFVR) Events be conducted on monitoring wells MW-14/MW-4R/RW-3 and on MW-7RR/RW-1 to decrease elevated dissolved CoC concentrations and to remove free phase petroleum product. Following the proposed AFVR

events, additional groundwater sampling events should be conducted to continue to monitor the contaminant plume.

7.0 QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assessment are consistent with those normally employed in hydrogeological assessment and waste management projects of this type. Our evaluation of site conditions has been based on our understanding of the site, project information provided to us, and data obtained in our exploration. The general subsurface conditions utilized in our evaluation have been based on interpretation of subsurface data between borings. Contents of this report are intended for the sole use of Mr. Donnie Malphrus of Malphrus Enterprises, MECI, and SCDHEC under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

-oOo-

TABLES

TABLE 2
PAGE 1 OF 2
POTENTIOMETRIC DATA
JULY 10, 2014 SAMPLING EVENT
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 14-4855
SCDHEC SITE ID NUMBER 10628

Well Number	Date	Screened Interval	Depth to Product	Product Thickness	Depth to Water	Groundwater Elevation
MW-3R	1/8/2009	2-12	***	3.02	***	94.56	91.54
	7/25/2012		***	2.91	***	94.56	91.65
	6/27/2013		***	3.16	***	94.56	91.40
	7/10/2014		***	3.26	***	94.56	91.30
MW-4R	1/8/2009	5-15	***	4.29	***	93.75	89.46
	7/25/2012		***	7.61	***	93.75	86.14
	6/27/2013		***	3.99	***	93.75	89.76
	7/10/2014		***	3.40	***	93.75	90.35
MW-5R	1/8/2009	5-15	***	3.00	***	91.70	88.70
	7/25/2012		***	7.35	***	91.70	84.35
MW-5RR	6/27/2013	2-12	***	3.20	***	92.18	88.98
	7/10/2014		***	4.86	***	92.18	87.32
MW-7RR	1/8/2009	2-12	***	6.38	***	95.80	89.42
	7/25/2012		10.61	10.72	0.11	95.80	85.17
	6/27/2013		6.32	6.34	0.02	95.80	89.48
	7/10/2014		8.65	8.78	0.13	95.80	87.13
MW-9	1/8/2009	8-18	***	6.09	***	96.73	90.64
	7/25/2012		***	NL	***	96.73	NL
	6/27/2013		***	5.05	***	96.73	91.68
	7/10/2014		***	7.53	***	96.73	89.20
MW-10	1/8/2009	2-12	***	4.36	***	93.29	88.93
	7/25/2012		***	NL	***	93.29	NL
	6/27/2013		***	3.81	***	93.29	89.48
	7/10/2014		***	6.49	***	93.29	86.80
MW-11	1/8/2009	2-12	***	1.45	***	91.62	90.17
	7/25/2012		***	3.90	***	91.62	87.72
	6/27/2013		***	0.41	***	91.62	91.21
	7/10/2014		***	3.63	***	91.62	87.99
MW-14	1/8/2009	3.05-13.05	***	2.23	***	93.23	91.00
	7/25/2012		***	2.29	***	93.23	90.94
	6/27/2013		***	1.30	***	93.23	91.93
	7/10/2014		***	1.81	***	93.23	91.42

Notes:

1. Elevations are referenced to an assumed site datum .
2. Groundwater depths were measured from the top of the PVC riser pipe.
3. Groundwater levels measured 7/10/2014.
4. NL = Not Located.
5. Groundwater elevation for MW-7RR and RW-1 corrected for the presence of free phase petroleum product using a specific gravity for fuel of 0.85

TABLE 2
PAGE 2 OF 2
POTENTIOMETRIC DATA
JULY 10, 2014 SAMPLING EVENT
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 14-4855

Well Number	Sample Date	Screened Interval				Well Head Elevation	Groundwater Elevation
MW-15	1/8/2009	2-12	***	4.50	***	96.12	91.62
	7/25/2012		***	4.80	***	96.12	91.32
	6/27/2013		***	3.52	***	96.12	92.60
	7/10/2014		***	3.97	***	96.12	92.15
MW-16	1/8/2009	7-17	***	8.11	***	97.02	88.91
	7/25/2012		***	12.83	***	97.02	84.19
	6/27/2013		***	8.41	***	97.02	88.61
	7/10/2014		***	10.30	***	97.02	86.72
MW-17	1/8/2009	3-13	***	5.88	***	94.96	89.08
	7/25/2012		***	9.49	***	94.96	85.47
	6/27/2013		***	5.35	***	94.96	89.61
	7/10/2014		***	NL	***	94.96	NL
MW-18	1/8/2009	2-12	***	2.48	***	91.34	88.86
	7/25/2012		***	NL	***	91.34	NL
	6/27/2013		***	2.87	***	91.34	88.47
	7/10/2014		***	3.87	***	91.34	87.47
MW-19	6/27/2013	2-12	***	4.14	***	93.01	88.87
	7/10/2014		***	6.69	***	93.01	86.32
MW-20	6/27/2013	4-14	***	9.14	***	98.84	89.70
	7/10/2014		***	11.17	***	98.84	87.67
PW-1R	1/8/2009	30-35	***	4.57	***	93.47	88.90
	7/25/2012		***	9.59	***	93.47	83.88
	6/27/2013		***	4.80	***	93.47	88.67
	7/10/2014		***	6.29	***	93.47	87.18
RW-1	7/25/2012	2-12	***	10.53	***	96.15	85.62
	6/27/2013		***	6.47	***	96.15	89.68
	7/10/2014		8.77	8.92	0.15	96.15	87.36
RW-2	7/25/2012	2-12	***	2.59	***	93.56	90.97
	6/27/2013		***	2.19	***	93.56	91.37
	7/10/2014		***	2.04	***	93.56	91.52
RW-3	7/25/2012	2-12	2.56	2.61	0.05	93.22	90.65
	6/27/2013		1.32	1.44	0.12	93.22	91.88
	7/10/2014		***	1.74	***	93.22	91.48

Notes:

1. Elevations are referenced to an assumed site datum .
2. Groundwater depths were measured from the top of the PVC riser pipe.
3. Groundwater levels measured 7/10/2014.
4. NL = Not Located.
5. Groundwater elevation for MW-7RR and RW-1 corrected for the presence of free phase petroleum product using a specific gravity for fuel of 0.85

TABLE 3
PAGE 2 OF 2
GROUNDWATER ANALYTICAL RESULTS
JULY 10, 2014 SAMPLING EVENT
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 14-4855
SCDHEC ID NUMBER 10628

Well Number	Sample Date	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	Naphthalene (µg/l)	MTBE (µg/l)	1,2 DCA (µg/l)	EDB (µg/l)	Total Lead (µg/l)
MW-16	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.021	<5.0
	7/25/2012	0.30J	<5.0	<5.0	<5.0	0.30J	<5.0	<5.0	<5.0	<0.019	NT
	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
MW-17	1/8/2009	39.1	<5.0	<5.0	<10.0	39.1	<5.0	<5.0	<5.0	<0.023	<5.0
	7/25/2012	0.23J	<5.0	<5.0	<5.0	0.23J	<5.0	<5.0	<5.0	<0.020	NT
	6/27/2013	250	<25	45	66	361	<25	<25	10J	<0.020	NT
	7/10/2014	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW-18	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.023	<5.0
	7/25/2012	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
MW-19	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	1.5J	<5.0	<0.029	NT
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
MW-20	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.022	NT
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019	NT
PW-1R	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.019	<5.0
	7/25/2012	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
RW-1	7/25/2012	31,000	32,000	2,800	13,000	78,800	510J	<1,000	1,500	1.2	NT
	6/27/2013	27,000	31,000	2,600	11,000	71,600	610J	<1,000	<1,000	0.59P	NT
	7/10/2014	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-2	7/25/2012	160	3.6J	67	69	299.6J	8.7	13	<5.0	<0.020	NT
	6/27/2013	1,800	110	870	870	3,650	190	140	<50	<0.020	NT
	7/10/2014	2,100	2,500	820	2,100	7,520	210	470	<100	<0.020	NT
RW-3	7/25/2012	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
	6/27/2013	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
	7/10/2014	10,000	39,000	3,800	22,000	74,800	920J	1,800	240J	<0.020	NT
WSW-1	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.019	NT
	7/25/2012	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019	NT
	6/27/2013	<1.0	<1.0	<1.0	<1.0	BDL	<1.0	<1.0	<1.0	<0.020	NT
	7/10/2014	<1.0	<1.0	<1.0	<1.0	BDL	<1.0	<1.0	<1.0	<0.020	NT
RW-1 (Dup.)	7/25/2012	30,000	30,000	2,700	12,000	74,700	500	53J	1,500	0.86	NT
RW-2 (Dup.)	6/27/2013	1,900	100	680	880	3,760	190	140	<50	<0.020	NT
MW-3R Dup.	7/10/2014	1,600	3,900	1,000	7,000	13,500	220	590	<100	0.28	NT
Field Blank	7/25/2012	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.021	NT
Trip Blank	7/25/2012	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	NT	NT
	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	NT	NT
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	NT	NT

Notes:

1. BDL = Below Practical Quantitative Limits
2. ug/l = micrograms per liter
3. MTBE = Methyl-Tertiary-Butyl Ether
4. 1,2 DCA = 1,2-Dichloroethane
5. EDB = 1,2 - Dibromoethane
6. NL = Not Located
7. NT = Not Tested
8. H = Out of Hold Time
9. PROD = Free Phase Petroleum Product
10. "J" Values included in Total BTEX Calculations.
11. "J" values report concentrations above the method detection limits (MDL) and below actual reporting limit (RL).

TABLE 3
PAGE 1 OF 2
GROUNDWATER ANALYTICAL RESULTS
JULY 10, 2014 SAMPLING EVENT
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 14-4855
SCDHEC ID NUMBER 10628

Well Number	Sample Date	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	Naphthalene (µg/l)	MTBE (µg/l)	1,2 DCA (µg/l)	EDB (µg/l)	Total Lead (µg/l)
MW-3R	1/8/2009	2,700	9,080	1,410	11,000	24,190	748	2,580	<250	<0.19	<5.0
	7/25/2012	1,600	2,500	740	4,000	8,840	180	970	<10	<0.019	NT
	6/27/2013	1,000	4,500E	1,100	7,600	14,200E	350	200	<100	<0.020	NT
	7/10/2014	1,500	3,900	940	7,500	13,840	240	620	<100	0.27	NT
MW-4R	1/8/2009	4,640	5,070	1,360	3,990	15,060	<1,000	21,000	<1,000	<0.020	<5.0
	7/25/2012	2,220	2,500	470	1,600	6,790	260	4,200	62	<0.020	NT
	6/27/2013	4,900	8,800	1,700	5,900	21,300	<500	5,600	<500	<0.021	NT
	7/10/2014	2,600	3,800	970	3,700	11,070	100	1,200	<100	<0.020	NT
MW-5R	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	2.3J	<5.0	<0.020	<5.0
	7/25/2012	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	8.9	<5.0	<0.020	NT
MW-5RR	6/27/2013	<500	<500	<500	<500	BDL	<500	<500	<500	<0.026	NT
	6/27/2013	<5.0H	<5.0H	<5.0H	<5.0H	BDL	<5.0H	<5.0H	<5.0H	NT	NT
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
MW-7RR	1/8/2009	17,500	22,700	1,850	10,900	52,950	<1,000	<1,000	731J	1.5	157
	7/25/2012	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
	6/27/2013	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
	7/10/2014	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-9	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.019	<5.0
	7/25/2012	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
	6/27/2013	<500	<500	<500	<500	BDL	<500	<500	<500	<0.020	NT
	6/27/2013	<5.0H	<5.0H	<5.0H	<5.0H	BDL	<5.0H	<5.0H	<5.0H	NT	NT
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	2.4J	<5.0	<0.020	NT
MW-10	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	3.8J	<5.0	<0.019	11.6
	7/25/2012	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	2.3J	<5.0	<0.020	NT
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	3.9J	<5.0	<0.020	NT
MW-11	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.019	<5.0
	7/25/2012	<5.0	22	<5.0	<5.0	22	<5.0	<5.0	<5.0	<0.019	NT
	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
MW-14	1/8/2009	11,800	13,700	2,420	11,000	38,920	<500	4,020	<500	<0.020	<5.0
	7/25/2012	9,200	15,000	3,300	14,000	41,500	540	1,600	<500	<0.020	NT
	6/27/2013	6,000	4,500	1,800	6,800	19,100	240J	900	<250	<0.020	NT
	7/10/2014	9,800	31,000	3,700	19,000	63,500	560J	1,400	<1,000	<0.020	NT
MW-15	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	2.8J	<5.0	<0.019	<5.0
	7/25/2012	1.1J	2.0J	<5.0	2.1J	5.2J	<5.0	1.2J	<5.0	<0.019	NT
	6/27/2013	0.51J	<5.0	<5.0	<5.0	0.51J	<5.0	0.70J	<5.0	<0.020	NT
	7/10/2014	0.66J	<5.0	<5.0	<5.0	0.66J	<5.0	0.67J	<5.0	<0.020	NT

Notes:

1. BDL = Below Practical Quantitative Limits
2. ug/l = micrograms per liter
3. MTBE = Methyl-Tertiary-Butyl Ether
4. 1,2 DCA = 1,2-Dichloroethane
5. EDB = 1,2 - Dibromoethane
6. NL = Not Located
7. NT = Not Tested
8. H = Out of Hold Time
9. PROD = Free Phase Petroleum Product
10. "J" Values included in Total BTEX Calculations.
11. "J" values report concentrations above the method detection limits (MDL) and below actual reporting limit (RL).

TABLE 3A
PAGE 1 OF 2
GROUNDWATER ANALYTICAL RESULTS (OXYGENATES)
JULY 10, 2014 SAMPLING EVENT
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 14-4855
SCDHEC SITE ID NUMBER 10628

Well Number	Sample Date	TAA (µg/l)	TAME (µg/l)	TBF (µg/l)	DIPE (µg/l)	3,3-Dimethyl-1-butanol (µg/l)	Ethanol (µg/l)	ETBE (µg/l)	TBA (µg/l)
MW-3R	07/25/12	2,500	150	<200	1.7J	<200	<2,000	42J	4,300
	06/27/13	540J	45J	<2,000	<200	<2,000	<20,000	9.5J	250J
	07/10/14	2,600	130J	<2,000	<200	<2,000	<20,000	68J	3,100
MW-4R	07/25/12	4,000	390	<100	6.2J	<100	<1,000	170	23,000
	05/27/13	5,200J	250J	<10,000	<1,000	<10,000	<100,000	99J	28,000
	07/10/14	4,200	110J	<2,000	<200	<2,000	<20,000	91J	11,000
MW-5R	07/25/12	64J	<10	<100	4.2J	<100	<1,000	<100	43J
MW-5RR	06/27/13	<10,000	<1,000	<10,000	<1,000	<10,000	<100,000	<10,000	<10,000
	06/27/13	<100H	<10H	<100H	<10H	<100H	<1,000H	<100H	<100H
	07/10/14	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-7RR	07/25/12	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
	06/27/13	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
	07/10/14	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-9	07/25/12	NL	NL	NL	NL	NL	NL	NL	NL
	06/27/13	<10,000	<1,000	<10,000S	<1,000	<10,000	<100,000	<10,000	<10,000
	06/27/13	<100H	<10H	<100H	<10H	<100H	<1,000H	<100H	<100H
	07/10/14	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-10	07/25/12	NL	NL	NL	NL	NL	NL	NL	NL
	06/27/13	<100	<10	<100	<10	<100	<1,000	<100	<100
	07/10/14	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-11	07/25/12	<100	<10	<100	<10	<100	<1,000	<100	<100
	06/27/13	<100	<10	<100	<10	<100	<1,000	<100	<100
	07/10/14	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-14	07/25/12	9,900J	460J	<10,000	<1,000	<10,000	<100,000	69J	3,200J
	06/27/13	6,000	310J	<5,000	<500	<5,000	<50,000	68J	2,400J
	07/10/14	7,500J	630J	<20,000	<2,000	<20,000	<200,000	170J	3,600J
MW-15	07/25/12	13J	<10	<100	0.65J	<100	<1,000	<100	27J
	06/27/13	<100	<10	<100	<10	<100	<1,000	<100	<100
	07/10/14	12J	<10	<100	0.65J	<100	<1,000	<100	26J
MW-16	07/25/12	<100	<10	<100	<10	<100	<1,000	<100	<100
	06/27/13	<100	<10	<100	<10	<100	<1,000	<100	<100
	07/10/14	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-17	07/25/12	<100	<10	<100	3.6J	<100	<1,000	<100	<100
	06/27/13	230J	5.9J	<500	180	<500	<5,000	18J	<500
	07/10/14	NL	NL	NL	NL	NL	NL	NL	NL

Notes:

1. ug/l = micrograms per liter
2. DIPE = Diisopropyl Ether
3. ETBE = Ethyl ter-butyl Ether
4. TAA = tert-Amyl Alcohol
5. TAME = tert-Amyl Methyl Ether
6. TBA = ter-Butyl Alcohol
7. TBF = tert-Butyl Formate
8. NL = Not Located
9. H = Out of Holding Time
10. PROD = Free Phase Petroleum Product
11. "J" values report concentrations above the method detection limits (MDL) and below actual reporting limit (RL).

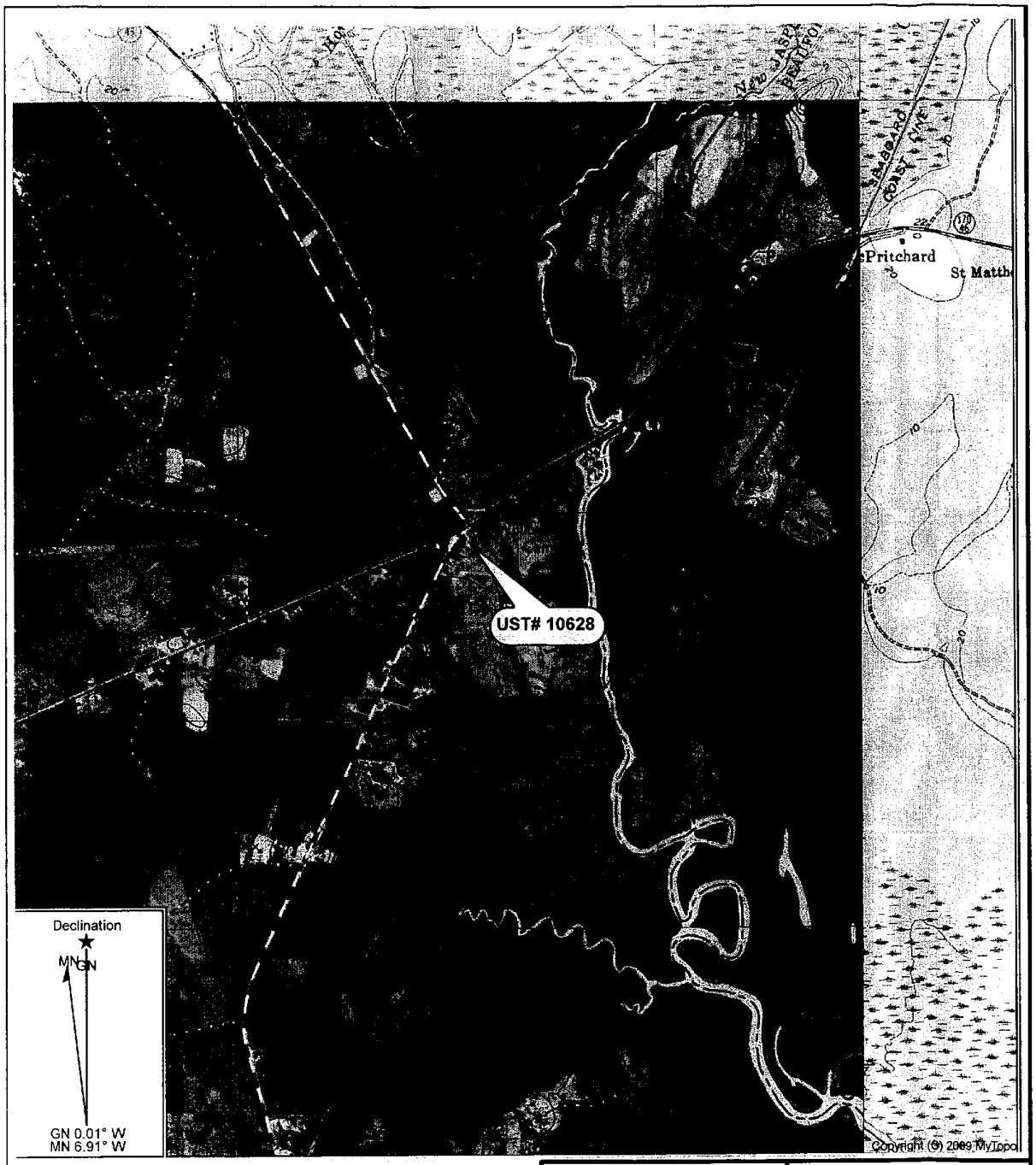
TABLE 3A
PAGE 2 OF 2
GROUNDWATER ANALYTICAL RESULTS (OXYGENATES)
JULY 10, 2014 SAMPLING EVENT
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 14-4855
SCDHEC SITE ID NUMBER 10628

Well Number	Sample Date	TAA (µg/l)	TAME (µg/l)	TBF (µg/l)	DIPE (µg/l)	3,3-Dimethyl-1-butanol (µg/l)	Ethanol (µg/l)	ETBE (µg/l)	TBA (µg/l)
MW-18	07/25/12	NL	NL	NL	NL	NL	NL	NL	NL
	06/27/13	<100	<10	<100	**6.5J**	<100	<1,000	<100	<100
	07/10/14	<100	<10	<100	**4.5J**	<101	<1,000	<100	<100
MW-19	06/27/13	**75J**	<10	<100	<10	<100	<1,000	<100	**110**
	07/10/14	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-20	06/27/13	**270**	<10	<100	**65**	<100	<1,000	<100	**10J**
	07/10/14	**1,000**	<10	<100	**160**	<100	<1,000	<100	**33J**
PW-1R	07/25/12	<100	<10	<100	<10	<100	<1,000	<100	<100
	06/27/13	<100	<10	<100	<10	<100	<1,000	<100	<100
	07/10/14	<100	<10	<100	<10	<100	<1,000	<100	<100
RW-1	07/25/12	**53,000**	<2,000	<20,000	**12,000**	<20,000	<200,000	<20,000	<20,000
	06/27/13	**54,000**	<2,000	<20,000	**10,000**	<20,000	<200,000	<20,000	**610J**
	07/10/14	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**
RW-2	07/25/12	**41J**	**1.8J**	<100	<10	<100	<1,000	**2.0J**	**310**
	06/27/13	**740J**	**31J**	<1,000	<100	<1,000	<10,000	**34J**	**4,900**
	07/10/14	**1,300J**	**89J**	<2,000	<200	<2,000	<20,000	**53J**	**5,200**
RW-3	07/25/12	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**
	06/27/13	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**
	07/10/14	**7,000J**	**910J**	<20,000	<2,000	<20,000	<200,000	**290J**	**4,900J**
WSW-1	07/25/12	<100	<10	<100	<10	<100	<1,000	<100	<100
	06/27/13	<100	<10	<100	<10	<100	<1,000	<100	<100
	07/10/14	<100	<10	<100	<10	<100	<1,000	<100	<100
RW-1 (Duplicate)	07/25/12	**54,000**	<1,000	<10,000	**12,000**	<10,000	<100,000	<10,000	**1,400J**
RW-2 (Duplicate)	06/27/13	**690J**	**30J**	<1,000	<100	<1,000	<10,000	**34J**	**4,700**
MW-3R (Duplicate)	07/10/14	**2,500**	**110J**	<2,000	<200	<2,000	<20,000	**62J**	**3,000**
Field Blank	07/25/12	<100	<10	<100	<10	<100	<1,000	<100	**41J**
	06/27/13	<100	<10	<100	<10	<100	<1,000	<100	<100
	07/10/14	<100	<10	<100	<10	<100	<1,000	<100	<100
Trip Blank	07/25/12	<100	<10	<100	<10	<100	<1,000	<100	<100
	06/27/13	<100	<10	<100	<10	<100	<1,000	<100	<100
	07/10/14	<100	<10	<100	<10	<100	<1,000	<100	<100

Notes:

1. ug/l = micrograms per liter
2. DIPE = Diisopropyl Ether
3. ETBE = Ethyl ter-butyl Ether
4. TAA = tert-Amyl Alcohol
5. TAME = tert-Amyl Methyl Ether
6. TBA = ter-Butyl Alcohol
7. TBF = tert-Butyl Formate
8. NL = Not Located
9. PROD = Free Phase Petroleum Product
10. "J" values report concentrations above the method detection limits (MDL) and below actual reporting limit (RL).

FIGURES



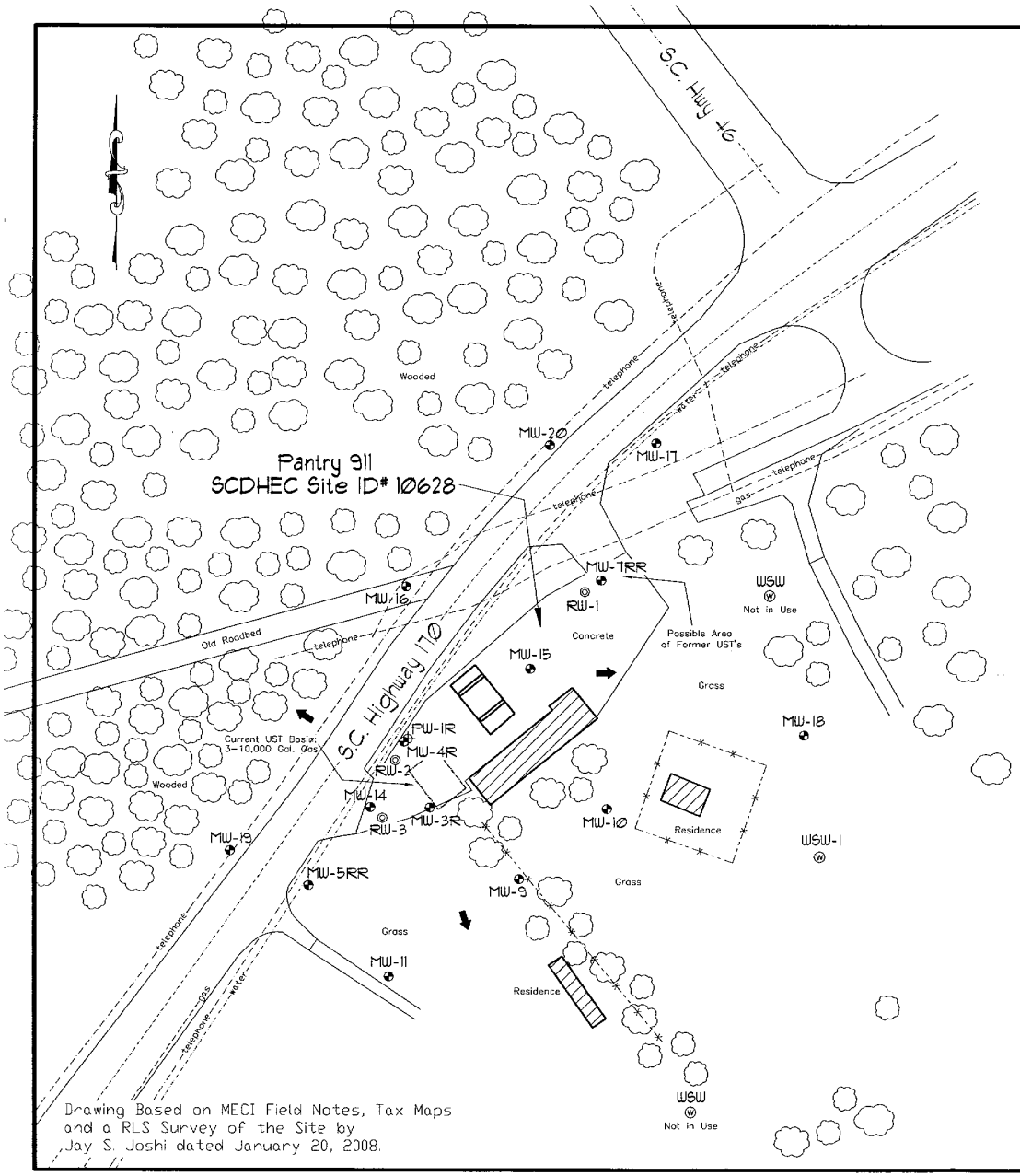
GRAPHIC SCALE

0 1000 2000 4000

1IN = 2000FT

Reference: Limehouse and Hardeeville, South Carolina
Jasper and Pritchardville, South Carolina
USGS 7.5 Min. Quad
Contour Interval–1.5 Meters

Midlands Environmental Consultants, Inc.	Site Location
Pantry 911 6195 South Okatie Highway, Hardeeville, SC SCDHEC Site ID# 10628	
Figure 1	MECI 14-4855



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of 4-Inch Recovery Well
- Location of Double Cased Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Existing Underground Storage Tanks
- water — Buried Water Line
- telephone — Under Ground Telephone

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

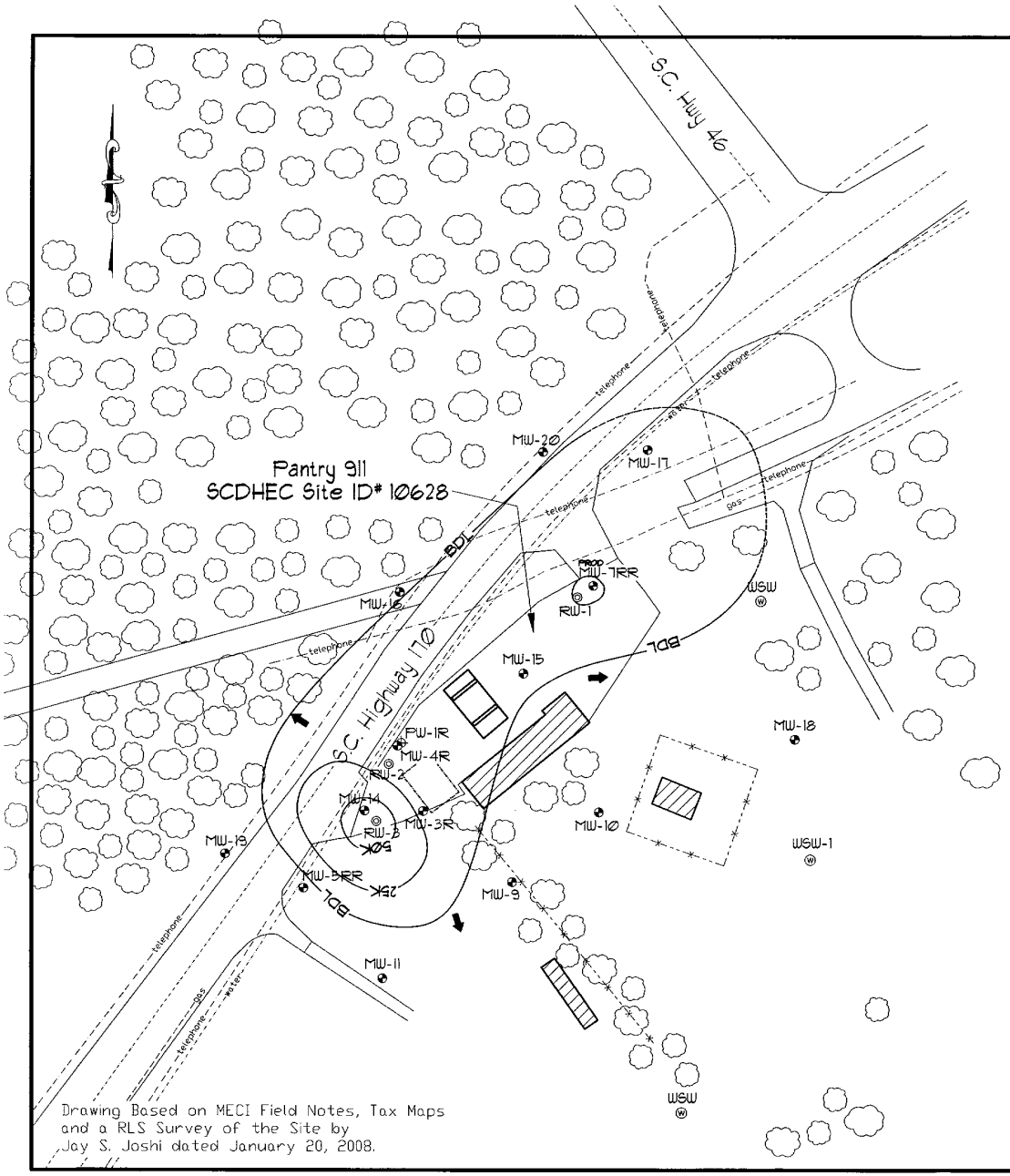
ALL LOCATIONS ARE APPROXIMATE

Site Base Map

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 14-4655
DATE July 25, 2014
FIGURE 2



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Water Supply Well
- Location of Double Cased "Deep" Monitoring Well
- Estimated Groundwater Flow Direction
- Location of 4-inch Recovery Well
- Estimated Location of Removed Underground Storage Tanks
- Total BTEX Concentration Isopleth (ug/l)

Groundwater COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	Naphthalene (ug/l)	MTBE (ug/l)	1,2 DCA (ug/l)	EDB (ug/l)
MW-3R	1,500	3,900	940	7,500	13,840	240	620	<100	0.27
MW-4R	2,600	3,800	970	3,700	11,070	100	1,200	<100	<0.020
MW-5RR	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	8.9	<5.0	<0.020
MW-7RR	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-9	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	2.4J	<5.0	<0.020
MW-10	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	3.9J	<5.0	<0.020
MW-11	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-14	9,800	31,000	3,700	19,000	63,500	560J	1,400	<1,000	<0.020
MW-15	0.66J	<5.0	<5.0	<5.0	0.66J	<5.0	0.67J	<5.0	<0.020
MW-16	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-17	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW-18	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-19	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-20	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
PW-1R	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
RW-1	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-2	2,100	2,500	820	2,100	7,520	210	470	<100	<0.020
RW-3	10,000	39,000	3,800	22,000	74,800	920J	1,800	240J	<0.020
WSW-1	<1.0	<1.0	<1.0	<1.0	BDL	<1.0	<1.0	<1.0	<0.020
MW-3R Dup	1,600	3,900	1,000	7,000	13,500	220	590	<100	0.28
Field Blank	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.021
Trip Blank	<5.0	<5.0	<5.0	<5.0	BDL	<5.0L	<5.0	<5.0	NT

Notes:
- Groundwater samples collected on July 10, 2014.
- Isopleth Interval = 25,000 ug/l
- BDL = Below Detection Limits
- Monitoring well PW-1R and MW-17 not used in contouring.
- "J" Values included in Total BTEX Calculations
- NL = Not Located
- NT = Not Tested
- PROD = Free Phase Petroleum Detected
- Isopleths Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

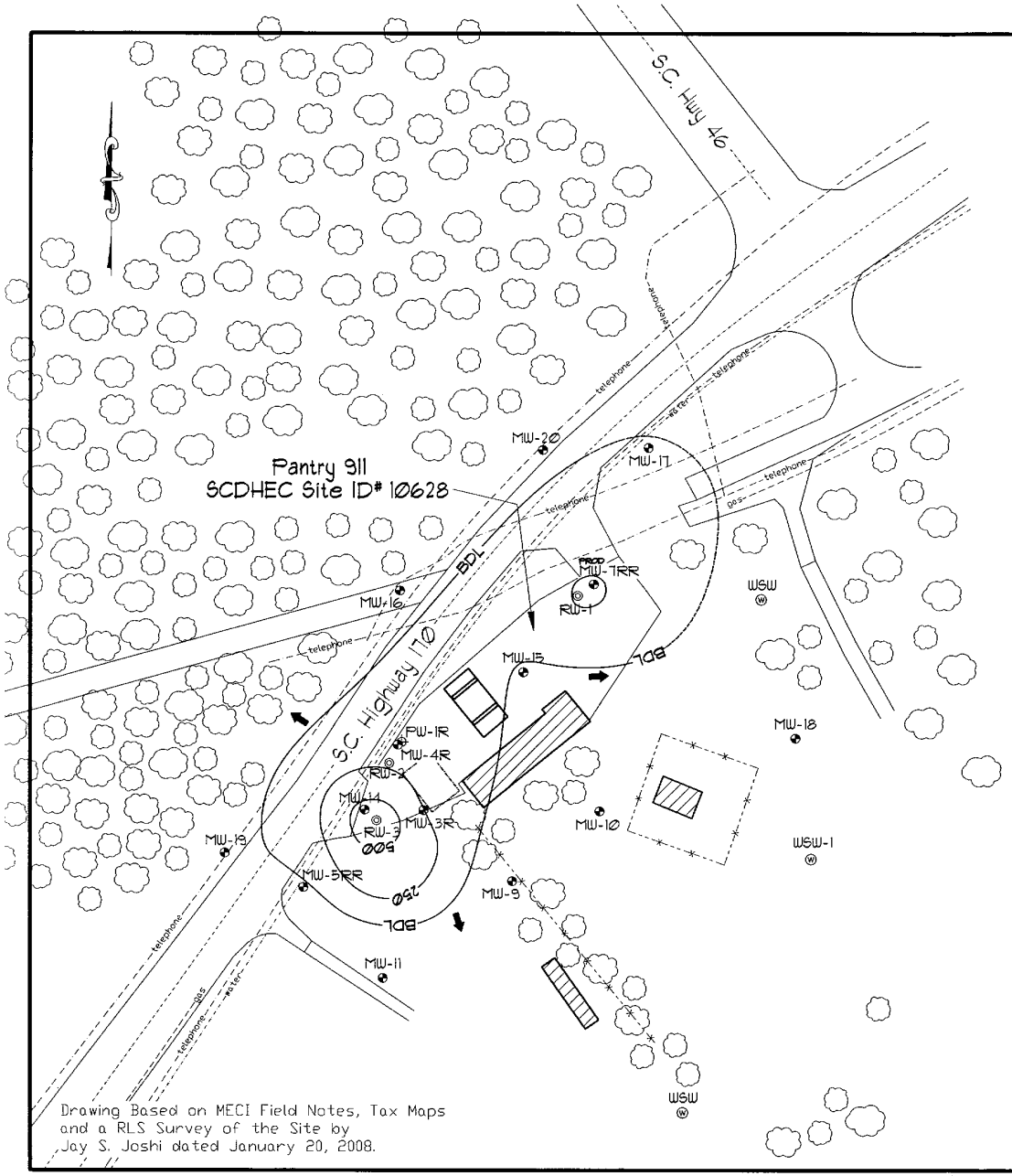
ALL LOCATIONS ARE APPROXIMATE

Groundwater CoC Site Map
(Total BTEX Isopleth)

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 14-4855
DATE July 25, 2014
FIGURE 4



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Water Supply Well
- Location of Double Cased "Deep" Monitoring Well
- Estimated Groundwater Flow Direction
- Location of 4-Inch Recovery Well
- Estimated Location of Removed Underground Storage Tanks
- Naphthalene Concentration Isopleth (ug/l)

Groundwater COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	Naphthalene (ug/l)	MTBE (ug/l)	12 DCA (ug/l)	EDB (ug/l)
MW-3R	1,500	3,900	940	7,500	13,840	240	620	<100	0.27
MW-4R	2,600	3,800	970	3,700	11,070	100	1,200	<100	<0.020
MW-5RR	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	8.9	<5.0	<0.020
MW-7RR	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-9	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	2.4J	<5.0	<0.020
MW-10	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	3.9J	<5.0	<0.020
MW-11	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-14	9,800	31,000	3,700	19,000	63,500	560J	1,400	<1,000	<0.020
MW-15	0.66J	<5.0	<5.0	<5.0	0.66J	<5.0	0.67J	<5.0	<0.020
MW-16	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-17	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW-18	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-19	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-20	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
PW-1R	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
RW-1	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-2	2,100	2,500	820	2,100	7,520	210	470	<100	<0.020
RW-3	10,000	39,000	3,800	22,000	74,800	920J	1,800	240J	<0.020
WSW-1	<1.0	<1.0	<1.0	<1.0	BDL	<1.0	<1.0	<1.0	<0.020
MW-3R Dup	1,600	3,900	1,000	7,000	13,500	220	590	<100	0.28
Field Blank	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.021
Trip Blank	<5.0	<5.0	<5.0	<5.0	BDL	<5.0L	<5.0	<5.0	NT

Notes:
- Groundwater samples collected on July 10, 2014.
- Isopleth Interval = 250 ug/l
- BDL = Below Detection Limits
- Monitoring well PW-1R and MW-17 not used in contouring.
- "J" Values included in Total BTEX Calculations
- NL = Not Located
- NT = Not Tested
- PROD = Free Phase Petroleum Detected
- Isopleths Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

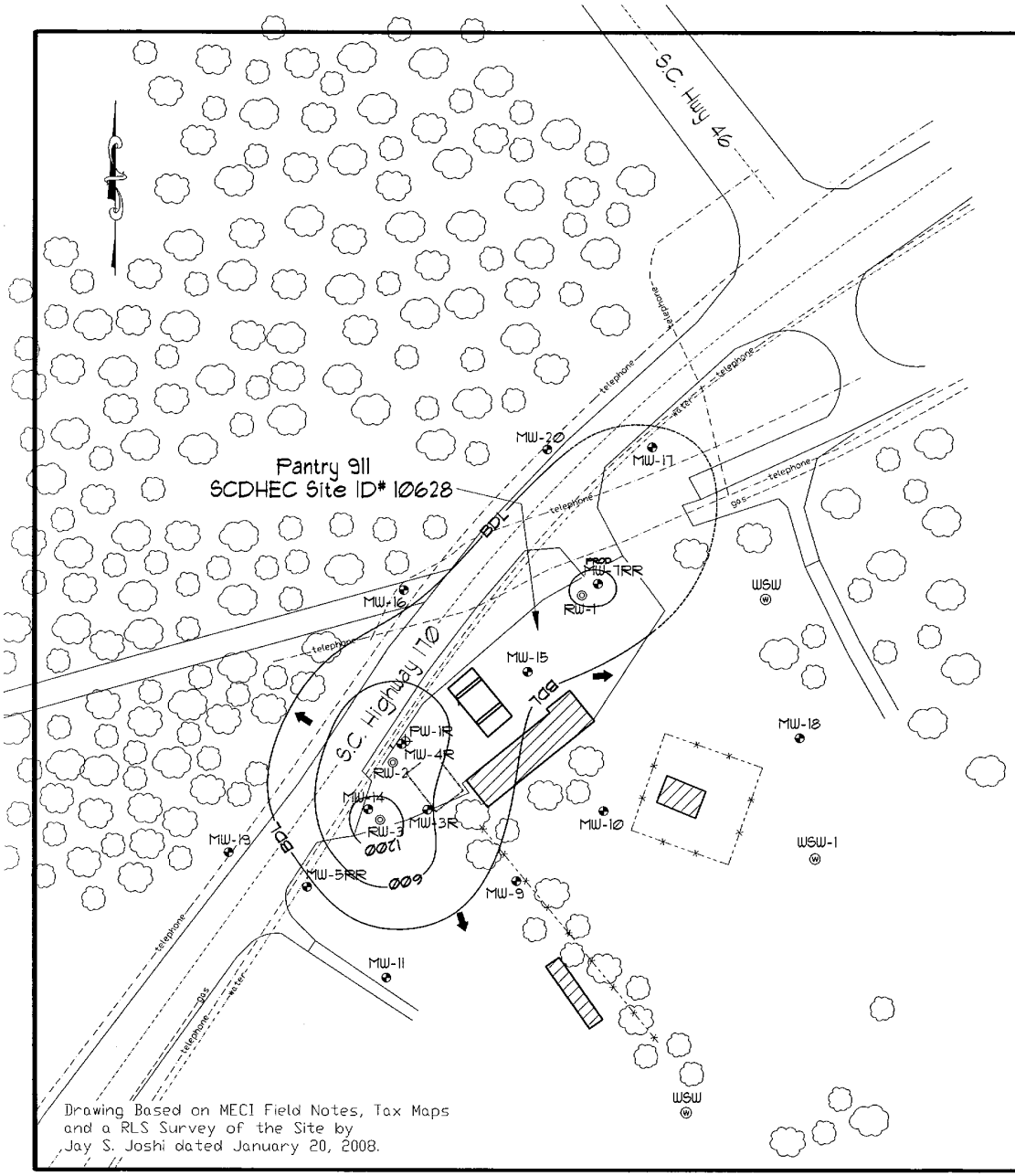
ALL LOCATIONS ARE APPROXIMATE

Groundwater CoC Site Map
(Naphthalene Isopleth)

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 14-4855
DATE July 25, 2014
FIGURE 4A



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Water Supply Well
- Location of Double Cased "Deep" Monitoring Well
- Estimated Groundwater Flow Direction
- Location of 4-Inch Recovery Well
- Estimated Location of Removed Underground Storage Tanks
- MTBE Concentration Isopleth (ug/l)

Groundwater COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	Naphthalene (ug/l)	MTBE (ug/l)	1,2 DCA (ug/l)	EDB (ug/l)
MW-3R	1,500	3,900	940	7,500	13,840	240	620	<100	0.27
MW-4R	2,600	3,800	970	3,700	11,070	100	1,200	<100	<0.020
MW-5RR	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	8.9	<5.0	<0.020
MW-7RR	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-9	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	2.4J	<5.0	<0.020
MW-10	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	3.9J	<5.0	<0.020
MW-11	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-14	9,800	31,000	3,700	19,000	63,500	560J	1,400	<1,000	<0.020
MW-15	0.66J	<5.0	<5.0	<5.0	0.66J	<5.0	0.67J	<5.0	<0.020
MW-16	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-17	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW-18	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-19	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-20	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
PW-1R	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
RW-1	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-2	2,100	2,500	820	2,100	7,520	210	470	<100	<0.020
RW-3	10,000	39,000	3,800	22,000	74,800	920J	1,800	240J	<0.020
WSW-1	<1.0	<1.0	<1.0	<1.0	BDL	<1.0	<1.0	<1.0	<0.020
MW-3R Dup	1,600	3,900	1,000	7,000	13,500	220	590	<100	0.28
Field Blank	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.021
Trip Blank	<5.0	<5.0	<5.0	<5.0	BDL	<5.0L	<5.0	<5.0	NT

Notes:
- Groundwater samples collected on July 10, 2014.
- Isopleth Interval = 600 ug/l
- BDL = Below Detection Limits
- Monitoring well PW-1R and MW-17 not used in contouring.
- "J" Values included in Total BTEX Calculations
- NL = Not Located
- NT = Not Tested
- PROD = Free Phase Petroleum Detected
- Isopleths Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

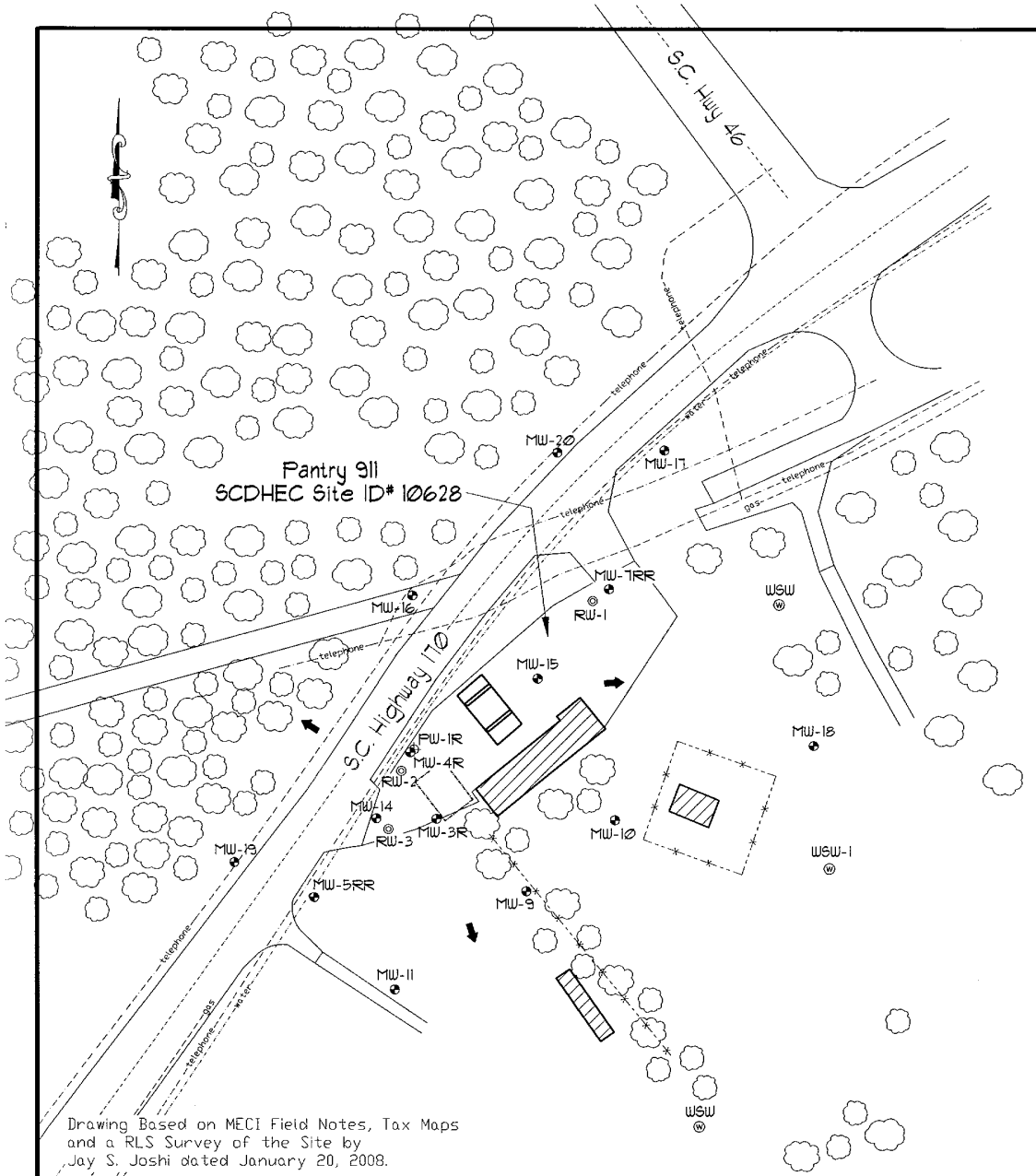
ALL LOCATIONS ARE APPROXIMATE

Groundwater CoC Site Map
(MTBE Isopleth)

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 14-4855
DATE July 25, 2014
FIGURE 4B



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Water Supply Well
- Location of Double Cased "Deep" Monitoring Well
- Estimated Groundwater Flow Direction
- Location of 4-Inch Recovery Well
- Estimated Location of Removed Underground Storage Tanks

Groundwater COC Concentration Data - Oxygenates

Sample #	TAA (ug/l)	TAME (ug/l)	TBF (ug/l)	DIPE (ug/l)	3,3-Dimethyl-1-butanol (ug/l)	Ethanol (ug/l)	ETBE (ug/l)	TBA (ug/l)
MW-3R	2,600	130J	<2,000	<200	<2,000	<20,000	68J	3,100
MW-4R	4,200	110J	<2,000	<200	<2,000	<20,000	91J	11,000
MW-5RR	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-7RR	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-9	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-10	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-11	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-14	7,500J	630J	<20,000	<2,000	<20,000	<200,000	170J	3,600J
MW-15	12J	<10	<100	0.65J	<100	<1,000	<100	26J
MW-16	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-17	NL	NL	NL	NL	NL	NL	NL	NL
MW-18	<100	<10	<100	4.5J	<100	<1,000	<100	<100
MW-19	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-20	1,000	<10	<100	160	<100	<1,000	<100	33J
PW-1R	<100	<10	<100	<10	<100	<1,000	<100	<100
RW-1	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-2	1,300J	89J	<2,000	<200	<2,000	<20,000	53J	5,200
RW-3	7,000J	910J	<20,000	<2,000	<20,000	<200,000	290J	4,900J
WSW-1	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-3R Dup	2,500	110J	<2,000	<200	<2,000	<20,000	62J	3,000
Field Blank	<100	<10	<100	<10	<100	<1,000	<100	<100
Trip Blank	<100	<10	<100	<10	<100	<1,000	<100	<100

Notes: Groundwater samples collected on July 10, 2014.

DIPE = Diisopropyl Ether
ETBE = Ethyl tert-butyl Ether
TAA = tert-Amyl Alcohol
TAME = tert-Amy Methyl Ether
TBA = tert-Butyl Alcohol
TBF = tert-Butyl Formate

GRAPHIC SCALE
0 50 100 150 200
1IN = 100FT

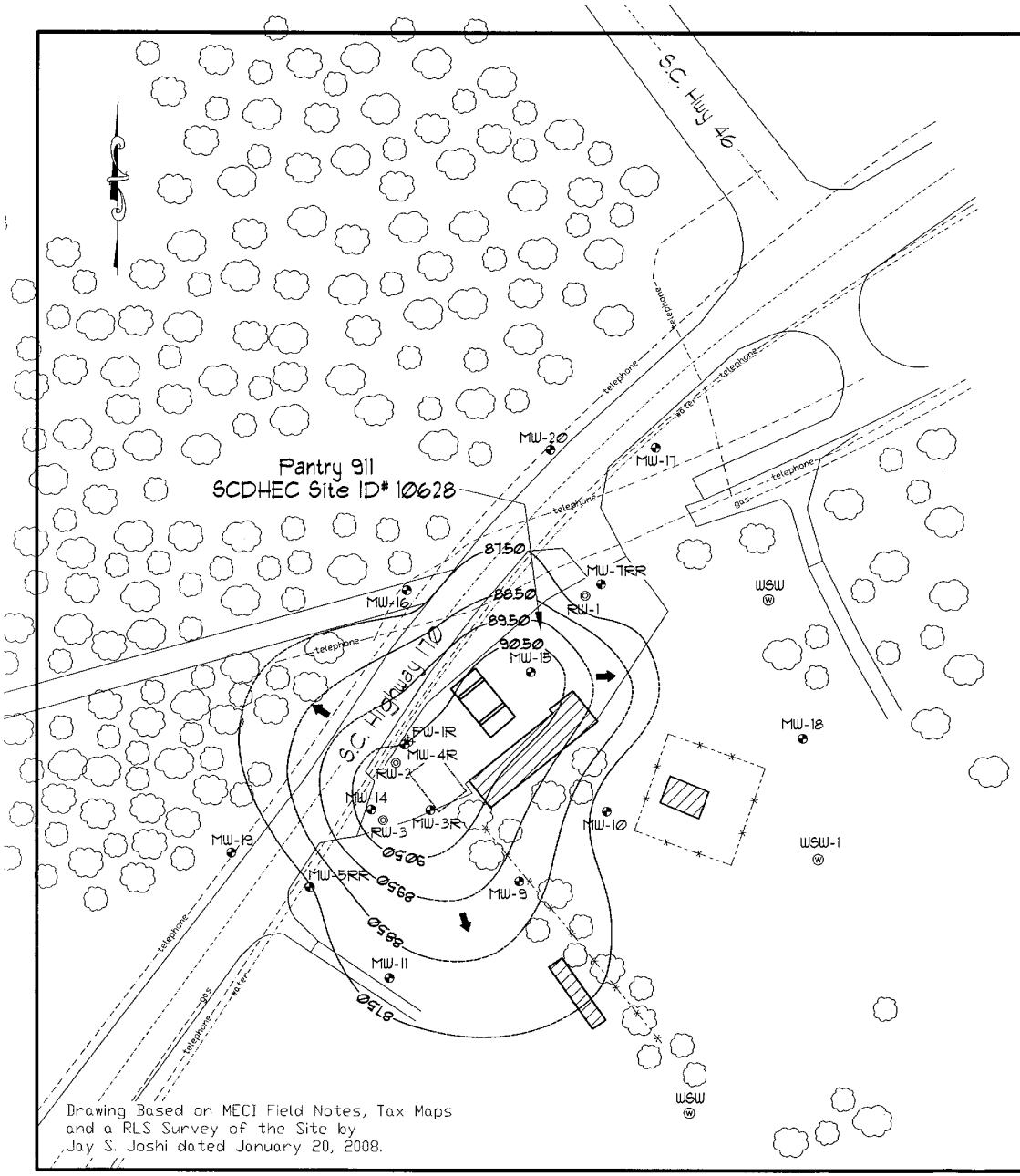
ALL LOCATIONS ARE APPROXIMATE

Groundwater CoC Site Map
(Oxygenates)

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 14-4855
DATE July 25, 2014
FIGURE 4C



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Double Cased "Deep" Monitoring Well
- Location of 4-Inch Recovery Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks

Potentiometric Data

Well #	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Well Head Elevation	Groundwater Elevation
MW-3R	2-12	---	3.26	---	94.56	91.30
MW-4R	5-15	---	3.40	---	93.75	90.35
MW-5RR	2-12	---	4.86	---	92.18	87.32
MW-7RR	2-12	8.65	8.78	0.13	95.80	87.13
MW-9	8-18	---	7.53	---	96.73	89.20
MW-10	2-12	---	6.49	---	93.29	86.80
MW-11	2-12	---	3.63	---	91.62	87.99
MW-14	3.05-13.05	---	1.81	---	93.23	91.42
MW-15	2-12	---	3.97	---	96.12	92.15
MW-16	7-17	---	10.30	---	97.02	86.72
MW-17	3-13	---	NL	---	94.96	NL
MW-18	2-12	---	3.87	---	91.34	87.47
MW-19	2-12	---	6.69	---	93.01	86.32
MW-20	4-14	---	11.17	---	98.84	87.67
PW-1R	30-35	---	6.29	---	93.47	87.18
RW-1	2-12	8.77	8.92	0.15	96.15	87.36
RW-2	2-12	---	2.04	---	93.56	91.52
RW-3	2-12	---	1.74	---	93.22	91.48

Notes: Depth to groundwater measured on July 10, 2014.

Site Datum Based on Assumed Spot Elevation.

Contour Interval = 1.00 Feet

Monitoring well PW-1R and MW-17 not used in contouring.

Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

ALL LOCATIONS ARE APPROXIMATE

Potentiometric Data Site Map
(Groundwater Contour)

Pantry 911
6135 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 14-4855
DATE July 25, 2014
FIGURE 5

APPENDIX A:

SITE SURVEY

(Not Applicable)

APPENDIX B:

SAMPLING LOGS, LABORATORY DATA SHEETS, & CHAIN-OF-CUSTODY FORMS

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 7/10/2014

Field Personnel: W. Huss, T. Elder

General Weather Conditions: Cloudy

Ambient Air Temperature: 33.9 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** MW-3R

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	3.26			feet
Total Well Depth (TWD)	12			feet
Length of the water column (LWC=TWD-DGW)			8.74	feet
1 casing volume (CV=LWC X C)= _____ X		0.163	1.42	gallons
5 casing volume (5 X CV)=			7.12	gallons

Total Volume of Water Purged Before Sampling 2.5 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:05	11:06						
pH (s.u.)	5.02	4.24						
Specific Conductivity (µmhos/cm)	81.7	144.5						
Water Temperature (°C)	26.0	23.7						
Dissolved Oxygen	0.95	0.59						
Turbidity (NTU)	12.36	319.9						
PID readings, if required								

Remarks: Sample Time: 11:06 **Dry @ 2.5 gallons**

Duplicated

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 7/10/2014

Field Personnel: W. Huss, T. Elder

General Weather Conditions: Cloudy

Ambient Air Temperature: 33.9 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** MW-4R

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	3.40			feet
Total Well Depth (TWD)	15			feet
Length of the water column (LWC=TWD-DGW)			11.60	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	1.89	gallons
5 casing volume (5 X CV)=			9.45	gallons

Total Volume of Water Purged Before Sampling 3.5 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:57	11:59						
pH (s.u.)	6.31	6.29						
Specific Conductivity (µmhos/cm)	238.0	259.6						
Water Temperature (°C)	29.4	28.6						
Dissolved Oxygen	0.22	0.41						
Turbidity (NTU)	14.51	270.1						
PID readings, if required								

Remarks: Sample Time: 11:59 **Dry @ 3.5 gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 7/10/2014
Field Personnel: W. Huss, T. Elder
General Weather Conditions: Cloudy

Ambient Air Temperature: 33.9 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911
Site ID#: 10628 **Monitoring Well #** MW-5RR
Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	4.86			feet
Total Well Depth (TWD)	12			feet
Length of the water column (LWC=TWD-DGW)			7.14	feet
1 casing volume (CV=LWC X C)= _____ X		0.163	1.16	gallons
5 casing volume (5 X CV)=			5.82	gallons

Total Volume of Water Purged Before Sampling 1 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	10:55	10:56						
pH (s.u.)	6.18	6.09						
Specific Conductivity (µmhos/cm)	275.2	286.9						
Water Temperature (°C)	24.5	24.0						
Dissolved Oxygen	0.76	0.84						
Turbidity (NTU)	83.91	283.1						
PID readings, if required								

Remarks: Sample Time: 10:56 **Dry @ 1.0 gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 7/10/2014

Field Personnel: W. Huss, T. Elder

General Weather Conditions: Cloudy

Ambient Air Temperature: 33.9 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** MW-7RR

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)	8.65			feet
Depth to Ground Water (DGW)	8.78			feet
Total Well Depth (TWD)	12			feet
Length of the water column (LWC=TWD-DGW)			3.22	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	0.52	gallons
5 casing volume (5 X CV)=			2.62	gallons

Total Volume of Water Purged Before Sampling 0 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	PROD							
pH (s.u.)	PROD							
Specific Conductivity (µmhos/cm)	PROD							
Water Temperature (°C)	PROD							
Dissolved Oxygen	PROD							
Turbidity (NTU)	PROD							
PID readings, if required								

Remarks: Sample Time: **Free Phase Petroleum Product**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 7/10/2014
Field Personnel: W. Huss, T. Elder
General Weather Conditions: Cloudy

Ambient Air Temperature: 33.9 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911
Site ID#: 10628 **Monitoring Well #** MW-9
Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	7.53			feet
Total Well Depth (TWD)	18			feet
Length of the water column (LWC=TWD-DGW)			10.47	feet
1 casing volume (CV=LWC X C)= _____ X		0.163	1.71	gallons
5 casing volume (5 X CV)=			8.53	gallons

Total Volume of Water Purged Before Sampling 3 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	14:50	14:53						
pH (s.u.)	4.89	4.76						
Specific Conductivity (µmhos/cm)	1,009	1,112						
Water Temperature (°C)	22.1	21.8						
Dissolved Oxygen	0.53	0.62						
Turbidity (NTU)	174.4	224.7						
PID readings, if required								

Remarks: Sample Time: 14:53 **Dry @ 3.0 gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 7/10/2014
Field Personnel: W. Huss, T. Elder
General Weather Conditions: Cloudy

Ambient Air Temperature: 33.9 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911
Site ID#: 10628 **Monitoring Well #** MW-10
Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	6.49			feet
Total Well Depth (TWD)	12			feet
Length of the water column (LWC=TWD-DGW)			5.51	feet
1 casing volume (CV=LWC X C)=	____ X	0.163	0.90	gallons
5 casing volume (5 X CV)=			4.49	gallons

Total Volume of Water Purged Before Sampling 1.5 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	14:40	14:42						
pH (s.u.)	4.52	4.67						
Specific Conductivity (µmhos/cm)	1,753	2,362						
Water Temperature (°C)	21.7	21.0						
Dissolved Oxygen	0.37	0.39						
Turbidity (NTU)	186.2	213.9						
PID readings, if required								

Remarks: Sample Time: 14:42 **Dry @ 3.0 gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 7/10/2014

Field Personnel: W. Huss, T. Elder

General Weather Conditions: Cloudy

Ambient Air Temperature: 33.9 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** MW-11

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	3.63			feet
Total Well Depth (TWD)	12			feet
Length of the water column (LWC=TWD-DGW)			8.37	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	1.36	gallons
5 casing volume (5 X CV)=			6.82	gallons

Total Volume of Water Purged Before Sampling 3.5 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	10:37	10:39	10:41					
pH (s.u.)	6.16	6.36	6.25					
Specific Conductivity (µmhos/cm)	287.1	348.7	310.8					
Water Temperature (°C)	25.8	23.0	22.4					
Dissolved Oxygen	0.73	0.92	0.81					
Turbidity (NTU)	73.1	191.8	301.4					
PID readings, if required								

Remarks: Sample Time: 10:41 **Dry @ 3.5 gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 7/10/2014
Field Personnel: W. Huss, T. Elder
General Weather Conditions: Cloudy

Ambient Air Temperature: 33.9 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911
Site ID#: 10628 **Monitoring Well #** MW-14
Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	3.63			feet
Total Well Depth (TWD)	12			feet
Length of the water column (LWC=TWD-DGW)			8.37	feet
1 casing volume (CV=LWC X C)=	____ X	0.163	1.36	gallons
5 casing volume (5 X CV)=			6.82	gallons

Total Volume of Water Purged Before Sampling 3.5 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:35	11:37						
pH (s.u.)	5.42	5.63						
Specific Conductivity (µmhos/cm)	223.0	218.2						
Water Temperature (°C)	30.7	305.0						
Dissolved Oxygen	0.32	0.31						
Turbidity (NTU)	23.47	86.39						
PID readings, if required								

Remarks: Sample Time: 11:37 **Dry @ 3.5 gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 7/10/2014

Field Personnel: W. Huss, T. Elder

General Weather Conditions: Cloudy

Ambient Air Temperature: 33.9 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** MW-15

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	3.97			feet
Total Well Depth (TWD)	12			feet
Length of the water column (LWC=TWD-DGW)			8.03	feet
1 casing volume (CV=LWC X C)=	____ X	0.163	1.31	gallons
5 casing volume (5 X CV)=			6.54	gallons

Total Volume of Water Purged Before Sampling 2 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	13:40	13:42						
pH (s.u.)	5.48	5.24						
Specific Conductivity (µmhos/cm)	339.7	356.5						
Water Temperature (°C)	31.5	31.3						
Dissolved Oxygen	0.22	0.26						
Turbidity (NTU)	58.72	236.5						
PID readings, if required								

Remarks: Sample Time: 13:42 **Dry @ 3.5 gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 7/10/2014
Field Personnel: W. Huss, T. Elder
General Weather Conditions: Cloudy

Ambient Air Temperature: 33.9 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911
Site ID#: 10628 **Monitoring Well #** MW-16
Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	10.30			feet
Total Well Depth (TWD)	17			feet
Length of the water column (LWC=TWD-DGW)			6.70	feet
1 casing volume (CV=LWC X C)=	____ X	0.163	1.09	gallons
5 casing volume (5 X CV)=			5.46	gallons

Total Volume of Water Purged Before Sampling 1 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	13:05	13:07						
pH (s.u.)	5.98	5.67						
Specific Conductivity (µmhos/cm)	232.1	238.3						
Water Temperature (°C)	23.7	23.9						
Dissolved Oxygen	0.45	0.43						
Turbidity (NTU)	51.39	202.2						
PID readings, if required								

Remarks: Sample Time: 13:07 **Dry @ 1.0 gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 7/10/2014

Field Personnel: W. Huss, T. Elder

General Weather Conditions: Cloudy

Ambient Air Temperature: 33.9 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** MW-17

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	10.30			feet
Total Well Depth (TWD)	17			feet
Length of the water column (LWC=TWD-DGW)			6.70	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	1.09	gallons
5 casing volume (5 X CV)=			5.46	gallons

Total Volume of Water Purged Before Sampling 1 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	NL							
pH (s.u.)	NL							
Specific Conductivity (µmhos/cm)	NL							
Water Temperature (°C)	NL							
Dissolved Oxygen	NL							
Turbidity (NTU)	NL							
PID readings, if required	NL							

Remarks: Sample Time: **Not sampled, possibly destroyed**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 7/10/2014
Field Personnel: W. Huss, T. Elder
General Weather Conditions: Cloudy

Ambient Air Temperature: 33.9 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911
Site ID#: 10628 **Monitoring Well #** MW-18
Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:			feet
Depth to Free Product (DFP)			feet
Depth to Ground Water (DGW)	3.87		feet
Total Well Depth (TWD)	12		feet
Length of the water column (LWC=TWD-DGW)		8.13	feet
1 casing volume (CV=LWC X C)= ____ X	0.163	1.33	gallons
5 casing volume (5 X CV)=		6.63	gallons

Total Volume of Water Purged Before Sampling 1.75 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	14:14	14:16						
pH (s.u.)	7.26	6.64						
Specific Conductivity (µmhos/cm)	142.6	155.9						
Water Temperature (°C)	2.1	21.7						
Dissolved Oxygen	0.18	0.35						
Turbidity (NTU)	68.24	213.6						
PID readings, if required								

Remarks: Sample Time: 14:16 **Dry @ 1.75 gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 7/10/2014
Field Personnel: W. Huss, T. Elder
General Weather Conditions: Cloudy

Ambient Air Temperature: 33.9 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912A1	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911
Site ID#: 10628 **Monitoring Well #** MW-19
Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:			feet
Depth to Free Product (DFP)			feet
Depth to Ground Water (DGW)	3.87		feet
Total Well Depth (TWD)	12		feet
Length of the water column (LWC=TWD-DGW)		8.13	feet
1 casing volume (CV=LWC X C)= ____ X	0.163	1.33	gallons
5 casing volume (5 X CV)=		6.63	gallons

Total Volume of Water Purged Before Sampling 1 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	13:15	13:17						
pH (s.u.)	5.41	5.26						
Specific Conductivity (µmhos/cm)	196.2	187.3						
Water Temperature (°C)	25.9	25.0						
Dissolved Oxygen	0.32	0.42						
Turbidity (NTU)	25.63	240.0						
PID readings, if required								

Remarks: Sample Time: 13:17 **Dry @ 1.0 gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 7/10/2014
Field Personnel: W. Huss, T. Elder
General Weather Conditions: Cloudy

Ambient Air Temperature: 33.9 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911
Site ID#: 10628 **Monitoring Well #** MW-20
Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:			feet
Depth to Free Product (DFP)			feet
Depth to Ground Water (DGW)	11.17		feet
Total Well Depth (TWD)	14		feet
Length of the water column (LWC=TWD-DGW)		2.83	feet
1 casing volume (CV=LWC X C)= ____ X	0.163	0.46	gallons
5 casing volume (5 X CV)=		2.31	gallons

Total Volume of Water Purged Before Sampling 0 gals.
*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	12:53							
pH (s.u.)	Ins H2O							
Specific Conductivity (µmhos/cm)	Ins H2O							
Water Temperature (°C)	Ins H2O							
Dissolved Oxygen	Ins H2O							
Turbidity (NTU)	Ins H2O							
PID readings, if required								

Remarks: Sample Time: 12:53 **Insufficient water to purge**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 7/10/2014

Field Personnel: W. Huss, T. Elder

General Weather Conditions: Cloudy

Ambient Air Temperature: 33.9 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** PW-1R

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 2 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	11.17			feet
Total Well Depth (TWD)	14			feet
Length of the water column (LWC=TWD-DGW)			2.83	feet
1 casing volume (CV=LWC X C)= _____ X		0.163	0.46	gallons
5 casing volume (5 X CV)=			2.31	gallons

Total Volume of Water Purged Before Sampling 9 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	12:05	12:10						
pH (s.u.)	6.41	6.32						
Specific Conductivity (µmhos/cm)	132.3	146.7						
Water Temperature (°C)	25.10	24.8						
Dissolved Oxygen	0.48	0.56						
Turbidity (NTU)	19.23	210.4						
PID readings, if required								

Remarks: Sample Time: 12:10 **Dry at 9.0 gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 7/10/2014

Field Personnel: W. Huss, T. Elder

General Weather Conditions: Cloudy

Ambient Air Temperature: 33.9 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** RW-1

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 4 inches

Conversion Factor (C): $3.14 \times (D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)	8.77			feet
Depth to Ground Water (DGW)	8.92			feet
Total Well Depth (TWD)	12			feet
Length of the water column (LWC=TWD-DGW)			3.08	feet
1 casing volume (CV=LWC X C)= ____ X		0.652	2.01	gallons
5 casing volume (5 X CV)=			10.04	gallons

Total Volume of Water Purged Before Sampling 0 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	PROD							
pH (s.u.)	PROD							
Specific Conductivity (µmhos/cm)	PROD							
Water Temperature (°C)	PROD							
Dissolved Oxygen	PROD							
Turbidity (NTU)	PROD							
PID readings, if required								

Remarks: Sample Time: **Free Phase Petroleum Product**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 7/10/2014

Field Personnel: W. Huss, T. Elder

General Weather Conditions: Cloudy

Ambient Air Temperature: 33.9 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** RW-2

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 4 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	2.04			feet
Total Well Depth (TWD)	12			feet
Length of the water column (LWC=TWD-DGW)			9.96	feet
1 casing volume (CV=LWC X C)= ____ X		0.652	6.49	gallons
5 casing volume (5 X CV)=			32.47	gallons

Total Volume of Water Purged Before Sampling 18 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:45	11:50						
pH (s.u.)	6.09	6.30						
Specific Conductivity (µmhos/cm)	452.7	488.0						
Water Temperature (°C)	30.2	25.5						
Dissolved Oxygen	0.20	0.27						
Turbidity (NTU)	103.2	608.8						
PID readings, if required								

Remarks: Sample Time: 11:50 **Dry at 18.0 gallons**

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management Underground Storage Tank Program

Field Data Information Sheet for Groundwater Sampling

Date (mm/dd/yy): 7/10/2014

Field Personnel: W. Huss, T. Elder

General Weather Conditions: Cloudy

Ambient Air Temperature: 33.9 °C

Quality Assurance

pH/Conductivity Meter		**DO Meter**	
YSI 63		**YSI 550A**	
09C 101302		04L 2026AK	
10K 101895	X	08B 101895	X
07M 100905		04A 0912AI	
Calibration Buffer:	4, 7, & 10		

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Facility Name: Pantry 911

Site ID#: 10628 **Monitoring Well #** RW-3

Water Supply Well **Public** _____ **Private** _____

Monitoring Well Diameter (D): 4 inches

Conversion Factor (C): 3.14 x $(D/2)^2$ for a 2 inch well C=0.163
for a 4 inch well C=0.652

* Free Product Thickness:				feet
Depth to Free Product (DFP)				feet
Depth to Ground Water (DGW)	1.74			feet
Total Well Depth (TWD)	12			feet
Length of the water column (LWC=TWD-DGW)			10.26	feet
1 casing volume (CV=LWC X C)= ____ X		0.652	6.69	gallons
5 casing volume (5 X CV)=			33.45	gallons

Total Volume of Water Purged Before Sampling 15 gals.

*If free product is present over 1/8 inch, sampling will not be required.

Cumulative Volume Purged (gallons)	Inital	1st Vol	2nd Vol	3rd Vol	4th Vol	5th Vol	Post Sampling	
Time (military)	11:20	11:26						
pH (s.u.)	4.43	Sheen						
Specific Conductivity (µmhos/cm)	174.0	Sheen						
Water Temperature (°C)	30.8	Sheen						
Dissolved Oxygen	0.25	Sheen						
Turbidity (NTU)	117.6	Sheen						
PID readings, if required								

Remarks: Sample Time: 11:26 **Dry at 15.0 gallons**

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

Midlands Environmental Consultants, Inc.
235 Dooley Rd
Lexington, SC 29073
Attention: Bryan Shane

Project Name: **Pantry 911**

Project Number: **14-4855**

Lot Number: **PG12007**

Date Completed: **07/23/2014**

Kelly M. Maberry
Project Manager

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

Case Narrative

Midlands Environmental Consultants, Inc.

Lot Number: PG12007

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Receiving
Samples -007, -014, -015 and -017 for volatiles analysis contained vials with air bubbles greater than ¼" or 6mm in diameter. The laboratory uses these vials for screening and the vials without bubbles for analysis whenever possible. Condition of samples is documented on the Sample Receipt Checklist (SRC).

EDB/DBCP
Samples -001 and -017 had the surrogate recovered outside of the acceptance limits due to confirmed matrix interference.

Sample Summary

Midlands Environmental Consultants, Inc.

Lot Number: PG12007

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	MW-3R	Aqueous	07/10/2014 1106	07/11/2014
002	MW-4R	Aqueous	07/10/2014 1159	07/11/2014
003	MW-5RR	Aqueous	07/10/2014 1055	07/11/2014
004	MW-9	Aqueous	07/10/2014 1453	07/11/2014
005	MW-10	Aqueous	07/10/2014 1442	07/11/2014
006	MW-11	Aqueous	07/10/2014 1041	07/11/2014
007	MW-14	Aqueous	07/10/2014 1137	07/11/2014
008	MW-15	Aqueous	07/10/2014 1342	07/11/2014
009	MW-16	Aqueous	07/10/2014 1307	07/11/2014
010	MW-18	Aqueous	07/10/2014 1416	07/11/2014
011	MW-19	Aqueous	07/10/2014 1317	07/11/2014
012	MW-20	Aqueous	07/10/2014 1253	07/11/2014
013	PW-1R	Aqueous	07/10/2014 1210	07/11/2014
014	RW-2	Aqueous	07/10/2014 1150	07/11/2014
015	RW-3	Aqueous	07/10/2014 1120	07/11/2014
016	WSW-1	Aqueous	07/10/2014 1514	07/11/2014
017	MW-3R Dup	Aqueous	07/10/2014 1107	07/11/2014
018	Field Blank	Aqueous	07/10/2014 1455	07/11/2014
019	Trip Blank	Aqueous	07/10/2014 1456	07/11/2014

(19 samples)

Executive Summary

Midlands Environmental Consultants, Inc.

Lot Number: PG12007

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	MW-3R	Aqueous	tert-Amyl alcohol (TAA)	8260B	2600		ug/L	6
001	MW-3R	Aqueous	tert-Amyl methyl ether (TAME)	8260B	130	J	ug/L	6
001	MW-3R	Aqueous	Benzene	8260B	1500		ug/L	6
001	MW-3R	Aqueous	Ethylbenzene	8260B	940		ug/L	6
001	MW-3R	Aqueous	Ethyl-tert-butyl ether (ETBE)	8260B	68	J	ug/L	6
001	MW-3R	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	620		ug/L	6
001	MW-3R	Aqueous	Naphthalene	8260B	240		ug/L	6
001	MW-3R	Aqueous	tert-butyl alcohol (TBA)	8260B	3100		ug/L	6
001	MW-3R	Aqueous	Toluene	8260B	3900		ug/L	6
001	MW-3R	Aqueous	Xylenes (total)	8260B	7500		ug/L	6
001	MW-3R	Aqueous	1,2-Dibromoethane (EDB)	8011	0.27		ug/L	6
002	MW-4R	Aqueous	tert-Amyl alcohol (TAA)	8260B	4200		ug/L	7
002	MW-4R	Aqueous	tert-Amyl methyl ether (TAME)	8260B	110	J	ug/L	7
002	MW-4R	Aqueous	Benzene	8260B	2600		ug/L	7
002	MW-4R	Aqueous	Ethylbenzene	8260B	970		ug/L	7
002	MW-4R	Aqueous	Ethyl-tert-butyl ether (ETBE)	8260B	91	J	ug/L	7
002	MW-4R	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	1200		ug/L	7
002	MW-4R	Aqueous	Naphthalene	8260B	100		ug/L	7
002	MW-4R	Aqueous	tert-butyl alcohol (TBA)	8260B	11000		ug/L	7
002	MW-4R	Aqueous	Toluene	8260B	3800		ug/L	7
002	MW-4R	Aqueous	Xylenes (total)	8260B	3700		ug/L	7
004	MW-9	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	2.4	J	ug/L	9
005	MW-10	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	3.9	J	ug/L	10
007	MW-14	Aqueous	tert-Amyl alcohol (TAA)	8260B	7500	J	ug/L	12
007	MW-14	Aqueous	tert-Amyl methyl ether (TAME)	8260B	630	J	ug/L	12
007	MW-14	Aqueous	Benzene	8260B	9800		ug/L	12
007	MW-14	Aqueous	Ethylbenzene	8260B	3700		ug/L	12
007	MW-14	Aqueous	Ethyl-tert-butyl ether (ETBE)	8260B	170	J	ug/L	12
007	MW-14	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	1400		ug/L	12
007	MW-14	Aqueous	Naphthalene	8260B	560	J	ug/L	12
007	MW-14	Aqueous	tert-butyl alcohol (TBA)	8260B	3600	J	ug/L	12
007	MW-14	Aqueous	Toluene	8260B	31000		ug/L	12
007	MW-14	Aqueous	Xylenes (total)	8260B	19000		ug/L	12
008	MW-15	Aqueous	tert-Amyl alcohol (TAA)	8260B	12	J	ug/L	13
008	MW-15	Aqueous	Benzene	8260B	0.66	J	ug/L	13
008	MW-15	Aqueous	Diisopropyl ether (IPE)	8260B	0.65	J	ug/L	13
008	MW-15	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	0.67	J	ug/L	13
008	MW-15	Aqueous	tert-butyl alcohol (TBA)	8260B	26	J	ug/L	13
010	MW-18	Aqueous	Diisopropyl ether (IPE)	8260B	4.5	J	ug/L	15
012	MW-20	Aqueous	tert-Amyl alcohol (TAA)	8260B	1000		ug/L	17
012	MW-20	Aqueous	1,2-Dichloroethane	8260B	1.8	J	ug/L	17
012	MW-20	Aqueous	Diisopropyl ether (IPE)	8260B	160		ug/L	17
012	MW-20	Aqueous	tert-butyl alcohol (TBA)	8260B	33	J	ug/L	17
014	RW-2	Aqueous	tert-Amyl alcohol (TAA)	8260B	1300	J	ug/L	19
014	RW-2	Aqueous	tert-Amyl methyl ether (TAME)	8260B	89	J	ug/L	19

Executive Summary (Continued)

Lot Number: PG12007

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
014	RW-2	Aqueous	Benzene	8260B	2100		ug/L	19
014	RW-2	Aqueous	Ethylbenzene	8260B	820		ug/L	19
014	RW-2	Aqueous	Ethyl-tert-butyl ether (ETBE)	8260B	53	J	ug/L	19
014	RW-2	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	470		ug/L	19
014	RW-2	Aqueous	Naphthalene	8260B	210		ug/L	19
014	RW-2	Aqueous	tert-butyl alcohol (TBA)	8260B	5200		ug/L	19
014	RW-2	Aqueous	Toluene	8260B	2500		ug/L	19
014	RW-2	Aqueous	Xylenes (total)	8260B	2100		ug/L	19
015	RW-3	Aqueous	tert-Amyl alcohol (TAA)	8260B	7000	J	ug/L	20
015	RW-3	Aqueous	tert-Amyl methyl ether (TAME)	8260B	910	J	ug/L	20
015	RW-3	Aqueous	Benzene	8260B	10000		ug/L	20
015	RW-3	Aqueous	1,2-Dichloroethane	8260B	240	J	ug/L	20
015	RW-3	Aqueous	Ethylbenzene	8260B	3800		ug/L	20
015	RW-3	Aqueous	Ethyl-tert-butyl ether (ETBE)	8260B	290	J	ug/L	20
015	RW-3	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	1800		ug/L	20
015	RW-3	Aqueous	Naphthalene	8260B	920	J	ug/L	20
015	RW-3	Aqueous	tert-butyl alcohol (TBA)	8260B	4900	J	ug/L	20
015	RW-3	Aqueous	Toluene	8260B	39000		ug/L	20
015	RW-3	Aqueous	Xylenes (total)	8260B	22000		ug/L	20
017	MW-3R Dup	Aqueous	tert-Amyl alcohol (TAA)	8260B	2500		ug/L	22
017	MW-3R Dup	Aqueous	tert-Amyl methyl ether (TAME)	8260B	110	J	ug/L	22
017	MW-3R Dup	Aqueous	Benzene	8260B	1600		ug/L	22
017	MW-3R Dup	Aqueous	Ethylbenzene	8260B	1000		ug/L	22
017	MW-3R Dup	Aqueous	Ethyl-tert-butyl ether (ETBE)	8260B	62	J	ug/L	22
017	MW-3R Dup	Aqueous	Methyl tertiary butyl ether (MTBE)	8260B	590		ug/L	22
017	MW-3R Dup	Aqueous	Naphthalene	8260B	220		ug/L	22
017	MW-3R Dup	Aqueous	tert-butyl alcohol (TBA)	8260B	3000		ug/L	22
017	MW-3R Dup	Aqueous	Toluene	8260B	3900		ug/L	22
017	MW-3R Dup	Aqueous	Xylenes (total)	8260B	7000		ug/L	22
017	MW-3R Dup	Aqueous	1,2-Dibromoethane (EDB)	8011	0.28		ug/L	22

(75 detections)

Client: **Midlands Environmental Consultants, Inc.**
Description: **MW-3R**
Date Sampled: **07/10/2014 1106**
Date Received: **07/11/2014**

Laboratory ID: **PG12007-001**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	07/21/2014 2311	PMM2		51973
2	5030B	8260B	50	07/22/2014 1642	EH1		52033

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**2600**		**2000**	**130**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**130**	**J**	**200**	**4.0**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**1500**		**100**	**4.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		2000	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		100	6.0	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		200	8.0	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		2000	20	ug/L	1
Ethanol	64-17-5	8260B	ND		20000	660	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**940**		**100**	**34**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	**637-92-3**	**8260B**	**68**	**J**	**2000**	**4.0**	**ug/L**	**1**
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**620**		**100**	**8.0**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**240**		**100**	**34**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**3100**		**2000**	**130**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**3900**		**100**	**34**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**7500**		**250**	**85**	**ug/L**	**2**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		110	70-130		108	70-130
Bromofluorobenzene		111	70-130		112	70-130
Toluene-d8		113	70-130		113	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	07/16/2014 0253	JCG	07/15/2014 0900	51366

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.27**		**0.020**	**0.020**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane	N	249	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.**
Description: **MW-4R**
Date Sampled: **07/10/2014 1159**
Date Received: **07/11/2014**

Laboratory ID: **PG12007-002**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	07/21/2014 2353	PMM2		51973

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**4200**		**2000**	**130**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**110**	**J**	**200**	**4.0**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**2600**		**100**	**4.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		2000	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		100	6.0	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		200	8.0	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		2000	20	ug/L	1
Ethanol	64-17-5	8260B	ND		20000	660	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**970**		**100**	**34**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	**637-92-3**	**8260B**	**91**	**J**	**2000**	**4.0**	**ug/L**	**1**
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**1200**		**100**	**8.0**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**100**		**100**	**34**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**11000**		**2000**	**130**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**3800**		**100**	**34**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**3700**		**100**	**34**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		109	70-130
Bromofluorobenzene		111	70-130
Toluene-d8		112	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	07/16/2014 0303	JCG	07/15/2014 0900	51366

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		75	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.**
Description: **MW-5RR**
Date Sampled: **07/10/2014 1055**
Date Received: **07/11/2014**

Laboratory ID: **PG12007-003**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/21/2014 2126	PMM2		51973

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		110	70-130
Bromofluorobenzene		112	70-130
Toluene-d8		112	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	07/16/2014 0314	JCG	07/15/2014 0900	51366

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		83	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.**
Description: **MW-9**
Date Sampled: **07/10/2014 1453**
Date Received: **07/11/2014**

Laboratory ID: **PG12007-004**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/21/2014 2147	PMM2		51973

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**2.4**	**J**	**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		110	70-130
Bromofluorobenzene		113	70-130
Toluene-d8		111	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	07/16/2014 0324	JCG	07/15/2014 0900	51366

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		91	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.** Laboratory ID: **PG12007-005**
Description: **MW-10** Matrix: **Aqueous**
Date Sampled: **07/10/2014 1442**
Date Received: **07/11/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/21/2014 2208	PMM2		51973

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**3.9**	**J**	**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		110	70-130
Bromofluorobenzene		112	70-130
Toluene-d8		111	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	07/16/2014 0334	JCG	07/15/2014 0900	51366

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		94	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.**
Description: **MW-11**
Date Sampled: **07/10/2014 1041**
Date Received: **07/11/2014**

Laboratory ID: **PG12007-006**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/21/2014 2307	PMM2		51985

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		96	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	07/16/2014 0345	JCG	07/15/2014 0900	51366

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		92	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.**
Description: **MW-14**
Date Sampled: **07/10/2014 1137**
Date Received: **07/11/2014**

Laboratory ID: **PG12007-007**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	200	07/22/2014 0403	PMM2		51985

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**7500**	**J**	**20000**	**1300**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**630**	**J**	**2000**	**40**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**9800**		**1000**	**40**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		20000	200	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1000	60	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		2000	80	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20000	200	ug/L	1
Ethanol	64-17-5	8260B	ND		200000	6600	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**3700**		**1000**	**340**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	**637-92-3**	**8260B**	**170**	**J**	**20000**	**40**	**ug/L**	**1**
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**1400**		**1000**	**80**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**560**	**J**	**1000**	**340**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**3600**	**J**	**20000**	**1300**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**31000**		**1000**	**340**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**19000**		**1000**	**340**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		102	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	07/16/2014 0355	JCG	07/15/2014 0900	51366

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		99	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.**
Description: **MW-15**
Date Sampled: **07/10/2014 1342**
Date Received: **07/11/2014**

Laboratory ID: **PG12007-008**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/21/2014 2329	PMM2		51985

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**12**	**J**	**100**	**6.7**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	**71-43-2**	**8260B**	**0.66**	**J**	**5.0**	**0.20**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**0.65**	**J**	**10**	**0.40**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**0.67**	**J**	**5.0**	**0.40**	**ug/L**	**1**
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**26**	**J**	**100**	**6.7**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		94	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	07/16/2014 0405	JCG	07/15/2014 0900	51366

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		105	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.**
Description: **MW-16**
Date Sampled: **07/10/2014 1307**
Date Received: **07/11/2014**

Laboratory ID: **PG12007-009**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/21/2014 2357	PMM2		51985

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		95	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	07/16/2014 0416	JCG	07/15/2014 0900	51366

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		75	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.**
Description: **MW-18**
Date Sampled: **07/10/2014 1416**
Date Received: **07/11/2014**

Laboratory ID: **PG12007-010**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/22/2014 0019	PMM2		51985

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**4.5**	**J**	**10**	**0.40**	**ug/L**	**1**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		95	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	07/16/2014 0426	JCG	07/15/2014 0900	51366

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		90	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.**
Description: **MW-19**
Date Sampled: **07/10/2014 1317**
Date Received: **07/11/2014**

Laboratory ID: **PG12007-011**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/22/2014 0041	PMM2		51985

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		96	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	07/16/2014 0436	JCG	07/15/2014 0900	51366

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		89	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.**
Description: **MW-20**
Date Sampled: **07/10/2014 1253**
Date Received: **07/11/2014**

Laboratory ID: **PG12007-012**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/22/2014 0103	PMM2		51985
2	5030B	8260B	5	07/22/2014 1621	EH1		52033

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**1000**		**100**	**6.7**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**1.8**	**J**	**5.0**	**0.30**	**ug/L**	**1**
Diisopropyl ether (IPE)	**108-20-3**	**8260B**	**160**		**50**	**2.0**	**ug/L**	**2**
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**33**	**J**	**100**	**6.7**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	70-130		110	70-130
Bromofluorobenzene		94	70-130		110	70-130
Toluene-d8		99	70-130		112	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	07/16/2014 0447	JCG	07/15/2014 0900	51366

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.019	0.019	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		94	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.**
Description: **PW-1R**
Date Sampled: **07/10/2014 1210**
Date Received: **07/11/2014**

Laboratory ID: **PG12007-013**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/22/2014 0125	PMM2		51985

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		95	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	07/16/2014 0518	JCG	07/15/2014 0900	51366

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		85	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.**
Description: **RW-2**
Date Sampled: **07/10/2014 1150**
Date Received: **07/11/2014**

Laboratory ID: **PG12007-014**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	07/22/2014 0425	PMM2		51985

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**1300**	**J**	**2000**	**130**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**89**	**J**	**200**	**4.0**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**2100**		**100**	**4.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		2000	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		100	6.0	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		200	8.0	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		2000	20	ug/L	1
Ethanol	64-17-5	8260B	ND		20000	660	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**820**		**100**	**34**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	**637-92-3**	**8260B**	**53**	**J**	**2000**	**4.0**	**ug/L**	**1**
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**470**		**100**	**8.0**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**210**		**100**	**34**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**5200**		**2000**	**130**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**2500**		**100**	**34**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**2100**		**100**	**34**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		102	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	07/16/2014 0528	JCG	07/15/2014 0900	51366

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		115	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.**
Description: **RW-3**
Date Sampled: **07/10/2014 1120**
Date Received: **07/11/2014**

Laboratory ID: **PG12007-015**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	200	07/22/2014 0531	PMM2		51985

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**7000**	**J**	**20000**	**1300**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**910**	**J**	**2000**	**40**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**10000**		**1000**	**40**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		20000	200	ug/L	1
1,2-Dichloroethane	**107-06-2**	**8260B**	**240**	**J**	**1000**	**60**	**ug/L**	**1**
Diisopropyl ether (IPE)	108-20-3	8260B	ND		2000	80	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20000	200	ug/L	1
Ethanol	64-17-5	8260B	ND		200000	6600	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**3800**		**1000**	**340**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	**637-92-3**	**8260B**	**290**	**J**	**20000**	**40**	**ug/L**	**1**
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**1800**		**1000**	**80**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**920**	**J**	**1000**	**340**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**4900**	**J**	**20000**	**1300**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**39000**		**1000**	**340**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**22000**		**1000**	**340**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		102	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	07/16/2014 0538	JCG	07/15/2014 0900	51366

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		125	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.**
Description: **WSW-1**
Date Sampled: **07/10/2014 1514**
Date Received: **07/11/2014**

Laboratory ID: **PG12007-016**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/22/2014 0147	PMM2		51985

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.13	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.15	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.33	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		1.0	0.40	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.33	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.33	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		96	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	07/16/2014 0549	JCG	07/15/2014 0900	51366

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.020	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		100	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.** Laboratory ID: **PG12007-017**
Description: **MW-3R Dup** Matrix: **Aqueous**
Date Sampled: **07/10/2014 1107**
Date Received: **07/11/2014**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	07/21/2014 2332	PMM2		51973
2	5030B	8260B	50	07/22/2014 1703	EH1		52033

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	**75-85-4**	**8260B**	**2500**		**2000**	**130**	**ug/L**	**1**
tert-Amyl methyl ether (TAME)	**994-05-8**	**8260B**	**110**	**J**	**200**	**4.0**	**ug/L**	**1**
Benzene	**71-43-2**	**8260B**	**1600**		**100**	**4.0**	**ug/L**	**1**
tert-Butyl formate (TBF)	762-75-4	8260B	ND		2000	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		100	6.0	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		200	8.0	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		2000	20	ug/L	1
Ethanol	64-17-5	8260B	ND		20000	660	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**1000**		**100**	**34**	**ug/L**	**1**
Ethyl-tert-butyl ether (ETBE)	**637-92-3**	**8260B**	**62**	**J**	**2000**	**4.0**	**ug/L**	**1**
Methyl tertiary butyl ether (MTBE)	**1634-04-4**	**8260B**	**590**		**100**	**8.0**	**ug/L**	**1**
Naphthalene	**91-20-3**	**8260B**	**220**		**100**	**34**	**ug/L**	**1**
tert-butyl alcohol (TBA)	**75-65-0**	**8260B**	**3000**		**2000**	**130**	**ug/L**	**1**
Toluene	**108-88-3**	**8260B**	**3900**		**100**	**34**	**ug/L**	**1**
Xylenes (total)	**1330-20-7**	**8260B**	**7000**		**250**	**85**	**ug/L**	**2**

Surrogate	Q	Run 1 % Recovery	Run 1 Acceptance Limits	Q	Run 2 % Recovery	Run 2 Acceptance Limits
1,2-Dichloroethane-d4		109	70-130		108	70-130
Bromofluorobenzene		113	70-130		110	70-130
Toluene-d8		112	70-130		112	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	07/16/2014 0559	JCG	07/15/2014 0900	51366

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	**106-93-4**	**8011**	**0.28**		**0.019**	**0.019**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Run 1 Acceptance Limits
1,1,1,2-Tetrachloroethane	N	287	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.**
Description: **Field Blank**
Date Sampled: **07/10/2014 1455**
Date Received: **07/11/2014**

Laboratory ID: **PG12007-018**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/21/2014 2223	PMM2		51985

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		100	70-130

EDB & DBCP by Microextraction

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	07/16/2014 0609	JCG	07/15/2014 0900	51366

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.021	0.021	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		81	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Client: **Midlands Environmental Consultants, Inc.**
Description: **Trip Blank**
Date Sampled: **07/10/2014 1456**
Date Received: **07/11/2014**

Laboratory ID: **PG12007-019**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/21/2014 2245	PMM2		51985

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		10	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		1000	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		100	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		97	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ51973-001
Batch: 51973
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	100	6.7	ug/L	07/21/2014 1940
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	07/21/2014 1940
Benzene	ND		1	5.0	0.20	ug/L	07/21/2014 1940
tert-Butyl formate (TBF)	ND		1	100	1.0	ug/L	07/21/2014 1940
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	07/21/2014 1940
Diisopropyl ether (IPE)	ND		1	10	0.40	ug/L	07/21/2014 1940
3,3-Dimethyl-1-butanol	ND		1	100	1.0	ug/L	07/21/2014 1940
Ethanol	ND		1	1000	33	ug/L	07/21/2014 1940
Ethylbenzene	ND		1	5.0	1.7	ug/L	07/21/2014 1940
Ethyl-tert-butyl ether (ETBE)	ND		1	100	0.20	ug/L	07/21/2014 1940
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	07/21/2014 1940
Naphthalene	ND		1	5.0	1.7	ug/L	07/21/2014 1940
tert-butyl alcohol (TBA)	ND		1	100	6.7	ug/L	07/21/2014 1940
Toluene	ND		1	5.0	1.7	ug/L	07/21/2014 1940
Xylenes (total)	ND		1	5.0	1.7	ug/L	07/21/2014 1940

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		113	70-130
1,2-Dichloroethane-d4		111	70-130
Toluene-d8		113	70-130

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ51973-002
Batch: 51973
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1100		1	108	70-130	07/21/2014 1814
tert-Amyl methyl ether (TAME)	50	53		1	107	70-130	07/21/2014 1814
Benzene	50	51		1	102	70-130	07/21/2014 1814
tert-Butyl formate (TBF)	250	260		1	105	70-130	07/21/2014 1814
1,2-Dichloroethane	50	52		1	104	70-130	07/21/2014 1814
Diisopropyl ether (IPE)	50	49		1	98	70-130	07/21/2014 1814
3,3-Dimethyl-1-butanol	1000	1100		1	106	70-130	07/21/2014 1814
Ethanol	5000	5400		1	108	60-140	07/21/2014 1814
Ethylbenzene	50	52		1	104	70-130	07/21/2014 1814
Ethyl-tert-butyl ether (ETBE)	50	48		1	97	70-130	07/21/2014 1814
Methyl tertiary butyl ether (MTBE)	50	50		1	100	70-130	07/21/2014 1814

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ51973-002 **Matrix:** Aqueous
Batch: 51973 **Prep Method:** 5030B
Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Naphthalene	50	52		1	105	70-130	07/21/2014 1814
tert-butyl alcohol (TBA)	1000	1100		1	106	70-130	07/21/2014 1814
Toluene	50	51		1	102	70-130	07/21/2014 1814
Xylenes (total)	100	110		1	106	70-130	07/21/2014 1814

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		112	70-130
1,2-Dichloroethane-d4		109	70-130
Toluene-d8		112	70-130

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ51973-003 **Matrix:** Aqueous
Batch: 51973 **Prep Method:** 5030B
Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1100		1	106	2.0	70-130	20	07/21/2014 1835
tert-Amyl methyl ether (TAME)	50	53		1	106	0.69	70-130	20	07/21/2014 1835
Benzene	50	51		1	101	0.81	70-130	20	07/21/2014 1835
tert-Butyl formate (TBF)	250	260		1	104	0.89	70-130	20	07/21/2014 1835
1,2-Dichloroethane	50	51		1	103	0.81	70-130	20	07/21/2014 1835
Diisopropyl ether (IPE)	50	49		1	98	0.61	70-130	20	07/21/2014 1835
3,3-Dimethyl-1-butanol	1000	1000		1	103	2.8	70-130	20	07/21/2014 1835
Ethanol	5000	5400		1	108	0.0093	60-140	20	07/21/2014 1835
Ethylbenzene	50	51		1	102	2.4	70-130	20	07/21/2014 1835
Ethyl-tert-butyl ether (ETBE)	50	48		1	96	1.0	70-130	20	07/21/2014 1835
Methyl tertiary butyl ether (MTBE)	50	50		1	100	0.25	70-130	20	07/21/2014 1835
Naphthalene	50	52		1	104	0.86	70-130	20	07/21/2014 1835
tert-butyl alcohol (TBA)	1000	1100		1	106	0.065	70-130	20	07/21/2014 1835
Toluene	50	51		1	102	0.083	70-130	20	07/21/2014 1835
Xylenes (total)	100	100		1	103	2.5	70-130	20	07/21/2014 1835

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		111	70-130
1,2-Dichloroethane-d4		108	70-130
Toluene-d8		113	70-130

PQL = Practical quantitation limit
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: PG12007-002MS
Batch: 51973
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	4200	20000	23000		20	95	70-130	07/22/2014 0014
tert-Amyl methyl ether (TAME)	110	1000	1200		20	110	70-130	07/22/2014 0014
Benzene	2600	1000	3600		20	97	70-130	07/22/2014 0014
tert-Butyl formate (TBF)	ND	5000	4200		20	84	70-130	07/22/2014 0014
1,2-Dichloroethane	ND	1000	1100		20	113	70-130	07/22/2014 0014
Diisopropyl ether (IPE)	ND	1000	1000		20	102	70-130	07/22/2014 0014
3,3-Dimethyl-1-butanol	ND	20000	19000		20	94	70-130	07/22/2014 0014
Ethanol	ND	100000	89000		20	89	70-130	07/22/2014 0014
Ethylbenzene	970	1000	2000		20	105	70-130	07/22/2014 0014
Ethyl-tert-butyl ether (ETBE)	91	1000	1100		20	99	70-130	07/22/2014 0014
Methyl tertiary butyl ether (MTBE)	1200	1000	2200		20	105	70-130	07/22/2014 0014
Naphthalene	100	1000	990		20	89	70-130	07/22/2014 0014
tert-butyl alcohol (TBA)	11000	20000	30000		20	96	70-130	07/22/2014 0014
Toluene	3800	1000	4700	E	20	92	70-130	07/22/2014 0014
Xylenes (total)	3700	2000	5800		20	103	70-130	07/22/2014 0014

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		108	70-130
Bromofluorobenzene		114	70-130
Toluene-d8		113	70-130

Volatile Organic Compounds by GC/MS - MSD

Sample ID: PG12007-002MD
Batch: 51973
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	4200	20000	22000		20	90	3.9	70-130	20	07/22/2014 0035
tert-Amyl methyl ether (TAME)	110	1000	1100		20	100	7.9	70-130	20	07/22/2014 0035
Benzene	2600	1000	3600		20	93	0.94	70-130	20	07/22/2014 0035
tert-Butyl formate (TBF)	ND	5000	3900		20	78	7.5	70-130	20	07/22/2014 0035
1,2-Dichloroethane	ND	1000	1100		20	107	5.2	70-130	20	07/22/2014 0035
Diisopropyl ether (IPE)	ND	1000	980		20	98	3.6	70-130	20	07/22/2014 0035
3,3-Dimethyl-1-butanol	ND	20000	18000		20	91	3.7	70-130	20	07/22/2014 0035
Ethanol	ND	100000	83000		20	83	6.8	70-130	20	07/22/2014 0035
Ethylbenzene	970	1000	2000		20	99	3.2	70-130	20	07/22/2014 0035
Ethyl-tert-butyl ether (ETBE)	91	1000	1000		20	94	5.0	70-130	20	07/22/2014 0035
Methyl tertiary butyl ether (MTBE)	1200	1000	2200		20	101	1.9	70-130	20	07/22/2014 0035

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: PG12007-002MD
Batch: 51973
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Naphthalene	100	1000	920		20	81	7.9	70-130	20	07/22/2014 0035
tert-butyl alcohol (TBA)	11000	20000	30000		20	95	0.16	70-130	20	07/22/2014 0035
Toluene	3800	1000	4700	E	20	89	0.60	70-130	20	07/22/2014 0035
Xylenes (total)	3700	2000	5600		20	96	2.6	70-130	20	07/22/2014 0035

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		108	70-130
Bromofluorobenzene		113	70-130
Toluene-d8		113	70-130

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ51985-001
Batch: 51985
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	100	6.7	ug/L	07/21/2014 2201
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	07/21/2014 2201
Benzene	ND		1	5.0	0.20	ug/L	07/21/2014 2201
tert-Butyl formate (TBF)	ND		1	100	1.0	ug/L	07/21/2014 2201
1,2-Dichloroethane	ND		1	5.0	0.30	ug/L	07/21/2014 2201
Diisopropyl ether (IPE)	ND		1	10	0.40	ug/L	07/21/2014 2201
3,3-Dimethyl-1-butanol	ND		1	100	1.0	ug/L	07/21/2014 2201
Ethanol	ND		1	1000	33	ug/L	07/21/2014 2201
Ethylbenzene	ND		1	5.0	1.7	ug/L	07/21/2014 2201
Ethyl-tert-butyl ether (ETBE)	ND		1	100	0.20	ug/L	07/21/2014 2201
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	0.40	ug/L	07/21/2014 2201
Naphthalene	ND		1	5.0	1.7	ug/L	07/21/2014 2201
tert-butyl alcohol (TBA)	ND		1	100	6.7	ug/L	07/21/2014 2201
Toluene	ND		1	5.0	1.7	ug/L	07/21/2014 2201
Xylenes (total)	ND		1	5.0	1.7	ug/L	07/21/2014 2201

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		93	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		97	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ51985-002
Batch: 51985
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1000		1	105	70-130	07/21/2014 2033
tert-Amyl methyl ether (TAME)	50	48		1	97	70-130	07/21/2014 2033
Benzene	50	48		1	95	70-130	07/21/2014 2033
tert-Butyl formate (TBF)	250	230		1	92	70-130	07/21/2014 2033
1,2-Dichloroethane	50	48		1	96	70-130	07/21/2014 2033
Diisopropyl ether (IPE)	50	45		1	90	70-130	07/21/2014 2033
3,3-Dimethyl-1-butanol	1000	1000		1	100	70-130	07/21/2014 2033
Ethanol	5000	5100		1	101	60-140	07/21/2014 2033
Ethylbenzene	50	47		1	93	70-130	07/21/2014 2033
Ethyl-tert-butyl ether (ETBE)	50	44		1	89	70-130	07/21/2014 2033
Methyl tertiary butyl ether (MTBE)	50	44		1	89	70-130	07/21/2014 2033
Naphthalene	50	52		1	104	70-130	07/21/2014 2033
tert-butyl alcohol (TBA)	1000	990		1	99	70-130	07/21/2014 2033
Toluene	50	47		1	93	70-130	07/21/2014 2033
Xylenes (total)	100	98		1	98	70-130	07/21/2014 2033

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		97	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		96	70-130

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ51985-003
Batch: 51985
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1000		1	102	3.0	70-130	20	07/21/2014 2055
tert-Amyl methyl ether (TAME)	50	49		1	99	2.2	70-130	20	07/21/2014 2055
Benzene	50	49		1	98	2.4	70-130	20	07/21/2014 2055
tert-Butyl formate (TBF)	250	240		1	94	1.9	70-130	20	07/21/2014 2055
1,2-Dichloroethane	50	48		1	97	0.89	70-130	20	07/21/2014 2055
Diisopropyl ether (IPE)	50	46		1	92	1.9	70-130	20	07/21/2014 2055
3,3-Dimethyl-1-butanol	1000	970		1	97	3.3	70-130	20	07/21/2014 2055
Ethanol	5000	5100		1	103	1.4	60-140	20	07/21/2014 2055
Ethylbenzene	50	48		1	97	3.3	70-130	20	07/21/2014 2055
Ethyl-tert-butyl ether (ETBE)	50	45		1	90	1.2	70-130	20	07/21/2014 2055
Methyl tertiary butyl ether (MTBE)	50	47		1	95	6.3	70-130	20	07/21/2014 2055

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ51985-003
Batch: 51985
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Naphthalene	50	51		1	103	1.2	70-130	20	07/21/2014 2055
tert-butyl alcohol (TBA)	1000	970		1	97	2.1	70-130	20	07/21/2014 2055
Toluene	50	49		1	98	4.7	70-130	20	07/21/2014 2055
Xylenes (total)	100	99		1	99	0.54	70-130	20	07/21/2014 2055

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		96	70-130
1,2-Dichloroethane-d4		94	70-130
Toluene-d8		98	70-130

Volatile Organic Compounds by GC/MS - MS

Sample ID: PG12007-015MS
Batch: 51985
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	7000	200000	230000		200	113	70-130	07/22/2014 0553
tert-Amyl methyl ether (TAME)	910	10000	12000		200	110	70-130	07/22/2014 0553
Benzene	10000	10000	21000		200	105	70-130	07/22/2014 0553
tert-Butyl formate (TBF)	ND	50000	47000		200	95	70-130	07/22/2014 0553
1,2-Dichloroethane	240	10000	11000		200	109	70-130	07/22/2014 0553
Diisopropyl ether (IPE)	ND	10000	10000		200	103	70-130	07/22/2014 0553
3,3-Dimethyl-1-butanol	ND	200000	220000		200	108	70-130	07/22/2014 0553
Ethanol	ND	1000000	1100000		200	110	70-130	07/22/2014 0553
Ethylbenzene	3800	10000	15000		200	108	70-130	07/22/2014 0553
Ethyl-tert-butyl ether (ETBE)	290	10000	10000		200	98	70-130	07/22/2014 0553
Methyl tertiary butyl ether (MTBE)	1800	10000	12000		200	102	70-130	07/22/2014 0553
Naphthalene	920	10000	12000		200	114	70-130	07/22/2014 0553
tert-butyl alcohol (TBA)	4900	200000	220000		200	106	70-130	07/22/2014 0553
Toluene	39000	10000	48000	E	200	90	70-130	07/22/2014 0553
Xylenes (total)	22000	20000	43000		200	104	70-130	07/22/2014 0553

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		93	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		98	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: PG12007-015MD
Batch: 51985
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	7000	200000	210000		200	104	8.0	70-130	20	07/22/2014 0615
tert-Amyl methyl ether (TAME)	910	10000	11000		200	105	4.1	70-130	20	07/22/2014 0615
Benzene	10000	10000	20000		200	102	1.6	70-130	20	07/22/2014 0615
tert-Butyl formate (TBF)	ND	50000	44000		200	89	6.6	70-130	20	07/22/2014 0615
1,2-Dichloroethane	240	10000	11000		200	103	5.4	70-130	20	07/22/2014 0615
Diisopropyl ether (IPE)	ND	10000	9800		200	98	5.5	70-130	20	07/22/2014 0615
3,3-Dimethyl-1-butanol	ND	200000	200000		200	101	7.0	70-130	20	07/22/2014 0615
Ethanol	ND	1000000	1000000		200	103	6.5	70-130	20	07/22/2014 0615
Ethylbenzene	3800	10000	14000		200	105	1.8	70-130	20	07/22/2014 0615
Ethyl-tert-butyl ether (ETBE)	290	10000	9700		200	94	4.2	70-130	20	07/22/2014 0615
Methyl tertiary butyl ether (MTBE)	1800	10000	12000		200	99	2.6	70-130	20	07/22/2014 0615
Naphthalene	920	10000	12000		200	108	4.8	70-130	20	07/22/2014 0615
tert-butyl alcohol (TBA)	4900	200000	200000		200	97	8.4	70-130	20	07/22/2014 0615
Toluene	39000	10000	48000	E	200	93	0.56	70-130	20	07/22/2014 0615
Xylenes (total)	22000	20000	43000		200	105	0.67	70-130	20	07/22/2014 0615

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		91	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		97	70-130

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ51985-001
Batch: 51985
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
tert-Amyl alcohol (TAA)	ND		1	100	6.7	ug/L	07/21/2014 2201
tert-Amyl methyl ether (TAME)	ND		1	10	0.20	ug/L	07/21/2014 2201
Benzene	ND		1	1.0	0.13	ug/L	07/21/2014 2201
tert-Butyl formate (TBF)	ND		1	100	1.0	ug/L	07/21/2014 2201
1,2-Dichloroethane	ND		1	1.0	0.15	ug/L	07/21/2014 2201
Diisopropyl ether (IPE)	ND		1	10	0.40	ug/L	07/21/2014 2201
3,3-Dimethyl-1-butanol	ND		1	100	1.0	ug/L	07/21/2014 2201
Ethanol	ND		1	1000	33	ug/L	07/21/2014 2201
Ethylbenzene	ND		1	1.0	0.33	ug/L	07/21/2014 2201
Ethyl-tert-butyl ether (ETBE)	ND		1	100	0.20	ug/L	07/21/2014 2201
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	07/21/2014 2201

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ51985-001
Batch: 51985
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Naphthalene	ND		1	1.0	0.40	ug/L	07/21/2014 2201
tert-butyl alcohol (TBA)	ND		1	100	6.7	ug/L	07/21/2014 2201
Toluene	ND		1	1.0	0.33	ug/L	07/21/2014 2201
Xylenes (total)	ND		1	1.0	0.33	ug/L	07/21/2014 2201

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		93	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		97	70-130

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ51985-002
Batch: 51985
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1000		1	105	70-130	07/21/2014 2033
tert-Amyl methyl ether (TAME)	50	48		1	97	70-130	07/21/2014 2033
Benzene	50	48		1	95	70-130	07/21/2014 2033
tert-Butyl formate (TBF)	250	230		1	92	70-130	07/21/2014 2033
1,2-Dichloroethane	50	48		1	96	70-130	07/21/2014 2033
Diisopropyl ether (IPE)	50	45		1	90	70-130	07/21/2014 2033
3,3-Dimethyl-1-butanol	1000	1000		1	100	70-130	07/21/2014 2033
Ethanol	5000	5100		1	101	60-140	07/21/2014 2033
Ethylbenzene	50	47		1	93	70-130	07/21/2014 2033
Ethyl-tert-butyl ether (ETBE)	50	44		1	89	70-130	07/21/2014 2033
Methyl tertiary butyl ether (MTBE)	50	44		1	89	70-130	07/21/2014 2033
Naphthalene	50	52		1	104	70-130	07/21/2014 2033
tert-butyl alcohol (TBA)	1000	990		1	99	70-130	07/21/2014 2033
Toluene	50	47		1	93	70-130	07/21/2014 2033
Xylenes (total)	100	98		1	98	70-130	07/21/2014 2033

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		97	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		96	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ51985-003 **Matrix:** Aqueous
Batch: 51985 **Prep Method:** 5030B
Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
tert-Amyl alcohol (TAA)	1000	1000		1	102	3.0	70-130	20	07/21/2014 2055
tert-Amyl methyl ether (TAME)	50	49		1	99	2.2	70-130	20	07/21/2014 2055
Benzene	50	49		1	98	2.4	70-130	20	07/21/2014 2055
tert-Butyl formate (TBF)	250	240		1	94	1.9	70-130	20	07/21/2014 2055
1,2-Dichloroethane	50	48		1	97	0.89	70-130	20	07/21/2014 2055
Diisopropyl ether (IPE)	50	46		1	92	1.9	70-130	20	07/21/2014 2055
3,3-Dimethyl-1-butanol	1000	970		1	97	3.3	70-130	20	07/21/2014 2055
Ethanol	5000	5100		1	103	1.4	60-140	20	07/21/2014 2055
Ethylbenzene	50	48		1	97	3.3	70-130	20	07/21/2014 2055
Ethyl-tert-butyl ether (ETBE)	50	45		1	90	1.2	70-130	20	07/21/2014 2055
Methyl tertiary butyl ether (MTBE)	50	47		1	95	6.3	70-130	20	07/21/2014 2055
Naphthalene	50	51		1	103	1.2	70-130	20	07/21/2014 2055
tert-butyl alcohol (TBA)	1000	970		1	97	2.1	70-130	20	07/21/2014 2055
Toluene	50	49		1	98	4.7	70-130	20	07/21/2014 2055
Xylenes (total)	100	99		1	99	0.54	70-130	20	07/21/2014 2055

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		96	70-130
1,2-Dichloroethane-d4		94	70-130
Toluene-d8		98	70-130

Volatile Organic Compounds by GC/MS - MB

Sample ID: PQ52033-001 **Matrix:** Aqueous
Batch: 52033 **Prep Method:** 5030B
Analytical Method: 8260B

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
Diisopropyl ether (IPE)	ND		1	10	0.40	ug/L	07/22/2014 1044
Xylenes (total)	ND		1	5.0	1.7	ug/L	07/22/2014 1044

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		112	70-130
1,2-Dichloroethane-d4		110	70-130
Toluene-d8		112	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: PQ52033-002 **Matrix:** Aqueous
Batch: 52033 **Prep Method:** 5030B
Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Diisopropyl ether (IPE)	50	49		1	99	70-130	07/22/2014 0919
Xylenes (total)	100	100		1	103	70-130	07/22/2014 0919

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		113	70-130
1,2-Dichloroethane-d4		109	70-130
Toluene-d8		112	70-130

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: PQ52033-003 **Matrix:** Aqueous
Batch: 52033 **Prep Method:** 5030B
Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Diisopropyl ether (IPE)	50	49		1	99	0.47	70-130	20	07/22/2014 0940
Xylenes (total)	100	100		1	102	1.0	70-130	20	07/22/2014 0940

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		112	70-130
1,2-Dichloroethane-d4		108	70-130
Toluene-d8		112	70-130

PQL = Practical quantitation limit
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MB

Sample ID: PQ51366-001 **Matrix:** Aqueous
Batch: 51366 **Prep Method:** 8011
Analytical Method: 8011 **Prep Date:** 07/15/2014 900

Parameter	Result	Q	Dil	PQL	MDL	Units	Analysis Date
1,2-Dibromoethane (EDB)	ND		1	0.020	0.020	ug/L	07/16/2014 0232

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		89	57-137

EDB & DBCP by Microextraction - LCS

Sample ID: PQ51366-002 **Matrix:** Aqueous
Batch: 51366 **Prep Method:** 8011
Analytical Method: 8011 **Prep Date:** 07/15/2014 900

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	0.25	0.25		1	100	60-140	07/16/2014 0242

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		92	57-137

EDB & DBCP by Microextraction - MS

Sample ID: PG12007-012MS **Matrix:** Aqueous
Batch: 51366 **Prep Method:** 8011
Analytical Method: 8011 **Prep Date:** 07/15/2014 900

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2-Dibromoethane (EDB)	ND	0.24	0.28		1	113	60-140	07/16/2014 0457

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		91	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

EDB & DBCP by Microextraction - MSD

Sample ID: PG12007-012MD
Batch: 51366
Analytical Method: 8011

Matrix: Aqueous
Prep Method: 8011
Prep Date: 07/15/2014 900

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
1,2-Dibromoethane (EDB)	ND	0.25	0.29		1	117	4.6	60-140	20	07/16/2014 0507

Surrogate	Q	% Rec	Acceptance Limit
1,1,1,2-Tetrachloroethane		91	57-137

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N = Recovery is out of criteria
+ = RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Sealy Environmental Services, Inc. 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

SHEALY

Chain of Custody Record

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number 25527

Client: MECI	Report to Contact: B. Shane	Sampler (Printed Name): Todd Elder	Quote No.
Address: 231 Dooley Rd	Telephone No. / Fax No. / Email: 803-808-2043	Waybill No.	Page 1 of 3
City: Lexington / State: SC / Zip Code: 29073	Preservative: 1. Unpres. 4. HNO3 7. NaOH; 2. NaOH/ZnA 5. HCL; 3. H2SO4 6. Na Thio.		Number of Containers; Bottle (See Instructions on back); Preservative
Project Name: Pantry 911			PG12007
Project Number: UST # 10620 / 14-4855	P.O Number		

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix GW	DW	WW	S	Other	Analysis	BTEX, NAPTH MtBE	EDB	8 OXY	1,2 DCA	
MW-3R	7-10-14	11:06	G	✓						✓	✓	✓	✓	Odor (duplicated)
MW-4R	↓	11:59	↓	↓						✓	✓	✓	✓	No odor
MW-5RR	↓	10:55	↓	↓						✓	✓	✓	✓	No odor
~~MW-7RR~~														Not Sampled
MW-9	↓	14:53	↓	↓						✓	✓	✓	✓	No odor
MW-10	↓	14:42	↓	↓						↓	↓	↓	↓	No odor
MW-11	↓	10:41	↓	↓						↓	↓	↓	↓	No odor
MW-14	↓	11:37	↓	↓						↓	↓	↓	↓	No odor
MW-15	↓	13:42	↓	↓						↓	↓	↓	↓	light odor
MW-16	7-10-14	13:07	G	✓						✓	✓	✓	✓	No odor

Turn Around Time Required (Prior lab approval required for expedited TAT): ☐ Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab

QC Requirements (Specify)

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

Relinquished	Date	Time	Received	Date	Time
1. Relinquished by / Sampler: [signature]	7-10-14	17:30	1. Received by: [signature]	7/10/14	17:30
2. Relinquished by: [signature]	7/11/14	1600	2. Received by: [signature]	7/11/14	1601
3. Relinquished by: [signature]	7/11/14	1630	3. Received by: [signature]		
4. Relinquished by			4. Laboratory Received by: [signature]	7/11/14	1630

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY: Received on Ice (Check) ☑ Yes ☐ No ☐ Ice Pack; Receipt Temp. 4.8 °C; Temp. Blank ☐ Y / ☑ N

Level 1 Report v2.1

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

SHEALY **Chain of Custody Record**

Number 25526

Client: MECI	Report to Contact: B. Shane	Sampler (Printed Name): Todd Elder	Quote No.
Address: 231 Dooley Rd	Telephone No. / Fax No. / Email: 803-808-2043	Waybill No.	Page: 2 of 3
City: Lexington; State: SC; Zip Code: 29073	Preservative: 1. Unpres. 2. NaOH/ZnA 3. H2SO4 4. HNO3 5. HCL 6. Na Thio. 7. NaOH		Number of Containers
Project Name: Pantry #11			Bottle (See Instructions on back)
Project Number: 457410629 14-4855	P.O Number		Preservative

PG12007

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: GW	DW	WW	S	Other	Analysis: BTEX, MTBE, MAPH	EDB	8 OXY	1,2 DCA	
MW-17													Not Sampled
MW-18	7-10-14	14:16	G	✓					✓	✓	✓	✓	No odor
MW-19		15:17	G	✓					✓	✓	✓	✓	No odor
MW-20		13:03	G	✓					✓	✓	✓	✓	No odor
PW-1A		13:10	G	✓					✓	✓	✓	✓	No odor
RW-1													Not Sampled
RW-2		11:50	G	✓					✓	✓	✓	✓	No odor
RW-3	7-10-14	11:30	G	✓					✓	✓	✓	✓	Odor, Sheen
WSW													Not Sampled
WSW-1	7-10-14	15:19	G	✓					✓	✓	✓	✓	LOL

Turn Around Time Required (Prior lab approval required for expedited TAT): ☒ Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab

QC Requirements (Specify):

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

1. Relinquished by / Sampler: Todd Elder	Date: 7-10-14	Time: 17:35	1. Received by: B.V. Pugh	Date: 7/10/14	Time: 17:35
2. Relinquished by: B.V. Pugh	Date: 7/11/14	Time: 1600	2. Received by: [signature]	Date: 7/11/14	Time: KOL
3. Relinquished by: [signature]	Date: 7/11/14	Time: 1630	3. Received by:	Date:	Time:
4. Relinquished by:	Date:	Time:	4. Laboratory Received by:	Date: 7/11/14	Time: 1630

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY — Received on Ice (Check) ☒ Yes ☐ No ☐ Ice Pack — Receipt Temp. 4.8 °C — Temp. Blank ☐ Y / ☒ N

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Chain of Custody Record — **Number** 25525

Client: MEI	Report to Contact: B. Shams	Sampler (Printed Name): Todd Elder	Quote No.
Address: 231 Dooley	Telephone No. / Fax No. / Email: 864-809-2043	Waybill No.	Page: 3 of 3
City: Lexington	State: SC	Zip Code: 29073	Number of Containers
Project Name: Pantry 911	Preservative: 1. Ungres. 2. NaOH/ZnA 3. H2SO4 4. HNO3 5. HCL 6. Na Thio. 7. NaOH		Bottle (See Instructions on back) / Preservative
Project Number: UST #10628 14-4859	P.O Number		PG12007

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: GW	DW	WW	S	Other	Analysis: BTEX, MTBE, Naph	EDB	8 OXY	1,2-DCA
MW-3R DUP	7-10-14	11:07	G	✓					✓	✓	✓	✓
Field Blank	7-10-14	19:55	G					✓	✓	✓	✓	✓
Trip Blank	7-10-14	19:56	G					✓	✓		✓	✓

Turn Around Time Required (Prior lab approval required for expedited TAT): ☐ Standard ☐ Rush (Please Specify)	Sample Disposal: ☐ Return to Client ☐ Disposal by Lab		QC Requirements (Specify)		Possible Hazard Identification: ☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison ☐Unknown	
1. Relinquished by / Sampler: Todd Elder	Date: 7-10-14	Time: 17:57	1. Received by: [signature]	Date: 7/10/14	Time: 17:57	
2. Relinquished by: [signature]	Date: 7/11/14	Time: 1607	2. Received by: [signature]	Date: 7/11/14	Time: 1601	
3. Relinquished by: [signature]	Date: 7/11/14	Time: 1630	3. Received by:	Date:	Time:	
4. Relinquished by:	Date:	Time:	4. Laboratory Received by: [signature]	Date: 7/11/14	Time: 1630	

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY — Received on Ice (Check) ☑ Yes ☐ No ☐ Ice Pack — Receipt Temp. 4.8 °C — Temp. Blank ☐ Y / ☑ N

Shealy Environmental Services, Inc. 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Level I Report v2.1

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: F-AD-016
Revision Number: 14

Page 1 of 1
Replaces Date: 09/26/13
Effective Date: 03/07/14

Sample Receipt Checklist (SRC)

Client: MEC\ Cooler Inspected by/date: mcm / 03/21/14 Lot #: PC132007

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Airborne Exp ☐ Other			
Yes ☐	No ☑		1. Were custody seals present on the cooler?
Yes ☐	No ☐	NA ☑	2. If custody seals were present, were they intact and unbroken?
Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt: 1524/4.3/4.8 °C ___/___/___ °C ___/___/___ °C ___/___/___ °C Method: ☐ Temperature Blank ☑ Against Bottles IR Gun ID: #3 IR Gun Correction Factor: 0.1 °C Method of coolant: ☑ Wet Ice ☐ Blue Ice ☐ Dry Ice ☐ None			
Yes ☐	No ☐	NA ☑	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other:_____. (For coolers received via commercial courier, PMs are to be notified immediately.)
Yes ☐	No ☐	NA ☑	4. Is the commercial courier's packing slip attached to this form?
Yes ☐	No ☐		5. Were proper custody procedures (relinquished/received) followed?
Yes ☐	No ☐	NA ☑	5a Were samples relinquished by client to commercial courier?
Yes ☑	No ☐		6. Were sample IDs listed on the COC?
Yes ☑	No ☐		7. Were sample IDs listed on all sample containers?
Yes ☑	No ☐		8. Was collection date & time listed on the COC?
Yes ☑	No ☐		9. Was collection date & time listed on all sample containers?
Yes ☑	No ☐		10. Did all container label information (ID, date, time) agree with the COC?
Yes ☑	No ☐		11. Were tests to be performed listed on the COC?
Yes ☑	No ☐		12. Did all samples arrive in the proper containers for each test?
Yes ☑	No ☐		13. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes ☑	No ☐		14. Was adequate sample volume available?
Yes ☑	No ☐		15. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes ☐	No ☑		16. Were any samples containers missing?
Yes ☐	No ☑		17. Were there any excess samples not listed on COC?
Yes ☑	No ☐	NA ☐	18. Were bubbles present >"pea-size" (¼"or 6mm in diameter) in any VOA vials?
Yes ☐	No ☐	NA ☑	19. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes ☐	No ☐	NA ☑	20. Were all cyanide and/or sulfide samples received at a pH >12?
Yes ☐	No ☐	NA ☑	21. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes ☐	No ☐	NA ☑	22. Were collection temperatures documented on the COC for NC samples?
Yes ☐	No ☐	NA ☑	23. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
Yes ☐	No ☑		24. Was the quote number used taken from the container label?
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)			
Sample(s)_____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H_2SO_4,HNO_3,HCl,NaOH) using SR # _____.			
Sample(s) 013(S),014(S),015(S),017(S) were received with bubbles >6 mm in diameter.			
Sample(s) 3 mcm 3/21/14 were received with TRC >0.2 mg/L (If #21 is No)			
SC Drinking Water Project Sample(s) pH verified to be >2 by _____ Date: _____ Sample(s) _____ were not received at a pH of >2 and were adjusted accordingly using SR#_____			
Sample labels applied by: mcm Verified by: mcm Date: 3/12/14			

Comments:

APPENDIX C:

TAX MAP

(Not Applicable)

APPENDIX D:

SOIL BORING/FIELD SCREENING LOGS & 1903 FORMS

(Not Applicable)

APPENDIX E:

WELL COMPLETION LOGS & 1903 FORMS

(Not Applicable)

APPENDIX F:

AQUIFER EVALUATION SUMMARY FORMS, DATA, GRAPHS, EQUATIONS

(Not Applicable)

APPENDIX G:

DISPOSAL MANIFEST

Midlands Environmental Consultants, Inc.

July 25, 2014

Re: Treatment of Purge Water
Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID Number 10628
MECI Project Number 14-4855

To Whom It May Concern;

Midlands Environmental Consultants, Inc. is providing the following letter as certification that treatment of the referenced purge water complied with the conditions of "Proposed Conditions for Use of Portable Activated Carbon Units for the Treatment of Small Volumes of Petroleum Hydrocarbon Contaminated Groundwater", as described in the following:

Applicability:

Groundwater treated was obtained as a result development of wells and sampling.

Conditions:

1. The purge/bail water from all wells is mixed before usage of the Activated Carbon Unit.
2. No free-product was detected in any of the purge water drums.
3. Analytical results of from well sampling show average concentrations of petroleum hydrocarbon constituents less than 5000 parts per billion (ppb) Benzene and less than 20,000 ppb total BTEX.
4. The existing carbon pack will be replaced/reactivated every 5,000 gallons.
5. Record of usage is maintained by Contractor.
6. Any and all recommendations and conditions issued by the Manufacturer have been adhered to.
7. Any and all recommendations and conditions (even on a site by site basis) issued by the SCDHEC must be adhered to.

All purge waters were treated on-site using an up-flow treatment drum loaded with 30 pounds of activated carbon. Carbon will be loaded to a maximum of 3 pounds of total organic compounds or 5,000 gallons of development/purge water, whichever occurs first.

Post Office Box 854, Lexington SC 29071 • 231 Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

A total of 66.0 gallons were treated on July 10, 2014 during the sampling event at the referenced site.

Midlands Environmental also tracks cumulative organic compounds adsorbed on the activated carbon to ensure the capacity of carbon mass is not over-charged. This data is available upon request.

Should you have any questions or comments, please contact the undersigned.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman
Senior Scientist

APPENDIX H:

LOCAL ZONING REGULATIONS

(Not Applicable)

APPENDIX I:

FATE AND TRANSPORT MODELING

(Not Applicable)

APPENDIX J:

ACCESS AGREEMENTS

(Not Applicable)

APPENDIX K:

DATA VERIFICATION CHECKLIST

Contractor Checklist

Item#	Item	Yes	No	N/A
1	Are Facility Name, Permit #, and address provided?	X		
2	Is UST Owner/Operator name, address, & phone number provided?	X		
3	Is name, address, & phone number of current property owner provided?	X		
4	Is the DHEC Certified UST Site Rehabilitation Contractor's Name, Address, telephone number, and certification number provided?	X		
5	Is the name, address, telephone number, and certification number of the well driller that installed borings/monitoring wells provided?	X		
6	Is the name, address, telephone number, and certification number of the certified laboratory(ies) performing analytical analyses provided?	X		
7	Has the facility history been summarized?	X		
8	Has the regional geology and hydrogeology been described?	X		
9	Are the receptor survey results provided as required?			X
10	Has current use of the site and adjacent land been described?	X		
11	Has the site-specific geology and hydrogeology been described?	X		
12	Has the primary soil type been described?	X		
13	Have field screening results been described?			X
14	Has a description of the soil sample collection and preservation been detailed?			X
15	Has the field screening methodology and procedure been detailed?			X
16	Has the monitoring well installation and development dates been provided?			X
17	Has the method of well development been detailed?			X
18	Has justification been provided for the locations of the monitoring wells?			X
19	Have the monitoring wells been labeled in accordance with the UST QAPP guidelines?			X
20	Has the groundwater sampling methodology been detailed?	X		
21	Have the groundwater sampling dates and groundwater measurements been provided? (Table 2 & Figure 5)	X		
22	Has the purging methodology been detailed?	X		
23	Has the volume of water purged from each well been provided along with measurements to verify that purging is complete? (Appendix B)	X		
24	If free-product is present, has the thickness been provided?	X		
25	Does the report include a brief discussion of the assessment done and the results?	X		
26	Does the report include a brief discussion of the aquifer evaluation and results?			X
27	Does the report include a brief discussion of the fate & transport models used?			X

Item#	Item	Yes	No	N/A
28	Are the site-conceptual model tables included? (Tier 1 Risk Evaluation)			X
29	Have the exposure pathways been analyzed? (Tier 2 Risk Evaluation)			X
30	Have the SSTLs for each compound and pathway been calculated? (Tier 2 Risk Evaluation)			X
31	Have recommendations for further action been provided and explained?	X		
32	Has the soil analytical data for the site been provided in tabular format? (Table 1)			X
33	Has the potentiometric data for the site been provided in tabular format? (Table 2)	X		
34	Has the current and historical laboratory data been provided in tabular format? (Tables 3 & 3A)	X		
35	Have the aquifer characteristics been provided and summarized on the appropriate form? (Appendix F)			X
36	Have the Site conceptual model tables been included? (Tier 1 Risk Evaluation)			X
37	Has the topographic map been provided with all required elements? (Figure 1)	X		
38	Has the site base map been provided with all required elements? (Figure 2)	X		
39	Have the CoC site maps been provided? (Figures 4, 4A, 4B, 4C)	X		
40	Has the site potentiometric map been provided? (Figure 5)	X		
41	Have the geologic cross-sections been provided? (Figure 6)			X
42	Have maps showing the predicted migration of the CoCs through time been provided? (Tier 2 Risk Evaluation)			X
43	Has the site survey been provided and include all necessary elements? (Appendix A)			X
44	Have the sampling logs, chain of custody forms, and the analytical data package been included with all required elements? (Appendix B)	X		
45	Is the laboratory performing the analyses properly certified?	X		
46	Has the tax map been included with all necessary elements? (Appendix C)			X
47	Have the soil boring/field screening logs been provided? (Appendix E)			X
48	Have the well completion logs and SCDHEC Form 1903 been provided? (Appendix E)			X
49	Have the aquifer evaluation forms, data, graphs, equations, etc. been provided? (Appendix F)			X
50	Have the disposal manifests been provided? (Appendix G)	X		
51	Has a copy of the local zoning regulations been provided? (Appendix H)			X
52	Has all fate and transport modeling been provided? (Appendix I)			X
53	Have copies of all access agreements obtained by the contractor been provided? (Appendix J)			X
54	Has a copy of this form been attached to the final report and are explanations for any missing or incomplete data been provided? (Appendix K)	X		

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

MR DONNIE MALPHRUS
MALPHRUS ENTERPRISES
2788 NORTH OKATIE HWY
RIDGELAND SC 29936

2014

Re: **AFVR Directive**
Pantry 911, 6195 South Okatie Highway, Hardeeville, SC 29927-8034
UST Permit #10628; CA #48653
Release reported April 28, 1995
Monitoring Report received August 12, 2014
Jasper County

Dear Mr. Malphrus,

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (Agency) recognizes your commitment to continue work at this site utilizing Midlands Environmental Consultants, Inc. In accordance with Section 280.64 of the South Carolina Underground Storage Tank Control Regulations, two (2) 96-hour Aggressive Fluid and Vapor Recovery (AFVR) events may commence as outlined in the UST Quality Assurance Program Plan (QAPP) Revision 2.0. **Please be aware that the AFVR Procedures have been updated.** Monitoring wells MW-7RR and RW-1 should be utilized during the first 96-hour event and monitoring wells MW-3R, MW14, RW-2 and RW-3 should be utilized during the second 96-hour event. Please have your contractor conduct the two 96-hour events consecutively. The stingers shall be lowered at six inch intervals starting at the water table interface to a maximum depth of 10 feet in the wells. A copy of Agency QAPP Version 2.0 for the Underground Storage Tank Division is available at http://www.dhec.sc.gov/Environment/LW/UST/ReleaseAssessmentClean-up/QualityAssurance.

As soon as the beginning date of the event has been scheduled, please contact John Bryant at bryantjc@dhec.sc.gov

The AFVR Report should be submitted within 60 days from the date of this correspondence. Please note that all applicable South Carolina certification requirements apply to the services and report preparation. All site rehabilitation activities must be performed and submitted by a South Carolina Certified Underground Storage Tank Site Rehabilitation Contractor.

Cost Agreement #48653 has been approved in the amount shown on the enclosed cost agreement. Midlands Environmental Consultants, Inc. can submit an invoice for direct billing from the State Underground Petroleum Environmental Response Bank (SUPERB) Account. If the invoice and completed report are not submitted within 120 days from the date of this letter, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available.

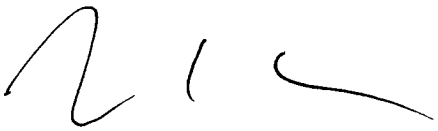
UST PROGRAM
DOCKETING # 37Tech

Please note that Sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that no costs will be allowed unless prior approval is obtained from the UST Management Division. If for any reason additional tasks will be completed, these additional tasks and the associated cost must be preapproved by the Agency for the cost to be paid. The Agency reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria. Further, the Agency reserves the right to question and/or reject costs if deemed unreasonable and the right to audit project records at any time during the project or after completion of work.

The Agency grants preapproval for transportation of virgin petroleum-contaminated groundwater from the referenced site to a permitted treatment facility.

On all correspondence concerning this site, please reference UST Permit #10628 and CA #48653. If you have any questions, please contact me at (803) 898-0606 or by e-mail at bryantjc@dhec.sc.gov.

Sincerely,



John C. Bryant, Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

enc: Approved Cost Agreement

cc: Midlands Environmental Consultants, Inc., PO Box 854, Lexington, SC 29071 (w/enc)
Technical File (with enclosure)

Approved Cost Agreement 48653

Facility 10628 PANTRY 911

BRYANTJC

PO Number

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
19 RPT/PROJECT MNGT & COORDINATIO						
		PRT	REPORT PREPARATION	0 1200	44,915 50	5,389 86
23 EFR						
		A4	96 HOUR EVENT	2 0000	12,567 50	25,135 00
		C4	OFF GAS TREATMENT 96 HOUR	2 0000	780 00	1,560 00
		D	SITE RECONNAISSANCE	1 0000	203 25	203 25
		E1	ADDITIONAL WELL HOOK-UPS	1 0000	25 75	25 75
		F1	EFFLUENT DISPOSAL	40,000 0000	0 44	17,600 00
		G	AFVR EQUIPMENT MOB	1 0000	391 50	391 50
				Total Amount		50,305 36

Midlands
Environmental
Consultants, Inc.

October 20, 2014

Mr. John Bryant, Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Aggressive Fluid Vapor Recovery Report
Pantry 911
6195 South Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID # 10628; CA# 48653
MECI Project Number 14-4910
Certified Site Rehabilitation Site Contractor UCC-0009

Dear Mr. Bryant,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

AGGRESSIVE FLUID VAPOR RECOVERY

MECI personnel conducted two 96-Hour Aggressive Fluid Vapor Recovery (AFVR) events at the Pantry 911. The first event was commenced on September 29, 2014, and concluded on October 3, 2014. The second event was commenced on October 6, 2014, and concluded on October 10, 2014. The first 96-Hour event was conducted on wells MW-7RR/RW-1, and the second 96-Hour event was conducted on wells MW-3R/MW-14/RW-2/RW-3. These AFVR events were conducted to remove free phase petroleum product from RW-1 and to reduce elevated dissolved CoC concentrations in all other wells. Prior to each AFVR event, groundwater was gauged utilizing a Heron H. Oil/Water Interface Meter. The following table presents depth to water, depth to product, and product thickness measurements obtained prior to the commencement of the each event:

Pre-AFVR Well Data			
Well ID#	***Depth to Product (ft.)***	***Depth to Water (ft.)***	***Product Thickness (ft.)***
MW-7RR	Not Detected	6.19	Not Detected
RW-1	6.43	6.69	0.26
MW-3R	Not Detected	2.11	Not Detected
MW-14	Not Detected	1.02	Not Detected

Post Office Box 854, Lexington SC 29071 • 231 Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

Pre-AFVR Well Data			
Well ID#	***Depth to Product (ft.)***	***Depth to Water (ft.)***	***Product Thickness (ft.)***
RW-2	Not Detected	1.24	Not Detected
RW-3	Not Detected	1.13	Not Detected

Each event was continuously conducted for the appropriate duration by MECI personnel utilizing a vacuum extraction unit. The second AFVR event was shut down from 9am to 1pm on October 8, 2014 as a result of unit malfunction. MECI personnel had to retrieve another unit to complete the event. The event was continued from 9am to 1pm on October 10, 2014 to complete the full 96-Hour event. Following each extended AFVR event, free product and groundwater levels were measured and recorded. The following table presents the post-AFVR free product and groundwater measurements obtained after completion of the AFVR event:

Post-AFVR Well Data			
Well ID#	***Depth to Product (ft.)***	***Depth to Water (ft.)***	***Product Thickness (ft.)***
MW-7RR	Not Detected	9.64	Not Detected
RW-1	Not Detected	9.84	Not Detected
MW-3R	Not Detected	2.30	Not Detected
MW-14	Not Detected	4.30	Not Detected
RW-2	Not Detected	3.17	Not Detected
RW-3	Not Detected	3.17	Not Detected

MECI treated the off gas produced during the AFVR event using an activated carbon filter system, which achieved an average calculated reduction rate of 98.51% throughout the duration of the referenced events. Calculated total petroleum hydrocarbons removed during the events were 131.89 pounds or approximately 22.78 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 0.69 pounds per hour. Concentrations of off gas (Pre-Treatment) produced during the event were recorded from 183 parts per million by volume (PPM) to 1,489 PPM. Vacuum readings were recorded at a range of 16.0 to 25.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1 and Table 1A.

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2 and Table 2A. Monitoring well locations are depicted on attached Figure 2.

A total of 5,200 gallons of liquid was removed from the site during this event. Free phase product was not observed in the holding tank at the end the referenced event. The fluids were transported to U.S. Water Recovery in Goose Creek, SC for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI, Mr. Donnie Malphrus of Malphrus Enterprises, and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Kyle V. Pudney
Project Biologist

Jeff L. Coleman
Senior Scientist

Attachments:

TABLE 1
AFVR MONITORING DATA
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 14-4910
SCDHEC SITE ID NUMBER 10628

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements: Pre-Treatment Concentration (PPM)	Post-Treatment Concentration (PPM)	Treatment Reduction Rate (%)	Offgas Velocity (ft/min)	Flow Rate (CFM)	Removal Rate (Lbs/Hr)	Interval Removal (Lbs)
RW-1	09/29/14	11:00	0 50	25.0	836	2.7	99 68%	300	27 00	0 27	0 14
MW-7RR	09/29/14	11.30	0 50	25.0	974	2.9	99.70%	320	28.80	0.34	0.17
	09/29/14	12 00	0 50	25.0	982	2.8	99.71%	330	29 70	0.35	0.17
	09/29/14	12.30	0 50	25 0	1,091	3.1	99.72%	310	27.90	0.37	0.18
▼	09/29/14	13:00	0.50	25.0	947	3.4	99.64%	320	28.80	0.33	0.16
	09/29/14	13.30	0 50	25.0	1,043	3.3	99.68%	350	31.50	0.39	0 20
▼	09/29/14	14.00	0 50	24 0	1,099	2.9	99.74%	340	30 60	0 40	0.20
	09/29/14	14.30	0 50	24.0	1,144	3.0	99.74%	330	29.70	0 41	0.20
	09/29/14	15:00	0 50	25.0	1,137	2.7	99.76%	360	32.40	0.44	0.22
▼	09/29/14	15:30	0.50	25.0	1,156	2 9	99 75%	390	35.10	0.49	0.24
	09/29/14	16:00	0.50	25.0	943	3.2	99.66%	370	33.30	0.38	0.19
▼	09/29/14	16:30	0.50	25.0	1,059	3 1	99.71%	350	31.50	0.40	0.20
	09/29/14	17:00	0.50	25.0	1,086	3 3	99.70%	400	36.00	0.47	0.23
▼	09/29/14	17.30	0.50	25 0	1,183	3 1	99 74%	370	33.30	0 47	0 24
	09/29/14	18.00	0 50	25 0	1,214	3.5	99.71%	390	35 10	0 51	0 26
▼	09/29/14	18.30	0 50	25 0	1,137	3.4	99.70%	380	34.20	0.47	0.23
	09/29/14	19 00	0 50	25.0	1,012	3.5	99.65%	410	36 90	0.45	0.22
	09/29/14	20:00	1.00	24 0	1,028	3.1	99.70%	430	38 70	0.48	0.48
	09/29/14	21:00	1.00	24.0	1,073	3.2	99.70%	420	37.80	0.49	0.49
	09/29/14	22.00	1.00	24.0	970	3.5	99.64%	400	36.00	0 42	0 42
	09/29/14	23 00	1.00	24.0	1,130	3 6	99.68%	450	40.50	0.55	0 55
	09/30/14	0:00	1.00	25.0	1,242	3.4	99.73%	440	39.60	0.59	0.59
	09/30/14	1:00	1.00	25.0	1,182	4.0	99.66%	410	36.90	0.52	0.52
	09/30/14	2:00	1.00	25.0	1,174	4.1	99.65%	470	42.30	0.60	0.60
	09/30/14	3:00	1.00	25.0	1,195	4.2	99.65%	390	35.10	0.50	0.50
	09/30/14	4 00	1.00	25.0	1,200	4 4	99.63%	450	40.50	0.58	0.58
	09/30/14	5.00	1.00	25.0	1,181	4.5	99.62%	460	41.40	0 59	0 59
	09/30/14	6.00	1.00	25.0	1,045	4.7	99 55%	410	36.90	0.46	0 46
	09/30/14	7 00	1 00	25.0	1,163	4.7	99 60%	420	37 80	0 53	0.53
	09/30/14	8.00	1 00	25 0	1,175	4.9	99.58%	440	39.60	0.56	0 56
	09/30/14	9:00	1.00	25.0	1,232	5.0	99 59%	410	36 90	0.55	0.55
	09/30/14	10:00	1.00	25.0	1,295	5.1	99.61%	390	35 10	0.55	0.55
	09/30/14	11:00	1.00	25.0	1,147	5.0	99.56%	450	40.50	0.56	0.56
	09/30/14	13:00	2.00	25.0	1,085	5 1	99.53%	440	39.60	0.52	1.03
	09/30/14	15:00	2 00	25 0	1,184	5.3	99.55%	460	41.40	0.59	1.18
	09/30/14	17:00	2.00	25 0	1,123	5.2	99.54%	470	42.30	0.57	1.14
	09/30/14	19:00	2.00	25 0	1,173	5 3	99.55%	450	40.50	0.57	1.14
	09/30/14	21:00	2.00	24.0	1,042	5.5	99 47%	460	41 40	0.52	1.04
	09/30/14	23:00	2.00	24.0	1,167	5.4	99.54%	430	38.70	0 54	1.08
	10/01/14	1.00	2.00	25.0	1,195	5.8	99.51%	410	36.90	0.53	1 06
	10/01/14	3:00	2.00	25.0	1,204	6.0	99 50%	420	37.80	0 55	1.09
	10/01/14	5:00	2.00	25.0	1,191	6.2	99.48%	490	44.10	0.63	1 26
	10/01/14	7.00	2.00	25 0	1,165	6 8	99.42%	430	38.70	0.54	1.08
	10/01/14	9.00	2.00	25.0	1,173	6.9	99.41%	460	41.40	0.58	1 17
	10/01/14	11.00	2.00	25 0	1,183	7.1	99.40%	420	37.80	0.54	1.07
	10/01/14	13.00	2.00	25 0	1,198	7 4	99.38%	480	43.20	0.62	1.24
	10/01/14	15.00	2 00	25 0	1,183	9 4	99.21%	690	62.10	0.88	1.76
	10/01/14	17 00	2.00	25.0	1,129	8.7	99.23%	520	46.80	0.63	1 27
	10/01/14	19 00	2.00	25.0	1,098	8.9	99.19%	540	48 60	0 64	1 28
	10/01/14	21:00	2.00	25.0	1,092	8.8	99.19%	560	50.40	0.66	1.32
	10/01/14	23:00	2 00	25 0	1,084	9.1	99.16%	590	53.10	0.69	1.38
	10/02/14	1.00	2 00	24 0	1,076	9 0	99.16%	580	52.20	0.67	1 35
	10/02/14	3.00	2 00	24 0	1,071	8 9	99.17%	560	50.40	0.65	1.30
	10/02/14	5:00	2.00	24 0	1,084	9 1	99.16%	550	49.50	0.64	1 29
	10/02/14	7:00	2.00	24.0	1,089	9.2	99.16%	570	51.30	0.67	1.34
	10/02/14	9:00	2.00	24.0	1,096	9.3	99.15%	530	47.70	0.63	1.25
	10/02/14	11:00	2.00	24.0	1,099	9.3	99.15%	540	48 60	0.64	1 28
	10/02/14	13.00	2.00	24.0	987	9.7	99.02%	720	64 80	0 77	1 53
	10/02/14	15:00	2.00	24.0	979	9.9	98.99%	700	63.00	0.74	1 48
	10/02/14	17:00	2.00	24.0	972	10.1	98.96%	710	63.90	0.75	1.49
	10/02/14	19.00	2.00	24.0	959	10.3	98.93%	780	70.20	0.81	1 62
	10/02/14	21.00	2.00	24.0	951	10.1	98.94%	690	62.10	0 71	1 42
	10/02/14	23:00	2.00	24.0	943	10.4	98 90%	710	63.90	0.72	1.45
	10/03/14	1:00	2 00	24.0	928	10.1	98.91%	580	52 20	0.58	1 16
	10/03/14	3:00	2.00	24.0	910	9.9	98.91%	570	51.30	0.56	1.12
	10/03/14	5.00	2.00	24.0	922	10 0	98.92%	590	53.10	0 59	1 17
	10/03/14	7.00	2.00	24.0	934	10.1	98.92%	600	54.00	0 61	1.21
	10/03/14	9:00	2.00	24.0	911	9.8	98 92%	560	50 40	0 55	1 10
	10/03/14	11:00	2.00	24.0	904	9.7	98.93%	570	51.30	0 56	1 11

Well Data:				Pre AFVR Event		Post AFVR Event			
Well No.	Diameter (in)	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Corrected Depth to Water Change (ft)
RW-1	4"	2-12	6.43	6 69	0.26	***	9.84	***	3.63
MW-7RR	2"	2-12	***	6.19	***	***	9.64	***	3.45

Vacuum Truck Information		Well ID	Initial Stinger Depth (ft)
Contractor:	MECI	RW-1	7.00
Truck Operator:	F. Mitlin	MW-7RR	7.00
	W Huss		
	D. McCartha		
	A Looper		
Stack I.D. (feet)	0.33 feet		

Notes:

▼= Stinger Depth lowered 0.50 Feet
(Maximum Stinger Depth = 10.0 Feet)

Recovery / Disposal Information		
Hydrocarbons Removed (vapor):	57.25	Pounds
Hydrocarbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	9.89	Equivilant Gallons
Molecular Weight Utilized:	75	g / mole
Total Liquids Removed	2,600	Gallons
Disposal Facility	US Water Recovery	
Average Treatment System Reduction Rate:	99 43%	

TABLE 1A
AFVR MONITORING DATA
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 14-4910
SCDHEC SITE ID NUMBER 10628

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements: Pre-Treatment Concentration (PPM)	Post-Treatment Concentration (PPM)	Treatment Reduction Rate (%)	Effluent Velocity (ft/min)	Flow Rate (CFM)	Removal Rate (Lbs/Hr)	Interval Removal (Lbs)
MW-3R	10/06/14	9:00	0 50	16 0	183	8.3	95.46%	1,030	92.70	0 20	0.10
MW-14	10/06/14	9:30	0.50	16.0	192	9.4	95 10%	1,010	90.90	0.21	0.10
RW-2▼	10/06/14	10.00	0.50	25.0	685	12.6	98 16%	560	50.40	0.41	0.21
RW-3	10/06/14	10.30	0.50	25.0	713	18.7	97.38%	570	51.30	0.44	0.22
▼	10/06/14	11:00	0.50	25.0	726	17.6	97.58%	580	52.20	0.45	0 23
	10/06/14	11.30	0.50	25.0	755	16.5	97.81%	560	50.40	0.46	0.23
▼	10/06/14	12:00	0.50	24.0	731	17.0	97.67%	590	53.10	0.47	0.23
	10/06/14	12:30	0.50	24.0	742	18.1	97.56%	580	52.20	0.46	0.23
▼	10/06/14	13:00	0 50	24 0	757	19 3	97.45%	600	54 00	0 49	0 25
	10/06/14	13:30	0.50	24.0	771	20.2	97.38%	590	53.10	0.49	0.25
▼	10/06/14	14:00	0 50	24 0	761	18.9	97.52%	610	54 90	0 50	0.25
	10/06/14	14:30	0 50	24 0	782	21 3	97.28%	600	54.00	0.51	0 25
▼	10/06/14	15:00	0.50	24.0	799	22.0	97.25%	580	52.20	0.50	0 25
	10/06/14	15.30	0.50	24.0	821	21.6	97.37%	600	54.00	0.53	0.27
▼	10/06/14	16.00	0.50	24.0	817	20.7	97 47%	590	53.10	0.52	0.26
	10/06/14	16.30	0.50	23.0	850	21.3	97.49%	590	53.10	0.54	0.27
▼	10/06/14	17:00	0.50	23.0	849	20.4	97.60%	600	54.00	0.55	0 28
	10/06/14	18:00	1.00	23.0	852	23.4	97.25%	630	56.70	0.58	0.58
▼	10/06/14	19:00	1.00	23.0	848	21 4	97.48%	600	54.00	0.55	0.55
▼	10/06/14	20.00	1.00	23.0	837	23.6	97.18%	620	55.80	0.56	0.56
	10/06/14	21.00	1.00	23.0	859	25.9	96.98%	600	54.00	0.56	0.56
	10/06/14	22.00	1.00	23.0	869	24.7	97.16%	590	53.10	0.55	0.55
	10/06/14	23.00	1.00	23.0	877	25 0	97.15%	600	54.00	0.57	0.57
	10/07/14	0.00	1.00	23.0	882	25.3	97 13%	620	55.80	0 59	0.59
	10/07/14	1.00	1.00	23.0	895	25.2	97 18%	600	54.00	0 58	0.58
	10/07/14	2.00	1.00	23.0	902	25.4	97.18%	610	54.90	0.59	0.59
	10/07/14	3:00	1.00	23.0	908	25.1	97.24%	590	53.10	0.58	0.58
	10/07/14	4 00	1 00	23 0	917	25.4	97.23%	580	52 20	0 57	0 57
	10/07/14	5:00	1 00	23 0	924	25 3	97.26%	590	53 10	0.59	0 59
	10/07/14	6:00	1 00	23 0	930	25 3	97.28%	560	50.40	0.56	0 56
▼	10/07/14	7:00	1.00	22 0	915	24.9	97.28%	600	54 00	0.59	0 59
▼	10/07/14	8:00	1.00	23 0	932	25 3	97.29%	570	51.30	0.57	0 57
▼	10/07/14	9:00	1.00	23 0	939	25.6	97.27%	580	52 20	0 59	0 59
▼	10/07/14	11:00	2 00	23 0	927	24.1	97.40%	590	53 10	0 59	1 18
▼	10/07/14	13.00	2.00	23.0	968	25 1	97 41%	610	54.90	0.64	1 28
▼	10/07/14	15 00	2 00	23 0	1,069	23.7	97 78%	600	54.00	0.69	1.39
	10/07/14	17:00	2.00	23 0	1,224	24 5	98.00%	580	52.20	0 77	1.53
	10/07/14	19 00	2.00	23.0	1,176	26 3	97.76%	600	54.00	0 76	1 52
	10/07/14	21:00	2.00	23 0	1,189	26 5	97.77%	590	53.10	0.76	1.52
	10/07/14	23:00	2.00	23 0	1,197	26 7	97.77%	610	54.90	0.79	1.58
	10/08/14	1:00	2 00	23 0	1,210	26 9	97.78%	590	53.10	0.77	1.54
	10/08/14	3.00	2.00	23.0	1,231	27 1	97.80%	590	53 10	0 78	1 57
	10/08/14	5.00	2.00	23.0	1,235	27 0	97.81%	570	51 30	0.76	1.52
	10/08/14	7:00	2.00	23.0	1,241	27.2	97.81%	580	52 20	0.78	1.55
***	10/08/14	9:00		***AFVR Unit Malfunction	The event was shut down from 9am to 1pm on 10/08/2014 so that MECI personnel could retrieve another AFVR unit.***						
	10/08/14	11.00									
	10/08/14	13:00	2.00	23 0	1,074	23 6	97.80%	580	52 20	0.67	1.35
**	10/08/14	15 00	2.00	23.0	1,125	23.9	97.88%	570	51 30	0.69	1.39
	10/08/14	17.00	2.00	23.0	1,167	24.5	97.90%	580	52 20	0 73	1.46
	10/08/14	19 00	2 00	23 0	1,192	25.6	97 85%	590	53.10	0.76	1 52
	10/08/14	21:00	2 00	23 0	1,214	26 6	97 81%	600	54.00	0.79	1.57
	10/08/14	23 00	2 00	23 0	1,237	27.8	97 75%	610	54 90	0.81	1 63
	10/09/14	1:00	2 00	23 0	1,261	26 8	97 87%	610	54.90	0 83	1 66
	10/09/14	3 00	2 00	23 0	1,315	27.1	97 94%	620	55.80	0.88	1 76
	10/09/14	5.00	2.00	23.0	1,278	27.4	97.86%	610	54 90	0.84	1.68
	10/09/14	7.00	2.00	23.0	1,292	26.9	97 92%	630	56 70	0.88	1.76
	10/09/14	9:00	2.00	23.0	1,327	27.3	97.94%	640	57.60	0 92	1.83
	10/09/14	11:00	2.00	23.0	1,341	27.7	97.93%	620	55.80	0.90	1 80
	10/09/14	13:00	2 00	23.0	1,378	27 8	97.98%	630	56.70	0.94	1.88
	10/09/14	15:00	2.00	23.0	1,389	27 9	97.99%	620	55.80	0.93	1.86
	10/09/14	17:00	2.00	23.0	1,414	28.0	98.02%	630	56.70	0.96	1.92
	10/09/14	19.00	2.00	23.0	1,420	28.2	98.01%	630	56.70	0.97	1.93
	10/09/14	21:00	2.00	23.0	1,439	28.4	98.03%	640	57 60	0.99	1.99
	10/09/14	23:00	2 00	23 0	1,457	28.5	98 04%	640	57.60	1 01	2.01
	10/10/14	1:00	2.00	23.0	1,432	27.8	98.06%	630	56.70	0.97	1 95
	10/10/14	3.00	2.00	23.0	1,457	28 1	98.07%	650	58.50	1.02	2 05
	10/10/14	5.00	2.00	23 0	1,489	28 4	98.09%	660	59.40	1.06	2 12
	10/10/14	7:00	2.00	23.0	1,476	28.3	98 08%	670	60 30	1 07	2 14
	10/10/14	9:00	2.00	23.0	1,468	28 5	98.06%	640	57.60	1.01	2 03
	10/10/14	11:00	2 00	23 0	1,482	28.6	98.07%	630	56.70	1.01	2.02
	10/10/14	13:00	2.00	23.0	1,489	28.6	98.08%	650	58.50	1.05	2 09

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth
Well No.	Diameter (in)	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	to Water Change (ft)
MW-3R	2"	2-12	***	2 11	***	***	2 30	***	0.19
MW-14	2"	2-12	***	1.02	***	***	4 30	***	3.28
RW-2	4"	2-12	***	1.24	***	***	3 17	***	1 93
RW-3	4"	2-12	***	1 13	***	***	3.17	***	2 04

Vacuum Truck Information		Well ID	Initial Stinger Depth (ft)
Contractor:	MECI	MW-3R	2 50
Truck Operator:	P Boylan	MW-14	2.00
	T Elder	RW-2	2.00
	D McCartha	RW-3	2.00
	A Looper		
Stack I.D. (feet)	0.33 feet		

Notes:

▼= Stinger Depth lowered 0.50 Feet
(Maximum Stinger Depth = 10 0 Feet)

Recovery / Disposal Information

Hydrocarbons Removed (vapor):	74 64	Pounds
Hydrocarbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	12.89	Equivilant Gallons
Molecular Weight Utilized:	75	g / mole
Total Liquids Removed	2,600	Gallons
Disposal Facility	US Water Recovery	
Average Treatment System Reduction Rate:	97.58%	

*** = Stinger depth on MW-3R changed to 3.0 feet per SCDHEC Project Manager John Bryant due to sand inside the AFVR unit pump.*

**** = Event shut down from 9am to 1pm on 10/08/2014. Event was continued from 9am to 1pm on 10/10/2014 to complete the 96-Hour event.*

TABLE 2
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 14-4910
SCDHEC SITE ID NUMBER 10628

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-15	MW-16	MW-20
Nearest Extraction Well:		RW-1	RW-1	MW-7RR
Approximate Distance:		82 ft	156 ft	127 ft
Time	Elapsed Time	Differential Pressure Readings (inches of water)		
Prior to AFVR		0.0	0.0	0.0
11:00	0.0	0.0	0.0	0.0
11:30	0.5	0.0	0.0	0.0
12:00	1.0	0.0	0.0	0.0
12:30	1.5	0.0	0.0	0.0
13:00	2.0	0.0	0.0	0.0
13:30	2.5	0.0	0.0	0.0
14:00	3.0	0.0	0.0	0.0
14:30	3.5	0.0	0.0	0.0
15:00	4.0	0.0	0.0	0.0
15:30	4.5	0.0	0.0	0.0
16:00	5.0	0.0	0.0	0.0
16:30	5.5	0.0	0.0	0.0
17:00	6.0	0.0	0.0	0.0
17:30	6.5	0.0	0.0	0.0
18:00	7.0	0.0	0.0	0.0
18:30	7.5	0.0	0.0	0.0
19:00	8.0	0.0	0.0	0.0
20:00	9.0	0.0	0.0	0.0
21:00	10.0	0.0	0.0	0.0
22:00	11.0	0.0	0.0	0.0
23:00	12.0	0.0	0.0	0.0
0:00	13.0	0.0	0.0	0.0
1:00	14.0	0.0	0.0	0.0
2:00	15.0	0.0	0.0	0.0
3:00	16.0	0.0	0.0	0.0
4:00	17.0	0.0	0.0	0.0
5:00	18.0	0.0	0.0	0.0
6:00	19.0	0.0	0.0	0.0
7:00	20.0	0.0	0.0	0.0
8:00	21.0	0.0	0.0	0.0
9:00	22.0	0.0	0.0	0.0
10:00	23.0	0.0	0.0	0.0
11:00	24.0	0.0	0.0	0.0
13:00	26.0	0.0	0.0	0.0
15:00	28.0	0.0	0.0	0.0
17:00	30.0	0.0	0.0	0.0
19:00	32.0	0.0	0.0	0.0
21:00	34.0	0.0	0.0	0.0
23:00	36.0	0.0	0.0	0.0
1.00	38.0	0.0	0.0	0.0
3:00	40.0	0.0	0.0	0.0
5:00	42.0	0.0	0.0	0.0
7:00	44.0	0.0	0.0	0.0
9:00	46.0	0.0	0.0	0.0
11:00	48.0	0.0	0.0	0.0
13:00	50.0	0.0	0.0	0.0
15:00	52.0	0.0	0.0	0.0
17:00	54.0	0.0	0.0	0.0
19:00	56.0	0.0	0.0	0.0
21:00	58.0	0.0	0.0	0.0
23:00	60.0	0.0	0.0	0.0
1:00	62.0	0.0	0.0	0.0
3:00	64.0	0.0	0.0	0.0
5:00	66.0	0.0	0.0	0.0
7:00	68.0	0.0	0.0	0.0
9:00	70.0	0.0	0.0	0.0
11:00	72.0	0.0	0.0	0.0
13:00	74.0	0.0	0.0	0.0
15:00	76.0	0.0	0.0	0.0
17:00	78.0	0.0	0.0	0.0
19:00	80.0	0.0	0.0	0.0
21:00	82.0	0.0	0.0	0.0
23:00	84.0	0.0	0.0	0.0
1:00	86.0	0.0	0.0	0.0
3:00	88.0	0.0	0.0	0.0
5:00	90.0	0.0	0.0	0.0
7:00	92.0	0.0	0.0	0.0
9:00	94.0	0.0	0.0	0.0
11:00	96.0	0.0	0.0	0.0
Maximum Change:		0.0	0.0	0.0

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-15	MW-16	MW-20
Nearest Extraction Well:		RW-1	RW-1	MW-7RR
Approximate Distance:		82 ft	156 ft	127 ft
Time	Elapsed Time	Depth to Liquid (feet below of casing):		
Prior to AFVR		4.11	6.41	8.19
15:00	4 hours	4.18	6.63	8.35
19:00	8 hours	4.18	6.81	8.39
23:00	12 hours	4.22	7.14	8.63
3:00	16 hours	4.27	7.31	8.83
7:00	20 hours	4.31	7.39	8.94
11:00	24 hours	4.34	7.43	9.07
15:00	28 hours	4.36	7.53	9.37
19:00	32 hours	4.34	7.78	9.51
23:00	36 hours	4.38	7.89	9.74
3:00	40 hours	4.44	7.99	9.82
7:00	44 hours	4.47	8.07	9.90
11:00	48 hours	4.57	8.14	9.97
15:00	52 hours	4.61	8.17	10.00
19:00	56 hours	4.61	8.16	9.99
23:00	60 hours	4.60	8.15	9.98
3:00	64 hours	4.61	8.16	9.97
7:00	68 hours	4.61	8.18	9.98
11:00	72 hours	4.62	8.18	9.99
15:00	76 hours	4.61	8.17	9.98
19:00	80 hours	4.60	8.15	9.96
23:00	84 hours	4.58	8.13	9.94
3:00	88 hours	4.57	8.12	9.94
7:00	92 hours	4.58	8.13	9.95
11:00	96 hours	4.59	8.14	9.95
Maximum Change:		-0.51	-1.77	-1.81

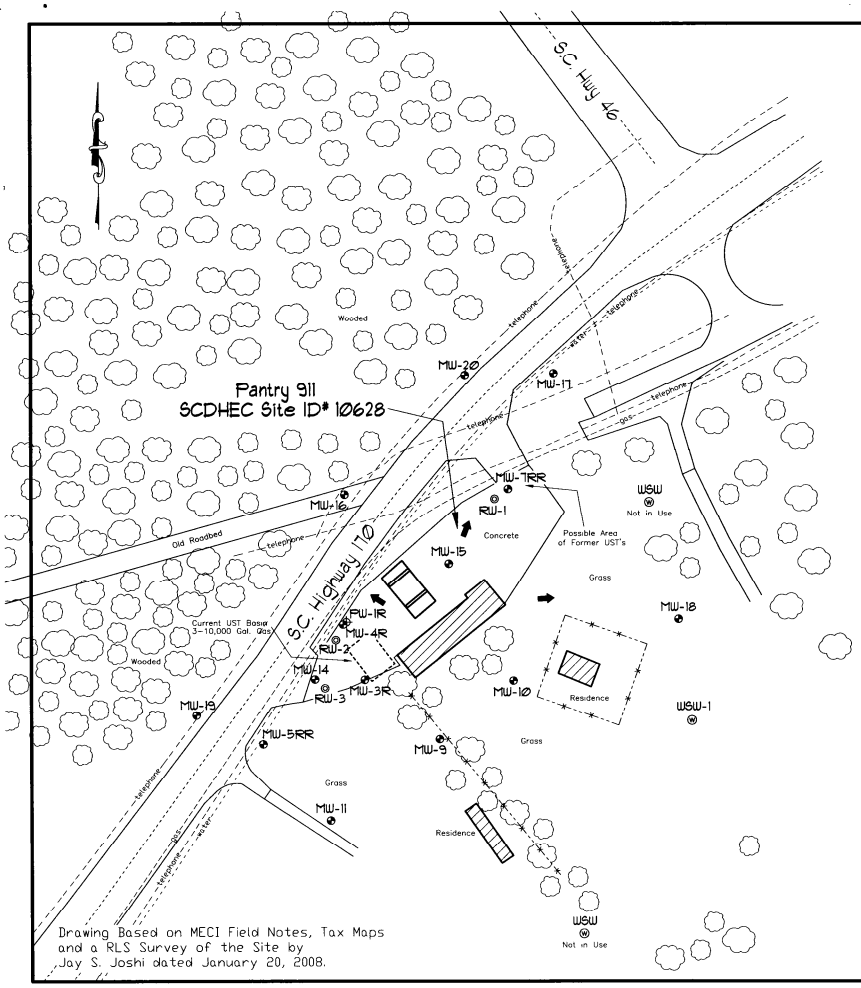
TABLE 2A
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 14-4910
SCDHEC SITE ID NUMBER 10628

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-4R	MW-5R	MW-15
Nearest Extraction Well:		RW-2	MW-14	RW-2
Approximate Distance:		18 ft	86 ft	142 ft
Time	Elapsed Time	Differential Pressure Readings (inches of water)		
Prior to AFVR		0.0	0.0	0.0
9:00	0.0	0.0	0.0	0.0
9:30	0.5	0.0	0.0	0.0
10:00	1.0	0.0	0.0	0.0
10:30	1.5	0.0	0.0	0.0
11:00	2.0	0.0	0.0	0.0
11:30	2.5	0.0	0.0	0.0
12:00	3.0	0.0	0.0	0.0
12:30	3.5	0.0	0.0	0.0
13:00	4.0	0.0	0.0	0.0
13:30	4.5	0.0	0.0	0.0
14:00	5.0	0.0	0.0	0.0
14:30	5.5	0.0	0.0	0.0
15:00	6.0	0.0	0.0	0.0
15:30	6.5	0.0	0.0	0.0
16:00	7.0	0.0	0.0	0.0
16:30	7.5	0.0	0.0	0.0
17:00	8.0	0.0	0.0	0.0
18:00	9.0	0.0	0.0	0.0
19:00	10.0	0.0	0.0	0.0
20:00	11.0	0.0	0.0	0.0
21:00	12.0	0.0	0.0	0.0
22:00	13.0	0.0	0.0	0.0
23:00	14.0	0.0	0.0	0.0
0:00	15.0	0.0	0.0	0.0
1:00	16.0	0.0	0.0	0.0
2:00	17.0	0.0	0.0	0.0
3:00	18.0	0.0	0.0	0.0
4:00	19.0	0.0	0.0	0.0
5:00	20.0	0.0	0.0	0.0
6:00	21.0	0.0	0.0	0.0
7:00	22.0	0.0	0.0	0.0
8:00	23.0	0.0	0.0	0.0
9:00	24.0	0.0	0.0	0.0
11:00	26.0	0.0	0.0	0.0
13:00	28.0	0.0	0.0	0.0
15:00	30.0	0.0	0.0	0.0
17:00	32.0	0.0	0.0	0.0
19:00	34.0	0.0	0.0	0.0
21:00	36.0	0.0	0.0	0.0
23:00	38.0	0.0	0.0	0.0
1:00	40.0	0.0	0.0	0.0
3:00	42.0	0.0	0.0	0.0
5:00	44.0	0.0	0.0	0.0
7:00	46.0	0.0	0.0	0.0
9:00	*** AFVR Unit Malfunction. The event was shut down form 9am to 1pm on 10/08/2014 so that MECI personnel could retrieve another AFVR unit. ***			
11:00				
13:00	48.0	0.0	0.0	0.0
15:00	50.0	0.0	0.0	0.0
17:00	52.0	0.0	0.0	0.0
19:00	54.0	0.0	0.0	0.0
21:00	56.0	0.0	0.0	0.0
23:00	58.0	0.0	0.0	0.0
1:00	60.0	0.0	0.0	0.0
3:00	62.0	0.0	0.0	0.0
5:00	64.0	0.0	0.0	0.0
7:00	66.0	0.0	0.0	0.0
9:00	68.0	0.0	0.0	0.0
11:00	70.0	0.0	0.0	0.0
13:00	72.0	0.0	0.0	0.0
15:00	74.0	0.0	0.0	0.0
17:00	76.0	0.0	0.0	0.0
19:00	78.0	0.0	0.0	0.0
21:00	80.0	0.0	0.0	0.0
23:00	82.0	0.0	0.0	0.0
1:00	84.0	0.0	0.0	0.0
3:00	86.0	0.0	0.0	0.0
5:00	88.0	0.0	0.0	0.0
7:00	90.0	0.0	0.0	0.0
9:00	92.0	0.0	0.0	0.0
11:00	94.0	0.0	0.0	0.0
13:00	96.0	0.0	0.0	0.0
Maximum Change:		0.0	0.0	0.0

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-4R	MW-5R	MW-15
Nearest Extraction Well:		RW-2	MW-14	RW-2
Approximate Distance:		18 ft	86 ft	142 ft
Time	Elapsed Time	Depth to Liquid (feet below of casing):		
Prior to AFVR		2.13	2.86	3.99
13:00	4 hours	2.86	2.92	4.00
17:00	8 hours	3.02	2.93	4.00
21:00	12 hours	3.12	2.95	4.01
1:00	16 hours	3.18	2.97	4.03
5:00	20 hours	3.20	3.00	4.05
9:00	24 hours	3.24	3.02	4.07
13:00	28 hours	3.28	3.04	4.11
17:00	32 hours	3.33	3.04	4.12
21:00	36 hours	3.36	3.05	4.13
1:00	40 hours	3.39	3.06	4.14
5:00	44 hours	3.40	3.07	4.16
9:00	***	***	***	***
13:00	48 hours	3.25	3.00	4.05
17:00	52 hours	3.27	3.01	4.06
21:00	56 hours	3.30	3.02	4.07
1:00	60 hours	3.32	3.03	4.08
5:00	64 hours	3.31	3.06	4.11
9:00	68 hours	3.35	3.01	4.12
13:00	72 hours	3.34	3.08	4.13
17:00	76 hours	3.38	3.10	4.15
21:00	80 hours	3.41	3.11	4.16
1:00	84 hours	3.44	3.15	4.18
5:00	88 hours	3.46	3.17	4.21
9:00	92 hours	3.45	3.18	4.21
13:00	96 hours	3.46	3.19	4.22
Maximum Change:		-1.33	-0.33	-0.23



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of 4-Inch Recovery Well
- Location of Double Cased Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Existing Underground Storage Tanks
- water — Buried Water Line
- telephone — Under Ground Telephone

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

ALL LOCATIONS ARE APPROXIMATE

Site Base Map

Pantry 911
6135 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 14-4910
DATE October 20, 2014
FIGURE 2

US Water Recovery

Non-Hazardous Manifest: Waste Water or Drums

Number:

1 Generator's EPA ID# (if applicable): Waste ID Number:

2 Generator's Name and Mailing Address: BP, 6195 S. OKATIE HWY, Hardeeville SC — Phone ( ) — P O #:
Stone II

3. Agent of Generator and Mailing Address: Adam Looper, 231 Dooley Rd, Lexington SC 29703 — Phone (803) 808-2043 — P O #:

4 Transporter Company Name: Goodsell Transport, 511 old Mt Holly Rd, Goose Creek SC 29445 — Phone ( )

Truck & Trailer License Number:

5 Transporter U.S. EPA ID#:

6. Facility Name and Site Address		Mailing Address:	
US Water Recovery 511 Old Mt. Holly Rd. Goose Creek, SC 29445	Phone: (843) 797-6674 Fax: (843) 797-2126	US Water Recovery 511 Old Mt. Holly Rd. Goose Creek, SC 29445	Phone: (843) 797-3111 Fax: (843) 797-1884

7 Facility U.S. EPA ID#:

Start Level: End Level: Total Gallons: Tank Number

8. U.S. DOT Description	Container No.	Container Type	Unit	Quantity
a. Non-Hazardous, non-regulated waste water	103	LT	Gal	5200

9. Generator's Certification: I hereby declare that the contents of this consignment are not hazardous by definition or listing and are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and the laws of the State of South Carolina. I further certify that the contents of this consignment are as represented by the description contained on the Waste Profile Form previously submitted to and approved by the Designated Facility.

Printed/Typed Name: Adam Looper — Signature: Adam Looper — Date: 10/10/14

10 Transporter Acknowledgement of Receipt of Materials

Printed/Typed Name: Daniel Kinsman — Signature: [signature] — Date: 10/10/14

11. Discrepancy Indication space:

12 Facility Owner or Operator: Certification of Receipt of Materials

Printed/Typed Name: [illegible] — Signature: [signature] — Date: 10/10/14

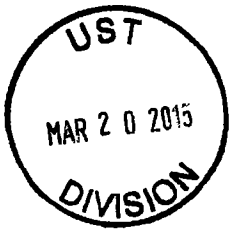
White - Facility Yellow - Office Pink - Transporter Blue - Generator

10735

Midlands
Environmental
Consultants, Inc.

March 11, 2015

Mr. John C. Bryant., Hydrogeologist
Corrective Action Section
South Carolina Department of Health
and Environmental Control
Bureau of Underground Storage Tank Management
2600 Bull Street
Columbia, South Carolina 29201



Subject: Corrective Action Plan
Pantry 911
6195 South Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID# 10628

Dear Mr. Bryant,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Corrective Action Plan (CAP) for the referenced site. This plan describes our proposed approach for site rehabilitative measures in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman
Senior Scientist

Bryan T. Shane, P.G.
Principal Geologist

Post Office Box 854, Lexington SC 29071 • 231 Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

TABLE OF CONTENTS

1.0 PROJECT INFORMATION

The subject site (Pantry 911) is located at 6195 South Okatie Highway, Hardeeville, Jasper County, South Carolina. The subject site maintains one 10,000 gallon regular unleaded gasoline underground storage tank (UST), one 10,000 gallon premium gasoline, and one 10,000 gallon diesel UST. These UST's were given a compliance date of March 7, 2012. The South Carolina Department of Health and Environmental Control (SCDHEC) reported a release of petroleum product from these UST's in April of 1995 and confirmed the release in March of 1996. The subject site is currently rated a Class 2BB.

The above information is based on reports and correspondence obtained from MECI files and SCDHEC Files.

2.0 ASSESSMENT SUMMARY

Based on the results from previous assessment activities, it appears that soil (Figure 3) and ground water (Figure 4/Figure 4A) at the subject site have been impacted by petroleum constituents. The highest concentrations of dissolved phase contaminants appear to be located on the northern portion of the property, in the area of MW-7RR and MW-14. The contaminants appear to be gasoline range constituents. Groundwater elevation data reveals a radial flow pattern to the west, north, and east (Figure 5) and does not appear to have migrated off of the subject site.

The horizontal and vertical extent of petroleum hydrocarbons in groundwater at the site appears to have been reasonably assessed (Figure 7 & Figure 7A).

Based on the results of chemical analyses performed on soil samples collected during previous assessment activities and Photo-Ionization Detector (PID) measurements, it appears that the petroleum-impacted soil at the subject site have been reasonably defined. The impacted soil appears to be dispersed in the areas of MW-3R, MW-4R and MW-14 to a depth of approximately 12 feet.

3.0 SITE REMEDIAL GOALS

SCDHEC has outlined site rehabilitative goals and Site Specific Target Levels (SSTLs) for dissolved phase CoC's for five groundwater monitoring wells. Site specific CoC levels which are currently greater (July 10, 2014 Groundwater Sampling Event) than the established SSTLs are as follows:

MW#		Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	EDB	1,2 DCA
MW-3R	**Subsequent**	***1,500***	3,900	940	7,500	620	0.27	100
	SSTL	***947***	250,428	17,107	3,567,586	173,000	3,287.86	2,868,403
	Subsequent>SSTL	***553***	0	0	0	0	0	0
MW-4R	**Subsequent**	***2,600***	3,800	970	3,700	1,200	0.020	100
	SSTL	***881***	231,855	16,407	3,285,333	173,000	2,798.67	2,362,792
	Subsequent>SSTL	***1,719***	0	0	0	0	0	0
MW-7RR	**Subsequent**	***44,390***	***26,540***	***3,700***	21,680	173,000	***1,900***	***3,700***
	SSTL	***54***	***12,066***	***3,147***	140,210	1,298,019	***6.49***	***1,627***
	Subsequent>SSTL	***44,336***	***14,474***	***553***	0	0	***1,893.51***	***2,073***
MW-14	**Subsequent**	***9,800***	31,000	3,700	19,000	1,400	0.020	1,000
	SSTL	***1,817***	499,074	24,823	7,461,318	173,000	13,958.19	16,362,027
	Subsequent>SSTL	***7,983***	0	0	0	0	0	0
MW-17	**Subsequent**	***250***	25	45	66	25	0.020	10
	SSTL	***68***	15,513	3,640	183,180	3,881,361	10.74	2,971
	Subsequent>SSTL	***182***	0	0	0	0	0	0

Subsequent data for monitoring well MW-17 was obtained from the July 27th, 2013 groundwater sampling event due to the monitoring well not being located in July of 2014. Additionally, monitoring well MW-7RR contained measurable free phase petroleum product in July of 2014, therefore SCDHEC solubility levels was utilized for subsequent data.

4.0 PROPOSED REMEDIAL APPROACH

MECI proposes a rehabilitative approach composed of additional direct injection of a pulverized activated carbon based product into the areas surrounding MW-3R, MW-4R, MW-7RR, MW-14, RW-1, RW-2 and RW-3 to reduce concentrations of petroleum hydrocarbons. Following the proposed injection activities, a 45 day stabilization period with ensue to allow for absorption of petroleum based contaminants to occur. Once stabilization has been met, three 96-hour Aggressive Fluid Vapor Recovery Events will be performed on wells MW-3R, MW-4R, MW-7RR, MW-14, RW-1, RW-2 and RW-3 to dewater the aquifer, remove contaminated groundwater and to better spread injectant through the vadose zone.

The conceptual design of the proposed remediation system was developed based on our knowledge of existing site conditions, our knowledge of the remediation equipment recommended and recognized success utilizing this technology at other sites with similar lithology. The individual components of the remediation procedure are outlined in the following sections.

Several remedial alternatives were evaluated to restore impacted soil and groundwater to SCDHEC prescribed concentrations. Constraints and limitations that affect site restoration include the types of contaminants, surface and subsurface site characteristics, concentration of subsurface utilities, and aboveground site utilization. The objective of any remedial evaluation is to present the most appropriate strategy for the subject site.

Injection of a pulverized carbon product into the specified areas of the contaminant plume will allow the carbon to absorb petroleum based contaminants, as well as provide a substrate for indigenous bacteria to colonize and regenerate the carbon *in-situ*. Injection at several different depths will allow for treatment of dissolved CoC's in the groundwater to address the downward and/or off-site migration of contaminants, and treatment of the vadose zone to prevent contamination rebound due to infiltration and season water table fluctuations. Injections of this type can have a radius of influence of between 3 to 20 feet, depending on soil conditions at the subject site. For design purposes, the radius of influence for each injection point is estimated at 20 feet.

Pilot studies conducted by the technology manufacturer indicate that in some cases, a single application of pulverized carbon provides significant reductions in contaminant concentrations within a relatively short time-frame (days to weeks). Some sites may required multiple applications or require longer periods of time before adequate reductions in contaminant concentrations are observed. In all cases, the reduction in contaminants will be affected by further releases, unidentified sources and ongoing influences to the injection area by surrounding contaminant plumes.

5.0 DESIGN AND OPERATION PROPOSED REMEDIAL APPROACH

The proposed injection event will be conducted in the vicinity of monitoring wells MW-3R, MW-4R, MW-7RR, MW-14, RW-1, RW-2 and RW-3. Sampling events will be conducted at the 45 days following the final proposed AFVR event. This sampling event will determine the effectiveness of the proposed injection and AFVR events.

The proposed corrective action plan includes the injection of pulverized activated carbon into the contaminant plume, followed by supplemental AFVR events. The details of the remedial system are provided below.

5.1 Direct Injection

MECI proposes to inject a total of 4,000 pounds of pulverized activated carbon and 4,000 gallons of potable water (36,000 lbs. of slurry) into the desired smear zone. In each injection location, potable water will be mixed with the appropriated quantity of product and injected at 5 foot intervals using depth sets between 5, 10 and 15 feet below ground surface (BGS). Figure 6 shows the approximate locations of the eighty (80) proposed direct injection points proposed. A direct-push drilling rig, operated by a SC certified well driller, will be used to install the injection points. Injection rods will be pushed to the desired interval, the appropriate amount of pulverized activated carbon mixed with potable water will be injected, the rods will be pushed an additional five feet, and the process will continue to the termination depth. Flow rates will be adjusted to between 2 gallons per minute (gpm) and 10 gpm with average injection pressures between 10 pounds per square inch gauge (psig) and 60 psig. Injection pressures will not exceed 80 psig. Injections for the injection event should take between 3 and 5 days depending on site conditions.

During the injection event, should the product surface or enter monitoring wells, it will be removed using vacuum extraction. Once the injection process is complete the potential for surfacing of the product is eliminated.

5.2 Aggressive Fluid Vapor Recovery Events

Following a proposed 60 day injectant stabilization period, MECI proposes to conduct AFVR events to remove free phase petroleum product and reduce dissolved petroleum compounds from the "smear zone" at the subject site. MECI's multi-phase extraction units will perform dual phase extraction to remove hydrocarbons (liquid and vapor phase) from wells MW-3R, MW-4R, MW-7RR, MW-14, RW-1, RW-2 and RW-3 at the subject site. MECI's AFVR units employ a combination of specially designed trailer-mounted vacuum and liquid handling knock out tank integrated with a vapor phase activated carbon unit. A vacuum is applied to multiple wells with a down hole apparatus (drop-tube) used to control the fluid elevation in each extraction well. During the event, the vacuum forcefully induces free phase petroleum product, contaminated groundwater, and vapor into the extraction wells from both the vadose zone above the water table and the saturated zone below simultaneously.

MECI's mobile extraction units are a trailer-mounted systems equipped with 40 kw (kilowatt) diesel Generator Sets which powers a 20 HP (horsepower) VMAX oil-sealed vacuum pump system (Model VMX0303K) which is capable of providing an air flow of 250 CFM (Cubic Feet per Minute) at 25 inches of Mercury, and a 2 HP Moyno 500 Series (Model 3913670100) transfer pump to off load fluids produced (see Figure 3). A mounted 480 Volt/3 Phase electrical control panel operates both the Vacuum pump system and the transfer pump. Prior to start-up of the AFVR event, a stinger (drop-tube) is inserted into the well and installed approximately 6 inches below the bottom of the product layer. A 2.5 inch Petroleum Flexwing hose is connected to both the well head connection and the trailer-mounted manifold which is connected to the fluid holding tank. Once start-up has commenced vapor phase volatile organic compounds (VOC's) are routed from the vacuum pump system to a vapor phase granular activated carbon vessel which filters the off-gas before discharging into the atmosphere.

6.0 SITE MONITORING AND SYSTEM EVALUATION

The effectiveness of the proposed remediation approach will be evaluated through groundwater sampling results.

The entire monitoring well network will be sampled approximately 45 days following the completion of proposed AFVR events. The wells will be sampled in accordance with SCDHEC's Quality Assurance Program Plan for the Underground Storage Tank Management Division (QAPP, Revision 2.0) and MECI's Standard Operating Procedures (MECI SOP, Dated January 2014). Groundwater samples obtained will be analyzed for BTEX, Naphthalene, MtBE, 1,2-DCA, 8-Oxygenates (EPA Method 8260-B) and EDB (EPA Method 8011).

The follow table presents an approximate timetable for corrective action activities:

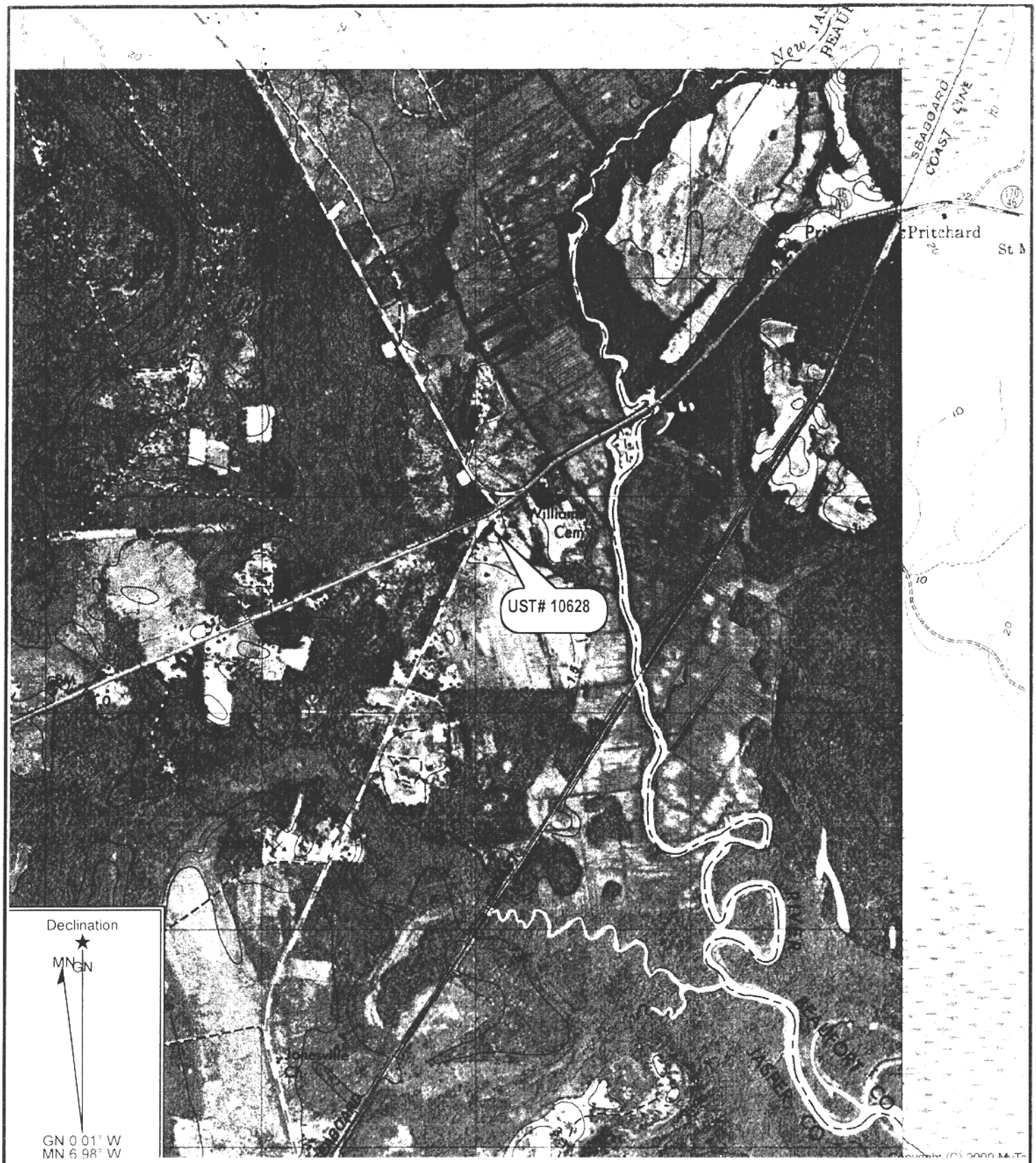
Item	Start Date	End Date	Comments
CAP Preparation	3/11/2015	3/13/2015	Completed
CAP Approval	3/13/2015	TBD (4/13/2015)	Awaiting Approval
CAP Implementation	4/13/2015	5/13/2015	Dependant upon approval
PAC Stabilization	5/13/2015	6/27/2015	Dependant upon injection completion
AFVR Event #1	6/29/2015	7/3/2015	Dependant upon injection completion
AFVR Event #2	7/6/2015	7/10/2015	Dependant upon injection completion
AFVR Event #3	7/13/2015	7/17/2015	Dependant upon injection completion
Groundwater Sampling	8/31/2015	9/14/2015	Dependant upon AFVR completion
Final Report Issued	9/14/2015	10/5/2015	Dependant upon sampling completion

7.0 QUALIFICATIONS OF REPORT

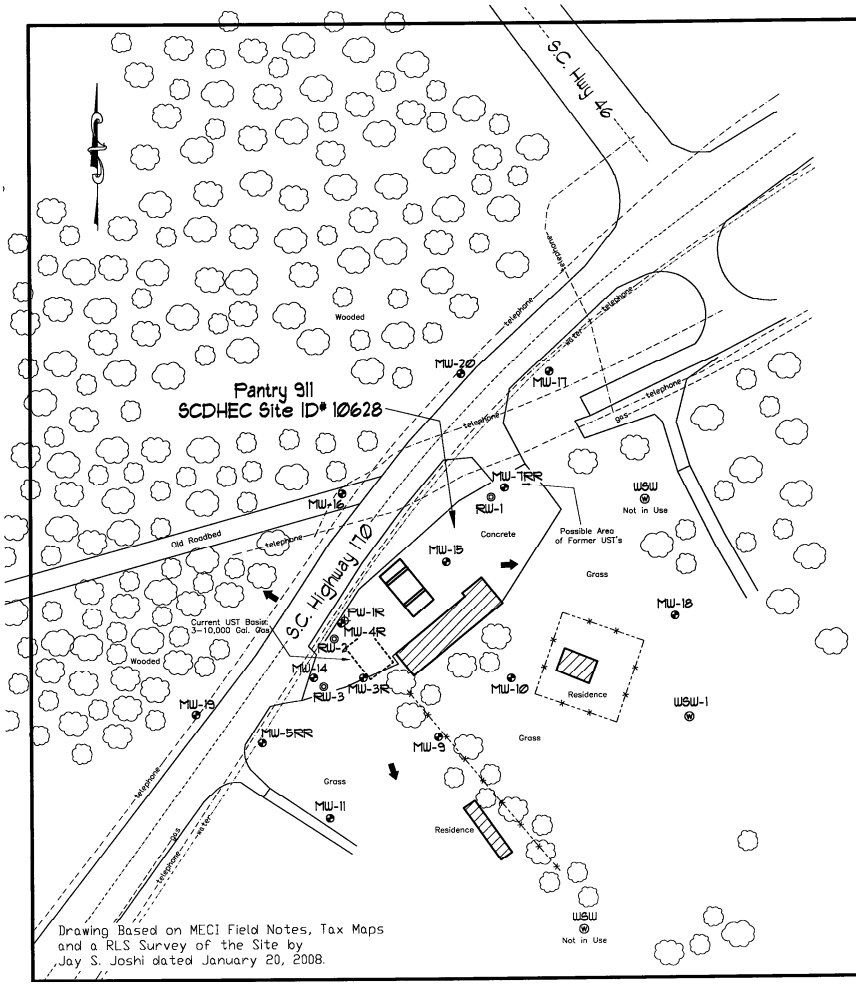
The activities and evaluative approaches used in this remediation proposal are consistent with those normally employed in hydrogeological remediation and waste management projects of this type. Our evaluation of site conditions has been based on our understanding of the site, project information provided to us, and data obtained in our exploration. The general subsurface conditions utilized in our evaluation have been based on interpretation of subsurface data between borings.

-oOo-

FIGURES



Midlands Environmental Consultants, Inc.	Site Location
Pantry 911 6195 South Okatie Highway, Hardeeville, SC SCDHEC Site ID# 10628	
Figure 1	MECI 14-4855



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of 4-Inch Recovery Well
- Location of Double Cased Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Existing Underground Storage Tanks
- water — Buried Water Line
- telephone — Under Ground Telephone

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

ALL LOCATIONS ARE APPROXIMATE

Site Base Map

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 14-4855
DATE July 25, 2014
FIGURE 2

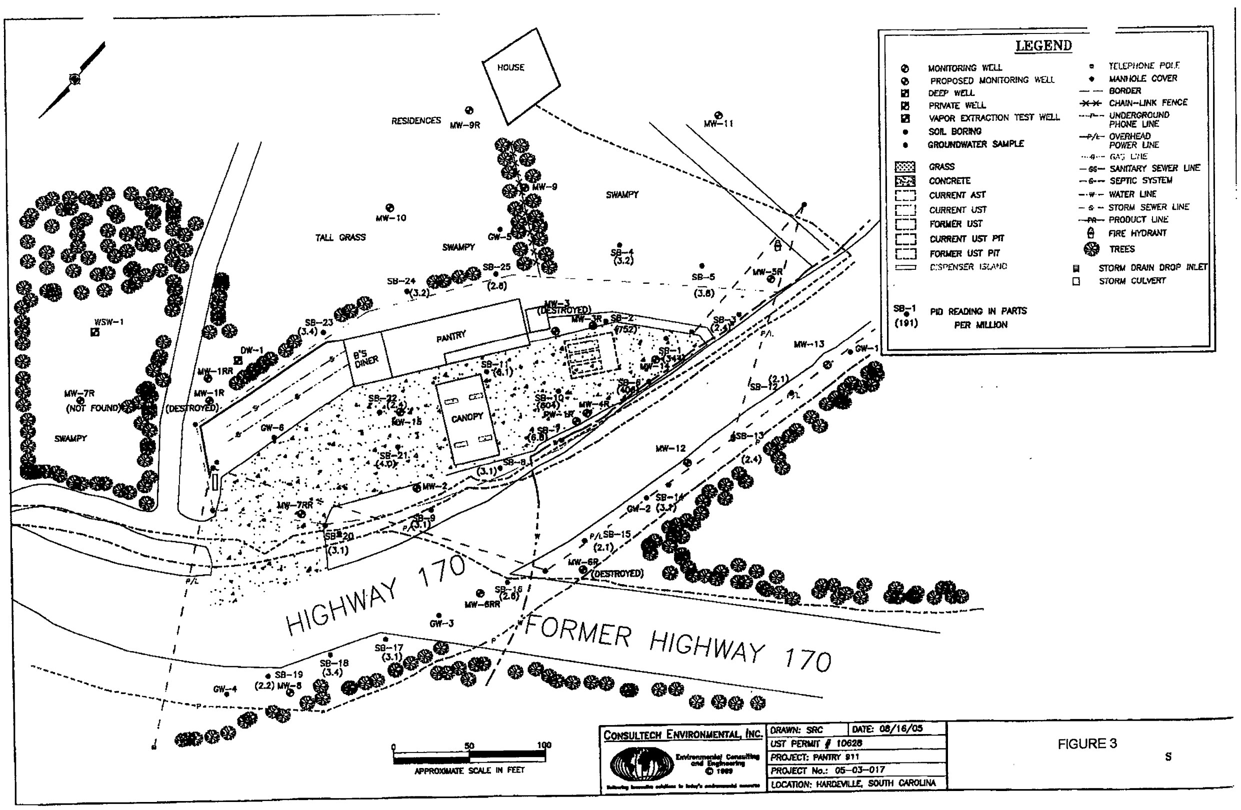
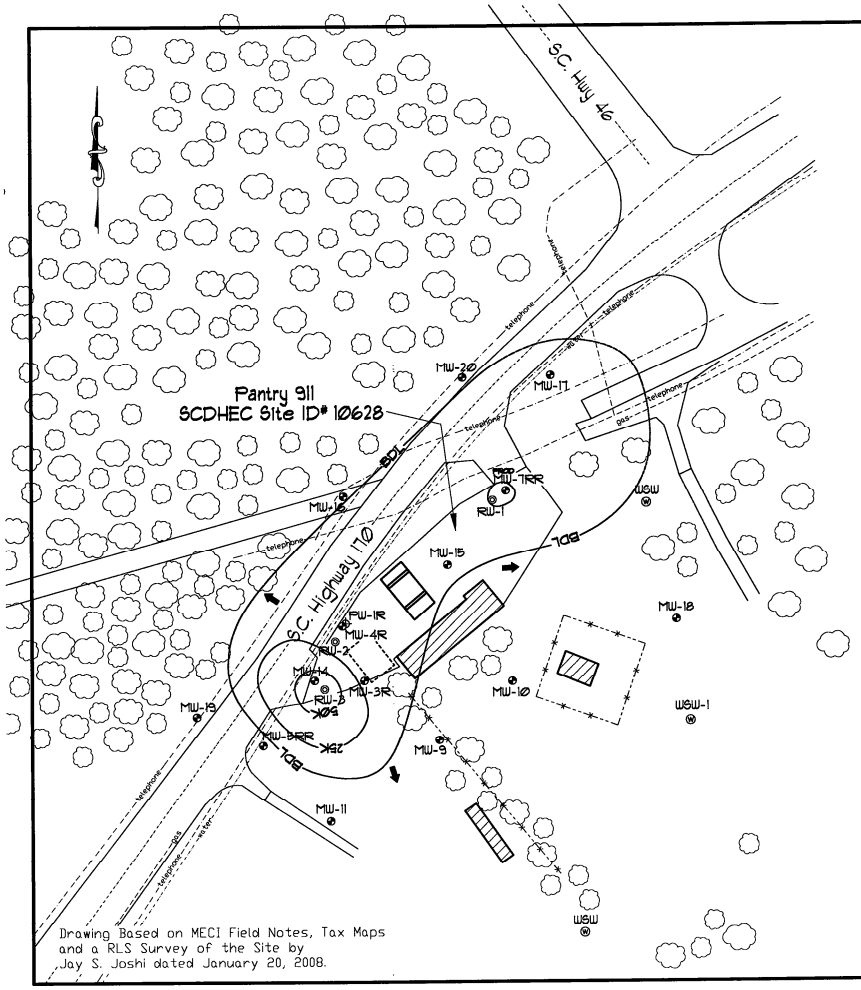

HOUSE
RESIDENCES
MW-9R
MW-11
MW-9
MW-10
TALL GRASS
SWAMPY
GW-5
SB-4
(3.2)
SB-5
(3.8)
SB-24
(3.2)
SB-25
(2.8)
SB-23
(3.4)
MW-3
(DESTROYED)
SB-2
(752)
PANTRY
B'S DINER
CANOPY
WSW-1
DW-1
MW-1RR
MW-1R
(DESTROYED)
MW-7R
(NOT FOUND)
SWAMPY
GW-6
SB-22
SB-21
(4.0)
MW-2
MW-7RR
SB-9
(3.1)
SB-20
(3.1)
SB-8
(3.1)
SB-10
(604)
SB-7
(6.8)
MW-4R
MW-13
GW-1
MW-12
SB-12
(2.1)
SB-13
(2.4)
SB-14
(3.7)
GW-2
SB-15
(2.1)
MW-6R
(DESTROYED)
SB-16
(2.8)
MW-6RR
GW-3
SB-17
(3.1)
SB-18
(3.4)
SB-19
(2.2)
MW-8
GW-4
HIGHWAY 170
FORMER HIGHWAY 170
LEGEND
MONITORING WELL
PROPOSED MONITORING WELL
DEEP WELL
PRIVATE WELL
VAPOR EXTRACTION TEST WELL
SOIL BORING
GROUNDWATER SAMPLE
GRASS
CONCRETE
CURRENT AST
CURRENT UST
FORMER UST
CURRENT UST PIT
FORMER UST PIT
DISPENSER ISLAND
TELEPHONE POLE
MANHOLE COVER
BORDER
CHAIN-LINK FENCE
UNDERGROUND PHONE LINE
OVERHEAD POWER LINE
GAS LINE
SANITARY SEWER LINE
SEPTIC SYSTEM
WATER LINE
STORM SEWER LINE
PRODUCT LINE
FIRE HYDRANT
TREES
STORM DRAIN DROP INLET
STORM CULVERT
SB-1
(191)
PID READING IN PARTS PER MILLION
0
50
100
APPROXIMATE SCALE IN FEET
CONSULTECH ENVIRONMENTAL, INC.
Environmental Consulting and Engineering
© 1989
DRAWN: SRC
DATE: 08/16/05
UST PERMIT # 10628
PROJECT: PANTRY 911
PROJECT No.: 05-03-017
LOCATION: HARDEVILLE, SOUTH CAROLINA

FIGURE 3

Table 2
PID Field Readings From June 2005 Assessment
Pantry 911, Hardeeville, SC - Facility # 10628
Consultech Project C-05-03-017

Sample	Date	4	8	12	16	20	24	28	32	36	Water Sample PID
SB-01	06/28/05	344	38.3								344 at 4'
SB-02	06/28/05	752	191								752 at 4'
SB-03	06/28/05	1.2	2.4								1.2 at 4'
SB-04	06/28/05	3.2	0.6								3.2 at 4'
SB-05	06/28/05	2.8	3.3								2.8 at 4'
SB-06	06/28/05	149	406								149 at 4'
SB-07	06/28/05	5.7	6.8								5.7 at 4'
SB-08	06/28/05	2.6	3.1								2.6 at 4'
SB-09	06/28/05	2.1	3.1								2.1 at 4'
SB-10	06/28/05	804	267								804 at 4'
SB-11	06/28/05	4.4	6.1								4.4 at 4'
SB-12	06/28/05	1.9	2.1								1.9 at 4'
SB-13	06/28/05	1.2	2.4								1.2 at 4'
SB-14	06/28/05	2.7	3.1								2.7 at 4'
SB-15	06/28/05	1.4	2.1								1.4 at 4'
SB-16	06/28/05	2.4	2.6								2.4 at 4'
SB-17	06/28/05	2.3	3.1								2.3 at 4'
SB-18	06/28/05	3.4	2.6								3.4 at 4'
SB-19	06/28/05	1.9	2.2								1.9 at 4'
SB-20	06/28/05	2.7	3.1								2.7 at 4'
SB-21	06/28/05	4.0	3.3								4.0 at 4'
SB-22	06/28/05	1.6	2.4								1.6 at 4'
SB-23	06/28/05	3.4	2.6								3.4 at 4'
SB-24	06/28/05	3.2	2.7								3.2 at 4'
SB-25	06/28/05	2.8	2.4								2.8 at 4'
SB-26	06/28/05	2.5	2.3								2.5 at 4'
SB-27	06/28/05	844	306	22.0	1.9	2.4	2.1	2.6			844 at 4'
GW-01	06/29/05										H20 at 10'
GW-02	06/29/05										H20 at 10'
GW-03	06/29/05										H20 at 10'
GW-04	06/29/05										H20 at 10'
GW-05	06/29/05										H20 at 10'
GW-06	06/29/05										H20 at 10'

WSB borings are direct-push groundwater samples only



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Double Cased "Deep" Monitoring Well
- Location of 4-Inch Recovery Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Total BTEX Concentration Isopleth (ug/l)

Groundwater COC Concentration Data

Sample *	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	Naphthalene (ug/l)	MTBE (ug/l)	1,2 DCA (ug/l)	EDB (ug/l)
MW-3R	1,500	3,900	940	7,500	13,840	240	620	<100	0.27
MW-4R	2,600	3,800	970	3,700	11,070	100	1,200	<100	<0.020
MW-5RR	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	8.9	<5.0	<0.020
MW-7RR	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-9	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	2.4J	<5.0	<0.020
MW-10	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	3.9J	<5.0	<0.020
MW-11	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-14	9,800	31,000	3,700	19,000	63,500	560J	1,400	<1,000	<0.020
MW-15	0.66J	<5.0	<5.0	<5.0	0.66J	<5.0	0.67J	<5.0	<0.020
MW-16	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-17	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW-18	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-19	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-20	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
PW-1R	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
RW-1	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-2	2,100	2,500	820	2,100	7,520	210	470	<100	<0.020
RW-3	10,000	39,000	3,800	22,000	74,800	920J	1,800	240J	<0.020
WSW-1	<1.0	<1.0	<1.0	<1.0	BDL	<1.0	<1.0	<1.0	<0.020
MW-3R Dup	1,600	3,900	1,000	7,000	13,500	220	590	<100	0.28
Field Blank	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.021
Trip Blank	<5.0	<5.0	<5.0	<5.0	BDL	<5.0L	<5.0	<5.0	NT

Notes:
- Groundwater samples collected on July 10, 2014.
- Isopleth Interval = 25,000 ug/l
- BDL = Below Detection Limits
- Monitoring well PW-1R and MW-17 not used in contouring.
- "J" Values included in Total BTEX Calculations
- NL = Not Located
- NT = Not Tested
- PROD = Free Phase Petroleum Detected
- Isopleths Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE
0 50 100 150 200
1IN = 100FT

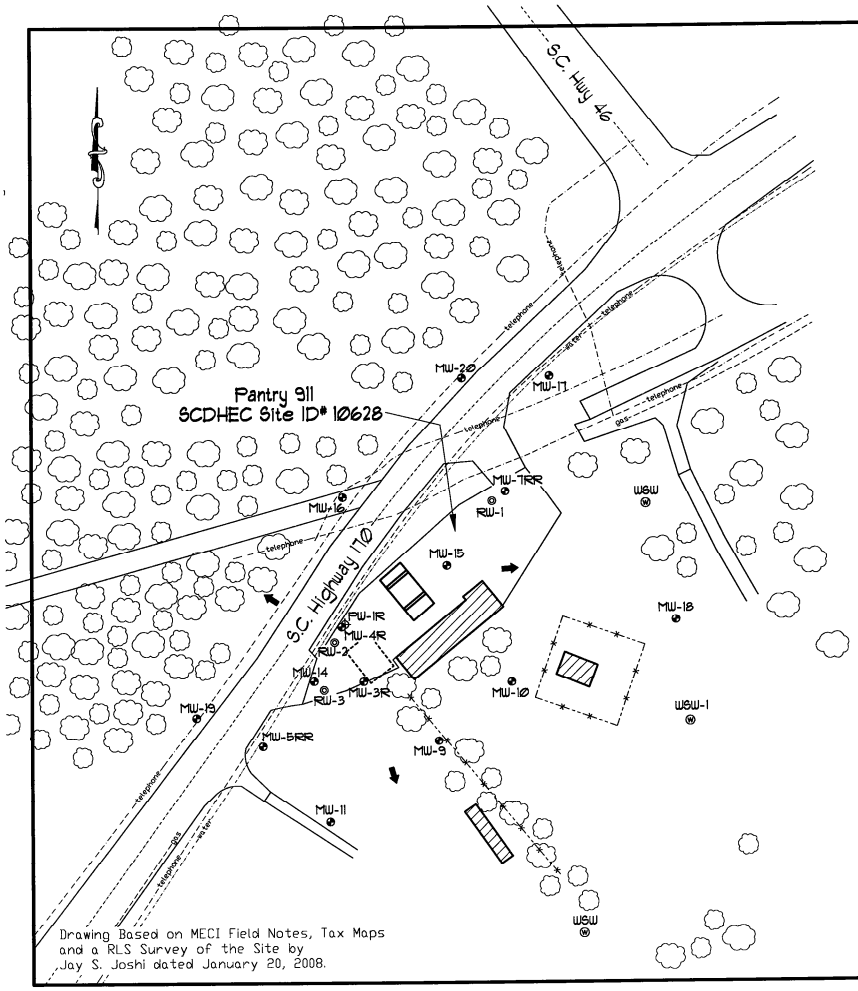
ALL LOCATIONS ARE APPROXIMATE

Groundwater CoC Site Map
(Total BTEX Isopleth)

Pantry 911
6193 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 14-4855
DATE July 25, 2014
FIGURE 4



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Double Cased "Deep" Monitoring Well
- Location of 4-Inch Recovery Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks

Groundwater COC Concentration Data - Oxygenates

Sample #	TAA (ug/l)	TAME (ug/l)	TBF (ug/l)	DIPE (ug/l)	3,3-Dimethyl-1-butanol (ug/l)	Ethanol (ug/l)	ETBE (ug/l)	TBA (ug/l)
MW-3R	2,600	130J	<2,000	<200	<2,000	<20,000	68J	3,100
MW-4R	4,200	110J	<2,000	<200	<2,000	<20,000	91J	11,000
MW-5RR	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-7RR	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-9	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-10	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-11	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-14	7,500J	630J	<20,000	<2,000	<20,000	<200,000	170J	3,600J
MW-15	12J	<10	<100	0.65J	<100	<1,000	<100	26J
MW-16	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-17	NL	NL	NL	NL	NL	NL	NL	NL
MW-18	<100	<10	<100	4.5J	<100	<1,000	<100	<100
MW-19	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-20	1,000	<10	<100	160	<100	<1,000	<100	33J
PW-1R	<100	<10	<100	<10	<100	<1,000	<100	<100
RW-1	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-2	1,300J	89J	<2,000	<200	<2,000	<20,000	53J	5,200
RW-3	7,000J	910J	<20,000	<2,000	<20,000	<200,000	290J	4,900J
WSW-1	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-3R Dup	2,500	110J	<2,000	<200	<2,000	<20,000	62J	3,000
Field Blank	<100	<10	<100	<10	<100	<1,000	<100	<100
Trip Blank	<100	<10	<100	<10	<100	<1,000	<100	<100

Notes: Groundwater samples collected on July 10, 2014.

DIPE = Diisopropyl Ether
ETBE = Ethyl tert-butyl Ether
TAA = tert-Amyl Alcohol
TAME = tert-Amy Methyl Ether
TBA = tert-Butyl Alcohol
TBF = tert-Butyl Formate

GRAPHIC SCALE
0 50 100 150 200
1IN = 100FT

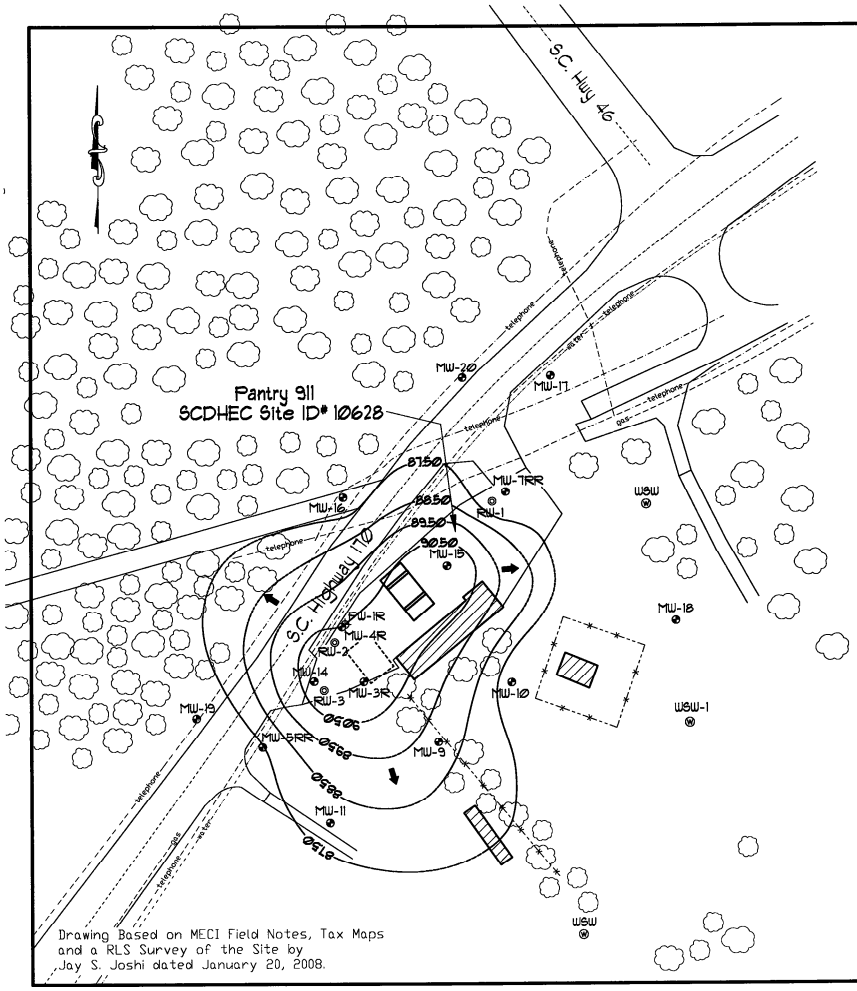
ALL LOCATIONS ARE APPROXIMATE

Groundwater CoC Site Map
(Oxygenates)

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 14-4855
DATE July 25, 2014
FIGURE 4C



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Double Cased "Deep" Monitoring Well
- Location of 4-inch Recovery Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks

Potentiometric Data

Well #	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Well Head Elevation	Groundwater Elevation
MW-3R	2-12	---	3.26	---	94.56	91.30
MW-4R	5-15	---	3.40	---	93.75	90.35
MW-5RR	2-12	---	4.86	---	92.18	87.32
MW-7RR	2-12	8.65	8.78	0.13	95.80	87.13
MW-9	8-18	---	7.53	---	96.73	89.20
MW-10	2-12	---	6.49	---	93.29	86.80
MW-11	2-12	---	3.63	---	91.62	87.99
MW-14	3.05-13.05	---	1.81	---	93.23	91.42
MW-15	2-12	---	3.97	---	96.12	92.15
MW-16	7-17	---	10.30	---	97.02	86.72
MW-17	3-13	---	NL	---	94.96	NL
MW-18	2-12	---	3.87	---	91.34	87.47
MW-19	2-12	---	6.69	---	93.01	86.32
MW-20	4-14	---	11.17	---	98.84	87.67
PW-1R	30-35	---	6.29	---	93.47	87.18
RW-1	2-12	8.77	8.92	0.15	96.15	87.36
RW-2	2-12	---	2.04	---	93.56	91.52
RW-3	2-12	---	1.74	---	93.22	91.48

Notes: Depth to groundwater measured on July 10, 2014.

Site Datum Based on Assumed Spot Elevation.

Contour Interval = 1.00 Feet

Monitoring well PW-1R and MW-17 not used in contouring.

Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

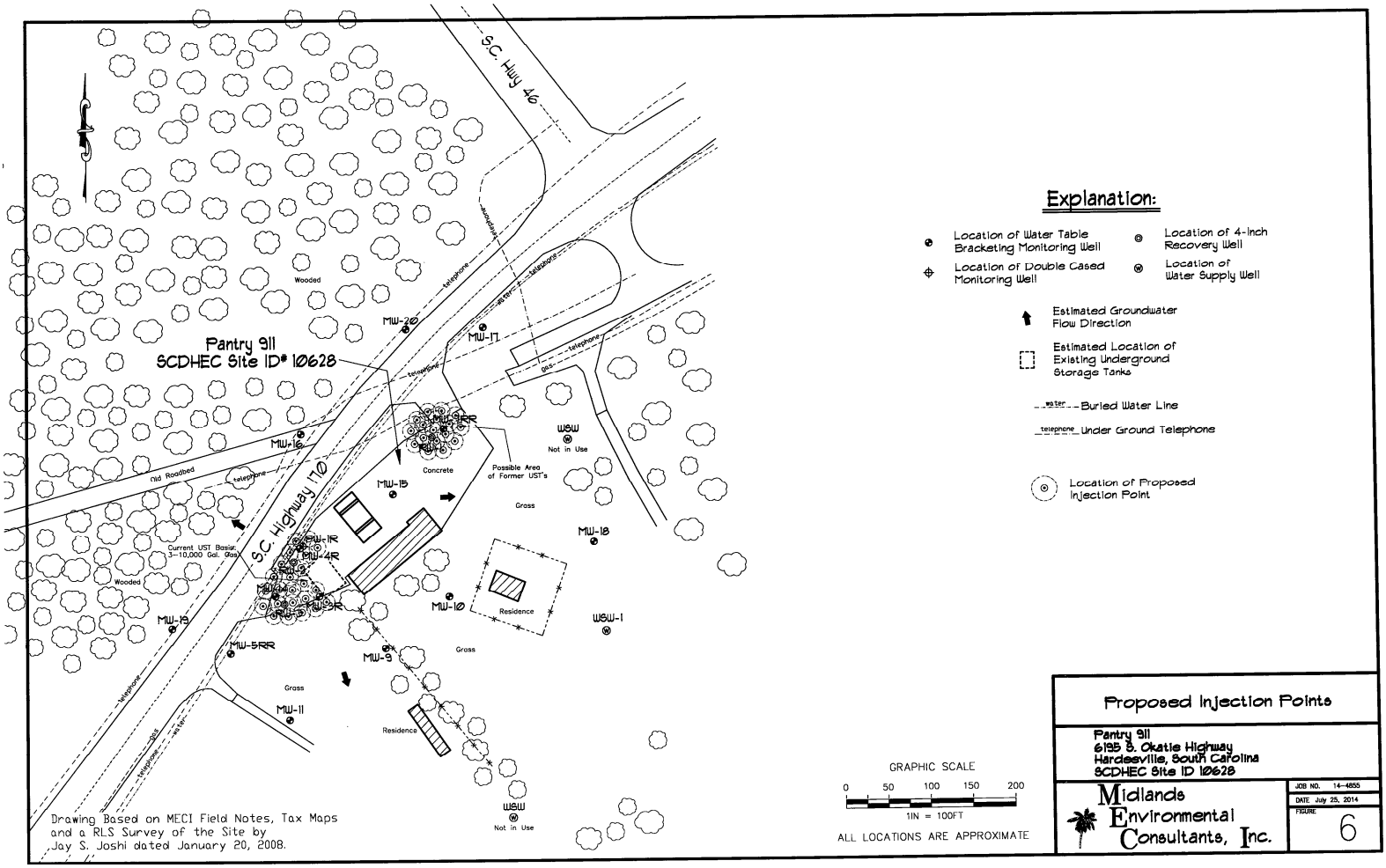
ALL LOCATIONS ARE APPROXIMATE

Potentiometric Data Site Map
(Groundwater Contour)

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 14-4855
DATE July 25, 2014
FIGURE 5



Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of 4-Inch Recovery Well
- Location of Double Cased Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Existing Underground Storage Tanks
- water — Buried Water Line
- telephone — Under Ground Telephone
- Location of Proposed Injection Point

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

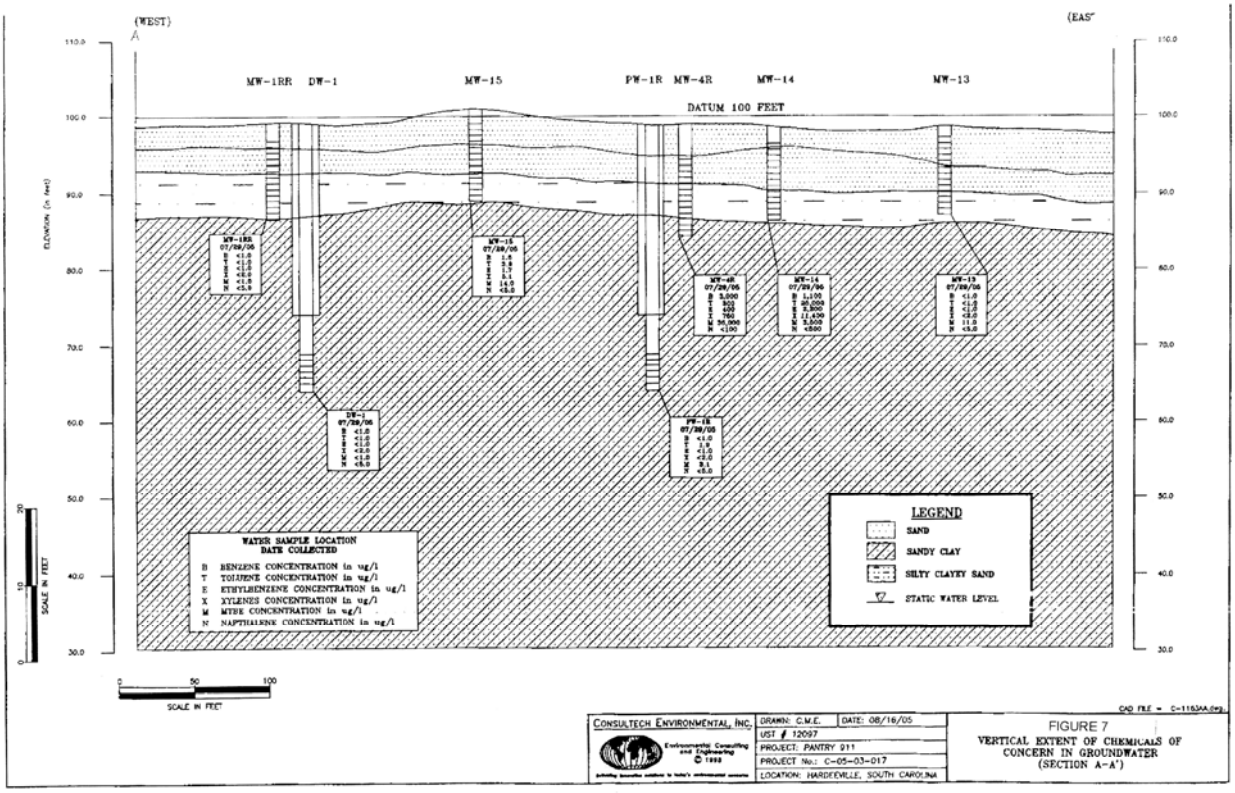
ALL LOCATIONS ARE APPROXIMATE

Proposed Injection Points

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

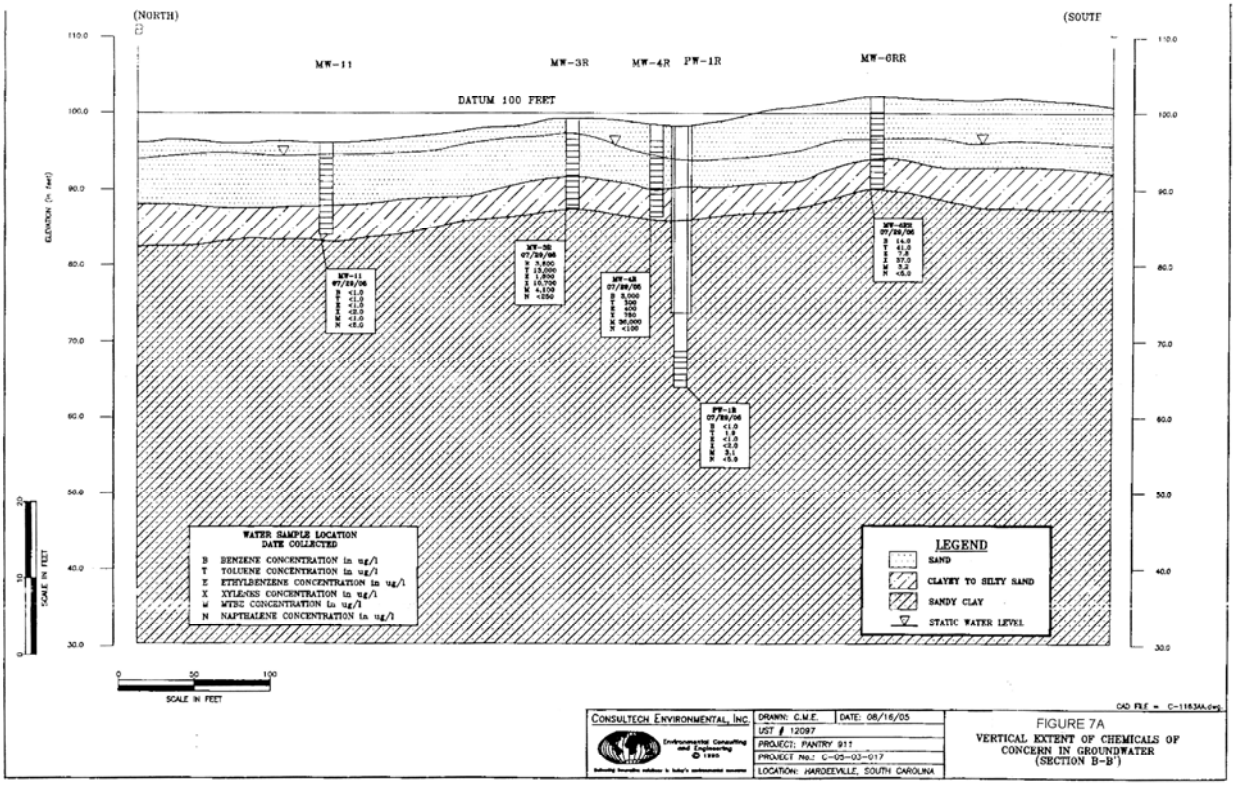
JOB NO. 14-4855
DATE July 25, 2014
FIGURE 6



CAD FILE = C-116SAA.dwg

CONSULTECH ENVIRONMENTAL, INC. Environmental Consulting and Engineering © 1998	DRAWN: C.M.E.	DATE: 08/16/05
	UST # 12097	
	PROJECT: PANTRY 911	
	PROJECT No.: C-05-03-017	
	LOCATION: HARDEEVILLE, SOUTH CAROLINA	

FIGURE 7
VERTICAL EXTENT OF CHEMICALS OF CONCERN IN GROUNDWATER (SECTION A-A')



CAD FILE = C-1163A.dwg

CONSULTECH ENVIRONMENTAL, INC.	DRAWN: C.M.E.	DATE: 08/16/05
	UST # 12097	
	PROJECT: PANTRY 911	
	PROJECT No.: C-05-03-017	
	LOCATION: HARDEEVILLE, SOUTH CAROLINA	

FIGURE 7A
VERTICAL EXTENT OF CHEMICALS OF CONCERN IN GROUNDWATER (SECTION B-B')

APPENDIX A

SITE SPECIFIC WORK PLAN

Midlands Environmental Consultants, Inc.

D H E C
PROMOTE PROTECT PROSPER

Site-Specific Work Plan for Approved ACQAP
Underground Storage Tank Management Division

To: Mr. John Bryant (SCDHEC Project Manager)
From: Mr. Jeff Coleman (Contractor Project Manager)
Contractor: Midlands Environmental Consultants, Inc. UST Contractor Certification Number: 009

Facility Name: Pantry 911 UST Permit #: 10628
Facility Address: 6195 South Okatie Highway, Hardeeville, SC 29927-8034
Responsible Party: Malphrus Enterprises Phone: (843) 263-3050
RP Address: 2789 North Okatie Highway, Ridgeland, SC 29936
Property Owner (if different): Shree Jakshani, LLC
Property Owner Address: 6194 South Okatie Highway, Hardeeville, SC 29927
Current Use of Property: Active Gas Station

Scope of Work (Please check all that apply)

☐ IGWA ☐ Tier II ☑ Groundwater Sampling ☐ GAC
☐ Tier I ☐ Monitoring Well Installation ☐ Other _____

Analyses (Please check all that apply)

Groundwater/Surface Water:

☑ BTEXNMDCA (8260B) ☐ Lead ☐ BOD ☐ Methane
☑ Oxygenates (8260B) ☐ 8 RCRA Metals ☐ Nitrate ☐ Ethanol
☑ EDB (8011) ☐ TPH ☐ Sulfate ☐ Dissolved Iron
☐ PAH (8270D) ☐ pH ☐ Other _____

Soil:

☐ BTEXN ☐ 8 RCRA Metals ☐ TPH-DRO (3550B/8015B) ☐ Grain Size
☐ PAH ☐ Oil & Grease (9071) ☐ TPH-GRO (5030B/8015B) ☐ TOC

Air:

☐ BTEXN

Sample Collection (Estimate the number of samples of each matrix that are expected to be collected.)

_____ Soil 2 Water Supply Wells _____ Air 1 Field Blank
18 Monitoring Wells _____ Surface Water 2 Duplicate 1 Trip Blank

Field Screening Methodology

Estimate number and total completed depth for each point, and include their proposed locations on the attached map.

# of shallow points proposed: _____ Estimated Footage: _____ feet per point
# of deep points proposed: _____ Estimated Footage: _____ feet per point
Field Screening Methodology: _____

Permanent Monitoring Wells

Estimate number and total completed depth for each well, and include their proposed locations on the attached map.

# of shallow wells: _____ Estimated Footage: _____ feet per point
# of deep wells: _____ Estimated Footage: _____ feet per point
# of recovery wells: _____ Estimated Footage: _____ feet per point
Monitoring Well development method (consistent with SOP): _____
Comments, if warranted:

_____
_____
_____

UST Permit #: 10628 Facility Name: Pantry 911

Implementation Schedule (Number of calendar days from approval)
Field Work Start-Up: Dependant Field Work Completion: Dependant
Report Submittal: Dependant # of Copies Provided to Property Owners: 2

Aquifer Characterization
Pump Test: ☐ Slug Test: ☐ (Check one and provide explanation below for choice)

Investigation Derived Waste Disposal
Soil: _____ Tons Purge Water: 100.0 Gallons
Drilling Fluids: _____ Gallons Free-Phase Product: _____ Gallons

Additional Details For This Scope of Work
For example, list wells to be sampled, wells to be abandoned/repaired, well pads/bolts/caps to replace, details of AFVR event, etc.
-Sampling activities will be performed following injection and AFVR activties.

Compliance With Annual Contractor Quality Assurance Plan (ACQAP)
Yes Laboratory as indicated in ACQAP? (Yes/No) If no, indicate laboratory information below.
Name of Laboratory: _____
SCDHEC Certification Number: _____
Name of Laboratory Director: _____

N/A Well Driller as indicated in ACQAO? (Yes/No) If no, indicate driller information below.
Name of Well Driller: _____
SCLLR Certification Number: _____

N/A Other variations from ACQAP. Please describe below.

Attachments
1. Attach a copy of the relevant portion of the USGS topographic map showing the site location.
2. Prepare a site base map. This map must be accurately scaled, but does not need to be surveyed. The map must include the following:
   - North Arrow
   - Location of property lines
   - Location of buildings
   - Previous soil sampling locations
   - Previous monitoring well locations
   - Proposed soil boring locations
   - Proposed monitoring well locations
   - Legend with facility name and address, UST permit number, and bar scale
   - Streets or highways (indicate names and numbers)
   - Location of all present and former ASTs and USTs
   - Location of all potential receptors
3. Assessment Component Cost Agreement, SCDHEC Form D-3664

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

ASSESSMENT COMPONENT COST AGREEMENT

SOUTH CAROLINA

Department of Health and Environmental Control

Underground Storage Tank Management Division

State Underground Petroleum Environmental Response Bank Account

May 15, 2014

Facility Name: Pantry 911

UST Permit #: 10628 **Cost Agreement #:** Proposal

ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
1. **Plan Preparation**				
A1. Site-specific Work Plan	1	each	$150.00	$150.00
B1. Tax Map		each	$70.00	$0.00
C1. Tier II or Comp. Plan /QAPP Appendix B		each	$250.00	$0.00
2. A1. **Receptor Survey ***		each	$551.00	$0.00
3. **Survey (500 ft x 500 ft)**				
A1. Comprehensive Survey		each	$1,040.00	$0.00
B. Subsurface Geophysical Survey				
1B. < 10 meters below grade		each	$1,300.00	$0.00
2B. > 10 meters below grade		each	$2,310.00	$0.00
C1. Geophysical UST or Drum Survey		each	$910.00	$0.00
4. **Mob/Demob**				
A1. Equipment	1	each	$1,020.00	$1,020.00
B1. Personnel	2	each	$423.00	$846.00
C1. Adverse Terrain Vehicle		each	$500.00	$0.00
5. A1. **Soil Borings (hand auger)***		foot	$5.00	$0.00
6. **Soil Borings (requiring equipment, push technology, etc)* or Field Screening (including water ssample, soil sample, soil gas sample, etc.)***				
A1. Standard	1200	per foot	$15.00	$18,000.00
C1. Fractured Rock		per foot	$20.20	$0.00
7. A1. **Soil Leachability Model**		each	$60.00	$0.00
8. **Abandonment (per foot)***				
A1. 2" diameter or less	1200	per foot	$3.10	$3,720.00
B1. Greater than 2" to 6" diameter		per foot	$4.50	$0.00
C1. Dug/Bored well (up to 6 feet diameter)		per foot	$15.00	$0.00
9. **Well Installation (per foot)***				
A1. Water Table (hand augered)		per foot	$10.60	$0.00
B1. Water Table (drill rig)		per foot	$38.00	$0.00
C1. Telescoping		per foot	$50.00	$0.00
D1. Rock Drilling		per foot	$58.00	$0.00
E1. 2" Rock Coring		per foot	$30.90	$0.00
G1. Rock Multi-sampling ports/screens		per foot	$33.40	$0.00
H1. Recovery Well (4" diameter)		per foot	$45.00	$0.00
I1. Pushed Pre-packed screen (1.25" dia)		per foot	$15.00	$0.00
J1. Rotosonic (2" diameter)		per foot	$44.00	$0.00
K. Re-develop Existing Well		per foot	$11.00	$0.00
10. **Groundwater Sample Collection / Gauge Depth to Water or Product ***				
A1. Groundwater Purge	18	per well/receptor	$60.00	$1,080.00
B1. Air or Vapors		per receptor	$12.00	$0.00
C1. Water Supply	1	per well/receptor	$22.00	$22.00
D1. Groundwater No Purge or Duplicate	1	per well/receptor	$28.00	$28.00
E1. Gauge Well only		per well	$7.00	$0.00
F1. Sample Below Product		per well	$12.00	$0.00
G1. Passive Diffusion Bag		each	$26.00	$0.00
H1. Field Blank	1	each	$24.60	$24.60

11. Laboratory Analyses-Groundwater					
A2. BTEXNM+Oxyg's+1,2 DCA+Eth(8260B)	22	per sample	$122.00		$2,684.00
AA1. Lead, Filtered		per sample	$13.80		$0.00
B2. Rush EPA Method 8260B (All of item A.)		per sample	$153.60		$0.00
C2. Trimethal, Butyl, and Isopropyl Benzenes		per sample	$36.40		$0.00
D1. PAH's		per sample	$60.60		$0.00
E1. Lead		per sample	$16.00		$0.00
F1. EDB by EPA 8011	21	per sample	$45.20		$949.20
FF1. EDB by EPA Method 8011 Rush		per sample	$68.20		$0.00
G1. 8 RCRA Metals		per sample	$63.40		$0.00
H1. TPH (9070)		per sample	$41.00		$0.00
II. pH		per sample	$5.20		$0.00
J1. BOD		per sample	$20.00		$0.00
PP. Ethanol		per sample	$14.80		$0.00
11. **Analyses-Soil**					
Q1. BTEX + Naphth.		per sample	$64.00		$0.00
R1. PAH's		per sample	$64.04		$0.00
S1. 8 RCRA Metals		per sample	$56.40		$0.00
U1. TPH-DRO (3550C/8015C)		per sample	$40.00		$0.00
V1. TPH- GRO (5030B/8015C)		per sample	$35.96		$0.00
W1. Grain size/hydrometer		per sample	$104.00		$0.00
X1. Total Organic Carbon		per sample	$30.60		$0.00
11. **Analyses-Air**					
Y1. BTEX + Naphthalene		per sample	$216.00		$0.00
11. **Analyses-Free Phase Product**					
Z1. Hydrocarbon Fuel Identification		per sample	$357.00		$0.00
12. **Aquifer Characterization**					
A1. Pumping Test*		per hour	$23.00		$0.00
B1. Slug Test*		per test	$191.00		$0.00
C1. Fractured Rock		per test	$100.00		$0.00
13. A1. **Free Product Recovery Rate Test***		each	$38.00		$0.00
14. **Fate/Transport Modeling**					
A1. Mathematical Model		each	$100.00		$0.00
B1. Computer Model		each	$100.00		$0.00
15. **Risk Evaluation**					
A. Tier I Risk Evaluation		each	$300.00		$0.00
B1. Tier II Risk Evaluation		each	$100.00		$0.00
16. A1. **Subsequent Survey***		each	$260.00		$0.00
17. **Disposal (gallons or tons)***					
AA. Wastewater	100	gallon	$0.56		$56.00
BB. Free Product		gallon	$0.50		$0.00
C1. Soil Treatment/Disposal		ton	$60.00		$0.00
D1. Drilling fluids		gallon	$0.42		$0.00
18. **Miscellaneous (attach receipts)**					
		each	$0.00		$0.00
		each	$0.00		$0.00
		each	$0.00		$0.00
20. **Tier I Assessment (Use DHEC 3665 form)**		standard			$0.00
21. **IGWA (Use DHEC 3666 form)**		standard			$0.00
22. **Corrective Action (Use DHEC 3667 form)**		PFP Bid			$0.00

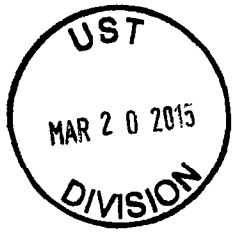
23. **Aggressive Fluid & Vapor Recovery (AFVR)**					
A1. 8-hour Event*		each	$1,375.00		$0.00
A2. 24-hour Event*		each	$3,825.00		$0.00
A3. 48-hour Event*		each	$6,265.00		$0.00
A4. 96-hour Event*	3	each	$12,567.50		$37,702.50
C1. Off-gas Treatment 8 hour		per event	$122.50		$0.00
C2. Off-gas Treatment 24 hour		per event	$241.50		$0.00
C3. Off-gas Treatment 48 hour		per event	$327.00		$0.00
C4. Off-gas Treatment 96 hour	3	per event	$780.00		$2,340.00
D. Site Reconnaissance		each	$203.25		$0.00
E1. Additional Hook-ups		each	$25.75		$0.00
F. Effluent Disposal	40,000	gallon	$0.44		$17,600.00
G. AFVR Mobilization/Demobilization	3	each	$391.50		$1,174.50
24. **Granulated Activated Carbon (GAC) filter system installation & service:**					
A1. New GAC System Installation*		each	$1,900.00		$0.00
BB. Refurbished GAC Sys. Install*		each	$900.00		$0.00
C1. Filter replacement/removal*		each	$350.00		$0.00
DD. GAC System removal, cleaning, & refurbishment*		each	$275.00		$0.00
E1. GAC System housing*		each	$250.00		$0.00
F. In-line particulate filter		each	$150.00		$0.00
G1. Additional piping & fittings		foot	$1.50		$0.00
25. **Well Repair**					
A1. Additional Copies of the Report Delivered		each	$50.00		$0.00
B1. Repair 2x2 MW pad*		each	$50.00		$0.00
C1. Repair 4x4 MW pad*		each	$88.00		$0.00
D1. Repair well vault*		each	$118.00		$0.00
F1. Replace well cover bolts		each	$2.60		$0.00
G. Replace locking well cap & lock		each	$15.00		$0.00
H1. Replace/Repair stick-up*		each	$134.00		$0.00
I1. Convert Flush-mount to Stick-up*		each	$150.00		$0.00
J1. Convert Stick-up to Flush-mount*		each	$130.00		$0.00
K1. Replace missing/illegible well ID plate		each	$12.00		$0.00
Report Prep & Project Management	12%	percent	$87,396.80		$10,487.62
TOTAL					$97,884.42

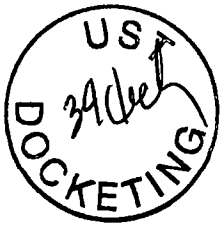
*The appropriate mobilization cost can be added to complete these tasks, as necessary

Midlands Environmental Consultants, Inc.

March 11, 2015

Mr. John C. Bryant., Hydrogeologist
Corrective Action Section
South Carolina Department of Health
and Environmental Control
Bureau of Underground Storage Tank Management
2600 Bull Street
Columbia, South Carolina 29201





Subject: Corrective Action Plan
Pantry 911
6195 South Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID# 10628

Dear Mr. Bryant,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Corrective Action Plan (CAP) for the referenced site. This plan describes our proposed approach for site rehabilitative measures in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman
Senior Scientist

Bryan T. Shane, P.G.
Principal Geologist

Post Office Box 854, Lexington SC 29071 • 231 Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

TABLE OF CONTENTS

1.0 PROJECT INFORMATION

The subject site (Pantry 911) is located at 6195 South Okatie Highway, Hardeeville, Jasper County, South Carolina. The subject site maintains one 10,000 gallon regular unleaded gasoline underground storage tank (UST), one 10,000 gallon premium gasoline, and one 10,000 gallon diesel UST. These UST's were given a compliance date of March 7, 2012. The South Carolina Department of Health and Environmental Control (SCDHEC) reported a release of petroleum product from these UST's in April of 1995 and confirmed the release in March of 1996. The subject site is currently rated a Class 2BB.

The above information is based on reports and correspondence obtained from MECI files and SCDHEC Files.

2.0 ASSESSMENT SUMMARY

Based on the results from previous assessment activities, it appears that soil (Figure 3) and ground water (Figure 4/Figure 4A) at the subject site have been impacted by petroleum constituents. The highest concentrations of dissolved phase contaminants appear to be located on the northern portion of the property, in the area of MW-7RR and MW-14. The contaminants appear to be gasoline range constituents. Groundwater elevation data reveals a radial flow pattern to the west, north, and east (Figure 5) and does not appear to have migrated off of the subject site.

The horizontal and vertical extent of petroleum hydrocarbons in groundwater at the site appears to have been reasonably assessed (Figure 7 & Figure 7A).

Based on the results of chemical analyses performed on soil samples collected during previous assessment activities and Photo-Ionization Detector (PID) measurements, it appears that the petroleum-impacted soil at the subject site have been reasonably defined. The impacted soil appears to be dispersed in the areas of MW-3R, MW-4R and MW-14 to a depth of approximately 12 feet.

3.0 SITE REMEDIAL GOALS

SCDHEC has outlined site rehabilitative goals and Site Specific Target Levels (SSTLs) for dissolved phase CoC's for five groundwater monitoring wells. Site specific CoC levels which are currently greater (July 10, 2014 Groundwater Sampling Event) than the established SSTLs are as follows:

MW#		Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	EDB	1,2 DCA
MW-3R	**Subsequent**	***1,500***	3,900	940	7,500	620	0.27	100
	SSTL	***947***	250,428	17,107	3,567,586	173,000	3,287.86	2,868,403
	Subsequent>SSTL	***553***	0	0	0	0	0	0
MW-4R	**Subsequent**	***2,600***	3,800	970	3,700	1,200	0.020	100
	SSTL	***881***	231,855	16,407	3,285,333	173,000	2,798.67	2,362,792
	Subsequent>SSTL	***1,719***	0	0	0	0	0	0
MW-7RR	**Subsequent**	***44,390***	***26,540***	***3,700***	21,680	173,000	***1,900***	***3,700***
	SSTL	***54***	***12,066***	***3,147***	140,210	1,298,019	***6.49***	***1,627***
	Subsequent>SSTL	***44,336***	***14,474***	***553***	0	0	***1,893.51***	***2,073***
MW-14	**Subsequent**	***9,800***	31,000	3,700	19,000	1,400	0.020	1,000
	SSTL	***1,817***	499,074	24,823	7,461,318	173,000	13,958.19	16,362,027
	Subsequent>SSTL	***7,983***	0	0	0	0	0	0
MW-17	**Subsequent**	***250***	25	45	66	25	0.020	10
	SSTL	***68***	15,513	3,640	183,180	3,881,361	10.74	2,971
	Subsequent>SSTL	***182***	0	0	0	0	0	0

Subsequent data for monitoring well MW-17 was obtained from the July 27th, 2013 groundwater sampling event due to the monitoring well not being located in July of 2014. Additionally, monitoring well MW-7RR contained measurable free phase petroleum product in July of 2014, therefore SCDHEC solubility levels was utilized for subsequent data.

4.0 PROPOSED REMEDIAL APPROACH

MECI proposes a rehabilitative approach composed of additional direct injection of a pulverized activated carbon based product into the areas surrounding MW-3R, MW-4R, MW-7RR, MW-14, RW-1, RW-2 and RW-3 to reduce concentrations of petroleum hydrocarbons. Following the proposed injection activities, a 45 day stabilization period with ensue to allow for absorption of petroleum based contaminants to occur. Once stabilization has been met, three 96-hour Aggressive Fluid Vapor Recovery Events will be performed on wells MW-3R, MW-4R, MW-7RR, MW-14, RW-1, RW-2 and RW-3 to dewater the aquifer, remove contaminated groundwater and to better spread injectant through the vadose zone.

The conceptual design of the proposed remediation system was developed based on our knowledge of existing site conditions, our knowledge of the remediation equipment recommended and recognized success utilizing this technology at other sites with similar lithology. The individual components of the remediation procedure are outlined in the following sections.

Several remedial alternatives were evaluated to restore impacted soil and groundwater to SCDHEC prescribed concentrations. Constraints and limitations that affect site restoration include the types of contaminants, surface and subsurface site characteristics, concentration of subsurface utilities, and aboveground site utilization. The objective of any remedial evaluation is to present the most appropriate strategy for the subject site.

Injection of a pulverized carbon product into the specified areas of the contaminant plume will allow the carbon to absorb petroleum based contaminants, as well as provide a substrate for indigenous bacteria to colonize and regenerate the carbon *in-situ*. Injection at several different depths will allow for treatment of dissolved CoC's in the groundwater to address the downward and/or off-site migration of contaminants, and treatment of the vadose zone to prevent contamination rebound due to infiltration and season water table fluctuations. Injections of this type can have a radius of influence of between 3 to 20 feet, depending on soil conditions at the subject site. For design purposes, the radius of influence for each injection point is estimated at 20 feet.

Pilot studies conducted by the technology manufacturer indicate that in some cases, a single application of pulverized carbon provides significant reductions in contaminant concentrations within a relatively short time-frame (days to weeks). Some sites may required multiple applications or require longer periods of time before adequate reductions in contaminant concentrations are observed. In all cases, the reduction in contaminants will be affected by further releases, unidentified sources and ongoing influences to the injection area by surrounding contaminant plumes.

5.0 DESIGN AND OPERATION PROPOSED REMEDIAL APPROACH

The proposed injection event will be conducted in the vicinity of monitoring wells MW-3R, MW-4R, MW-7RR, MW-14, RW-1, RW-2 and RW-3. Sampling events will be conducted at the 45 days following the final proposed AFVR event. This sampling event will determine the effectiveness of the proposed injection and AFVR events.

The proposed corrective action plan includes the injection of pulverized activated carbon into the contaminant plume, followed by supplemental AFVR events. The details of the remedial system are provided below.

5.1 Direct Injection

MECI proposes to inject a total of 4,000 pounds of pulverized activated carbon and 4,000 gallons of potable water (36,000 lbs. of slurry) into the desired smear zone. In each injection location, potable water will be mixed with the appropriated quantity of product and injected at 5 foot intervals using depth sets between 5, 10 and 15 feet below ground surface (BGS). Figure 6 shows the approximate locations of the eighty (80) proposed direct injection points proposed. A direct-push drilling rig, operated by a SC certified well driller, will be used to install the injection points. Injection rods will be pushed to the desired interval, the appropriate amount of pulverized activated carbon mixed with potable water will be injected, the rods will be pushed an additional five feet, and the process will continue to the termination depth. Flow rates will be adjusted to between 2 gallons per minute (gpm) and 10 gpm with average injection pressures between 10 pounds per square inch gauge (psig) and 60 psig. Injection pressures will not exceed 80 psig. Injections for the injection event should take between 3 and 5 days depending on site conditions.

During the injection event, should the product surface or enter monitoring wells, it will be removed using vacuum extraction. Once the injection process is complete the potential for surfacing of the product is eliminated.

5.2 Aggressive Fluid Vapor Recovery Events

Following a proposed 60 day injectant stabilization period, MECI proposes to conduct AFVR events to remove free phase petroleum product and reduce dissolved petroleum compounds from the "smear zone" at the subject site. MECI's multi-phase extraction units will perform dual phase extraction to remove hydrocarbons (liquid and vapor phase) from wells MW-3R, MW-4R, MW-7RR, MW-14, RW-1, RW-2 and RW-3 at the subject site. MECI's AFVR units employ a combination of specially designed trailer-mounted vacuum and liquid handling knock out tank integrated with a vapor phase activated carbon unit. A vacuum is applied to multiple wells with a down hole apparatus (drop-tube) used to control the fluid elevation in each extraction well. During the event, the vacuum forcefully induces free phase petroleum product, contaminated groundwater, and vapor into the extraction wells from both the vadose zone above the water table and the saturated zone below simultaneously.

MECI's mobile extraction units are a trailer-mounted systems equipped with 40 kw (kilowatt) diesel Generator Sets which powers a 20 HP (horsepower) VMAX oil-sealed vacuum pump system (Model VMX0303K) which is capable of providing an air flow of 250 CFM (Cubic Feet per Minute) at 25 inches of Mercury, and a 2 HP Moyno 500 Series (Model 3913670100) transfer pump to off load fluids produced (see Figure 3). A mounted 480 Volt/3 Phase electrical control panel operates both the Vacuum pump system and the transfer pump. Prior to start-up of the AFVR event, a stinger (drop-tube) is inserted into the well and installed approximately 6 inches below the bottom of the product layer. A 2.5 inch Petroleum Flexwing hose is connected to both the well head connection and the trailer-mounted manifold which is connected to the fluid holding tank. Once start-up has commenced vapor phase volatile organic compounds (VOC's) are routed from the vacuum pump system to a vapor phase granular activated carbon vessel which filters the off-gas before discharging into the atmosphere.

6.0 SITE MONITORING AND SYSTEM EVALUATION

The effectiveness of the proposed remediation approach will be evaluated through groundwater sampling results.

The entire monitoring well network will be sampled approximately 45 days following the completion of proposed AFVR events. The wells will be sampled in accordance with SCDHEC's Quality Assurance Program Plan for the Underground Storage Tank Management Division (QAPP, Revision 2.0) and MECI's Standard Operating Procedures (MECI SOP, Dated January 2014). Groundwater samples obtained will be analyzed for BTEX, Naphthalene, MtBE, 1,2-DCA, 8-Oxygenates (EPA Method 8260-B) and EDB (EPA Method 8011).

The follow table presents an approximate timetable for corrective action activities:

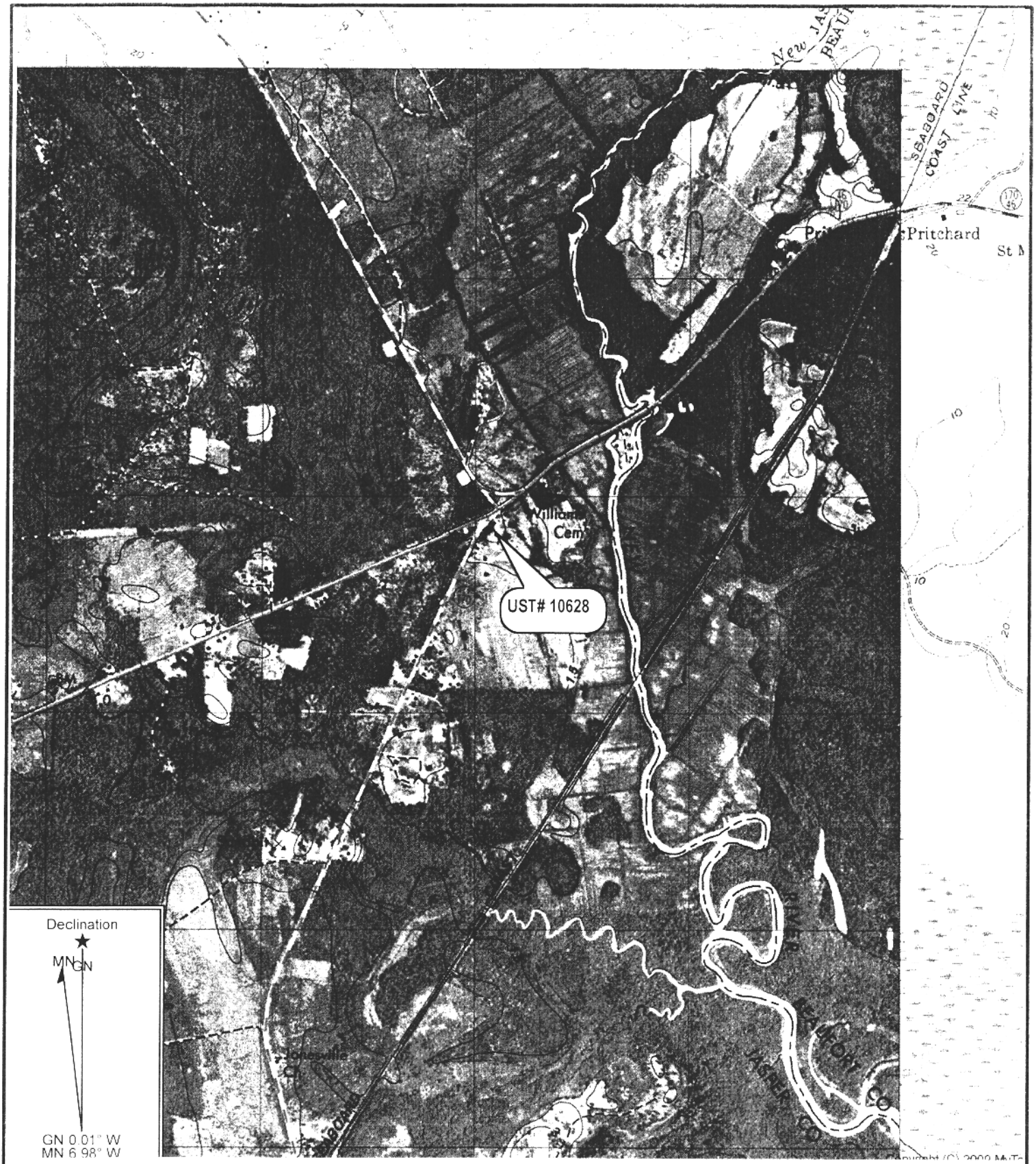
Item	Start Date	End Date	Comments
CAP Preparation	3/11/2015	3/13/2015	Completed
CAP Approval	3/13/2015	TBD (4/13/2015)	Awaiting Approval
CAP Implementation	4/13/2015	5/13/2015	Dependant upon approval
PAC Stabilization	5/13/2015	6/27/2015	Dependant upon injection completion
AFVR Event #1	6/29/2015	7/3/2015	Dependant upon injection completion
AFVR Event #2	7/6/2015	7/10/2015	Dependant upon injection completion
AFVR Event #3	7/13/2015	7/17/2015	Dependant upon injection completion
Groundwater Sampling	8/31/2015	9/14/2015	Dependant upon AFVR completion
Final Report Issued	9/14/2015	10/5/2015	Dependant upon sampling completion

7.0 QUALIFICATIONS OF REPORT

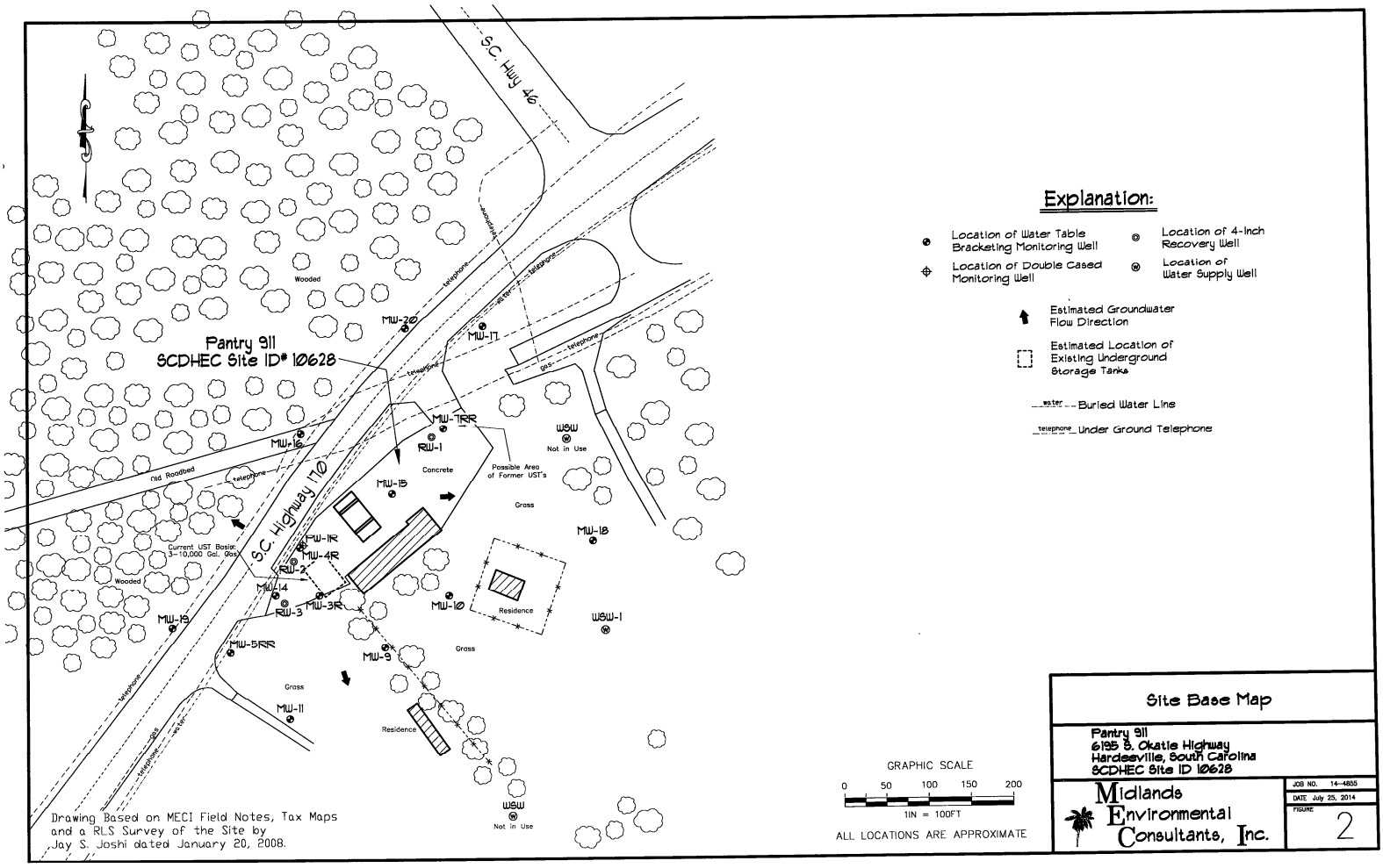
The activities and evaluative approaches used in this remediation proposal are consistent with those normally employed in hydrogeological remediation and waste management projects of this type. Our evaluation of site conditions has been based on our understanding of the site, project information provided to us, and data obtained in our exploration. The general subsurface conditions utilized in our evaluation have been based on interpretation of subsurface data between borings.

-oOo-

FIGURES



Midlands Environmental Consultants, Inc.	Site Location
Pantry 911 6195 South Okatie Highway, Hardeeville, SC SCDHEC Site ID# 10628	
Figure 1	MECI 14-4855

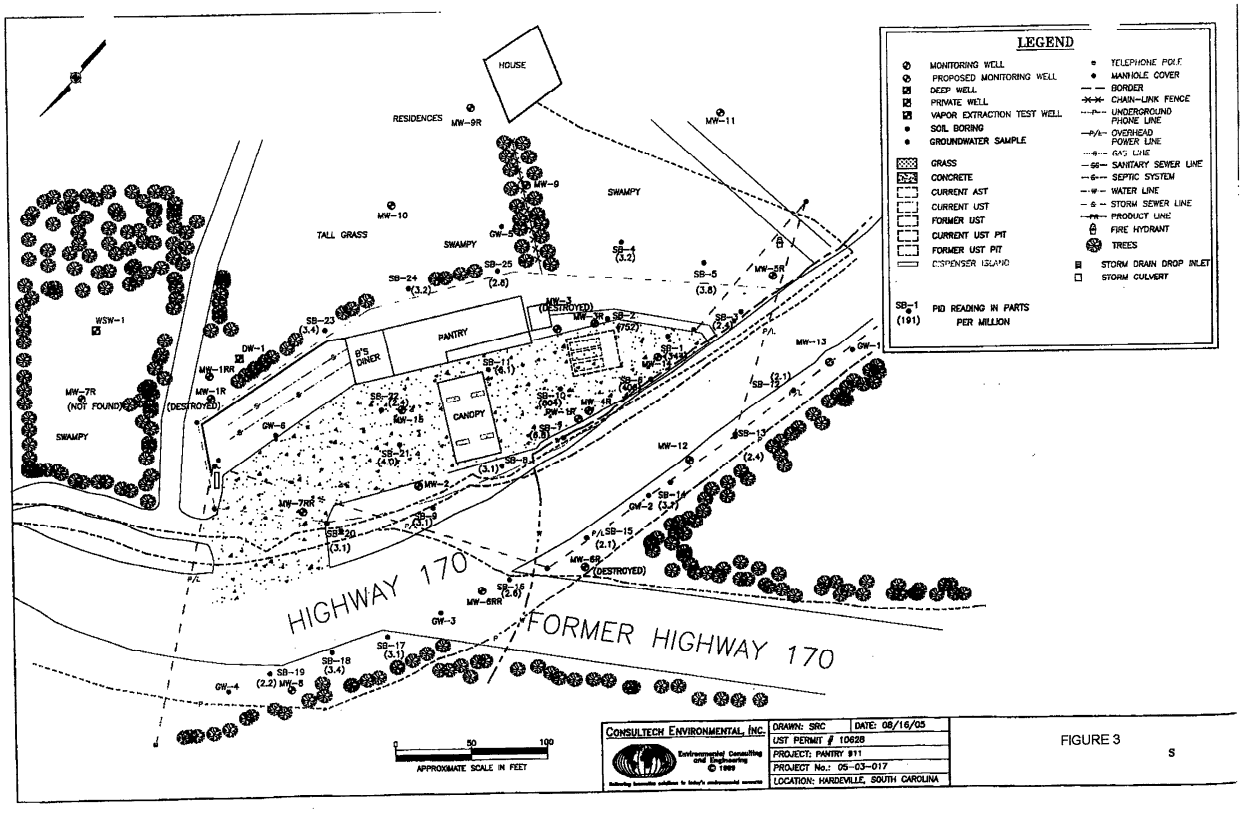


Site Base Map

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 14-4855
DATE July 25, 2014
FIGURE 2



CONSULTECH ENVIRONMENTAL, INC.	DRAWN: SRC	DATE: 08/16/05
Environmental Consulting and Engineering © 1999	UST PERMIT # 10628	
	PROJECT: PANTRY #11	
	PROJECT No.: 05-03-017	
	LOCATION: HARDEVILLE, SOUTH CAROLINA	

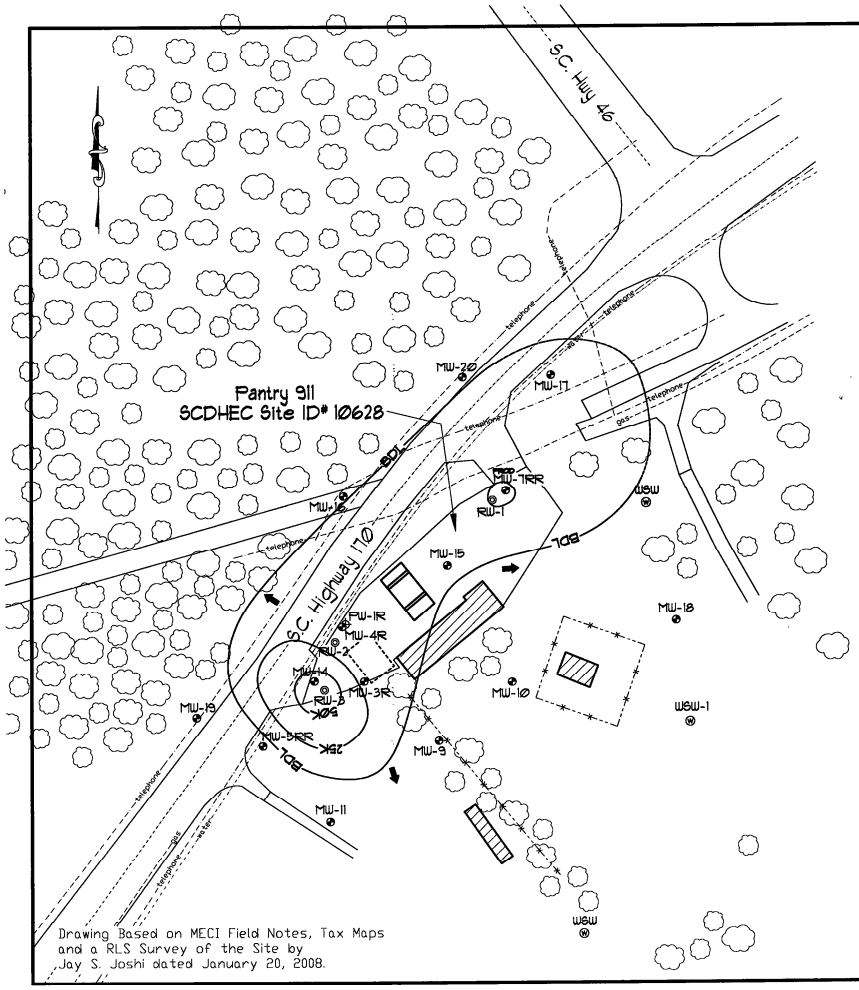
FIGURE 3

S

Table 2
PID Field Readings From June 2005 Assessment
Pantry 911, Hardeeville, SC - Facility # 10628
Consultech Project C-05-03-017

Sample	Date	4	8	12	16	20	24	28	32	36	Water Sample PID
SB-01	06/28/05	344	38.3								344 at 4'
SB-02	06/28/05	752	191								752 at 4'
SB-03	06/28/05	1.2	2.4								1.2 at 4'
SB-04	06/28/05	3.2	0.6								3.2 at 4'
SB-05	06/28/05	2.8	3.3								2.8 at 4'
SB-06	06/28/05	149	406								149 at 4'
SB-07	06/28/05	5.7	6.8								5.7 at 4'
SB-08	06/28/05	2.6	3.1								2.6 at 4'
SB-09	06/28/05	2.1	3.1								2.1 at 4'
SB-10	06/28/05	804	267								804 at 4'
SB-11	06/28/05	4.4	6.1								4.4 at 4'
SB-12	06/28/05	1.9	2.1								1.9 at 4'
SB-13	06/28/05	1.2	2.4								1.2 at 4'
SB-14	06/28/05	2.7	3.1								2.7 at 4'
SB-15	06/28/05	1.4	2.1								1.4 at 4'
SB-16	06/28/05	2.4	2.6								2.4 at 4'
SB-17	06/28/05	2.3	3.1								2.3 at 4'
SB-18	06/28/05	3.4	2.6								3.4 at 4'
SB-19	06/28/05	1.9	2.2								1.9 at 4'
SB-20	06/28/05	2.7	3.1								2.7 at 4'
SB-21	06/28/05	4.0	3.3								4.0 at 4'
SB-22	06/28/05	1.6	2.4								1.6 at 4'
SB-23	06/28/05	3.4	2.6								3.4 at 4'
SB-24	06/28/05	3.2	2.7								3.2 at 4'
SB-25	06/28/05	2.8	2.4								2.8 at 4'
SB-26	06/28/05	2.5	2.3								2.5 at 4'
SB-27	06/28/05	844	306	22.0	1.9	2.4	2.1	2.6			844 at 4'
GW-01	06/29/05										H20 at 10'
GW-02	06/29/05										H20 at 10'
GW-03	06/29/05										H20 at 10'
GW-04	06/29/05										H20 at 10'
GW-05	06/29/05										H20 at 10'
GW-06	06/29/05										H20 at 10'

WSB borings are direct-push groundwater samples only



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Water Supply Well
- Location of Double Cased "Deep" Monitoring Well
- Estimated Groundwater Flow Direction
- Location of 4-Inch Recovery Well
- Estimated Location of Removed Underground Storage Tanks
- Total BTEX Concentration Isopleth (ug/l)

Groundwater COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	Naphthalene (ug/l)	MTBE (ug/l)	1,2 DCA (ug/l)	EDB (ug/l)
MW-3R	1,500	3,900	940	7,500	13,840	240	620	<100	0.27
MW-4R	2,600	3,800	970	3,700	11,070	100	1,200	<100	<0.020
MW-5RR	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	8.9	<5.0	<0.020
MW-7RR	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-9	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	2.4J	<5.0	<0.020
MW-10	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	3.9J	<5.0	<0.020
MW-11	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-14	9,800	31,000	3,700	19,000	63,500	560J	1,400	<1,000	<0.020
MW-15	0.66J	<5.0	<5.0	<5.0	0.66J	<5.0	0.67J	<5.0	<0.020
MW-16	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-17	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW-18	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-19	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-20	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
PW-1R	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
RW-1	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-2	2,100	2,500	820	2,100	7,520	210	470	<100	<0.020
RW-3	10,000	39,000	3,800	22,000	74,800	920J	1,800	240J	<0.020
WSW-1	<1.0	<1.0	<1.0	<1.0	BDL	<1.0	<1.0	<1.0	<0.020
MW-3R Dup	1,600	3,900	1,000	7,000	13,500	220	590	<100	0.28
Field Blank	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.021
Trip Blank	<5.0	<5.0	<5.0	<5.0	BDL	<5.0L	<5.0	<5.0	NT

Notes:
- Groundwater samples collected on July 10, 2014.
- Isopleth Interval = 25,000 ug/l
- BDL = Below Detection Limits
- Monitoring well PW-1R and MW-17 not used in contouring.
- "J" Values included in Total BTEX Calculations
- NL = Not Located
- NT = Not Tested
- PROD = Free Phase Petroleum Detected
- Isopleths Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

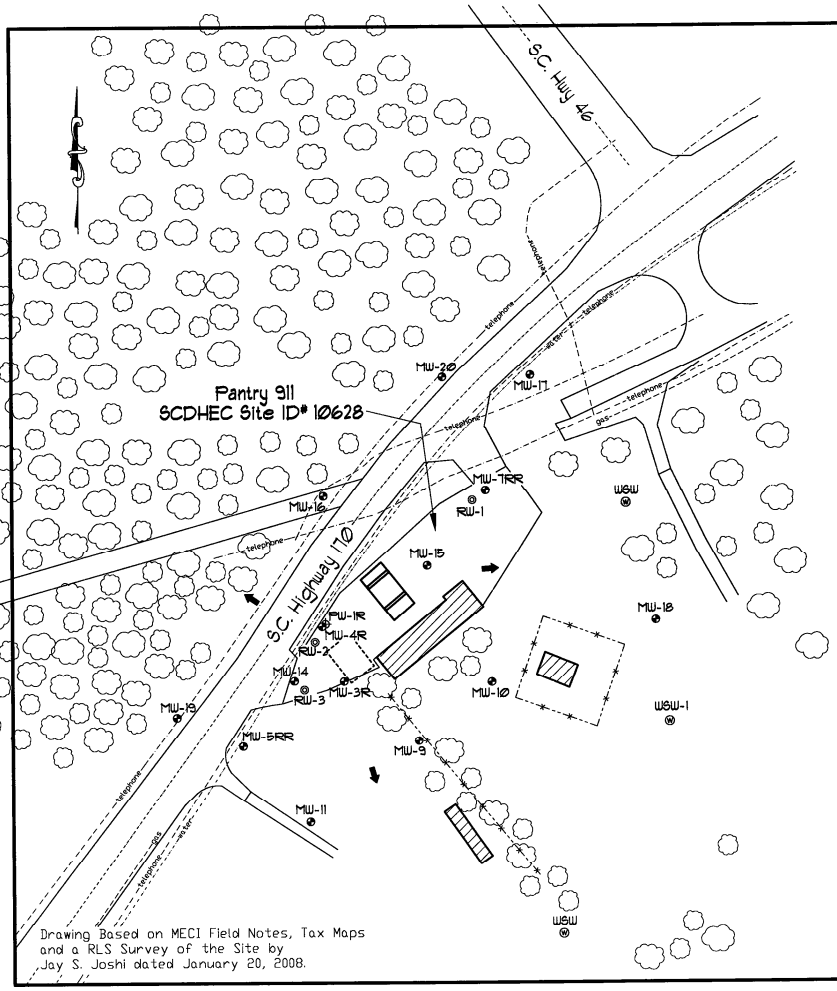
ALL LOCATIONS ARE APPROXIMATE

Groundwater CoC Site Map
(Total BTEX Isopleth)

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 14-4855
DATE July 25, 2014
FIGURE 4



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Water Supply Well
- Location of Double Cased "Deep" Monitoring Well
- Estimated Groundwater Flow Direction
- Location of 4-inch Recovery Well
- Estimated Location of Removed Underground Storage Tanks

Groundwater COC Concentration Data - Oxygenates

Sample #	TAA (ug/l)	TAME (ug/l)	TBF (ug/l)	DIPE (ug/l)	3,3-Dimethyl-1-butanol (ug/l)	Ethanol (ug/l)	ETBE (ug/l)	TBA (ug/l)
MW-3R	2,600	130J	<2,000	<200	<2,000	<20,000	68J	3,100
MW-4R	4,200	110J	<2,000	<200	<2,000	<20,000	91J	11,000
MW-5RR	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-7RR	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-9	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-10	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-11	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-14	7,500J	630J	<20,000	<2,000	<20,000	<200,000	170J	3,600J
MW-15	12J	<10	<100	0.65J	<100	<1,000	<100	26J
MW-16	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-17	NL	NL	NL	NL	NL	NL	NL	NL
MW-18	<100	<10	<100	4.5J	<100	<1,000	<100	<100
MW-19	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-20	1,000	<10	<100	160	<100	<1,000	<100	33J
PW-1R	<100	<10	<100	<10	<100	<1,000	<100	<100
RW-1	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-2	1,300J	89J	<2,000	<200	<2,000	<20,000	53J	5,200
RW-3	7,000J	910J	<20,000	<2,000	<20,000	<200,000	290J	4,900J
WSW-1	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-3R Dup	2,500	110J	<2,000	<200	<2,000	<20,000	62J	3,000
Field Blank	<100	<10	<100	<10	<100	<1,000	<100	<100
Trip Blank	<100	<10	<100	<10	<100	<1,000	<100	<100

Notes: Groundwater samples collected on July 10, 2014.

DIPE = Diisopropyl Ether
ETBE = Ethyl tert-butyl Ether
TAA = tert-Amyl Alcohol
TAME = tert-Amy Methyl Ether
TBA = tert-Butyl Alcohol
TBF = tert-Butyl Formate

GRAPHIC SCALE
0 50 100 150 200
1IN = 100FT

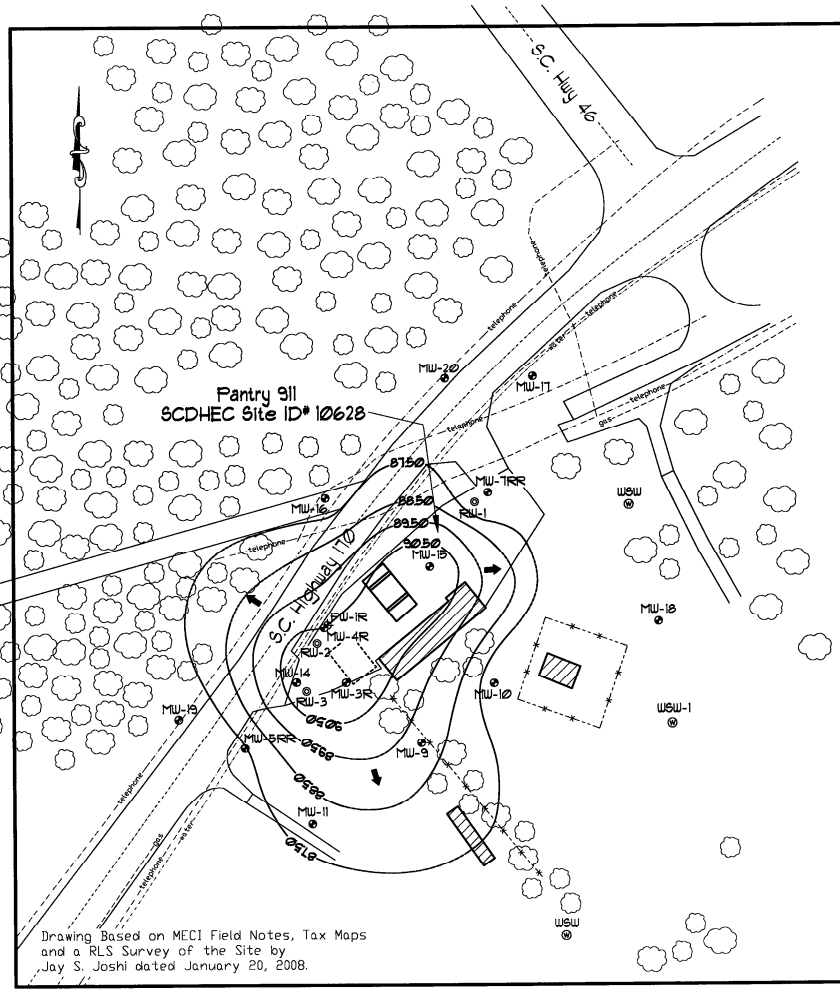
ALL LOCATIONS ARE APPROXIMATE

Groundwater CoC Site Map
(Oxygenates)

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 14-4855
DATE July 25, 2014
FIGURE 4C



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Double Cased "Deep" Monitoring Well
- Location of 4-Inch Recovery Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks

Potentiometric Data

Well #	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Well Head Elevation	Groundwater Elevation
MW-3R	2-12	---	3.26	---	94.56	91.30
MW-4R	5-15	---	3.40	---	93.75	90.35
MW-5RR	2-12	---	4.86	---	92.18	87.32
MW-7RR	2-12	8.65	8.78	0.13	95.80	87.13
MW-9	8-18	---	7.53	---	96.73	89.20
MW-10	2-12	---	6.49	---	93.29	86.80
MW-11	2-12	---	3.63	---	91.62	87.99
MW-14	3.05-13.05	---	1.81	---	93.23	91.42
MW-15	2-12	---	3.97	---	96.12	92.15
MW-16	7-17	---	10.30	---	97.02	86.72
MW-17	3-13	---	NL	---	94.96	NL
MW-18	2-12	---	3.87	---	91.34	87.47
MW-19	2-12	---	6.69	---	93.01	86.32
MW-20	4-14	---	11.17	---	98.84	87.67
PW-1R	30-35	---	6.29	---	93.47	87.18
RW-1	2-12	8.77	8.92	0.15	96.15	87.36
RW-2	2-12	---	2.04	---	93.56	91.52
RW-3	2-12	---	1.74	---	93.22	91.48

Notes: Depth to groundwater measured on July 10, 2014.

Site Datum Based on Assumed Spot Elevation.

Contour Interval = 1.00 Feet

Monitoring well PW-1R and MW-17 not used in contouring.

Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

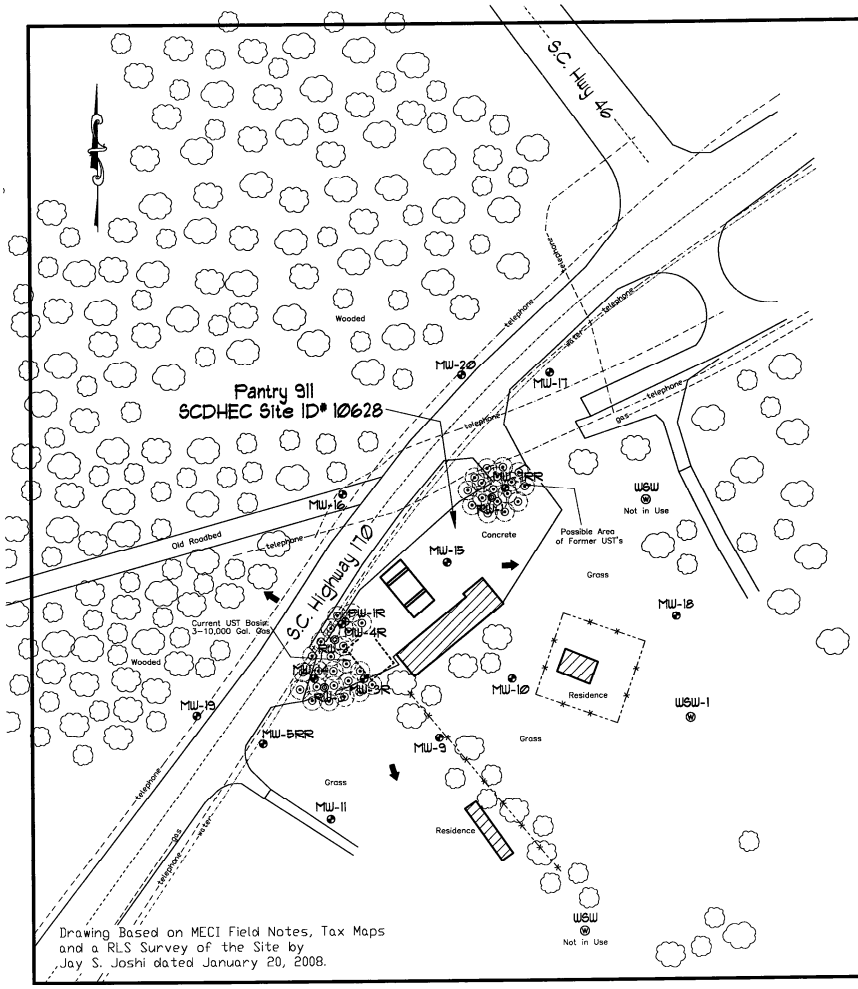
ALL LOCATIONS ARE APPROXIMATE

Potentiometric Data Site Map
(Groundwater Contour)

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 14-4855
DATE July 25, 2014
FIGURE 5



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of 4-inch Recovery Well
- Location of Double Cased Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Existing Underground Storage Tanks
- water — Buried Water Line
- telephone — Under Ground Telephone
- Location of Proposed Injection Point

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

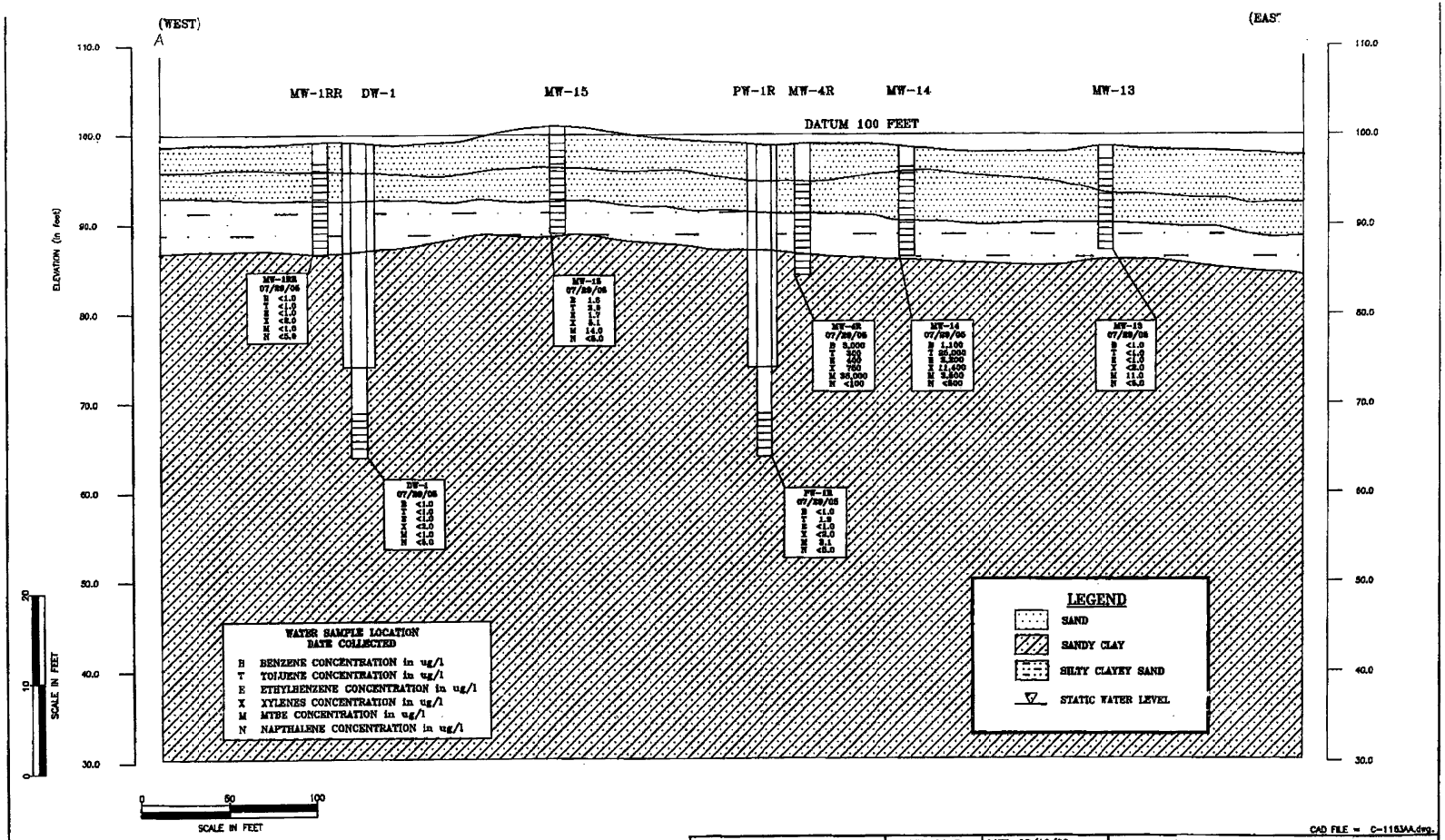
ALL LOCATIONS ARE APPROXIMATE

Proposed Injection Points

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

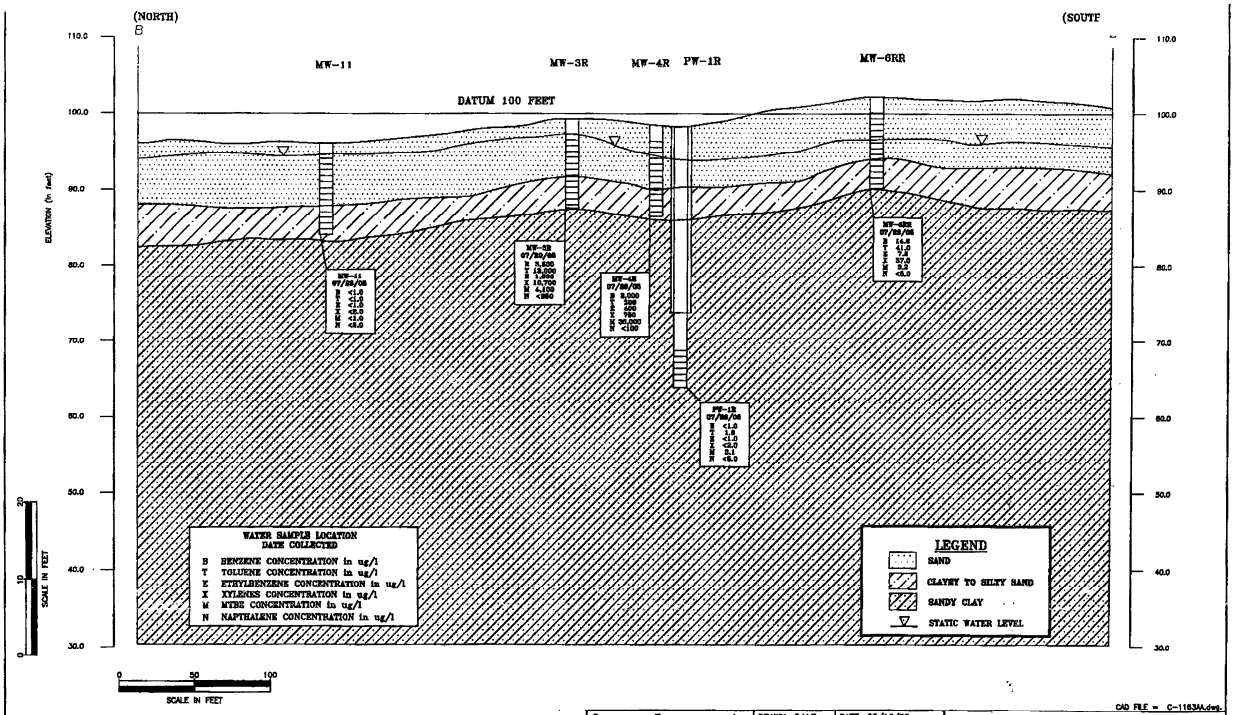
JOB NO. 14-4855
DATE July 25, 2014
FIGURE 6



CAD FILE = C-1183AA.dwg

CONSULTECH ENVIRONMENTAL, INC.	DRAWN: C.M.E. DATE: 08/16/05
Environmental Consulting and Engineering © 1990	UST # 12097
	PROJECT: PANTRY 911
	PROJECT No.: C-05-03-017
	LOCATION: HARDEEVILLE, SOUTH CAROLINA

FIGURE 7
VERTICAL EXTENT OF CHEMICALS OF CONCERN IN GROUNDWATER
(SECTION A-A')



CAD FILE = C-1183A.dwg

CONSULTECH ENVIRONMENTAL, INC.	DRAWN: C.M.E.	DATE: 08/16/05
	UST # 12097	
	PROJECT: PANTRY 911	
	PROJECT No.: C-05-03-017	
	LOCATION: HARDEEVILLE, SOUTH CAROLINA	

FIGURE 7A
VERTICAL EXTENT OF CHEMICALS OF CONCERN IN GROUNDWATER (SECTION B-B')

APPENDIX A

SITE SPECIFIC WORK PLAN

Midlands Environmental Consultants, Inc.

D H E C
PROMOTE PROTECT PROSPER

Site-Specific Work Plan for Approved ACQAP
Underground Storage Tank Management Division

To: Mr. John Bryant (SCDHEC Project Manager)
From: Mr. Jeff Coleman (Contractor Project Manager)
Contractor: Midlands Environmental Consultants, Inc. UST Contractor Certification Number: 009

Facility Name: Pantry 911 UST Permit #: 10628
Facility Address: 6195 South Okatie Highway, Hardeeville, SC 29927-8034
Responsible Party: Malphrus Enterprises Phone: (843) 263-3050
RP Address: 2789 North Okatie Highway, Ridgeland, SC 29936
Property Owner (if different): Shree Jakshani, LLC
Property Owner Address: 6194 South Okatie Highway, Hardeeville, SC 29927
Current Use of Property: Active Gas Station

Scope of Work (Please check all that apply)

☐ IGWA ☐ Tier II ☑ Groundwater Sampling ☐ GAC
☐ Tier I ☐ Monitoring Well Installation ☐ Other _____

Analyses (Please check all that apply)

Groundwater/Surface Water:

☑ BTEXNMDCA (8260B) ☐ Lead ☐ BOD ☐ Methane
☑ Oxygenates (8260B) ☐ 8 RCRA Metals ☐ Nitrate ☐ Ethanol
☑ EDB (8011) ☐ TPH ☐ Sulfate ☐ Dissolved Iron
☐ PAH (8270D) ☐ pH ☐ Other _____

Soil:

☐ BTEXN ☐ 8 RCRA Metals ☐ TPH-DRO (3550B/8015B) ☐ Grain Size
☐ PAH ☐ Oil & Grease (9071) ☐ TPH-GRO (5030B/8015B) ☐ TOC

Air:

☐ BTEXN

Sample Collection (Estimate the number of samples of each matrix that are expected to be collected.)

_____ Soil 2 Water Supply Wells _____ Air 1 Field Blank
18 Monitoring Wells _____ Surface Water 2 Duplicate 1 Trip Blank

Field Screening Methodology

Estimate number and total completed depth for each point, and include their proposed locations on the attached map.

# of shallow points proposed: _____ Estimated Footage: _____ feet per point
# of deep points proposed: _____ Estimated Footage: _____ feet per point
Field Screening Methodology: _____

Permanent Monitoring Wells

Estimate number and total completed depth for each well, and include their proposed locations on the attached map.

# of shallow wells: _____ Estimated Footage: _____ feet per point
# of deep wells: _____ Estimated Footage: _____ feet per point
# of recovery wells: _____ Estimated Footage: _____ feet per point
Monitoring Well development method (consistent with SOP): _____
Comments, if warranted:

UST Permit #: 10628 Facility Name: Pantry 911

Implementation Schedule (Number of calendar days from approval)
Field Work Start-Up: Dependant Field Work Completion: Dependant
Report Submittal: Dependant # of Copies Provided to Property Owners: 2

Aquifer Characterization
Pump Test: ☐ Slug Test: ☐ (Check one and provide explanation below for choice)

Investigation Derived Waste Disposal
Soil: _____ Tons Purge Water: 100.0 Gallons
Drilling Fluids: _____ Gallons Free-Phase Product: _____ Gallons

Additional Details For This Scope of Work
For example, list wells to be sampled, wells to be abandoned/repaired, well pads/bolts/caps to replace, details of AFVR event, etc.
-Sampling activities will be performed following injection and AFVR activties.

Compliance With Annual Contractor Quality Assurance Plan (ACQAP)
Yes Laboratory as indicated in ACQAP? (Yes/No) If no, indicate laboratory information below.
Name of Laboratory: _____
SCDHEC Certification Number: _____
Name of Laboratory Director: _____

N/A Well Driller as indicated in ACQAO? (Yes/No) If no, indicate driller information below.
Name of Well Driller: _____
SCLLR Certification Number: _____

N/A Other variations from ACQAP. Please describe below.

Attachments
1. Attach a copy of the relevant portion of the USGS topographic map showing the site location.
2. Prepare a site base map. This map must be accurately scaled, but does not need to be surveyed. The map must include the following:
   - North Arrow
   - Location of property lines
   - Location of buildings
   - Previous soil sampling locations
   - Previous monitoring well locations
   - Proposed soil boring locations
   - Proposed monitoring well locations
   - Legend with facility name and address, UST permit number, and bar scale
   - Streets or highways (indicate names and numbers)
   - Location of all present and former ASTs and USTs
   - Location of all potential receptors
3. Assessment Component Cost Agreement, SCDHEC Form D-3664

D H E C
PROMOTE PROTECT PROSPER
South Carolina Department of Health and Environmental Control

ASSESSMENT COMPONENT COST AGREEMENT
SOUTH CAROLINA
Department of Health and Environmental Control
Underground Storage Tank Management Division
State Underground Petroleum Environmental Response Bank Account
May 15, 2014

Facility Name: Pantry 911

UST Permit #: 10628 **Cost Agreement #:** Proposal

ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
1. **Plan Preparation**				
A1. Site-specific Work Plan	1	each	$150.00	$150.00
B1. Tax Map		each	$70.00	$0.00
C1. Tier II or Comp. Plan /QAPP Appendix B		each	$250.00	$0.00
2. A1. **Receptor Survey ***		each	$551.00	$0.00
3. **Survey (500 ft x 500 ft)**				
A1. Comprehensive Survey		each	$1,040.00	$0.00
B. Subsurface Geophysical Survey				
1B. < 10 meters below grade		each	$1,300.00	$0.00
2B. > 10 meters below grade		each	$2,310.00	$0.00
C1. Geophysical UST or Drum Survey		each	$910.00	$0.00
4. **Mob/Demob**				
A1. Equipment	1	each	$1,020.00	$1,020.00
B1. Personnel	2	each	$423.00	$846.00
C1. Adverse Terrain Vehicle		each	$500.00	$0.00
5. A1. **Soil Borings (hand auger)***		foot	$5.00	$0.00
6. **Soil Borings (requiring equipment, push technology, etc)* or Field Screening (including water ssample, soil sample, soil gas sample, etc.)***				
A1. Standard	1200	per foot	$15.00	$18,000.00
C1. Fractured Rock		per foot	$20.20	$0.00
7. A1. **Soil Leachability Model**		each	$60.00	$0.00
8. **Abandonment (per foot)***				
A1. 2" diameter or less	1200	per foot	$3.10	$3,720.00
B1. Greater than 2" to 6" diameter		per foot	$4.50	$0.00
C1. Dug/Bored well (up to 6 feet diameter)		per foot	$15.00	$0.00
9. **Well Installation (per foot)***				
A1. Water Table (hand augered)		per foot	$10.60	$0.00
B1. Water Table (drill rig)		per foot	$38.00	$0.00
C1. Telescoping		per foot	$50.00	$0.00
D1. Rock Drilling		per foot	$58.00	$0.00
E1. 2" Rock Coring		per foot	$30.90	$0.00
G1. Rock Multi-sampling ports/screens		per foot	$33.40	$0.00
H1. Recovery Well (4" diameter)		per foot	$45.00	$0.00
I1. Pushed Pre-packed screen (1.25" dia)		per foot	$15.00	$0.00
J1. Rotosonic (2" diameter)		per foot	$44.00	$0.00
K. Re-develop Existing Well		per foot	$11.00	$0.00
10. **Groundwater Sample Collection / Gauge Depth to Water or Product ***				
A1. Groundwater Purge	18	per well/receptor	$60.00	$1,080.00
B1. Air or Vapors		per receptor	$12.00	$0.00
C1. Water Supply	1	per well/receptor	$22.00	$22.00
D1. Groundwater No Purge or Duplicate	1	per well/receptor	$28.00	$28.00
E1. Gauge Well only		per well	$7.00	$0.00
F1. Sample Below Product		per well	$12.00	$0.00
G1. Passive Diffusion Bag		each	$26.00	$0.00
H1. Field Blank	1	each	$24.60	$24.60

11. Laboratory Analyses-Groundwater					
A2. BTEXNM+Oxyg's+1,2 DCA+Eth(8260B)	22	per sample	$122.00		$2,684.00
AA1. Lead, Filtered		per sample	$13.80		$0.00
B2. Rush EPA Method 8260B (All of item A.)		per sample	$153.60		$0.00
C2. Trimethal, Butyl, and Isopropyl Benzenes		per sample	$36.40		$0.00
D1. PAH's		per sample	$60.60		$0.00
E1. Lead		per sample	$16.00		$0.00
F1. EDB by EPA 8011	21	per sample	$45.20		$949.20
FF1. EDB by EPA Method 8011 Rush		per sample	$68.20		$0.00
G1. 8 RCRA Metals		per sample	$63.40		$0.00
H1. TPH (9070)		per sample	$41.00		$0.00
II. pH		per sample	$5.20		$0.00
J1. BOD		per sample	$20.00		$0.00
PP. Ethanol		per sample	$14.80		$0.00
11. **Analyses-Soil**					
Q1. BTEX + Naphth.		per sample	$64.00		$0.00
R1. PAH's		per sample	$64.04		$0.00
S1. 8 RCRA Metals		per sample	$56.40		$0.00
U1. TPH-DRO (3550C/8015C)		per sample	$40.00		$0.00
V1. TPH- GRO (5030B/8015C)		per sample	$35.96		$0.00
W1. Grain size/hydrometer		per sample	$104.00		$0.00
X1. Total Organic Carbon		per sample	$30.60		$0.00
11. **Analyses-Air**					
Y1. BTEX + Naphthalene		per sample	$216.00		$0.00
11. **Analyses-Free Phase Product**					
Z1. Hydrocarbon Fuel Identification		per sample	$357.00		$0.00
12. **Aquifer Characterization**					
A1. Pumping Test*		per hour	$23.00		$0.00
B1. Slug Test*		per test	$191.00		$0.00
C1. Fractured Rock		per test	$100.00		$0.00
13. A1. **Free Product Recovery Rate Test***		each	$38.00		$0.00
14. **Fate/Transport Modeling**					
A1. Mathematical Model		each	$100.00		$0.00
B1. Computer Model		each	$100.00		$0.00
15. **Risk Evaluation**					
A. Tier I Risk Evaluation		each	$300.00		$0.00
B1. Tier II Risk Evaluation		each	$100.00		$0.00
16. A1. **Subsequent Survey***		each	$260.00		$0.00
17. **Disposal (gallons or tons)***					
AA. Wastewater	100	gallon	$0.56		$56.00
BB. Free Product		gallon	$0.50		$0.00
C1. Soil Treatment/Disposal		ton	$60.00		$0.00
D1. Drilling fluids		gallon	$0.42		$0.00
18. **Miscellaneous (attach receipts)**					
		each	$0.00		$0.00
		each	$0.00		$0.00
		each	$0.00		$0.00
20. **Tier I Assessment (Use DHEC 3665 form)**		standard			$0.00
21. **IGWA (Use DHEC 3666 form)**		standard			$0.00
22. **Corrective Action (Use DHEC 3667 form)**		PFP Bid			$0.00

23. **Aggressive Fluid & Vapor Recovery (AFVR)**					
A1. 8-hour Event*		each	$1,375.00		$0.00
A2. 24-hour Event*		each	$3,825.00		$0.00
A3. 48-hour Event*		each	$6,265.00		$0.00
A4. 96-hour Event*	3	each	$12,567.50		$37,702.50
C1. Off-gas Treatment 8 hour		per event	$122.50		$0.00
C2. Off-gas Treatment 24 hour		per event	$241.50		$0.00
C3. Off-gas Treatment 48 hour		per event	$327.00		$0.00
C4. Off-gas Treatment 96 hour	3	per event	$780.00		$2,340.00
D. Site Reconnaissance		each	$203.25		$0.00
E1. Additional Hook-ups		each	$25.75		$0.00
F. Effluent Disposal	40,000	gallon	$0.44		$17,600.00
G. AFVR Mobilization/Demobilization	3	each	$391.50		$1,174.50
24. **Granulated Activated Carbon (GAC) filter system installation & service:**					
A1. New GAC System Installation*		each	$1,900.00		$0.00
BB. Refurbished GAC Sys. Install*		each	$900.00		$0.00
C1. Filter replacement/removal*		each	$350.00		$0.00
DD. GAC System removal, cleaning, & refurbishment*		each	$275.00		$0.00
E1. GAC System housing*		each	$250.00		$0.00
F. In-line particulate filter		each	$150.00		$0.00
G1. Additional piping & fittings		foot	$1.50		$0.00
25. **Well Repair**					
A1. Additional Copies of the Report Delivered		each	$50.00		$0.00
B1. Repair 2x2 MW pad*		each	$50.00		$0.00
C1. Repair 4x4 MW pad*		each	$88.00		$0.00
D1. Repair well vault*		each	$118.00		$0.00
F1. Replace well cover bolts		each	$2.60		$0.00
G. Replace locking well cap & lock		each	$15.00		$0.00
H1. Replace/Repair stick-up*		each	$134.00		$0.00
I1. Convert Flush-mount to Stick-up*		each	$150.00		$0.00
J1. Convert Stick-up to Flush-mount*		each	$130.00		$0.00
K1. Replace missing/illegible well ID plate		each	$12.00		$0.00
Report Prep & Project Management	12%	percent	$87,396.80		$10,487.62
TOTAL					$97,884.42

*The appropriate mobilization cost can be added to complete these tasks, as necessary

APPENDIX B

UNDERGROUND INJECTION PERMIT APPLICATION

Midlands
Environmental
Consultants, Inc.

March 11, 2015

Christopher Wargo
Underground Injection Control Program
Bureau of Water
2600 Bull Street
Columbia, SC 29201

Subject: Underground Injection Control Permit Application
Pantry 911
6195 South Okatie Highway
Hardeeville, SC
SCDHEC Site ID# 10628

Dear Mr. Wargo:

Midlands Environmental Consultants, Inc. (Midlands Environmental) is pleased to submit the attached Underground Injection Control Permit Application for the subject site.

Midlands Environmental has been awarded a remediation by SCDHEC to remediate petroleum impacted groundwater at the subject site. MECI proposes a supplemental rehabilitative approach composed of direct injection of a pulverized activated carbon based product into the areas of RW-1, MW-7RR, MW-3R, MW-4R, MW-14, RW-2, and RW-3 to further reduce concentrations of petroleum hydrocarbons. A direct-push drilling rig, operated by a SC certified well driller, will be used to install the injection points. Injection rods will be pushed to a first interval, the appropriate amount of activated carbon based product mixed with potable water will be injected, the rods will be pushed an additional five feet, and the process will continue to the termination depth. The deepest injection interval at each point will be 15 feet below ground surface (BGS). During the injection event, should the product surface or enter monitoring wells, it will be removed using vacuum extraction. The product is not hazardous and only presents a dust nuisance if it surfaces. Once the injection process is complete the potential for surfacing of the product is eliminated.

Our current scope of work will be to conduct an injection event to further reduce dissolved phase CoC's at the site. The proposed injection event will include eighty (80) injection points, with three (3) 5-foot injection intervals per point. At each injection point, fifty (50) gallons of potable water will be mixed with an appropriate amount of a pulverized activated carbon based product. The exact proportions of water to the pulverized activated carbon based product will be determined on-site, but it is anticipated to be a one to one ratio with 50 pounds of pulverized activated carbon mixed with 50 gallons of water. An approximate total of 4,000 pounds of pulverized activated carbon based product will be injected during the injection event. The proposed injection event should take between 3 and 5 days depending on site conditions.

Post Office Box 854, Lexington SC 29071 • 231 Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

The subject site (Pantry 911) is located at 6195 South Okatie Highway, Hardeeville, Jasper County, South Carolina. The property is currently operating as an active gasoline service station (Pantry 911). South Okatie Highway (S.C. Highway 46) forms the western and northern borders of the subject property, beyond which are wooded and undeveloped properties. South and east of the subject property are residential properties and wooded areas.

The following attachments are included:

Attachment H-1 - Topographic map
Attachment H-2 - Scaled site map that includes all monitoring wells in the area of the subject site
Attachment H-3 – Soil CoC Site Map
Attachment H-4 - Groundwater CoC Site Map
Attachment H-4A - Groundwater CoC Site Map (OXYGENATES)
Attachment H-5 - Potentiometric data site map
Attachment H-6 - Approximate locations Injection points
Attachment I-1 - A-A' Geologic Cross Section
Attachment I-2 - B-B' Geologic Cross Section
Attachment K - Site Hydrologic Data

In addition to the attached figures, please find the completed Underground Injection Control Permit Application.

Midlands Environmental appreciates your time in consideration of this application. If we could be of any assistance please feel free to call me at (803) 808-2043.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman
Senior Scientist

Form I UIC	D H E C Underground Injection Control Permit Application Ground-Water Protection Division (Collected under the Authority of Title 48 Chapter I of the 1976 South Carolina Code of Laws)	I. EPA ID NUMBER		
			T/A	C
		U		

Read attached instructions before starting.

For OfficialUse Only

Application Approved month day year	Date Received month day year	Permit Well Number

Comments

II. Facility Name and Address	III. Owner/Operator and Address
Facility Name: Pantry 911, SCDHEC UST Site ID# 10628	Owner/OperatorName: Midlands Environmental Consultants, Inc.
Street Address: 6195 South Okatie Highway	Street Address: 231 Dooley Road
City: Hardeeville; State: South Carolina; Zip Code: 29927	City: Lexington; State: South Carolina; Zip Code: 29073

IV. Ownership Status (Select One)

☐ A. Federal ☐ B. State ☒ C. Private

☐ D. Public ☐ E. Other (Explain)

V. SIC Codes

VI. Well Status (Select A, B or C)

☐ A. Operating	Date Started *(MM/DD/YYYY)*	☐ B. Modification/Conversion	☒ C. Proposed

VII. Type of Permit Requested - Class and Type of Well (see reverse)

A. Class(es) enter code(s)	B. Type(s) enter code(s)	C. If class is "other" or type is code 'Y', explain	D. Number of Wells per type
V.A	I		80

VIII. Location of Wells or Approximate Center of field or Project

C	A. Latitude				B. Longitude				
I		Deg	Min	Sec		Deg	Min	Sec	
		32	13	52.49 N		82	58	45.83 W	

IX. Attachments

Complete the following questions on a separate sheet(s) and number accordingly; see instructions for Classes 11, 111, and V, complete and submit on a separate sheet(s) attachments A-U as appropriate. Attach maps where required. List attachments by letter which are applicable and include with your application.

X. Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment.

A. Name (Type or Print)	Title	B. Phone No.
Bryan T. Shane, P.G.	Principal Geologist	(803) 808-2043

C. Signature: B.T. Shane

D. Date Signed (MM/DD/YYYY): 03/11/2015

DHEC2502(08/1997)

Attachment I

APPENDIX D

SLUG TESTS

STEFFEN ROBERTSON AND KIRSTEN (U.S.), INC.
Consulting Engineers and Scientists

CALCULATION SHEET

PROJECT:	Hungry Jax #1	PROJECT NO.:	97101
CALCULATED BY:	BD	CHECKED BY:	
DATE:	2/23/98	DATE:	
TOPIC:	Slug Test Data Calculations - MW-1	SHEET 1 OF 5	

This form is used for finding a least squares regression curve to the first few relevant data points from a Bouwer and Rice slug test. This calculation sheet requires the input of the y vs. t data points and outputs y_0, y_t, and t for use in the Bouwer and Rice equations (1985).

Input Data Section

Input data in y vs. t coordinates as vectors for the straight-line portion of the y vs. t curve.

Input data coordinates below:

y (feet) t (sec)

$$y := \begin{pmatrix} .64 \\ .56 \\ .52 \end{pmatrix} \qquad t := \begin{pmatrix} 35 \\ 55 \\ 75 \end{pmatrix}$$

The output graph is plotted from t = 0 to t = $Range_t$ as specified by the user. Enter ending time for plotting range below.

$$Range_t := 200$$

Input desired y_t value here (default is 1.0):

$$y_t := .06$$

Automated Calculations Section to Determine Least Squares Regression Data

Linear interpolation functions:

$m := slope(t, \overrightarrow{ln(y)})$ m = -0.005

$b := intercept(t, \overrightarrow{ln(y)})$ b = -0.275

$G := e^b$ G = 0.76

Governing least squares fit equation:

$$Y(T) := G \cdot e^{m \cdot T}$$

Equations to determine plotting variables:

$T := 0, 1 .. Range_t$ $i := 0 .. length(y) - 1$

$x := 100$

$t_2 := root(G \cdot e^{m \cdot x} - y_t, x)$ $y_0 := Y(0)$

STEFFEN ROBERTSON AND KIRSTEN (U.S.), INC.
Consulting Engineers and Scientists

CALCULATION SHEET

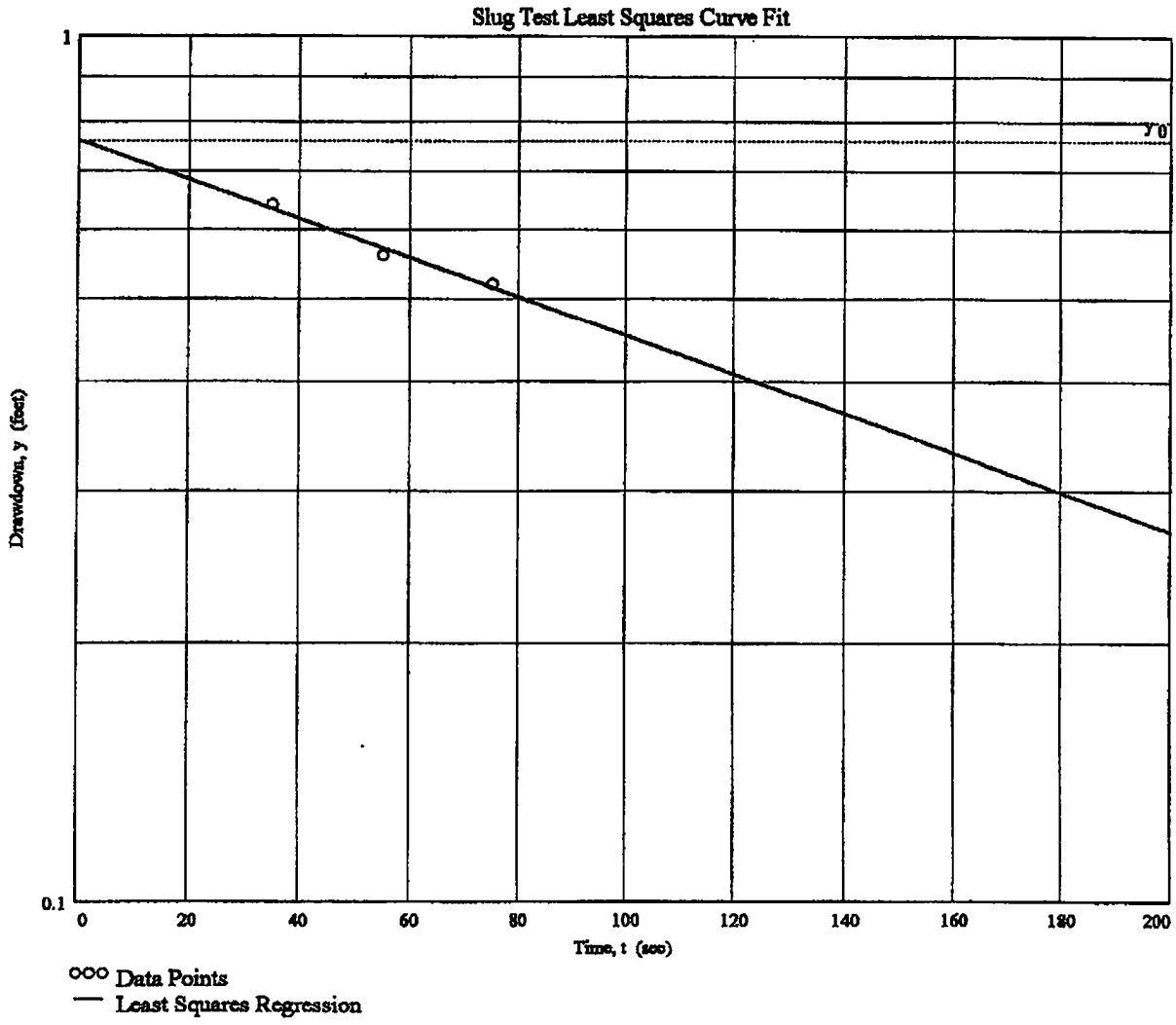
PROJECT:	Hungry Jax #1	PROJECT NO.:	97101
CALCULATED BY:	BD	CHECKED BY:	
DATE:	2/23/98	DATE:	
TOPIC:	Slug Test Data Calculations - MW-1.	SHEET	2A OF 5

Output Section

$y_0 = 0.76$

$y_t = 0.06$ ===Values for input to Bouwer and Rice (1985)

$t_2 = 486.446$



Curve Matching for Modified Bouwer and Rice Partially Penetrating Well Constant, A

$$Adata := \begin{bmatrix} 3.8 & 1.7 \\ 12 & 1.9 \\ 24 & 2.3 \\ 39 & 2.6 \\ 80 & 3.8 \\ 200 & 6.0 \\ 400 & 7.9 \\ 700 & 8.75 \\ 1000 & 9.3 \\ 1600 & 9.7 \end{bmatrix}$$

$X_A := Adata^{\langle 0 \rangle}$ $Y_A := Adata^{\langle 1 \rangle}$ $i := 0..length(X_A) - 1$

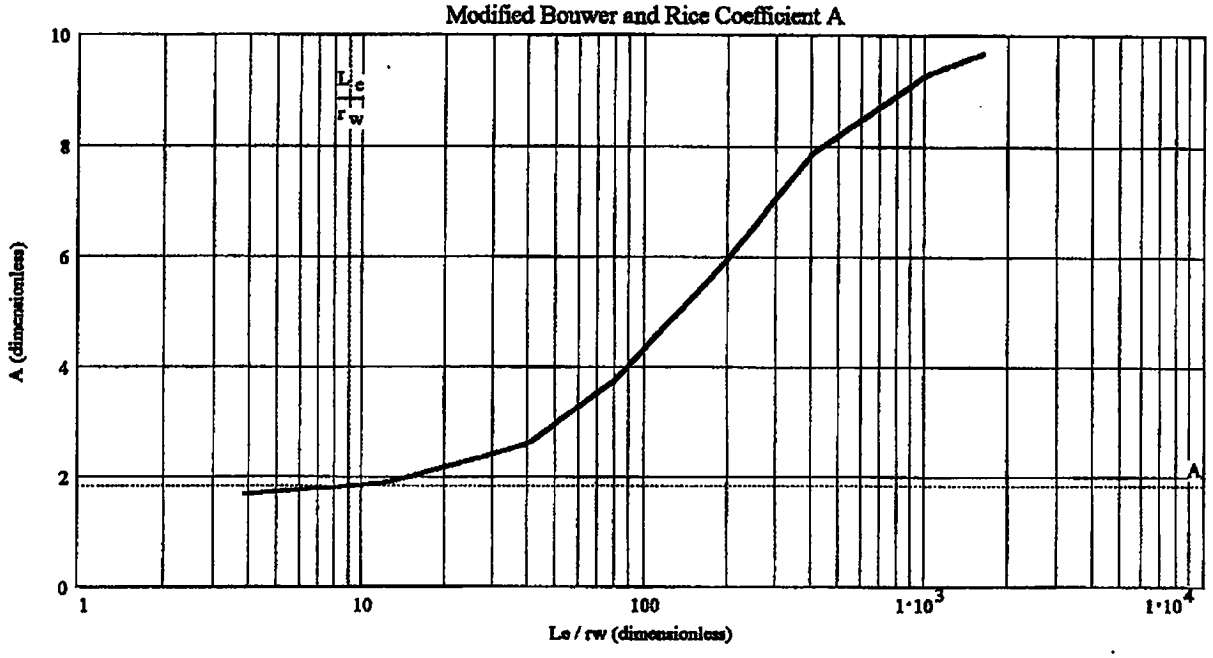
$Xlog_{A_i} := \log(X_{A_i})$

$Afit(x) := linterp(Xlog_A, Y_A, x)$

$scale := 100$ $j := 0..scale$

$$x_j := \min(Xlog_A) + j \cdot \frac{\max(Xlog_A) - \min(Xlog_A)}{scale}$$

$$A := Afit\left(\log\left(\frac{L_e}{r_w}\right)\right)$$



Curve Matching for Modified Bouwer and Rice Partially Penetrating Well Constant, B

$$Bdata := \begin{bmatrix} 3.8 & 0.25 \\ 10 & 0.27 \\ 20 & 0.30 \\ 50 & 0.55 \\ 150 & 1.1 \\ 200 & 1.2 \\ 250 & 1.35 \\ 500 & 2.2 \\ 800 & 2.7 \\ 1600 & 3.25 \end{bmatrix}$$

$X_B := Bdata^{\langle 0 \rangle}$ $Y_B := Bdata^{\langle 1 \rangle}$ $k := 0 .. length(X_B) - 1$

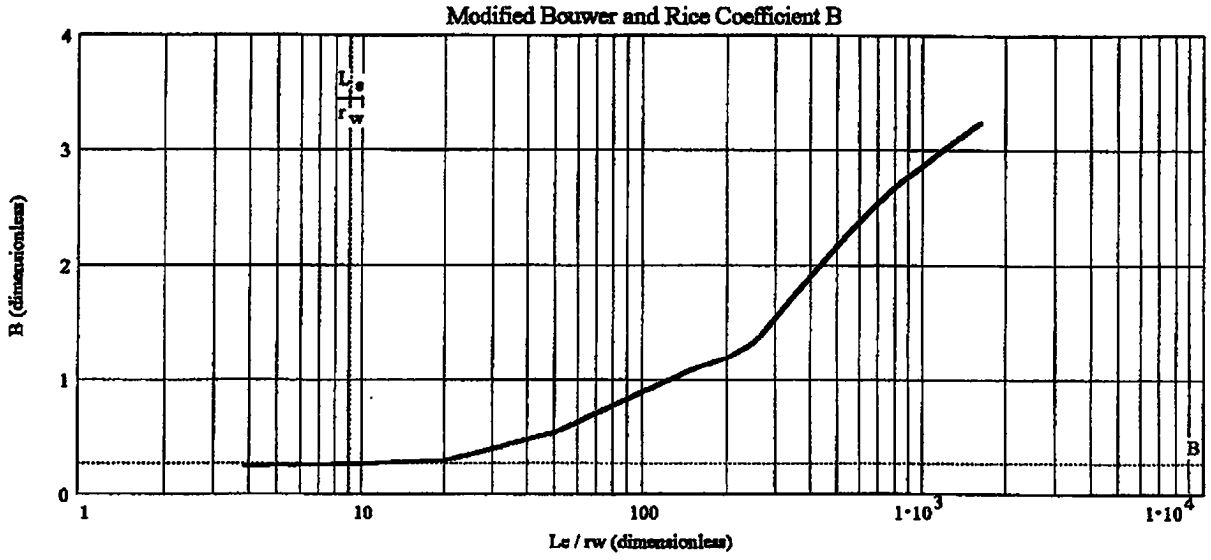
$Xlog_{B_k} := \log(X_{B_k})$

$Bfit(y) := linterp(Xlog_B, Y_B, y)$

$l := 0 .. scale$

$y_l := \min(Xlog_B) + l \cdot \frac{\max(Xlog_B) - \min(Xlog_B)}{scale}$

$B := Bfit\left(\log\left(\frac{L_e}{r_w}\right)\right)$



PROJECT: Hungry Jax #1
CALCULATED BY: Slug Test Data Calculations - MW-1.
DATE:
TOPIC:

PROJECT NO.: 97101
CHECKED BY:
DATE:
SHEET 5 OF 5

Known Constants

Input the following values:

$r_c := 2.345 \cdot in$ $L_w := 7.71 \cdot ft$

$r_w = 4 \cdot in$ $H := 14.86 \cdot ft$

$L_e = 3.0 \cdot ft$

$A = 1.85$ $B = 0.268$

From the least squares curve fit above:

$y_0 = 0.76$

$y_t = 0.06$

$\tau := t_2 \cdot sec$ $\tau = 486.446 \cdot sec$

Defining Functions – Modified Bouwer and Rice Slug Test Equations

$$\ln Re := \left[\frac{1.1}{\ln\left(\frac{L_w}{r_w}\right)} + \frac{A + B \cdot \ln\left(\frac{H - L_w}{r_w}\right)}{\left(\frac{L_e}{r_w}\right)} \right]^{-1}$$

$$K := \frac{r_c^2 \cdot \ln Re}{2 \cdot L_e} \cdot \left(\frac{1}{\tau}\right) \cdot \ln\left(\frac{y_0}{y_t}\right)$$

Solution Block, K in terms of ft/day and cm/sec

$$K = 4.4 \cdot \frac{ft}{day}$$

$$K = 1.6 \cdot 10^{-3} \cdot \frac{cm}{sec}$$

PROJECT:	Hungry Jax #1	PROJECT NO.:	97101
CALCULATED BY:	BD	CHECKED BY:	
DATE:	2/23/98	DATE:	
TOPIC:	Slug Test Data Calculations - MW-3	SHEET 1 OF 5	

This form is used for finding a least squares regression curve to the first few relevant data points from a Bouwer and Rice slug test. This calculation sheet requires the input of the y vs. t data points and outputs y_0, y_t, and t for use in the Bouwer and Rice equations (1985).

Input Data Section

Input data in y vs. t coordinates as vectors for the straight-line portion of the y vs. t curve.

Input data coordinates below:

y (feet) t (sec)

$$y := \begin{pmatrix} .71 \\ .59 \\ .51 \end{pmatrix} \qquad t := \begin{pmatrix} 35 \\ 55 \\ 75 \end{pmatrix}$$

The output graph is plotted from t = 0 to t = $Range_t$ as specified by the user. Enter ending time for plotting range below.

$$Range_t := 200$$

Input desired y_t value here (default is 1.0):

$$y_t := .07$$

Automated Calculations Section to Determine Least Squares Regression Data

Linear interpolation functions:

$m := slope(t, \overrightarrow{ln(y)})$ m = -0.008

$b := intercept(t, \overrightarrow{ln(y)})$ b = -0.06

$G := e^b$ G = 0.942

Governing least squares fit equation:

$$Y(T) := G \cdot e^{m \cdot T}$$

Equations to determine plotting variables:

$T := 0, 1 .. Range_t$ $i := 0 .. length(y) - 1$

$x := 100$

$t_2 := root(G \cdot e^{m \cdot x} - y_t, x)$ $y_0 := Y(0)$

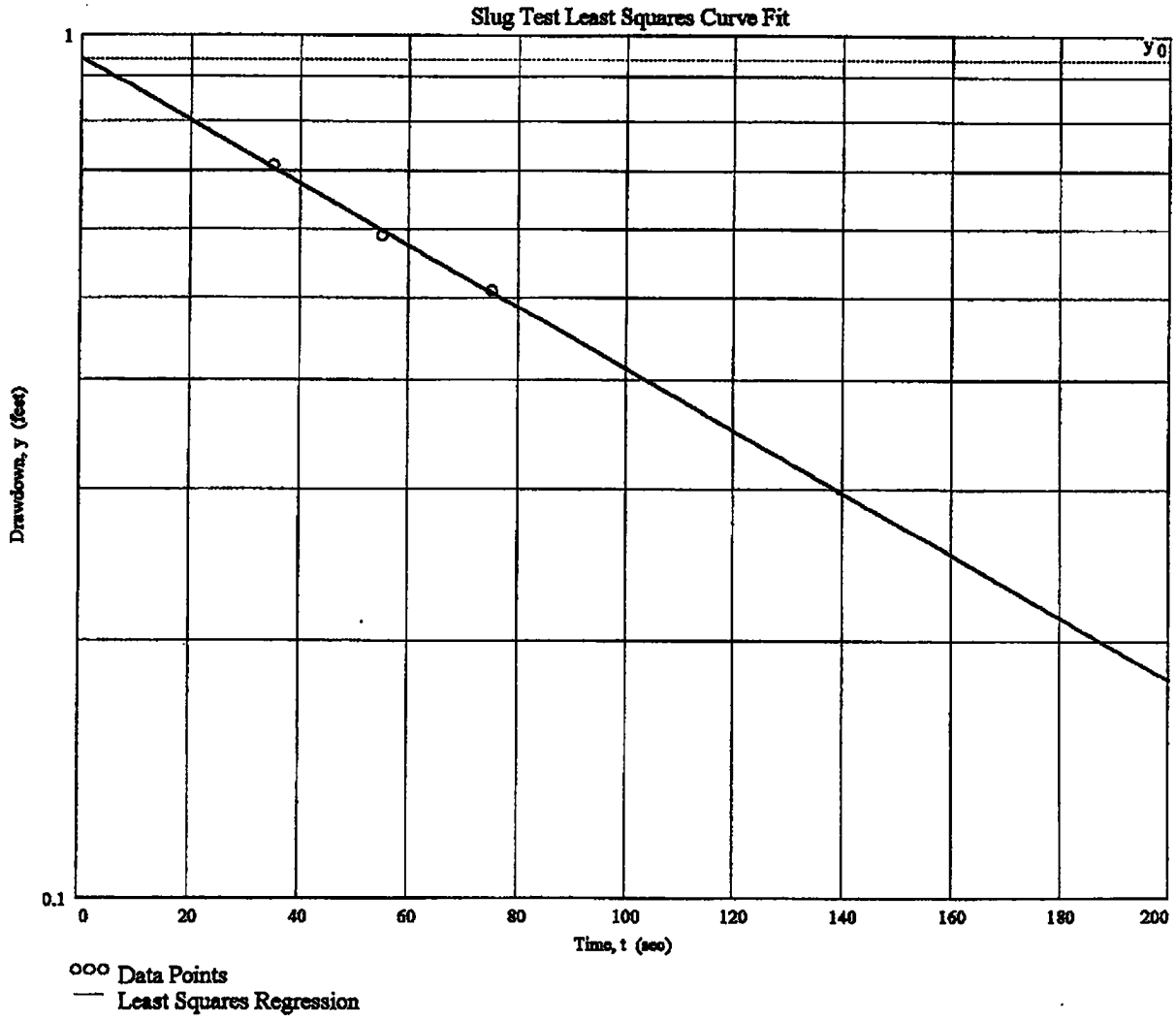
PROJECT:	Hungry Jax #1	PROJECT NO.:	97101
CALCULATED BY:	BD	CHECKED BY:	
DATE:	2/23/98	DATE:	
TOPIC:	Slug Test Data Calculations - MW-3.	SHEET	2A OF 5

Output Section

$y_0 = 0.942$

$y_t = 0.07$ ===Values for input to Bouwer and Rice (1985)

$t_2 = 313.711$



Curve Matching for Modified Bouwer and Rice Partially Penetrating Well Constant, A

$$Adata := \begin{bmatrix} 3.8 & 1.7 \\ 12 & 1.9 \\ 24 & 2.3 \\ 39 & 2.6 \\ 80 & 3.8 \\ 200 & 6.0 \\ 400 & 7.9 \\ 700 & 8.75 \\ 1000 & 9.3 \\ 1600 & 9.7 \end{bmatrix}$$

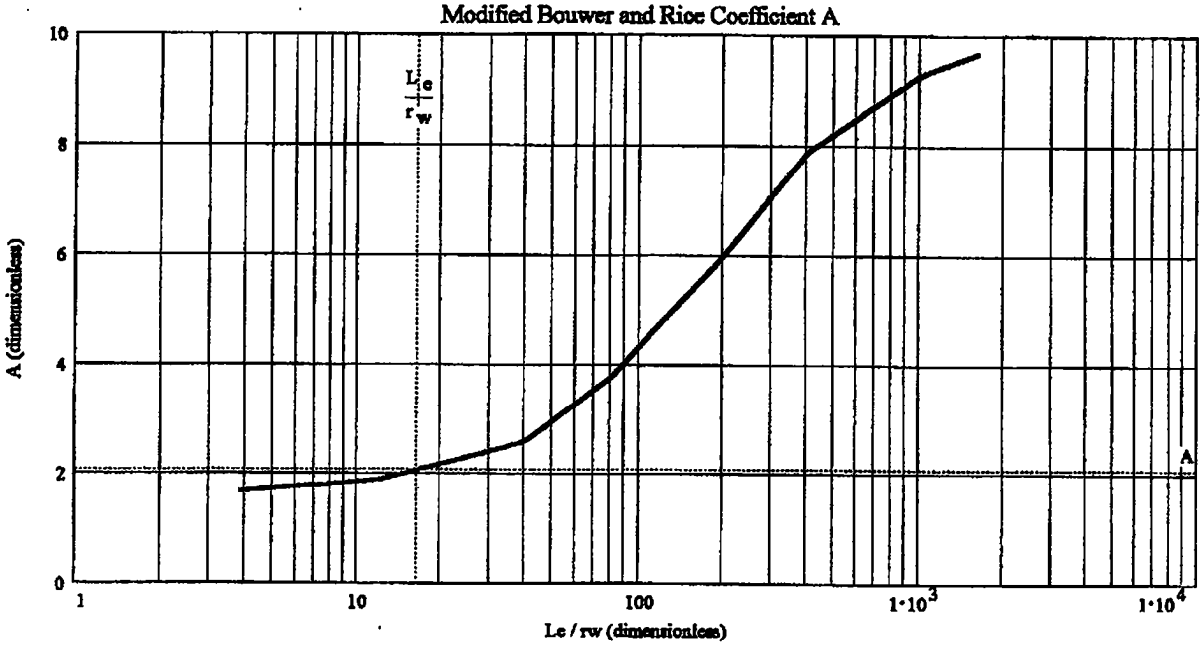
$X_A := Adata^{\langle 0 \rangle}$ $Y_A := Adata^{\langle 1 \rangle}$ $i := 0 .. length(X_A) - 1$

$Xlog_{A_i} := \log(X_{A_i})$

$Afit(x) := linterp(Xlog_A, Y_A, x)$

$scale := 100$ $j := 0 .. scale$

$x_j := \min(Xlog_A) + j \cdot \frac{\max(Xlog_A) - \min(Xlog_A)}{scale}$ $A := Afit\left(\log\left(\frac{L_e}{r_w}\right)\right)$



Curve Matching for Modified Bouwer and Rice Partially Penetrating Well Constant, B

$$Bdata := \begin{bmatrix} 3.8 & 0.25 \\ 10 & 0.27 \\ 20 & 0.30 \\ 50 & 0.55 \\ 150 & 1.1 \\ 200 & 1.2 \\ 250 & 1.35 \\ 500 & 2.2 \\ 800 & 2.7 \\ 1600 & 3.25 \end{bmatrix}$$

$X_B := Bdata^{\langle 0 \rangle}$ $Y_B := Bdata^{\langle 1 \rangle}$ $k := 0 .. length(X_B) - 1$

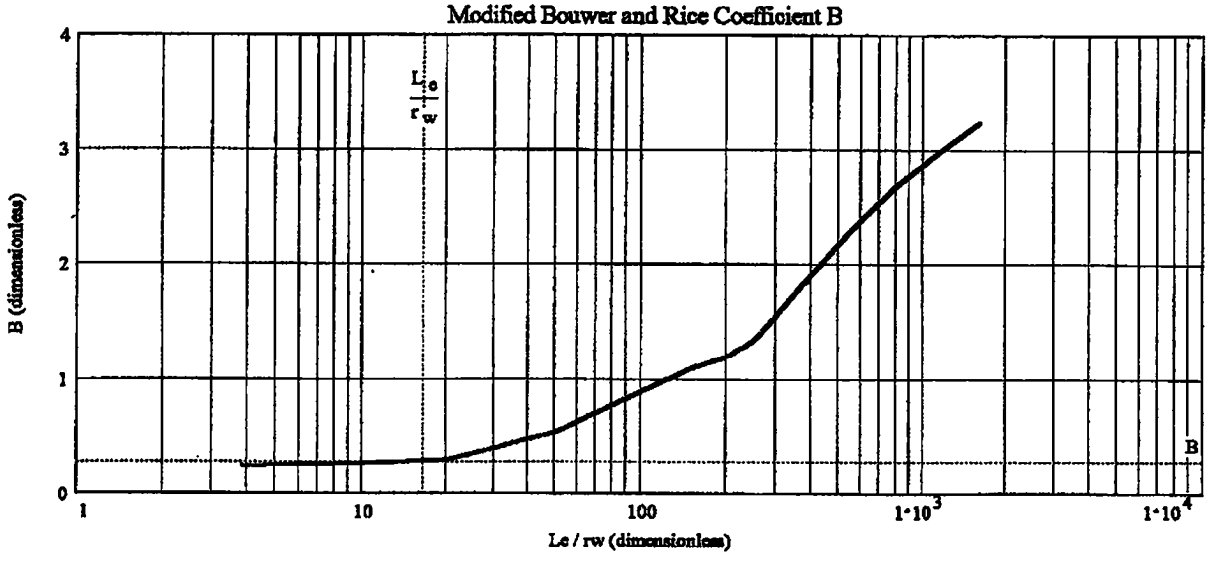
$Xlog_{B_k} := \log(X_{B_k})$

$Bfit(y) := linterp(Xlog_B, Y_B, y)$

$l := 0 .. scale$

$y_l := \min(Xlog_B) + l \cdot \frac{\max(Xlog_B) - \min(Xlog_B)}{scale}$

$B := Bfit\left(\log\left(\frac{L_e}{r_w}\right)\right)$



Known Constants

Input the following values:

$r_c := 2.345 \cdot in$ $L_w := 9.26 \cdot ft$

$r_w = 4 \cdot in$ $H := 16.16 \cdot ft$

$L_e = 5.5 \cdot ft$

$A = 2.084$ $B = 0.292$

From the least squares curve fit above:

$y_0 = 0.942$

$y_t = 0.07$

$\tau := t_2 \cdot sec$ $\tau = 313.711 \cdot sec$

Defining Functions – Modified Bouwer and Rice Slug Test Equations

$$\ln Re := \left[\frac{1.1}{\ln\left(\frac{L_w}{r_w}\right)} + \frac{A + B \cdot \ln\left(\frac{H - L_w}{r_w}\right)}{\left(\frac{L_e}{r_w}\right)} \right]^{-1}$$

$$K := \frac{r_c^2 \cdot \ln Re}{2 \cdot L_e} \cdot \left(\frac{1}{\tau}\right) \cdot \ln\left(\frac{y_0}{y_t}\right)$$

Solution Block, K in terms of ft/day and cm/sec

$$K = 4.9 \cdot \frac{ft}{day}$$

$$K = 1.7 \cdot 10^{-3} \cdot \frac{cm}{sec}$$

STEFFEN ROBERTSON AND KIRSTEN (U.S.), INC.
Consulting Engineers and Scientists

CALCULATION SHEET

PROJECT:	Hungry Jax #1	PROJECT NO.:	97101
CALCULATED BY:	BD	CHECKED BY:	
DATE:	~~7/~~23/98	DATE:	
TOPIC:	Slug Test Data Calculations - MW-4 L. Mattila	SHEET 1 OF 5	

This form is used for finding a least squares regression curve to the first few relevant data points from a Bouwer and Rice slug test. This calculation sheet requires the input of the y vs. t data points and outputs y_0, y_t, and t for use in the Bouwer and Rice equations (1985).

Input Data Section

Input data in y vs. t coordinates as vectors for the straight-line portion of the y vs. t curve.

Input data coordinates below:

y (feet) t (sec)

$$y := \begin{pmatrix} .08 \\ .05 \\ .04 \end{pmatrix} \qquad t := \begin{pmatrix} 35 \\ 55 \\ 75 \end{pmatrix}$$

The output graph is plotted from t = 0 to t = $Range_t$ as specified by the user. Enter ending time for plotting range below.

$$Range_t := 200$$

Input desired y_t value here (default is 1.0):

$$y_t := .008$$

Automated Calculations Section to Determine Least Squares Regression Data

Linear interpolation functions:

$m := slope(t, \overrightarrow{ln(y)})$ m = -0.017

$b := intercept(t, \overrightarrow{ln(y)})$ b = -1.96

$G := e^b$ G = 0.141

Governing least squares fit equation:

$$Y(T) := G \cdot e^{m \cdot T}$$

Equations to determine plotting variables:

$T := 0, 1 .. Range_t$ $i := 0 .. length(y) - 1$

$x := 100$

$t_2 := root(G \cdot e^{m \cdot x} - y_t, x)$ $y_0 := Y(0)$

STEFFEN ROBERTSON AND KIRSTEN (U.S.), INC.
Consulting Engineers and Scientists

CALCULATION SHEET

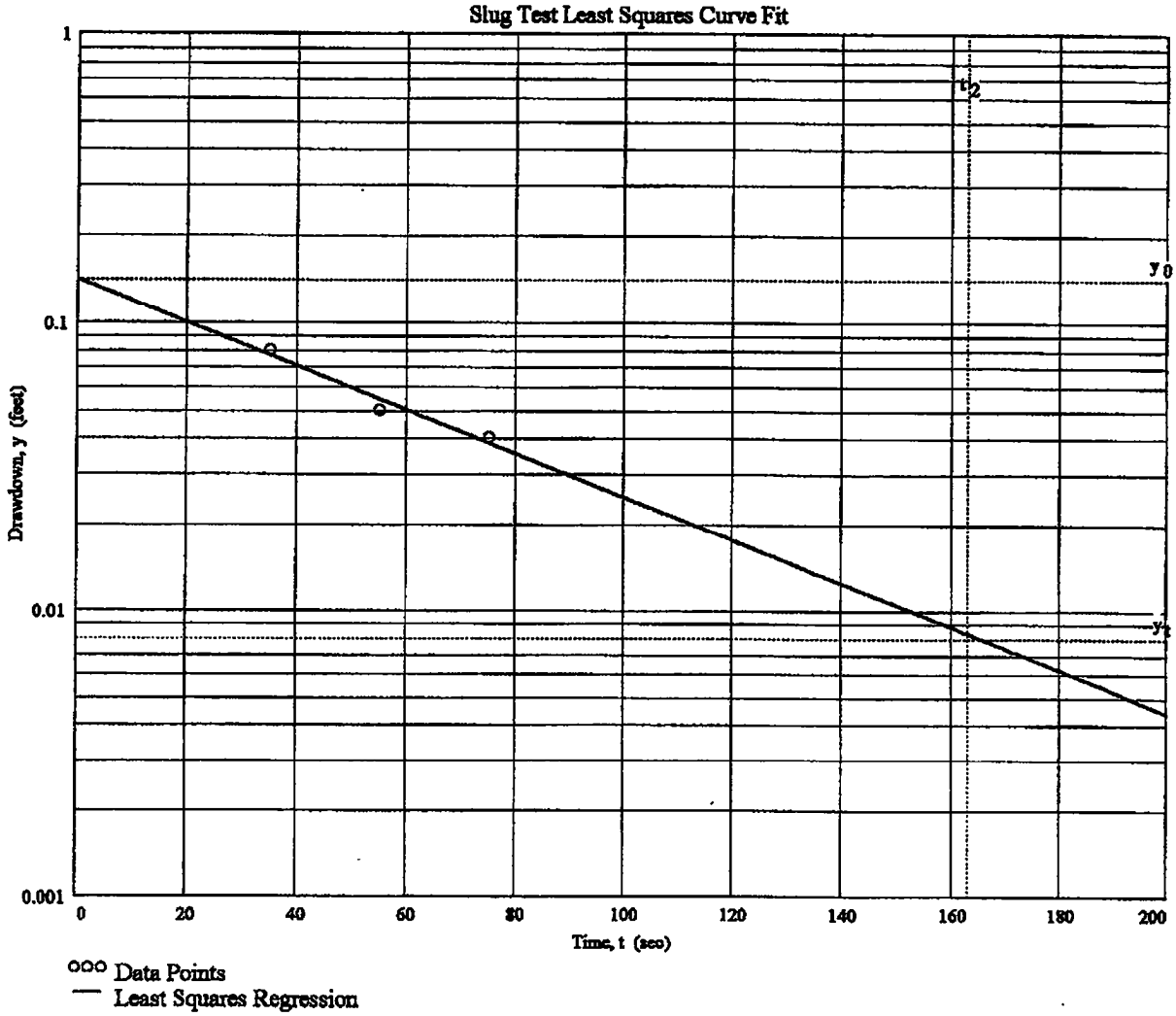
PROJECT:	Hungry Jax #1	PROJECT NO.:	97101
CALCULATED BY:	BD	CHECKED BY:	
DATE:	2/23/98	DATE:	
TOPIC:	Slug Test Data Calculations - MW-4.	SHEET	2A OF 5

Output Section

$y_0 = 0.141$

$y_t = 0.008$ ===Values for input to Bouwer and Rice (1985)

$t_2 = 163.142$



Curve Matching for Modified Bouwer and Rice Partially Penetrating Well Constant, A

$$Adata := \begin{bmatrix} 3.8 & 1.7 \\ 12 & 1.9 \\ 24 & 2.3 \\ 39 & 2.6 \\ 80 & 3.8 \\ 200 & 6.0 \\ 400 & 7.9 \\ 700 & 8.75 \\ 1000 & 9.3 \\ 1600 & 9.7 \end{bmatrix}$$

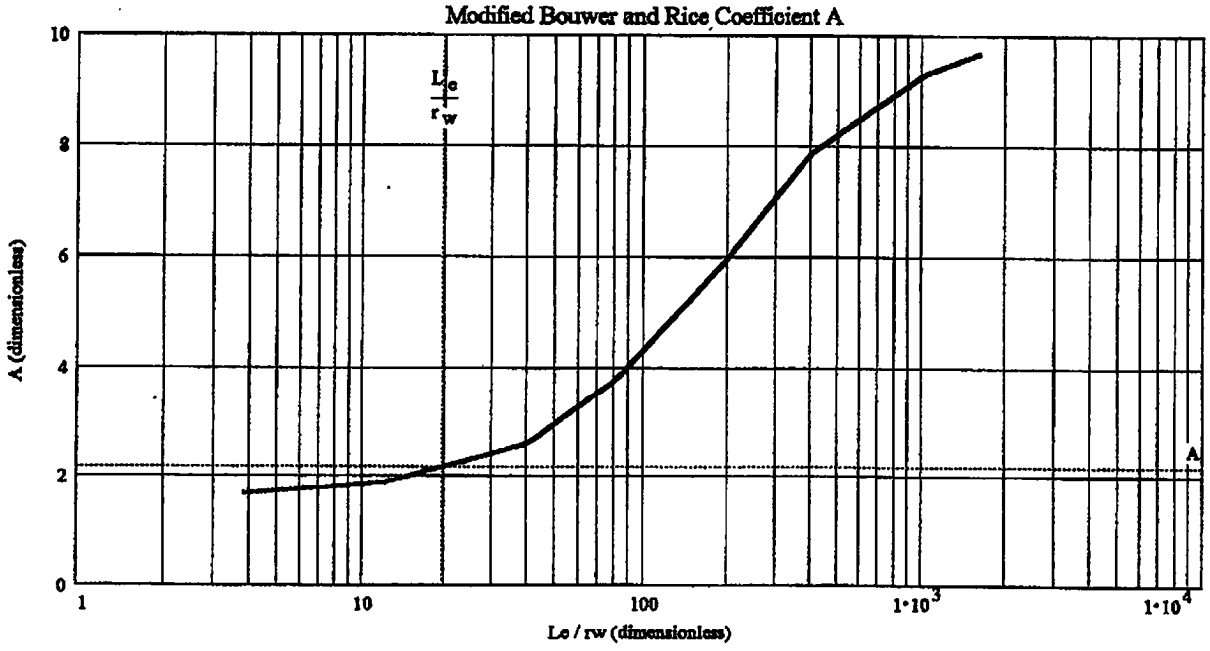
$X_A := Adata^{\langle 0 \rangle}$ $Y_A := Adata^{\langle 1 \rangle}$ $i := 0 .. length(X_A) - 1$

$Xlog_{A_i} := \log(X_{A_i})$

$Afit(x) := linterp(Xlog_A, Y_A, x)$

$scale := 100$ $j := 0 .. scale$

$x_j := \min(Xlog_A) + j \cdot \frac{\max(Xlog_A) - \min(Xlog_A)}{scale}$ $A := Afit\left(\log\left(\frac{L_e}{r_w}\right)\right)$



Curve Matching for Modified Bouwer and Rice Partially Penetrating Well Constant, B

$$Bdata := \begin{bmatrix} 3.8 & 0.25 \\ 10 & 0.27 \\ 20 & 0.30 \\ 50 & 0.55 \\ 150 & 1.1 \\ 200 & 1.2 \\ 250 & 1.35 \\ 500 & 2.2 \\ 800 & 2.7 \\ 1600 & 3.25 \end{bmatrix}$$

$X_B := Bdata^{\langle 0 \rangle}$ $Y_B := Bdata^{\langle 1 \rangle}$ $k := 0 .. length(X_B) - 1$

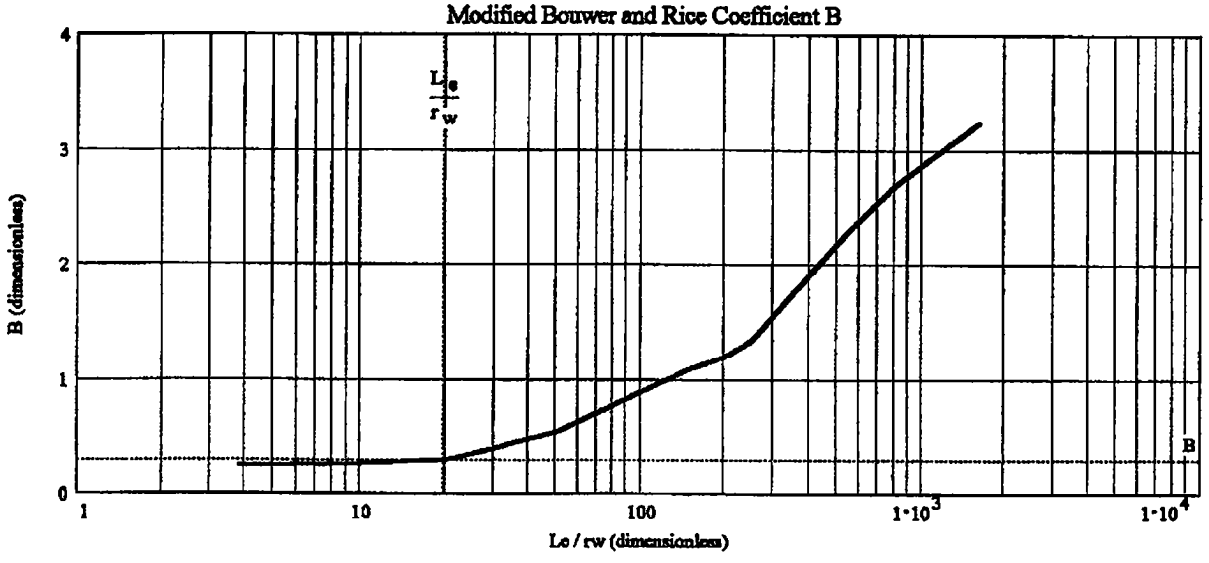
$Xlog_{B_k} := \log(X_{B_k})$

$Bfit(y) := linterp(Xlog_B, Y_B, y)$

$l := 0 .. scale$

$y_l := \min(Xlog_B) + l \cdot \frac{\max(Xlog_B) - \min(Xlog_B)}{scale}$

$B := Bfit\left(\log\left(\frac{L_e}{r_w}\right)\right)$



Known Constants

Input the following values:

$r_c := 2.345 \cdot in$ $L_w := 10.95 \cdot ft$

$r_w = 4 \cdot in$ $H := 18.05 \cdot ft$

$L_e = 6.5 \cdot ft$

$A = 2.18$ $B = 0.299$

From the least squares curve fit above:

$y_0 = 0.141$

$y_t = 0.008$

$\tau := t_2 \cdot sec$ $\tau = 163.142 \cdot sec$

Defining Functions -- Modified Bouwer and Rice Slug Test Equations

$$\ln Re := \left[\frac{1.1}{\ln\left(\frac{L_w}{r_w}\right)} + \frac{A + B \cdot \ln\left(\frac{H - L_w}{r_w}\right)}{\left(\frac{L_e}{r_w}\right)} \right]^{-1}$$

$$K := \frac{r_c^2 \cdot \ln Re}{2 \cdot L_e} \cdot \left(\frac{1}{\tau}\right) \cdot \ln\left(\frac{y_0}{y_t}\right)$$

Solution Block, K in terms of ft/day and cm/sec

$$K = 9.4 \cdot \frac{ft}{day}$$

$$K = 3.3 \cdot 10^{-3} \cdot \frac{cm}{sec}$$

STEFFEN ROBERTSON AND KIRSTEN (U.S.), INC.
Consulting Engineers and Scientists

CALCULATION SHEET

PROJECT:	Hungry Jax #1	PROJECT NO.:	97101
CALCULATED BY:	BD	CHECKED BY:	
DATE:	2/23/98	DATE:	
TOPIC:	Slug Test Data Calculations - PW-1	SHEET	1 OF 5

This form is used for finding a least squares regression curve to the first few relevant data points from a Bouwer and Rice slug test. This calculation sheet requires the input of the y vs. t data points and outputs y_0, y_t, and t for use in the Bouwer and Rice equations (1985).

Input Data Section

Input data in y vs. t coordinates as vectors for the straight-line portion of the y vs. t curve.

Input data coordinates below:

y (feet) t (sec)

$$y := \begin{pmatrix} .01 \\ .0001 \end{pmatrix} \qquad t := \begin{pmatrix} 75 \\ 135 \end{pmatrix}$$

The output graph is plotted from t = 0 to t = $Range_t$ as specified by the user. Enter ending time for plotting range below.

$$Range_t := 200$$

Input desired y_t value here (default is 1.0):

$$y_t := .001$$

Automated Calculations Section to Determine Least Squares Regression Data

Linear interpolation functions:

$m := slope(t, \overrightarrow{ln(y)})$ m = -0.077

$b := intercept(t, \overrightarrow{ln(y)})$ b = 1.151

$G := e^b$ G = 3.162

Governing least squares fit equation:

$$Y(T) := G \cdot e^{m \cdot T}$$

Equations to determine plotting variables:

$T := 0, 1 .. Range_t$ $i := 0 .. length(y) - 1$

$x := 100$

$t_2 := root(G \cdot e^{m \cdot x} - y_t, x)$ $y_0 := Y(0)$

STEFFEN ROBERTSON AND KIRSTEN (U.S.), INC.
Consulting Engineers and Scientists

CALCULATION SHEET

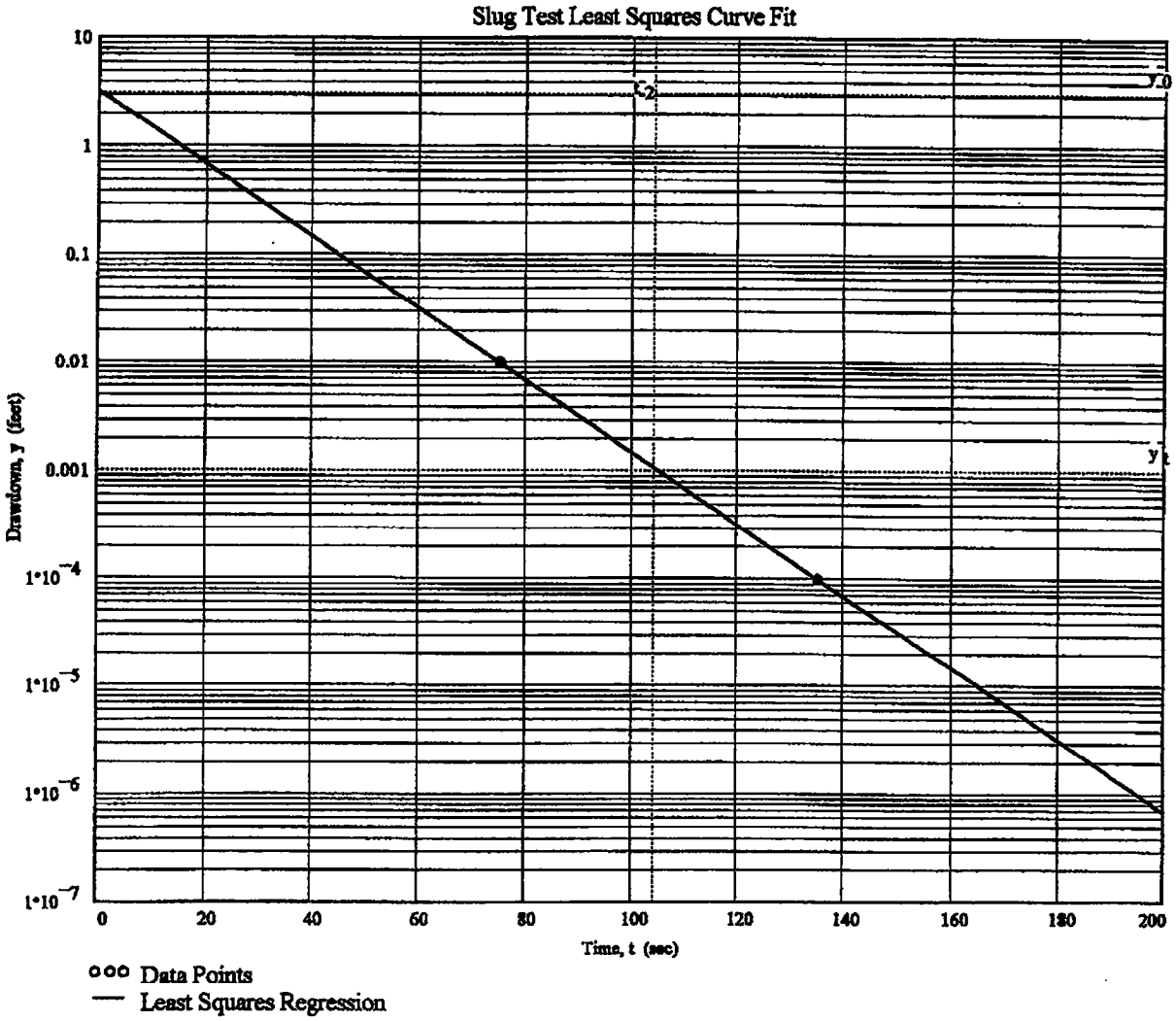
PROJECT:	Hungry Jax #1	PROJECT NO.:	97101
CALCULATED BY:	BD	CHECKED BY:	
DATE:	2/23/98	DATE:	
TOPIC:	Slug Test Data Calculations - PW-1.	SHEET	2A OF 5

Output Section

$y_0 = 3.162$

$y_t = 0.001$ ===Values for input to Bouwer and Rice (1985)

$t_2 = 104.168$



Curve Matching for Modified Bouwer and Rice Partially Penetrating Well Constant, A

$$Adata := \begin{bmatrix} 3.8 & 1.7 \\ 12 & 1.9 \\ 24 & 2.3 \\ 39 & 2.6 \\ 80 & 3.8 \\ 200 & 6.0 \\ 400 & 7.9 \\ 700 & 8.75 \\ 1000 & 9.3 \\ 1600 & 9.7 \end{bmatrix}$$

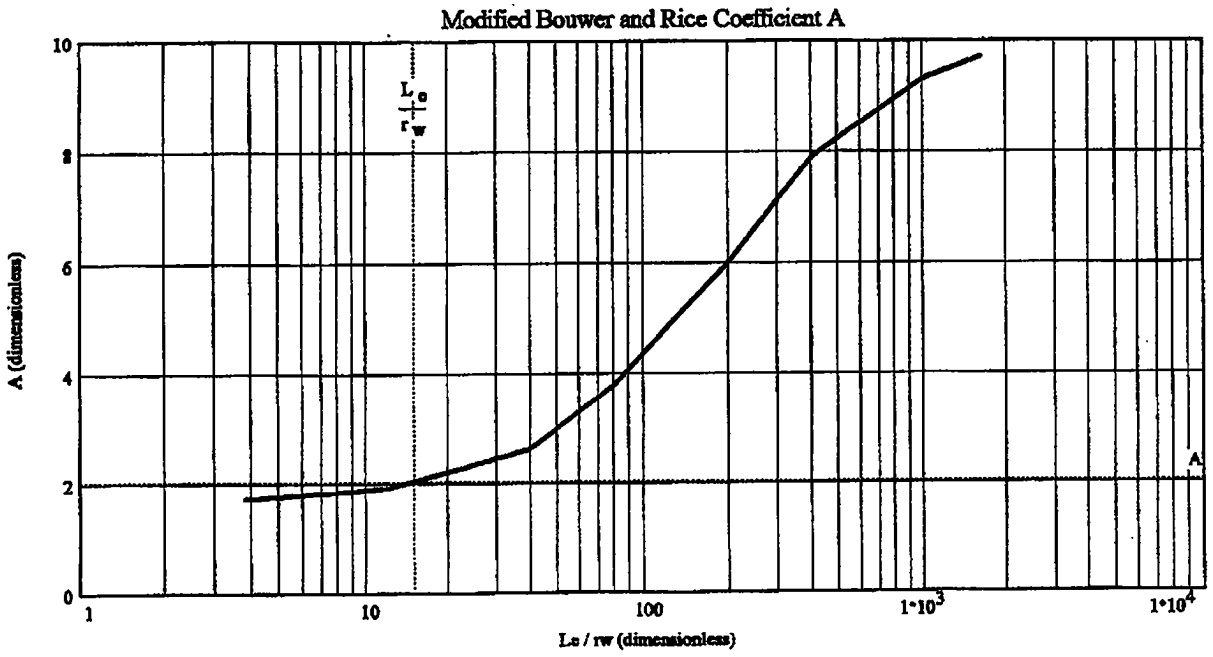
$X_A := Adata^{\langle 0 \rangle}$ $Y_A := Adata^{\langle 1 \rangle}$ $i := 0 .. length(X_A) - 1$

$Xlog_{A_i} := \log(X_{A_i})$

$Afit(x) := linterp(Xlog_A, Y_A, x)$

$scale := 100$ $j := 0 .. scale$

$x_j := \min(Xlog_A) + j \cdot \frac{\max(Xlog_A) - \min(Xlog_A)}{scale}$ $A := Afit\left(\log\left(\frac{L_e}{r_w}\right)\right)$



Curve Matching for Modified Bouwer and Rice Partially Penetrating Well Constant, B

$$Bdata := \begin{bmatrix} 3.8 & 0.25 \\ 10 & 0.27 \\ 20 & 0.30 \\ 50 & 0.55 \\ 150 & 1.1 \\ 200 & 1.2 \\ 250 & 1.35 \\ 500 & 2.2 \\ 800 & 2.7 \\ 1600 & 3.25 \end{bmatrix}$$

$X_B := Bdata^{\langle 0 \rangle}$ $Y_B := Bdata^{\langle 1 \rangle}$ $k := 0 .. length(X_B) - 1$

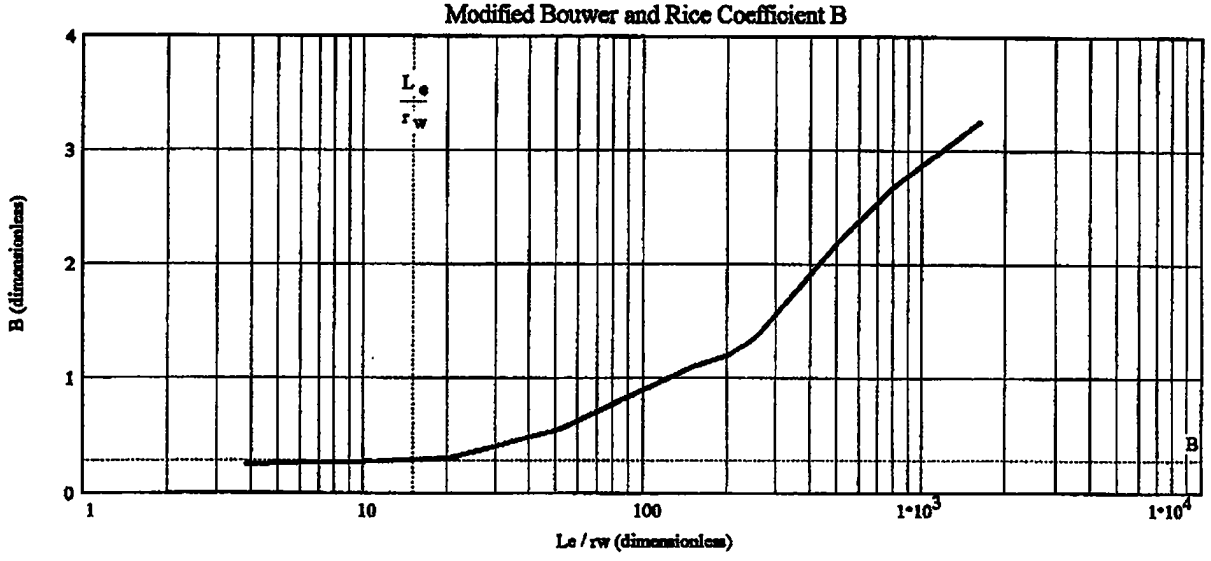
$Xlog_{B_k} := \log(X_{B_k})$

$Bfit(y) := linterp(Xlog_B, Y_B, y)$

$l := 0 .. scale$

$y_l := \min(Xlog_B) + l \cdot \frac{\max(Xlog_B) - \min(Xlog_B)}{scale}$

$B := Bfit\left(\log\left(\frac{L_e}{r_w}\right)\right)$



Known Constants

Input the following values:

$r_c := 1.0 \cdot in$ $L_w := 26.54 \cdot ft$

$r_w = 4 \cdot in$ $H := 36.34 \cdot ft$

$L_e = 5.0 \cdot ft$

$A = 2.029$ $B = 0.288$

From the least squares curve fit above:

$y_0 = 3.162$

$y_t = 0.001$

$\tau := t_2 \cdot sec$ $\tau = 104.168 \cdot sec$

Defining Functions – Modified Bouwer and Rice Slug Test Equations

$$\ln Re := \left[\frac{1.1}{\ln\left(\frac{L_w}{r_w}\right)} + \frac{A + B \cdot \ln\left(\frac{H - L_w}{r_w}\right)}{\left(\frac{L_e}{r_w}\right)} \right]^{-1}$$

$$K := \frac{r_c^2 \cdot \ln Re}{2 \cdot L_e} \cdot \left(\frac{1}{\tau}\right) \cdot \ln\left(\frac{y_0}{y_t}\right)$$

Solution Block, K in terms of ft/day and cm/sec

$$K = 10.3 \cdot \frac{ft}{day}$$

$$K = 3.6 \cdot 10^{-3} \cdot \frac{cm}{sec}$$

APPENDIX E

GRAIN SIZE DISTRIBUTION DATA

GRAIN SIZE DISTRIBUTION TEST DATA — Test No.: 7

Date: 1/09/98
Project No.: 216473
Project: HUGRY JAX #1

Sample Data

Location of Sample: S-11 AT 2'
Sample Description: GRAY SILTY CLAYEY SAND
USCS Class: SM — Liquid limit:
AASHTO Class: A-4(0.0) — Plasticity index:

Notes

Remarks: Sample taken at S-11 at 2'
Fig. No.:

Mechanical Analysis Data

	Initial	After wash
Dry sample and tare=	234.10	136.40
Tare =	0.00	0.00
Dry sample weight =	234.10	136.40

Minus #200 from wash= 41.7 %
Tare for cumulative weight retained= 0

Sieve	Cumul. Wt. retained	Percent finer
# 4	0.00	100.0
# 10	0.70	99.7
# 16	2.30	99.0
# 30	8.60	96.3
# 40	16.00	93.2
# 50	28.60	87.8
# 60	37.30	84.1
# 100	94.10	59.8
# 200	134.60	42.5

Hydrometer Analysis Data

Separation sieve is number 4
Percent -# 4 based on complete sample= 100.0
Weight of hydrometer sample: 100
Calculated biased weight= 100.00
Automatic temperature correction
Composite correction at 20 deg C = 6

Meniscus correction only= 0.5
Specific gravity of solids= 2.68

Specific gravity correction factor= 0.993
Hydrometer type: 152H Effective depth L= 16.294964 - 0.164 x Rm

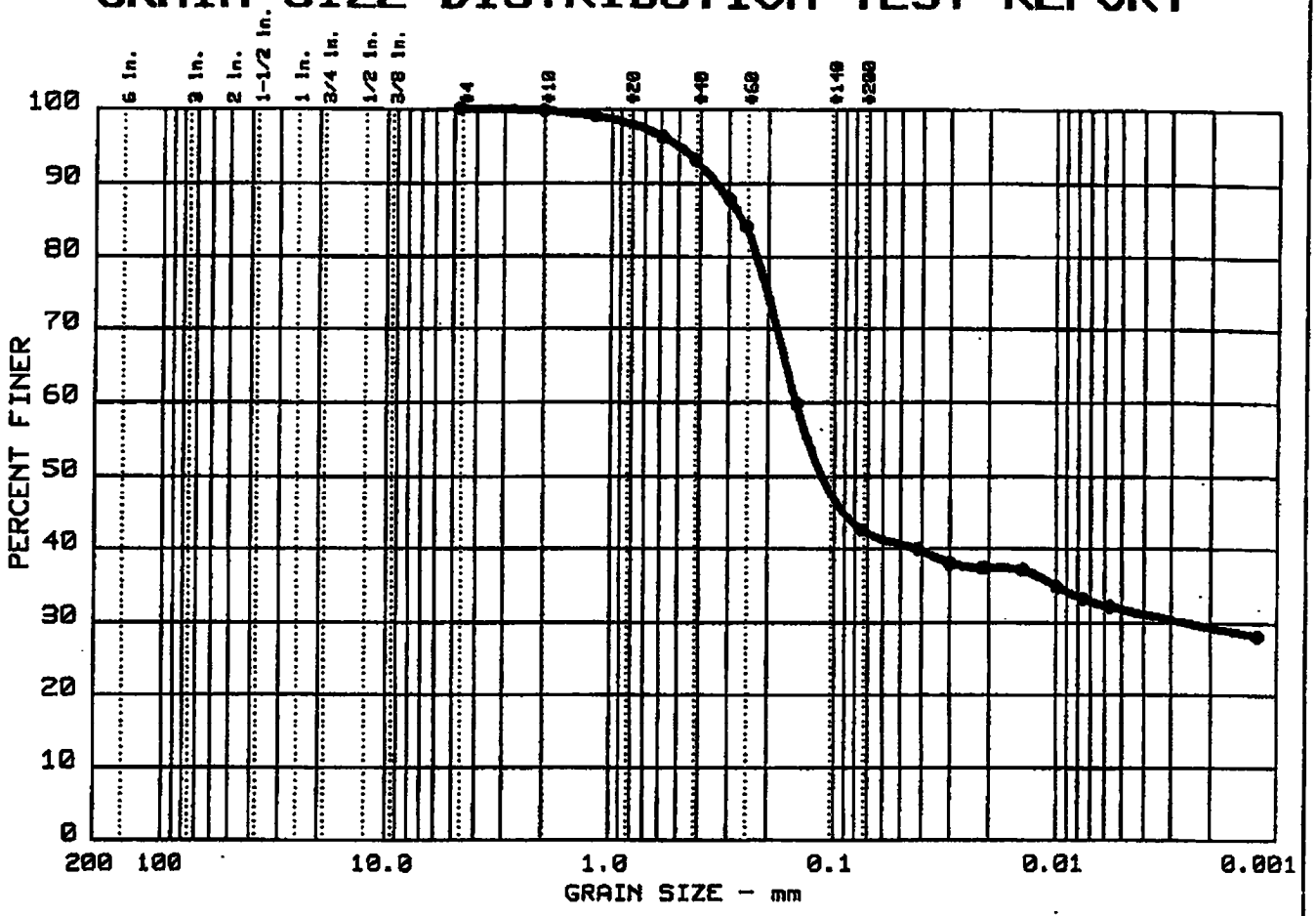
Elapsed time, min	Temp, deg C	Actual reading	Corrected reading	K	Rm	Eff. depth	Diameter mm	Percent finer
1.0	25.0	32.9	40.2	0.0127	33.4	10.8	0.0419	39.9
2.0	25.0	31.0	38.3	0.0127	31.5	11.1	0.0300	38.0
4.0	25.0	30.4	37.7	0.0127	30.9	11.2	0.0213	37.4
9.0	25.0	30.1	37.4	0.0127	30.6	11.3	0.0142	37.1
19.0	25.0	27.9	35.2	0.0127	28.4	11.6	0.0100	34.9
35.0	24.0	26.5	33.5	0.0129	27.0	11.9	0.0075	33.2
61.0	24.0	25.5	32.5	0.0129	26.0	12.0	0.0057	32.2
1429.0	24.0	21.4	28.4	0.0129	21.9	12.7	0.0012	28.2

Fractional Components

Gravel/Sand based on #4 sieve
Sand/Fines based on #200 sieve
% + 3 in. = 0.0 % GRAVEL = 0.0 % SAND = 57.5
% FINES = 42.5

D85= 0.26 D60= 0.150 D50= 0.114
D30= 0.0025

GRAIN SIZE DISTRIBUTION TEST REPORT



	% +3"	% GRAVEL	% SAND	% FINES
●	0.0	0.0	57.5	42.5

	LL	PI	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
●			0.26	0.15	0.11	0.003				

MATERIAL DESCRIPTION	USCS	AASHTO
● GRAY SILTY CLAYEY SAND	SM	A-4(0.0)

Project No.: 216473
Project: HUGRY JAX #1
● Location: S-11 AT 2'

Date: 1/09/98

Remarks:

Sample taken at
S-11 at 2'

GRAIN SIZE DISTRIBUTION TEST REPORT

STEFFEN ROBERTSON AND KIRSTEN (U.S.) INC.
Consulting Engineers and Scientists

Figure No. _____

GRAIN SIZE DISTRIBUTION TEST DATA — Test No.: 7

Date: 1/09/98
Project No.: 216473
Project: HUGRY JAX #1

Sample Data

Location of Sample: S-11 AT 2'
Sample Description: GRAY SILTY CLAYEY SAND
USCS Class: SM — Liquid limit:
AASHTO Class: A-4(0.0) — Plasticity index:

Notes

Remarks: Sample taken at S-11 at 2'
Fig. No.:

Mechanical Analysis Data

	Initial	After wash
Dry sample and tare=	234.10	136.40
Tare =	0.00	0.00
Dry sample weight =	234.10	136.40

Minus #200 from wash= 41.7 %
Tare for cumulative weight retained= 0

Sieve	Cumul. Wt. retained	Percent finer
# 4	0.00	100.0
# 10	0.70	99.7
# 16	2.30	99.0
# 30	8.60	96.3
# 40	16.00	93.2
# 50	28.60	87.8
# 60	37.30	84.1
# 100	94.10	59.8
# 200	134.60	42.5

Hydrometer Analysis Data

Separation sieve is number 4
Percent -# 4 based on complete sample= 100.0
Weight of hydrometer sample: 100
Calculated biased weight= 100.00
Automatic temperature correction
Composite correction at 20 deg C = 6

Meniscus correction only= 0.5
Specific gravity of solids= 2.68

Specific gravity correction factor= 0.993
Hydrometer type: 152H Effective depth L= 16.294964 - 0.164 x Rm

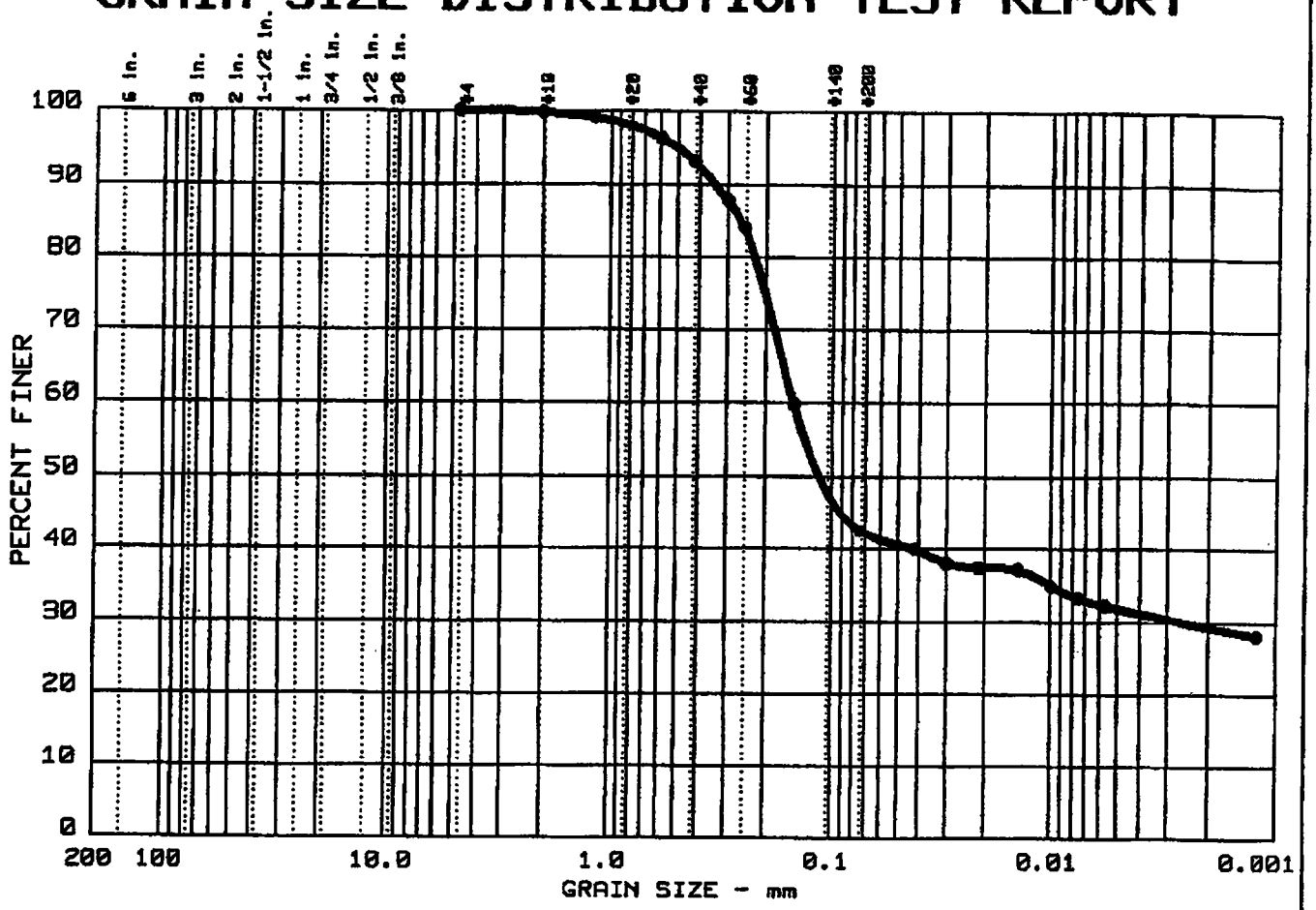
Elapsed time, min	Temp, deg C	Actual reading	Corrected reading	K	Rm	Eff. depth	Diameter mm	Percent finer
1.0	25.0	32.9	40.2	0.0127	33.4	10.8	0.0419	39.9
2.0	25.0	31.0	38.3	0.0127	31.5	11.1	0.0300	38.0
4.0	25.0	30.4	37.7	0.0127	30.9	11.2	0.0213	37.4
9.0	25.0	30.1	37.4	0.0127	30.6	11.3	0.0142	37.1
19.0	25.0	27.9	35.2	0.0127	28.4	11.6	0.0100	34.9
35.0	24.0	26.5	33.5	0.0129	27.0	11.9	0.0075	33.2
61.0	24.0	25.5	32.5	0.0129	26.0	12.0	0.0057	32.2
1429.0	24.0	21.4	28.4	0.0129	21.9	12.7	0.0012	28.2

Fractional Components

Gravel/Sand based on #4 sieve
Sand/Fines based on #200 sieve
% + 3 in. = 0.0 % GRAVEL = 0.0 % SAND = 57.5
% FINES = 42.5

D85= 0.26 D60= 0.150 D50= 0.114
D30= 0.0025

GRAIN SIZE DISTRIBUTION TEST REPORT



	% +3"	% GRAVEL	% SAND	% FINES
●	0.0	0.0	57.5	42.5

	LL	PI	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
●			0.26	0.15	0.11	0.003				

MATERIAL DESCRIPTION	USCS	AASHTO
● GRAY SILTY CLAYEY SAND	SM	A-4(0.0)

Project No.: 216473
Project: HUGRY JAX #1
● Location: S-11 AT 2'

Date: 1/09/98

Remarks:

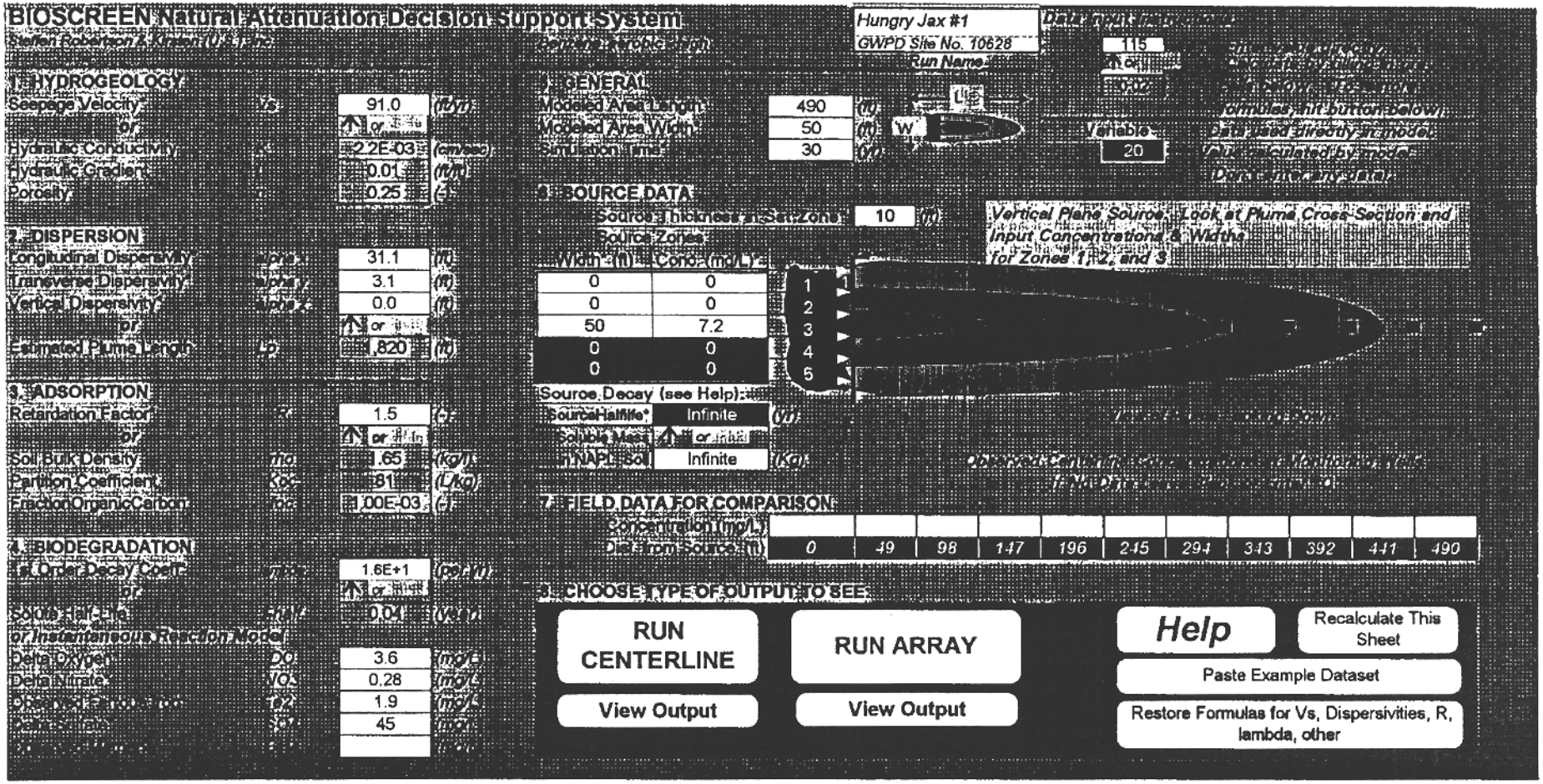
Sample taken at
S-11 at 2'

GRAIN SIZE DISTRIBUTION TEST REPORT
STEFFEN ROBERTSON AND KIRSTEN (U.S.) INC.
Consulting Engineers and Scientists

Figure No. _____

APPENDIX F

FATE AND TRANSPORT MODELING DATA

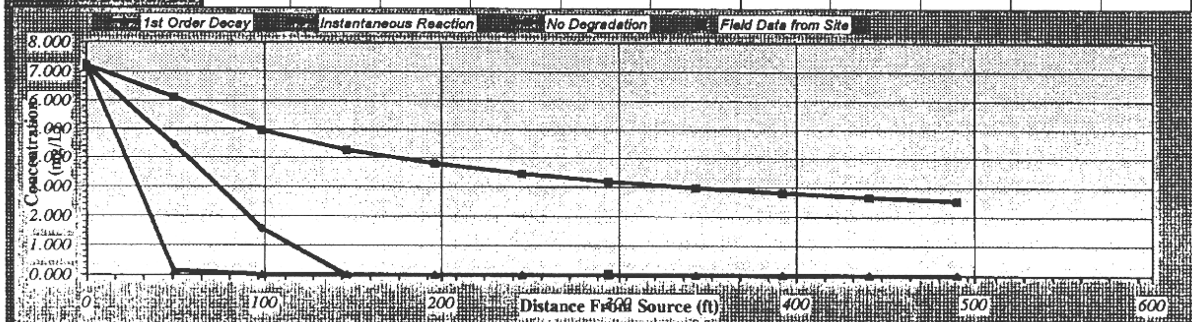

BIOSCREEN Natural Attenuation Decision Support System
Hungry Jax #1
GWPD Site No. 10628
Run Name
1. HYDROGEOLOGY
Seepage Velocity
or
Hydraulic Conductivity
Hydraulic Gradient
Porosity
91.0
2.2E-03
0.01
0.25
2. DISPERSION
Longitudinal Dispersivity
Transverse Dispersivity
Vertical Dispersivity
or
Estimated Plume Length
31.1
3.1
0.0
820
3. ADSORPTION
Retardation Factor
or
Soil Bulk Density
Partition Coefficient
Fraction Organic Carbon
1.5
1.65
81
1.00E-03
4. BIODEGRADATION
1st Order Decay Coeff.
or
Solute Half-Life
or Instantaneous Reaction Model
Delta Oxygen
Delta Nitrate
1.6E+1
0.04
3.6
0.28
1.9
45
1. GENERAL
Modeled Area Length
Modeled Area Width
Simulation Time
490
50
30
2. SOURCE DATA
Source Thickness in Source Zone
Source Zones
Width (ft)
Conc. (mg/L)
10
0
0
50
0
0
0
0
7
Source Decay (see Help):
Source Half-life*
Infinite
Soluble Mass
or
NAPL Soil
Infinite
7. FIELD DATA FOR COMPARISON
Concentration (mg/L)
Distance from Source (ft)
0
49
98
147
196
245
294
343
392
441
490
Vertical Plane Source - Look at Plume Cross-Section and Input Concentrations & Widths for Zones 1, 2, and 3
Variable
20
115
8. CHOOSE TYPE OF OUTPUT TO SEE:
RUN CENTERLINE
View Output
RUN ARRAY
View Output
Help
Recalculate This Sheet
Paste Example Dataset
Restore Formulas for Vs, Dispersivities, R, lambda, other

Benzene

DISSOLVED HYDROCARBON CONCENTRATIONS ALONG PLUME CENTERLINE

Distance from Source (ft)

TYPE OF MODEL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
No Degradation	7.200	6.103	4.957	4.258	3.785	3.440	3.175	2.962	2.787	2.640	2.514
1st Order Decay	7.200	0.136	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Inst. Reaction	7.200	4.447	1.572	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Field Data from Site											



Calculate Animation

Next Timestep

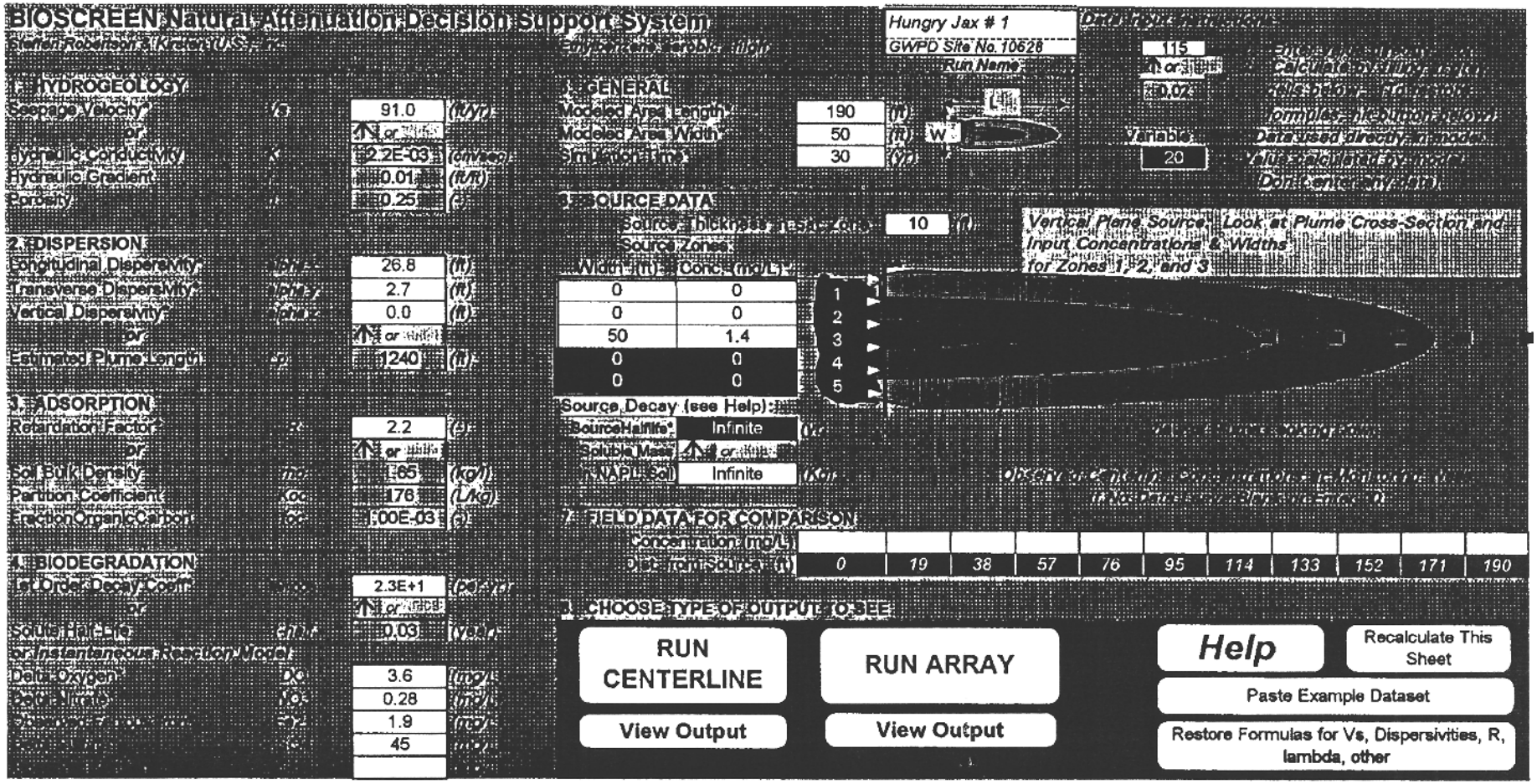
Prev Timestep

30 Years

Return to Input

Recalculate This Sheet

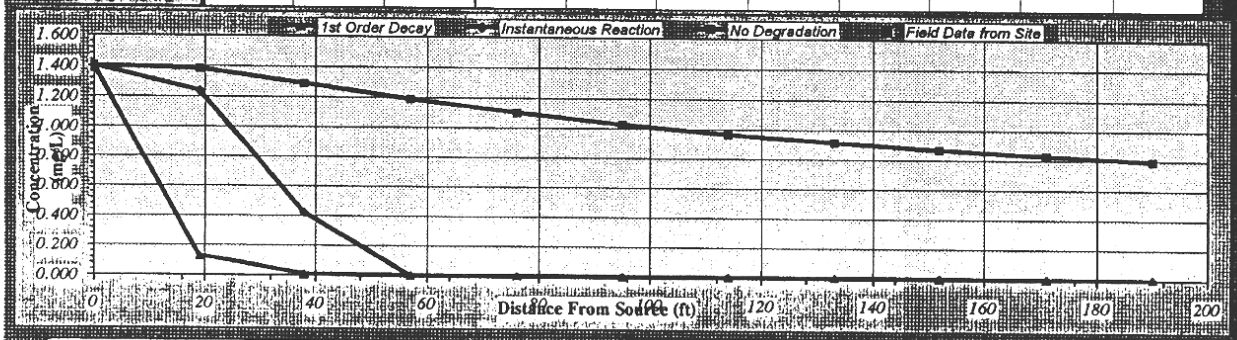
Benzene



Ethylbenzene.

DISSOLVED HYDROCARBON CONCENTRATION ALONG PLUME CENTERLINE (mg/L)

TYPE OF MODEL	0	20	40	60	80	100	120	140	160	180	200
No Degradation	1.400	1.382	1.289	1.187	1.099	1.025	0.964	0.912	0.867	0.828	0.794
1st Order Decay	1.400	0.127	0.011	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Instantaneous Reaction	1.400	1.238	0.423	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Field Data from Site											



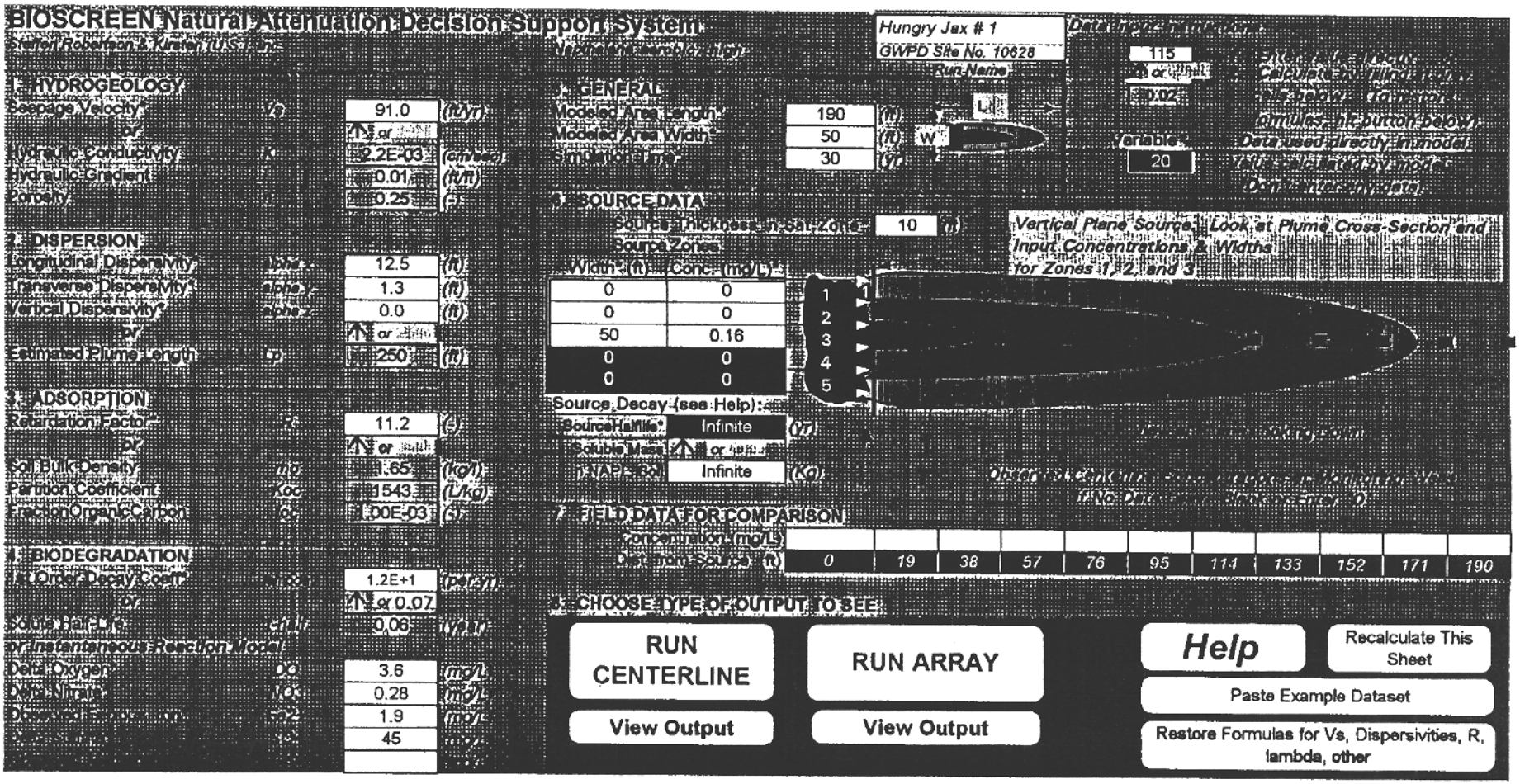
Calculate Next Timestep / Animation / Prev Timestep

30 Years

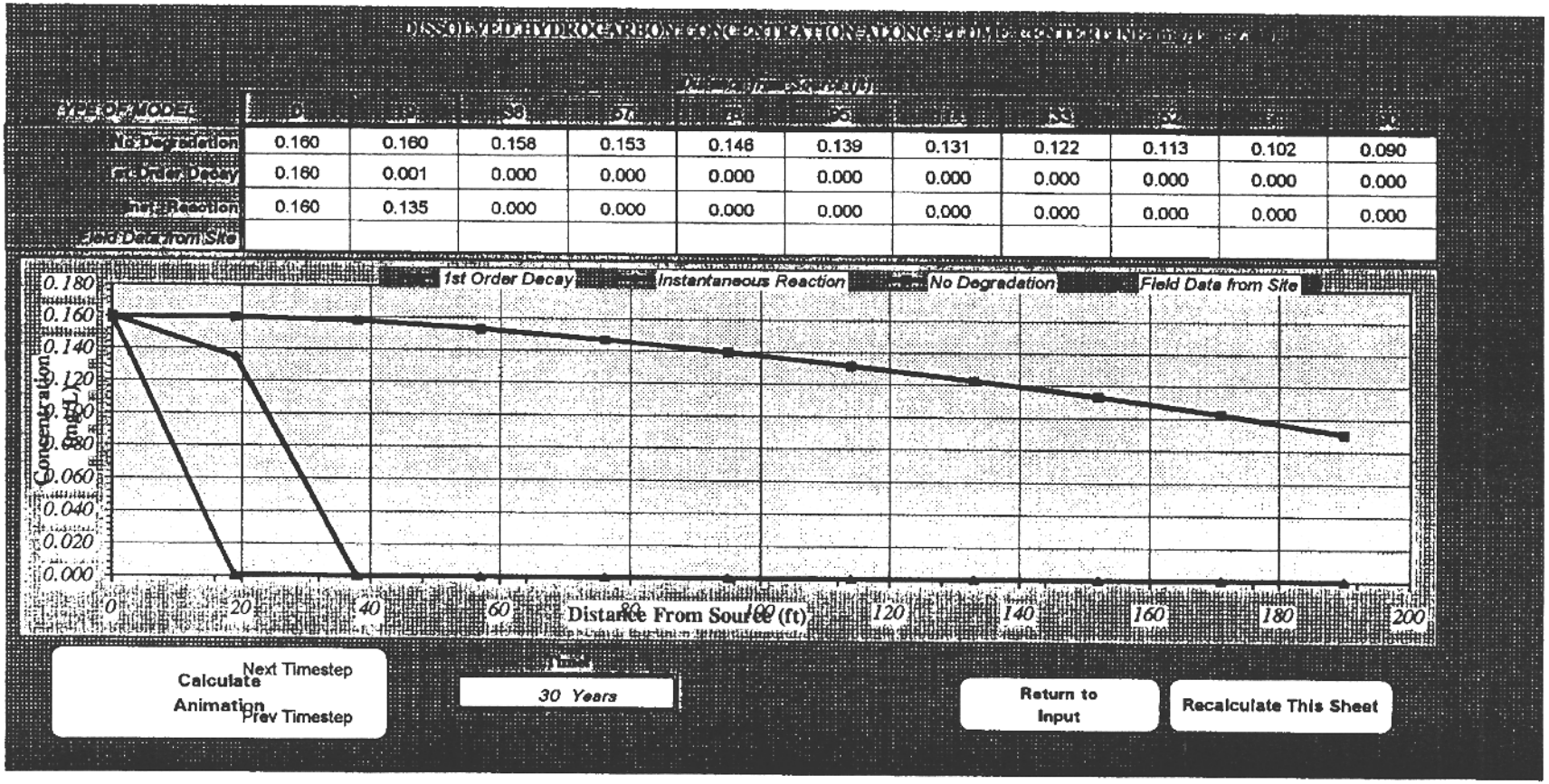
Return to Input

Recalculate This Sheet

Ethylbenzene

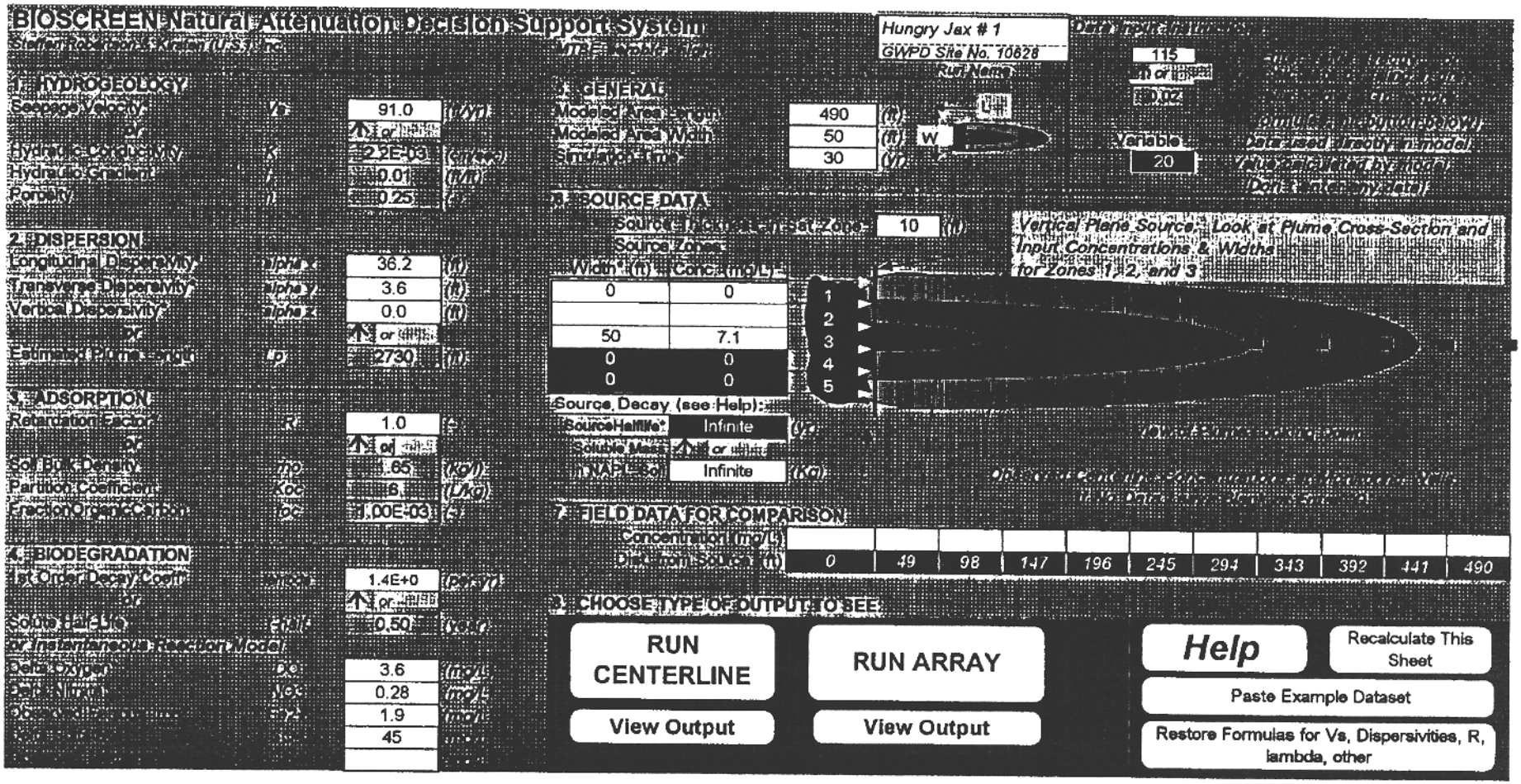


Naphthalene



TYPE OF MODEL	0										
No Degradation	0.160	0.160	0.158	0.153	0.146	0.139	0.131	0.122	0.113	0.102	0.090
1st Order Decay	0.160	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Instantaneous Reaction	0.160	0.135	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Field Data from Site											

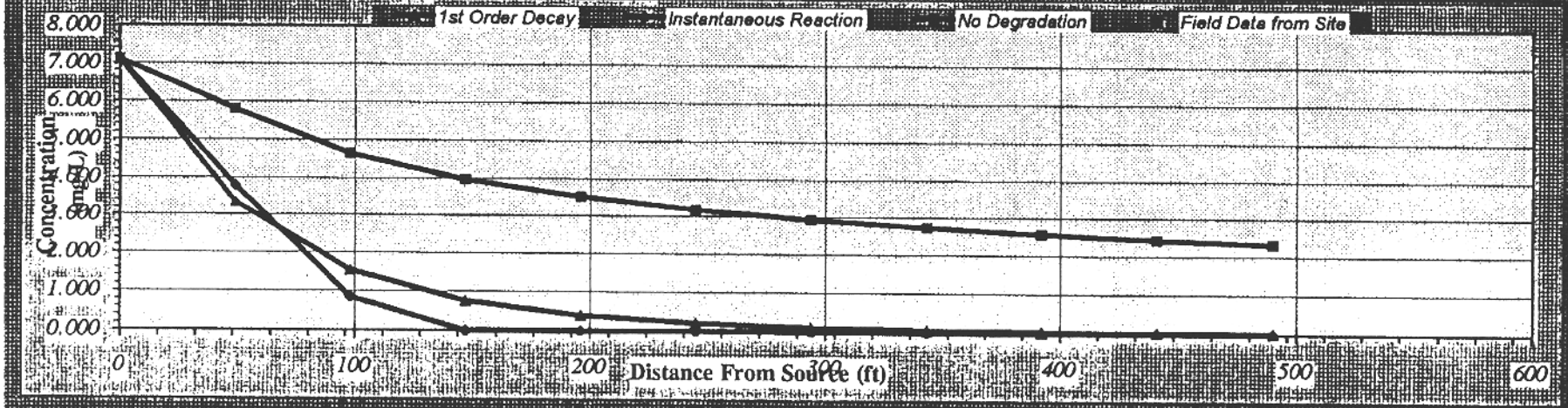
Naphthalene


BIOSCREEN Natural Attenuation Decision Support System
Hungry Jax # 1
GWPD Site No. 10628
1. HYDROGEOLOGY
Seepage Velocity
Hydraulic Conductivity
Hydraulic Gradient
Porosity
2. DISPERSION
Longitudinal Dispersivity
Transverse Dispersivity
Vertical Dispersivity
3. ADSORPTION
Retardation Factor
Soil Bulk Density
Partition Coefficient
Fraction Organic Carbon
4. BIODEGRADATION
1st Order Decay Coefficient
Solute Half-Life
or Instantaneous Reaction Model
Delta Oxygen
Delta Nitrate
5. GENERAL
Modeled Area Length
Modeled Area Width
Simulation Time
6. SOURCE DATA
Source Thickness
Source Zone
Width (ft)
Concentration (mg/L)
Source Decay (see Help):
Source Half-life:
Infinite
Infinite
7. FIELD DATA FOR COMPARISON
Concentration (mg/L)
Distance from Source (ft)
0
49
98
147
196
245
294
343
392
441
490
8. CHOOSE TYPE OF OUTPUT TO SEE:
RUN CENTERLINE
View Output
RUN ARRAY
View Output
Help
Recalculate This Sheet
Paste Example Dataset
Restore Formulas for Vs, Dispersivities, R, lambda, other
Vertical Plane Source: Look at Plume Cross-Section and Input Concentrations & Widths for Zones 1, 2, and 3

MTBE

DISSOLVED HYDROCARBON CONCENTRATION VERSUS DISTANCE GRADIENTS

TYPE OF MODEL	Distance from Source (ft)										
	0	50	100	150	200	250	300	350	400	450	500
No Degradation	7.100	5.792	4.630	3.952	3.502	3.176	2.927	2.728	2.565	2.428	2.310
1st Order Decay	7.100	3.338	1.538	0.756	0.386	0.202	0.107	0.058	0.031	0.017	0.009
Inst. Reaction	7.100	3.789	0.851	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Field Data from Site											

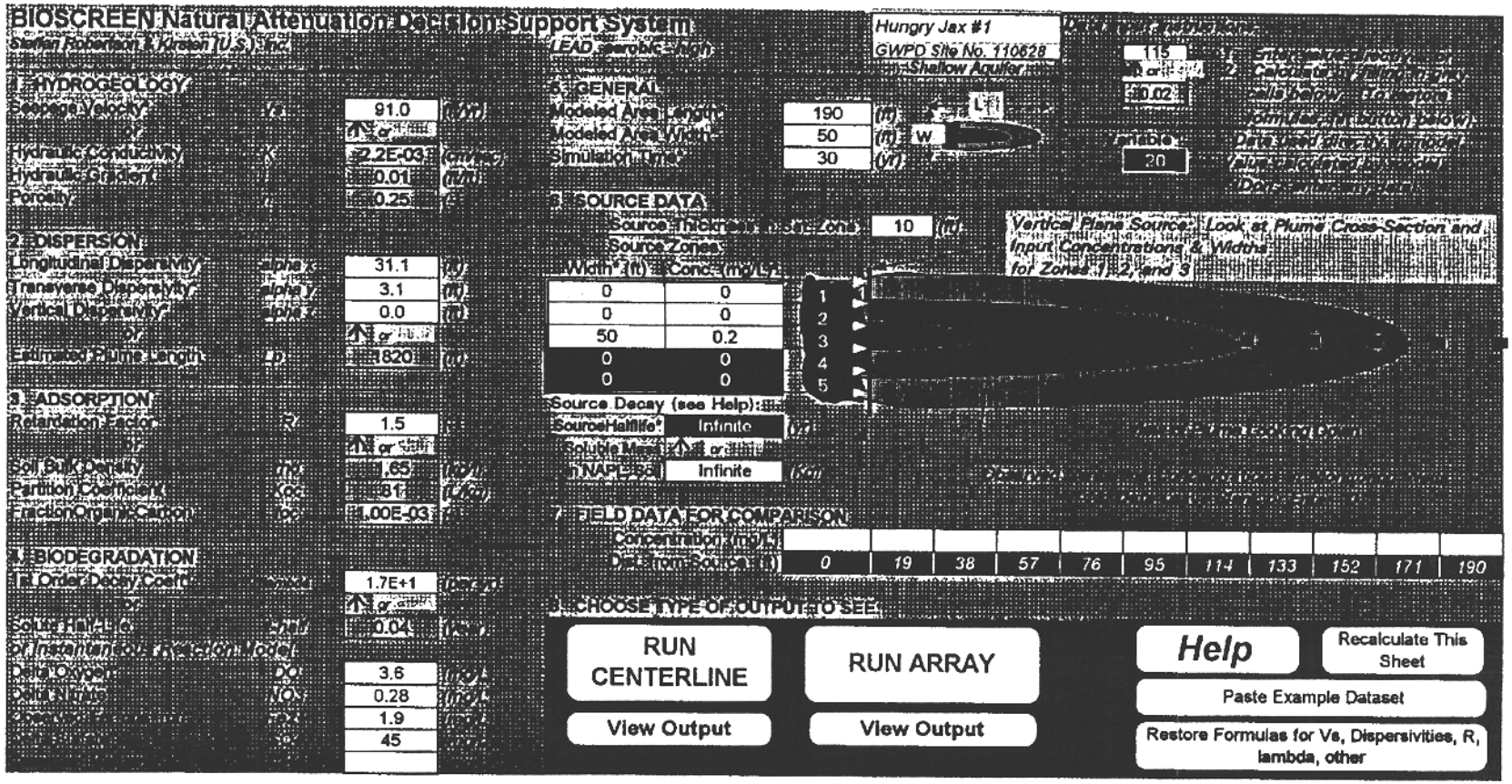


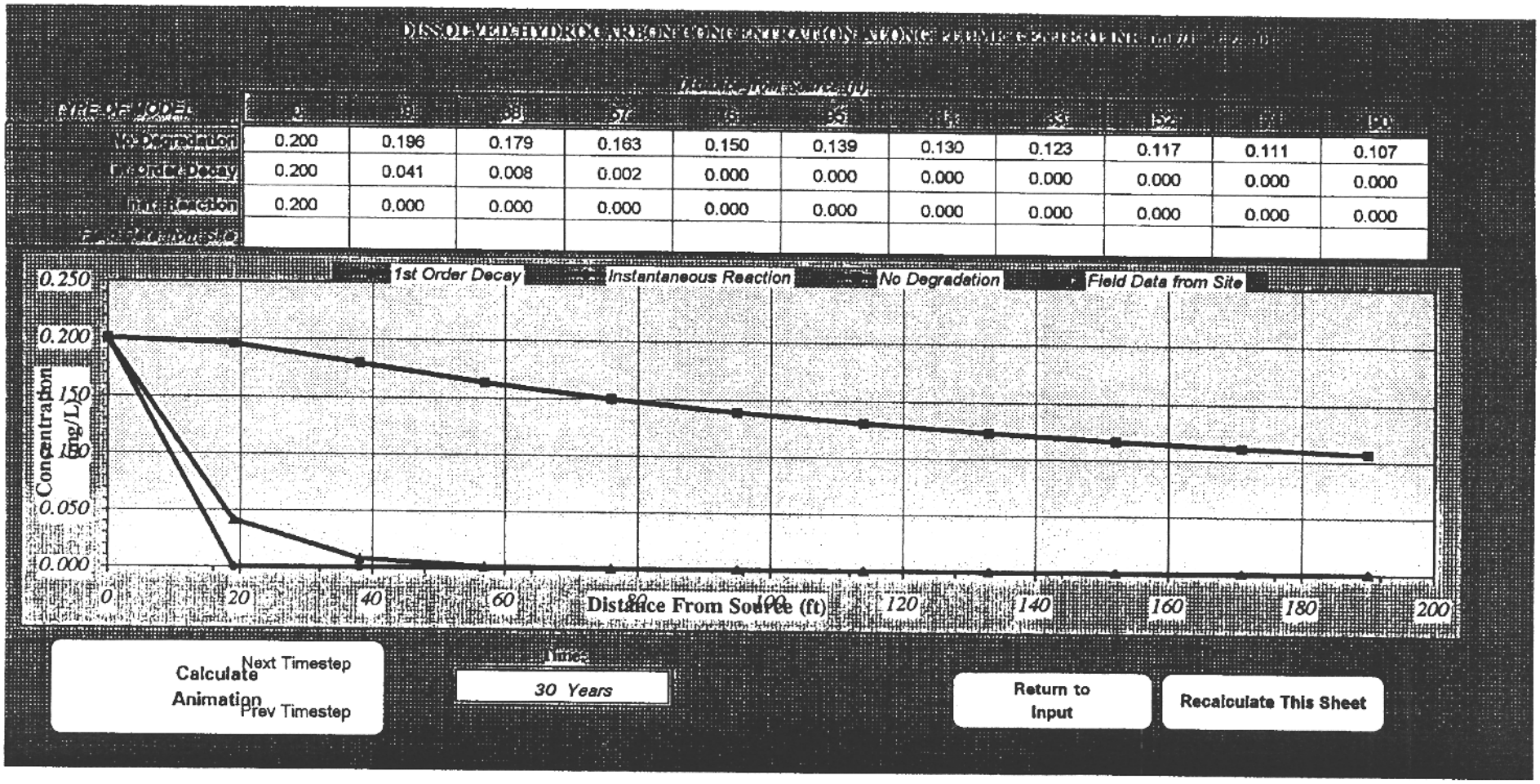
Calculate Next Timestep
Animation
Prev Timestep

Time
30 Years

Return to Input

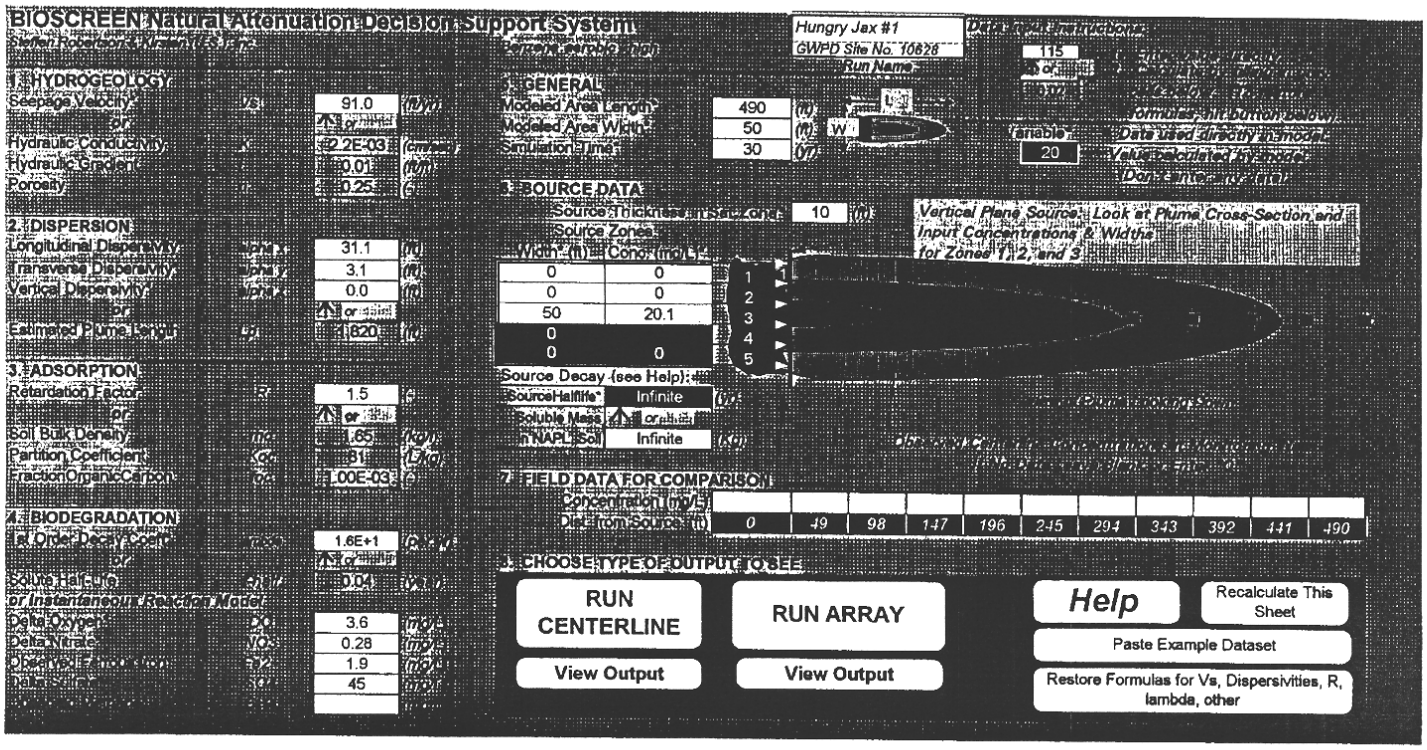
Recalculate This Sheet


BIOSCREEN Natural Attenuation Decision Support System
Hungry Jax #1
GWPD Site No. 110628
Shallow Aquifer
1. HYDROGEOLOGY
Seepage Velocity
91.0
Hydraulic Conductivity
2.2E-03
Hydraulic Gradient
0.01
Porosity
0.25
2. DISPERSION
Longitudinal Dispersivity
31.1
Transverse Dispersivity
3.1
Vertical Dispersivity
0.0
Estimated Plume Length
820
3. ADSORPTION
Retardation Factor
1.5
Soil Bulk Density
1.65
Partition Coefficient
81
Fraction Organic Carbon
1.00E-03
4. BIODEGRADATION
1st Order Decay Coefficient
1.7E+1
Solute Half-Life
0.04
Dispersivity
3.6
0.28
1.9
45
5. GENERAL
Modeled Area Length
190
Modeled Area Width
50
Simulation Time
30
20
6. SOURCE DATA
Source Thickness
10
Source Zones
Width (ft)
Conc (mg/L)
0 0
0 0
50 0.2
0 0
0 0
Source Decay (see Help):
Source Half-life
Infinite
NAPL
Infinite
7. FIELD DATA FOR COMPARISON
Concentration (mg/L)
Distance from Source (ft)
0 19 38 57 76 95 114 133 152 171 190
8. CHOOSE TYPE OF OUTPUT TO SEE
RUN CENTERLINE
View Output
RUN ARRAY
View Output
Help
Recalculate This Sheet
Paste Example Dataset
Restore Formulas for Ve, Dispersivities, R, lambda, other
Vertical Plane Source: Look at Plume Cross-Section and Input Concentrations & Widths for Zones 1, 2, and 3
1
2
3
4
5


1st Order Decay
Instantaneous Reaction
No Degradation
Field Data from Site
Concentration (mg/L)
0.250
0.200
0.150
0.100
0.050
0.000
0
20
40
60
80
100
120
140
160
180
200
Distance From Source (ft)
Calculate
Next Timestep
Animation
Prev Timestep
Time
30 Years
Return to Input
Recalculate This Sheet

APPENDIX G

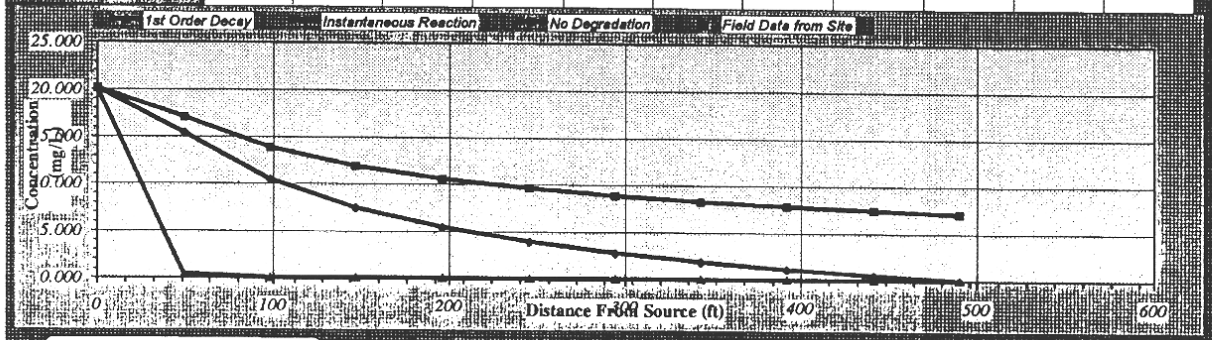
SSTL CALCULATION DATA


BIOSCREEN Natural Attenuation Decision Support System
Hungry Jax #1
GWPD Site No. 10828
Run Name
1. HYDROGEOLOGY
Seepage Velocity
91.0
Hydraulic Conductivity
2.2E-03
Hydraulic Gradient
0.01
Porosity
0.25
2. DISPERSION
Longitudinal Dispersivity
31.1
Transverse Dispersivity
3.1
Vertical Dispersivity
0.0
Estimated Plume Length
1620
3. ADSORPTION
Retardation Factor
1.5
Soil Bulk Density
1.65
Partition Coefficient
81
Fraction Organic Carbon
1.00E-03
4. BIODEGRADATION
1st Order Decay Coeff.
1.6E+1
Solute Half-Life
0.04
Delta Oxygen
3.6
Delta Nitrate
0.28
1.9
45
2. GENERAL
Modeled Area Length
490
Modeled Area Width
50
Simulation Time
30
3. SOURCE DATA
Source Thickness
10
Source Zones
Width (ft)
Conc. (mg/L)
0
0
0
0
50
20.1
0
0
Source Decay (see Help):
Source Halflife
Infinite
Soluble Mass in NAPL/Soil
Infinite
7. FIELD DATA FOR COMPARISON
Concentration (mg/L)
Distance from Source (ft)
0
49
98
147
196
245
294
343
392
441
490
Vertical Plane Source: Look at Plume Cross-Section and Input Concentrations & Widths for Zones 1, 2, and 3
8. CHOOSE TYPE OF OUTPUT TO SEE
RUN CENTERLINE
View Output
RUN ARRAY
View Output
Help
Recalculate This Sheet
Paste Example Dataset
Restore Formulas for Vs, Dispersivities, R, lambda, other

Benzene

DISSOLVED HYDROCARBON CONCENTRATION ALONG CROSS-SECTION

TYPE OF MODEL										
No Degradation	20.100	17.037	13.838	11.886	10.567	9.605	8.863	8.270	7.781	7.370	7.017
[illegible]	20.100	0.379	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Instantaneous Reaction	20.100	15.381	10.453	7.446	5.415	3.931	2.789	1.875	1.122	0.489	0.000
[illegible]											



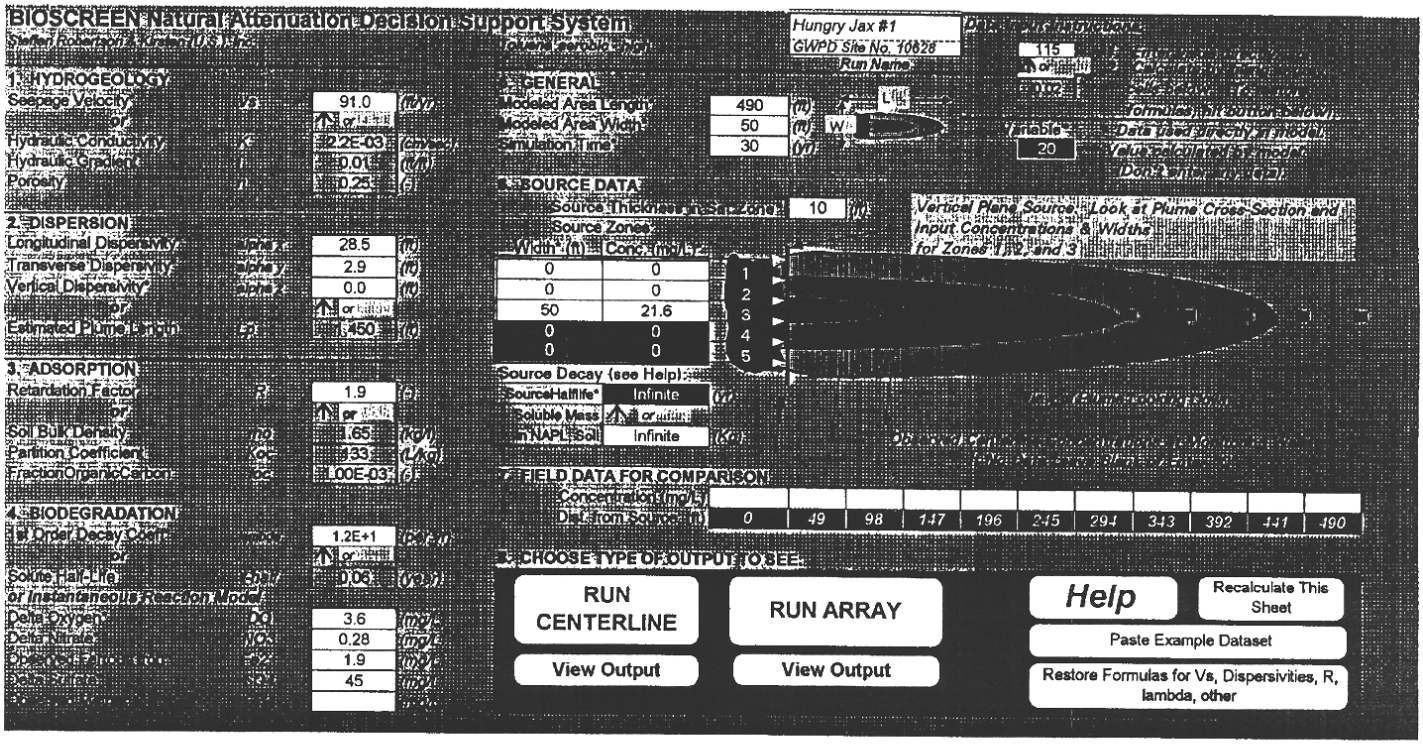
Calculate Next Timestep
Animation
Prev Timestep

30 Years

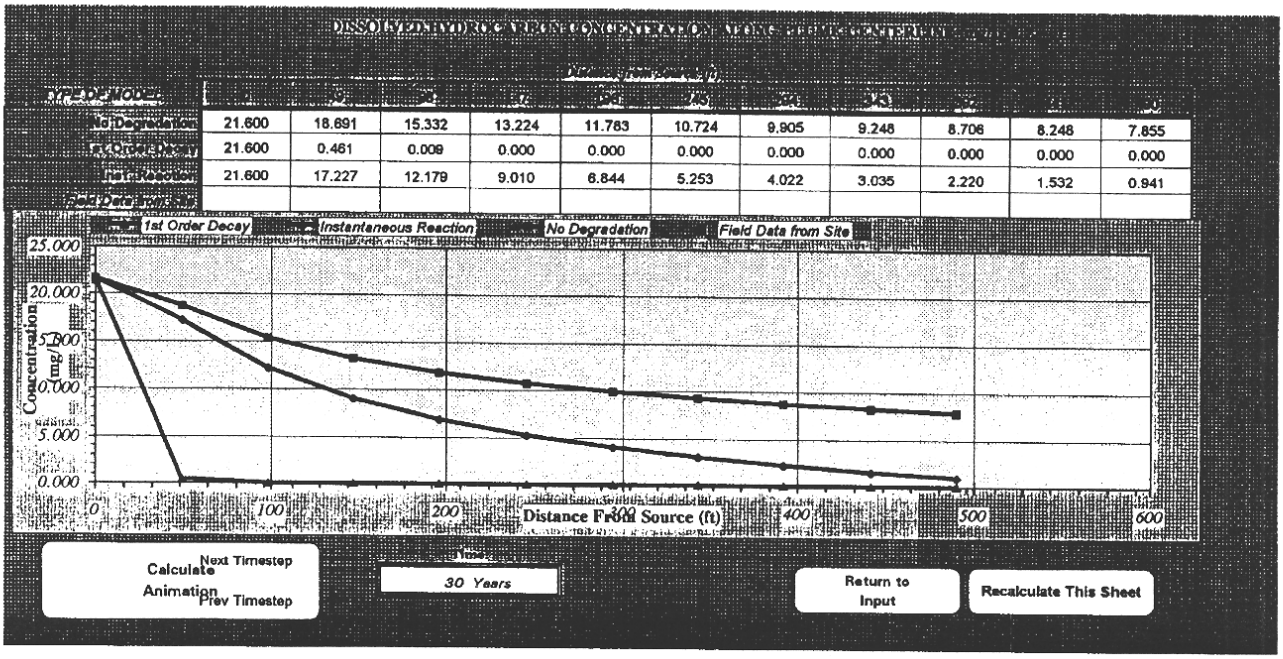
Return to Input

Recalculate This Sheet

Benzene

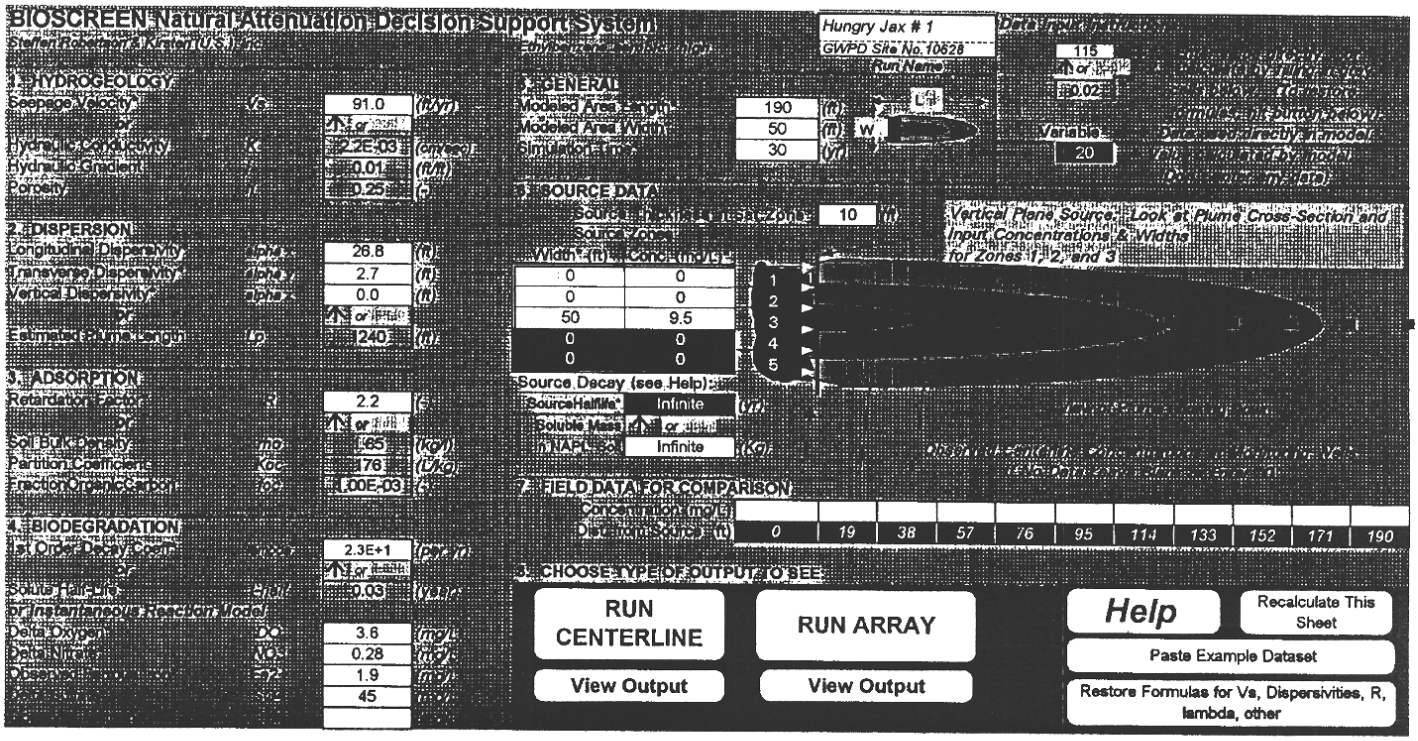

BIOSCREEN Natural Attenuation Decision Support System
Hungry Jax #1
GWPD Site No. 10826
Run Name
1. HYDROGEOLOGY
Seepage Velocity
Vs
91.0
ft/yr
or
Hydraulic Conductivity
K
2.2E-03
cm/sec
Hydraulic Gradient
i
0.01
ft/ft
Porosity
n
0.25
2. DISPERSION
Longitudinal Dispersivity
alpha x
28.5
ft
Transverse Dispersivity
alpha y
2.9
ft
Vertical Dispersivity
alpha z
0.0
ft
or
Estimated Plume Length
Ex
450
ft
3. ADSORPTION
Retardation Factor
R
1.9
or
Soil Bulk Density
rho
1.65
kg/L
Partition Coefficient
Kc
133
L/kg
Fraction Organic Carbon
foc
1.00E-03
4. BIODEGRADATION
1st Order Decay Coefficient
1.2E+1
1/yr
or
Solute Half-Life
ln(2)/
0.06
yr
or Instantaneous Reaction Model
Delta Oxygen
DO
3.6
mg/L
Delta Nitrate
DNO3
0.28
mg/L
1.9
mg/L
45
mg/L
1. GENERAL
Modeled Area Length
490
ft
Modeled Area Width
50
ft
Simulation Time
30
yr
2. SOURCE DATA
Source Thickness
10
ft
Source Zones
Width (ft)
Conc. (mg/L)
0
0
0
0
50
21.6
0
0
0
0
Source Decay (see Help):
Source Half-life*
Infinite
yr
Soluble Mass
or
in NAPL Soil
Infinite
kg
Vertical Plane Source - Look at Plume Cross-Section and Input Concentrations & Widths for Zones 1, 2, and 3
1
2
3
4
5
7. FIELD DATA FOR COMPARISON
Concentration (mg/L)
Dist. from Source (ft)
0
49
98
147
196
245
294
343
392
441
490
8. CHOOSE TYPE OF OUTPUT TO SEE:
RUN CENTERLINE
View Output
RUN ARRAY
View Output
Help
Recalculate This Sheet
Paste Example Dataset
Restore Formulas for Vs, Dispersivities, R, lambda, other

Toluene



No Degradation	21.600	18.691	15.332	13.224	11.783	10.724	9.905	9.248	8.708	8.248	7.855
1st Order Decay	21.600	0.461	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Inst. Reaction	21.600	17.227	12.179	9.010	6.844	5.253	4.022	3.035	2.220	1.532	0.941

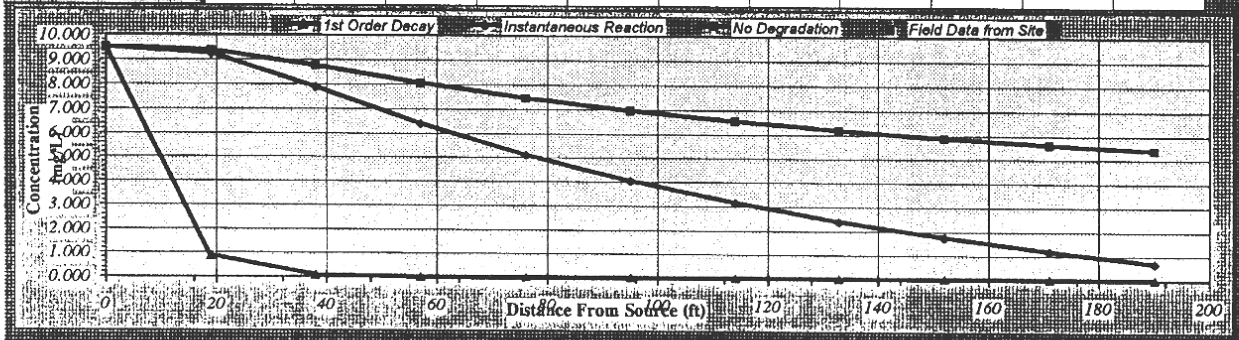
Toluene



Ethylbenzene.

DISSOLVED HYDROCARBON CONCENTRATION ALONG FLOW CENTERLINE

	0	20	40	60	80	100	120	140	160	180	200
	9.500	9.375	8.743	8.052	7.456	6.958	6.540	6.186	5.882	5.618	5.385
	9.500	0.861	0.074	0.006	0.001	0.000	0.000	0.000	0.000	0.000	0.000
	9.500	9.232	7.878	6.397	5.117	4.050	3.155	2.396	1.744	1.178	0.679



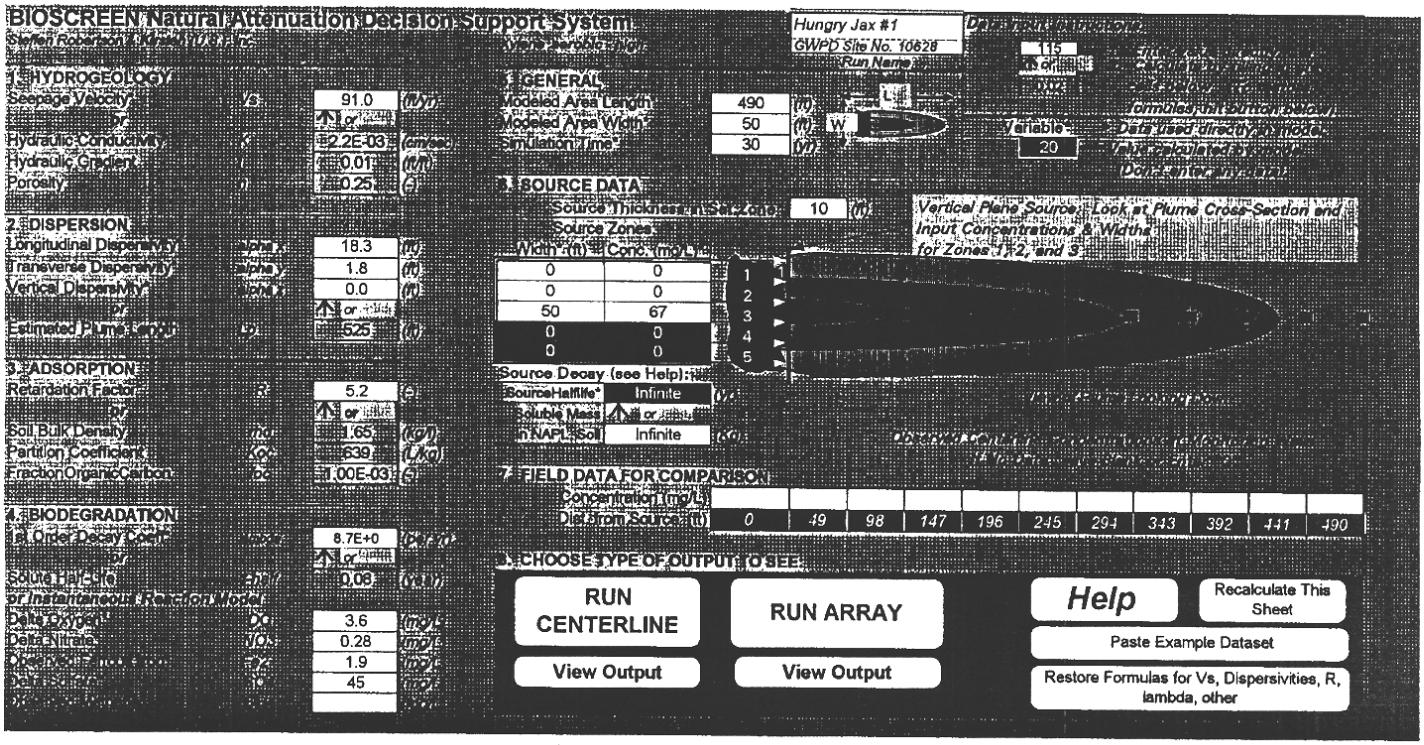
Calculate Next Timestep
Animation
Prev Timestep

30 Years

Return to Input

Recalculate This Sheet

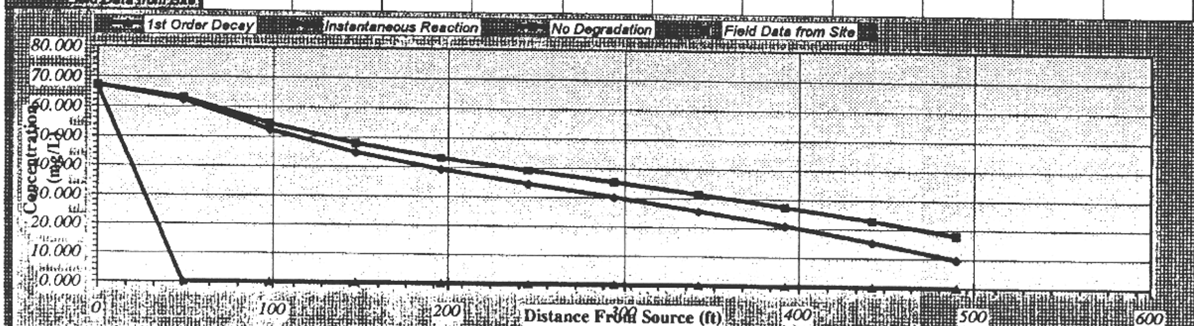
Ethylbenzene


BIOSCREEN Natural Attenuation Decision Support System
Hungry Jax #1
GWPD Site No. 10628
Run Name
1. HYDROGEOLOGY
Seepage Velocity
91.0
Hydraulic Conductivity
2.2E-03
Hydraulic Gradient
0.01
Porosity
0.25
2. DISPERSION
Longitudinal Dispersivity
18.3
Transverse Dispersivity
1.8
Vertical Dispersivity
0.0
Estimated Plume Length
525
3. ADSORPTION
Retardation Factor
5.2
Soil Bulk Density
1.65
Partition Coefficient
639
Fraction Organic Carbon
1.00E-03
4. BIODEGRADATION
1st Order Decay Coef.
8.7E+0
Solute Half-life
0.08
Dela Oxygen
3.6
Delta Nitrate
0.28
1.9
45
1. GENERAL
Modeled Area Length
490
Modeled Area Width
50
Simulation Time
30
2. SOURCE DATA
Source Thickness in Saturated Zone
10
Source Zones
Width (ft)
Conc. (mg/L)
0
0
0
0
50
67
0
0
0
0
Source Decay (see Help):
SourceHalfLife*
Infinite
Soluble Mass
NAPL Soil
Infinite
Vertical Plane Source: Look at Plume Cross-Section and Input Concentrations & Widths for Zones 1, 2, and 3
1
2
3
4
5
7. FIELD DATA FOR COMPARISON
Concentration (mg/L)
Dist from Source (ft)
0
49
98
147
196
245
294
343
392
441
490
8. CHOOSE TYPE OF OUTPUT TO SEE
RUN CENTERLINE
View Output
RUN ARRAY
View Output
Help
Recalculate This Sheet
Paste Example Dataset
Restore Formulas for Vs, Dispersivities, R, lambda, other

Xylenes

DISSOLVED HYDROCARBON CONCENTRATION ALONG PLUME [illegible]

TYPE OF MODEL	Distance from Source (ft)									
	0	[illegible]	98	147	[illegible]	245	294	[illegible]	[illegible]	[illegible]	[illegible]
No Degradation	67.000	62.808	54.386	47.964	43.072	39.017	35.267	31.420	27.216	22.597	17.738
1st Order Decay	67.000	0.068	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Inst. Reaction	67.000	62.129	52.340	44.876	39.192	34.479	30.121	25.650	20.765	15.396	9.749
Field Data from Site											



Calculate Animation

Next Timestep

Prev Timestep

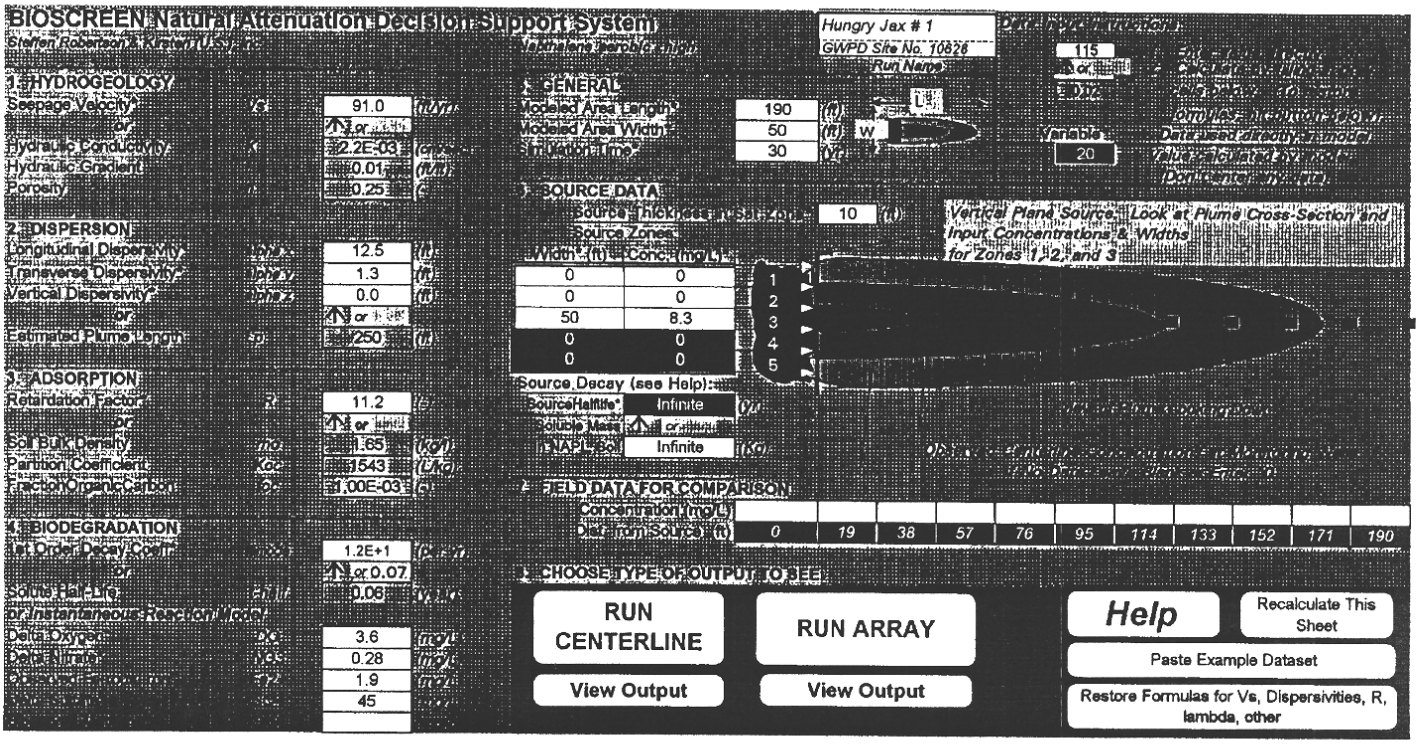
Time:

30 Years

Return to Input

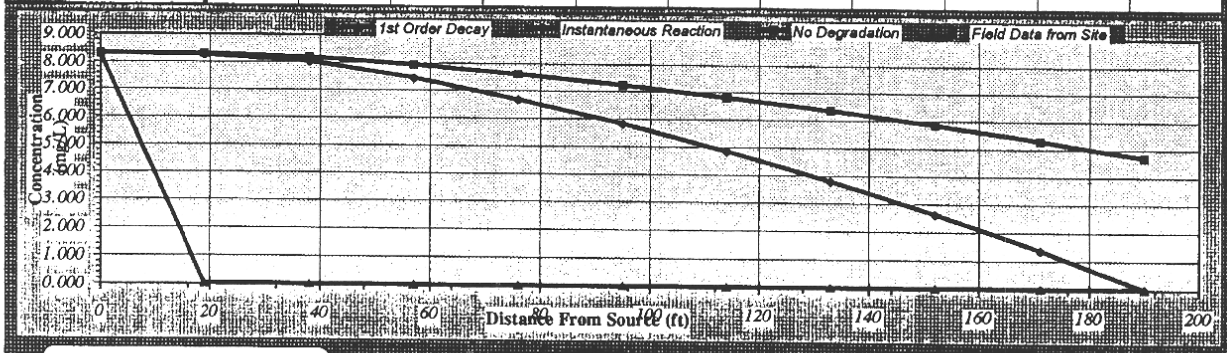
Recalculate This Sheet

Xylenes



Naphthalene

TYPE OF MODEL	0	10	30	50	70	90	110	130	150	170	190
No Degradation	8.300	8.281	8.179	7.931	7.597	7.218	6.803	6.348	5.847	5.295	4.694
1st Order Decay	8.300	0.028	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Instantaneous Reaction	8.300	8.256	8.021	7.447	6.677	5.801	4.842	3.793	2.636	1.360	0.000
Field Data from Site											



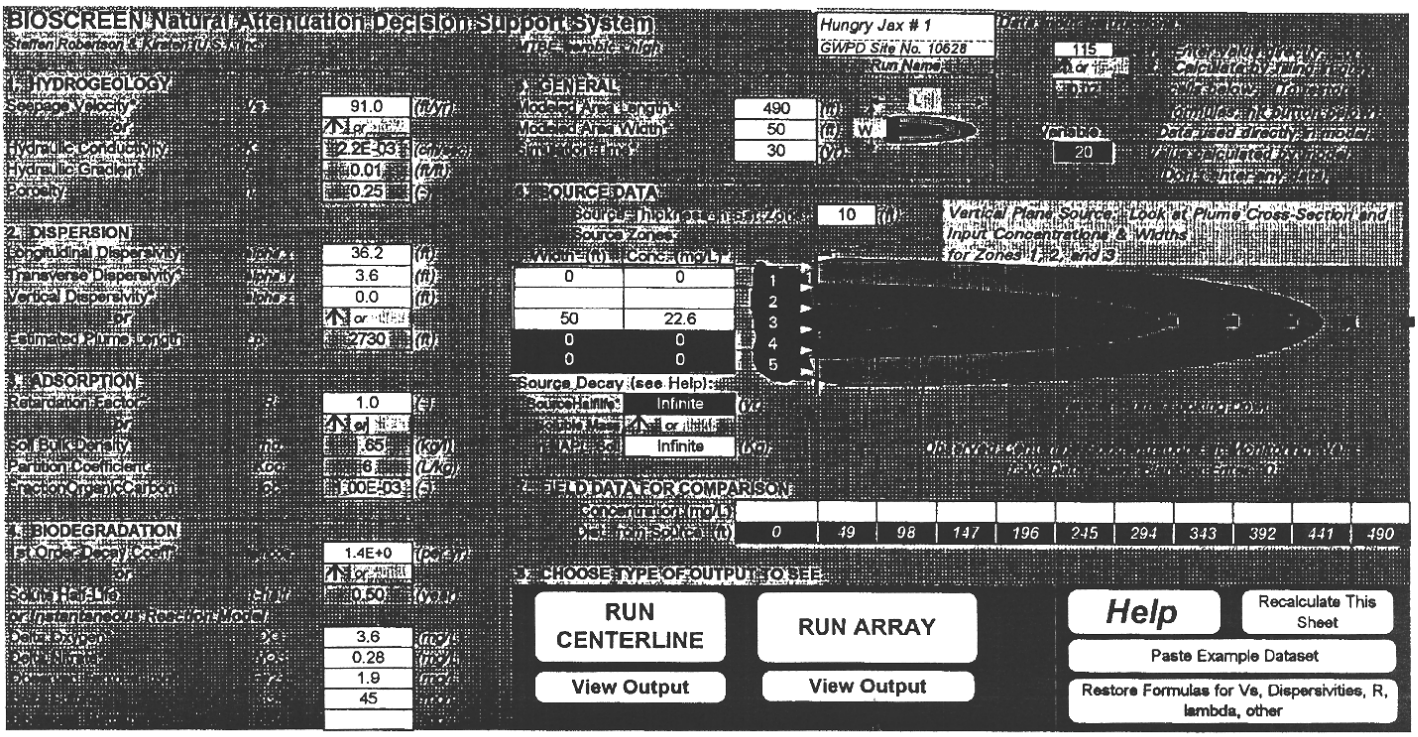
Calculate Next Timestep / Animation / Prev Timestep

30 Years

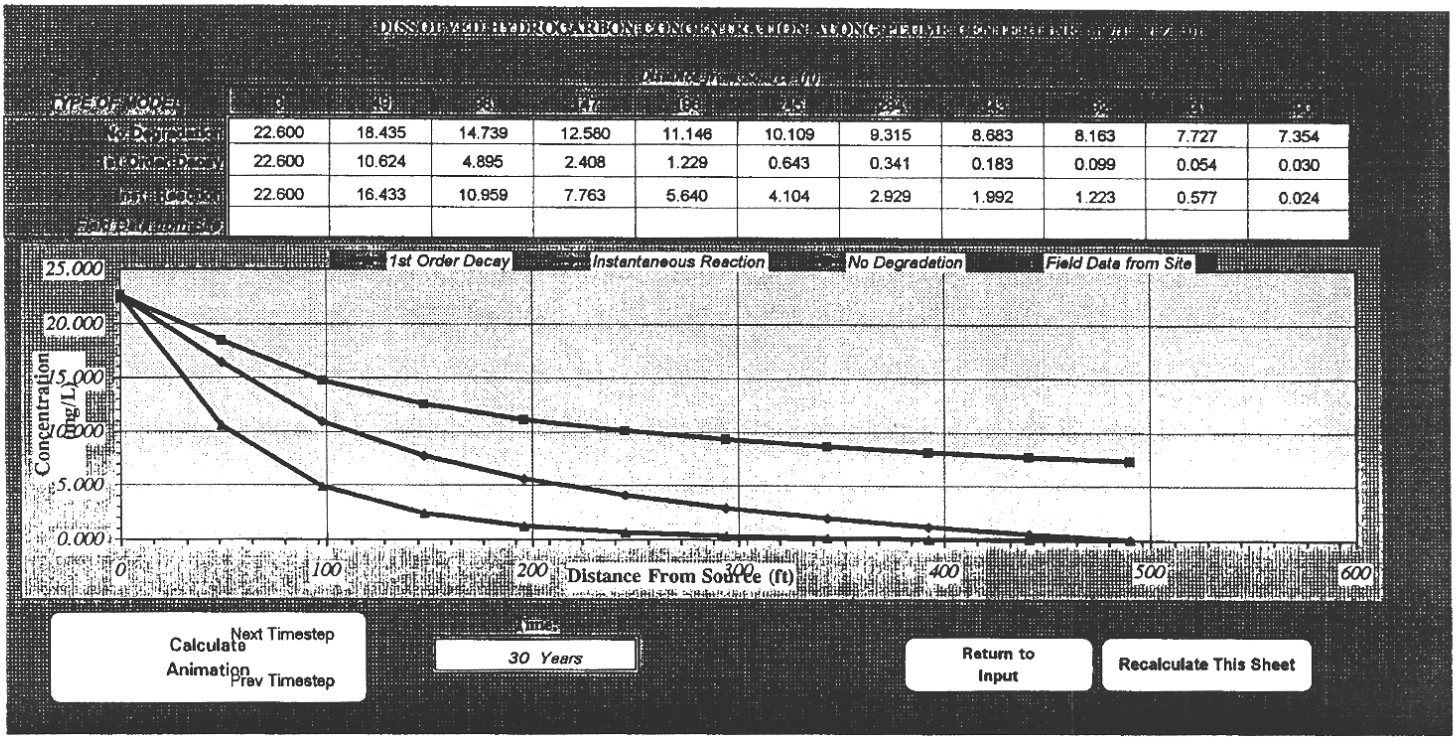
Return to Input

Recalculate This Sheet

Naphthalene

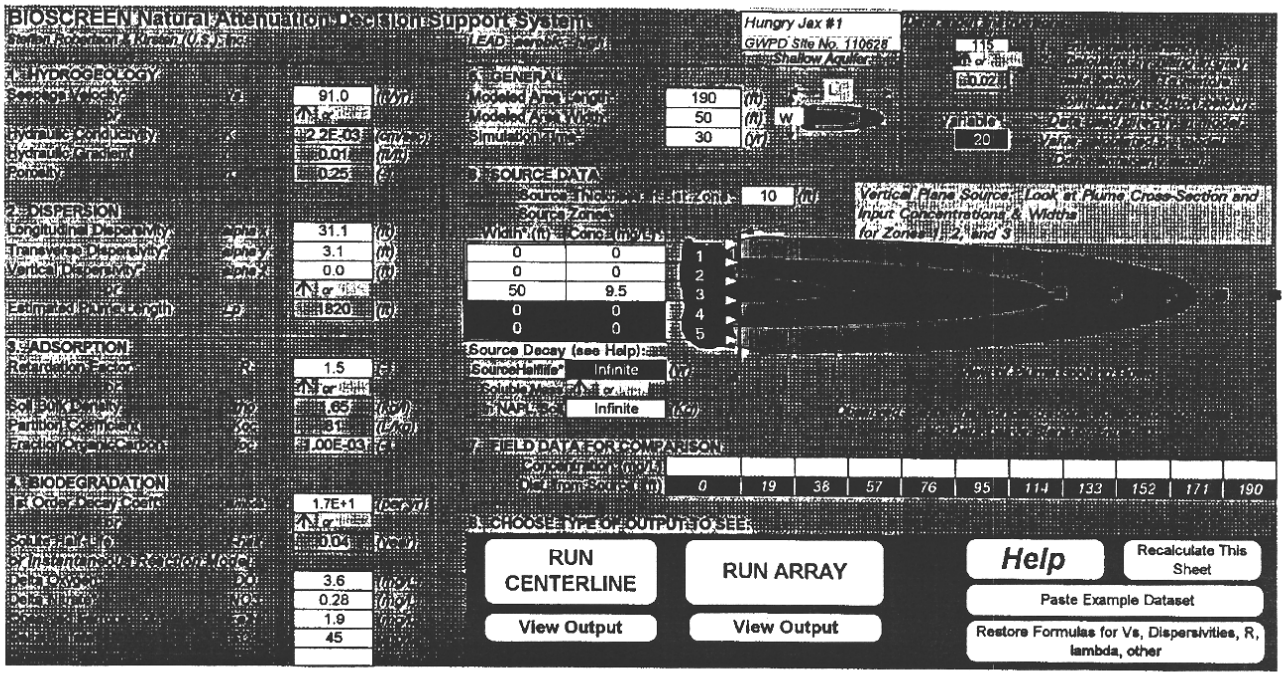

BIOSCREEN Natural Attenuation Decision Support System
Hungry Jax # 1
GWPD Site No. 10628
Run Name
1. HYDROGEOLOGY
Seepage Velocity
or
Hydraulic Conductivity
Hydraulic Gradient
Porosity
91.0
2.2E-03
0.01
0.25
2. DISPERSION
Longitudinal Dispersivity
Transverse Dispersivity
Vertical Dispersivity
Estimated Plume Length
36.2
3.6
0.0
2730
3. ADSORPTION
Retardation Factor
or
Soil Bulk Density
Partition Coefficient
Fraction Organic Carbon
1.0
1.65
6
.00E-03
4. BIODEGRADATION
1st Order Decay Coefficient
or
Solute Half-Life
or Instantaneous Reaction Model
1.4E+0
0.50
3.6
0.28
1.9
45
GENERAL
Modeled Area Length
Modeled Area Width
490
50
30
SOURCE DATA
Source Thickness
Source Zones
Width (ft)
Conc. (mg/L)
10
0
0
50
22.6
0
0
Source Decay (see Help):
Infinite
Infinite
Vertical Plane Source: Look at Plume Cross-Section and Input Concentrations & Widths for Zones 1, 2, and 3
FIELD DATA FOR COMPARISON
Concentration (mg/L)
Distance from Source (ft)
0
49
98
147
196
245
294
343
392
441
490
CHOOSE TYPE OF OUTPUT TO SEE
RUN CENTERLINE
View Output
RUN ARRAY
View Output
Help
Recalculate This Sheet
Paste Example Dataset
Restore Formulas for Vs, Dispersivities, R, lambda, other

MTBE



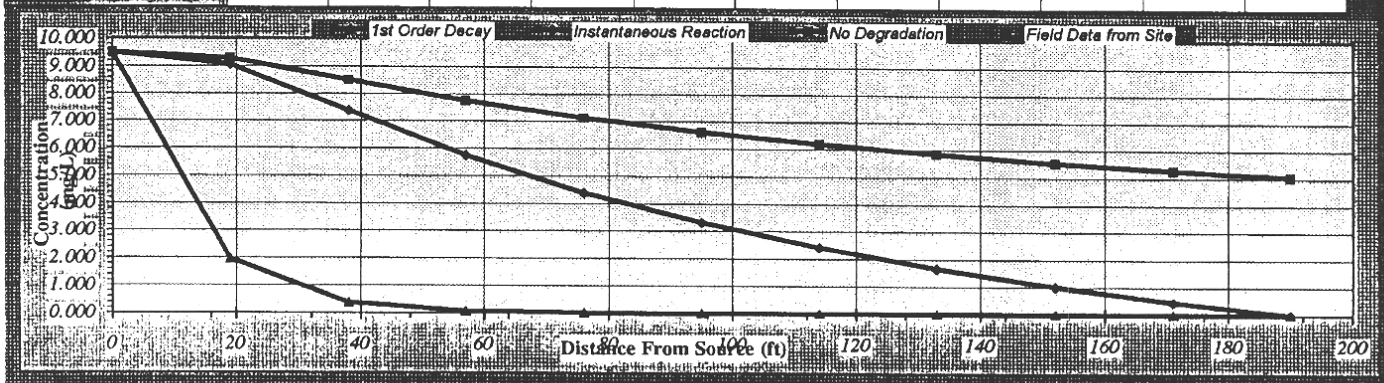
TYPE OF MODEL	0	50	100	150	200	250	300	350	400	450	500
No Degradation	22.600	18.435	14.739	12.580	11.146	10.109	9.315	8.683	8.163	7.727	7.354
1st Order Decay	22.600	10.624	4.895	2.408	1.229	0.643	0.341	0.183	0.099	0.054	0.030
Inst. Reaction	22.600	16.433	10.959	7.763	5.640	4.104	2.929	1.992	1.223	0.577	0.024
Field Data											

MTBE


BIOSCREEN Natural Attenuation Decision Support System
LEAD
Hungry Jax #1
GWPD Site No. 110628
Shallow Aquifer
1. HYDROGEOLOGY
Seepage Velocity
91.0
Hydraulic Conductivity
2.2E-03
Hydraulic Gradient
0.01
Porosity
0.25
2. DISPERSION
Longitudinal Dispersivity
31.1
Transverse Dispersivity
3.1
Vertical Dispersivity
0.0
Estimated Plume Length
820
3. ADSORPTION
Retardation Factor
1.5
Soil Bulk Density
1.65
Partition Coefficient
81
Fraction Organic Carbon
.00E-03
4. BIODEGRADATION
First Order Decay Coefficient
1.7E+1
0.04
3.6
0.28
1.9
45
2. GENERAL
Modeled Area Length
190
Modeled Area Width
50
W
Simulation Time
30
3. SOURCE DATA
Source Thickness
10
Source Zones
Width (ft)
Conc. (mg/L)
0
0
0
0
50
9.5
0
0
0
0
Source Decay (see Help):
Source Half-life
Infinite
NAPL
Infinite
Vertical Plane Source - Look at Plume Cross-Section and Input Concentrations & Widths for Zones 1, 2, and 3
7. FIELD DATA FOR COMPARISON
Concentration (mg/L)
Distance (ft)
0
19
38
57
76
95
114
133
152
171
190
8. CHOOSE TYPE OF OUTPUT TO SEE:
RUN CENTERLINE
View Output
RUN ARRAY
View Output
Help
Recalculate This Sheet
Paste Example Dataset
Restore Formulas for Vs, Dispersivities, R, lambda, other

DISSOLVED HYDROCARBON CONCENTRATION VERSUS DISTANCE

TYPE OF MODEL	0	10	20	30	40	50	60	70	80	90	100
No Degradation	9.500	9.295	8.511	7.747	7.120	6.612	6.193	5.842	5.544	5.286	5.060
1st Order Decay	9.500	1.953	0.376	0.072	0.014	0.003	0.001	0.000	0.000	0.000	0.000
Inst. Reaction	9.500	9.061	7.379	5.742	4.399	3.308	2.411	1.659	1.019	0.466	0.000
Field Data from Site											



Calculate Next Timestep
Animation
Prev Timestep

Time
30 Years

Return to Input

Recalculate This Sheet

NATIONAL
ENVIRONMENTAL
SERVICE COMPANY

NESCO
For Practical Solutions.

September 2, 1999

Department of Health and Environmental Control
2600 Bull Street
Cola, S.C.

521 Clemson Road
Columbia, South Carolina 29229
803-699-1976

Fax 803-699-9863

Attn: Kristen Heim

Here are the field notes for the slug test conducted at Hungry Jax 1, located in Jasper County South Carolina.

If there are any questions in this regard, please contact us at 803-699-1976.

Sincerely,

NO SSTL'S

Brad Defee
Environmental Scientist

MW-1 Slug Test Data 12/10/97 slug out

Time	Depth to Water	Elapsed Time	dec. min.	drawdown
0:00:00	5.14	0	0	0.00
0:00:15	6.20	15	0.25	1.06
0:00:35	5.78	35	0.583333	0.64
0:00:55	5.70	55	0.916667	0.56
0:01:15	5.66	75	1.25	0.52
0:01:30	5.63	95	1.583333	0.49
0:01:55	5.61	115	1.916667	0.47
0:02:15	5.59	135	2.25	0.45

PW-1 Slug Test Data 12/10/97 slug out

Time	Depth to Water	Elapsed Time	dec. min.	drawdown
0:00:00	3.66	0	0	0.00
0:00:15	3.80	15	0.25	0.14
0:00:35	3.67	35	0.583333	0.01
0:00:55	3.67	55	0.916667	0.01
0:01:15	3.67	75	1.25	0.01
0:01:30		95	1.583333	#VALUE!
0:01:55		115	1.916667	#VALUE!
0:02:15	3.66	135	2.25	0.00

MW-3 Slug Test Data 12/10/97 slug out

Time	Depth to Water	Elapsed Time	dec. min.	drawdown
0:00:00	3.84	0	0	0.00
0:00:15	4.94	15	0.25	1.10
0:00:35	4.49	35	0.583333	0.65
0:00:55	4.39	55	0.916667	0.55
0:01:15	4.33	75	1.25	0.49
0:01:30	4.30	95	1.583333	0.46
0:01:55	4.28	115	1.916667	0.44
0:02:15	4.25	135	2.25	0.41

MW-4 Slug Test Data 12/10/97 slug out

Time	Depth to Water	Elapsed Time	dec. min.	drawdown
0:00:00	1.95	0	0	0.00
0:00:15	2.25	15	0.25	0.30
0:00:35	2.03	35	0.583333	0.08
0:00:55	2.00	55	0.916667	0.05
0:01:15	1.99	75	1.25	0.04
0:01:30	1.98	95	1.583333	0.03
0:01:55	1.97	115	1.916667	0.02
0:02:15	1.96	135	2.25	0.01

12-8-97

8:45 GEORGE SOUTHER 21628 8.0 hrs

30. MIN LUNCH

5:30 DEPART

12-9-97

OFF TUESDAY

12-10-97

HUNGRY JAX # 1 21643

6:00 DEPART HOME

8:55 ONSITE - ATLANTIC BORING ONSITE

CRAIG & HELPER

MW-5/BACKGROUND SOUTH OF UST PIT

4-5 TAN-GRAY-BLACK, FINE TO MEDIUM GRAINED SAND, CLAY STRONG PETRO ODOR - WET

CALL OFFICE - NO LARRY

COLLECT TPH SAMPLE 5-10

ABANDON HOLE / MOVE MW-5

PASSAGER SIDE OUTRIGGER HYDROLIC LINE BUSTED - DRILL DOWN

CALL LARRY - RAIN

WAIT

15	
35	
55	
75	
95	
115	
135	
15	
35	
55	
75	
95	
115	
135	

SLUG TEST MW-3

SWL = 3.84

0	= 5.15	4.94
20	= 4.55	4.49
40	= 4.43	4.39
60	= 4.35	4.33
80	= 4.33	4.30
100	= 4.29	4.28
120	= 4.25	4.25

SLUG TEST MW-4

SWL = 1.95

0	= 2.25
20	= 2.03
40	= 2.00
60	= 1.99
80	= 1.98
100	= 1.97
120	= 1.96

SLUG TEST PW1

SWL = 3.66

15 10 = 3.80
35 20 = 3.69
55 40 = 3.67
75 60 = 3.67
95 80 = "
115 100 = "
135 120 = 3.66

SLUG TEST MW-1

SWL = 5.14

15 0 = 6.20
35 20 = 5.78
55 40 = 5.70
75 60 = 5.66
95 80 = 5.63
115 100 = 5.61
135 120 = 5.59

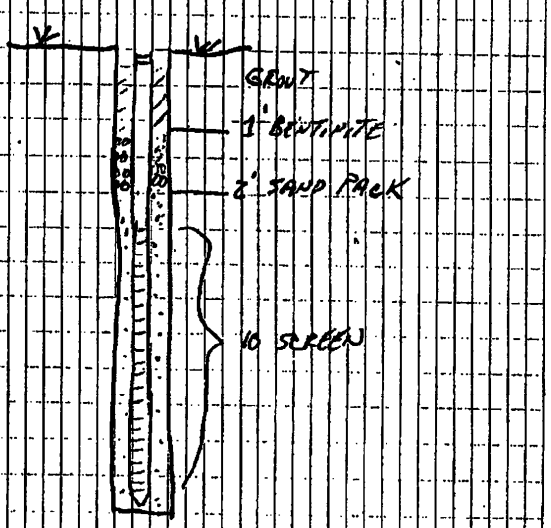
TONY ONSITE

RIG USEABLE

SETUP ON MW-5

COLLECT MW-5-1 FOR TOC

SET WELL @ 13' BLS



SOIL: BLACK-TAN-GRAY FINE TO MEDIUM GRAINED SANDY SILTY CLAY DOWN TO 13'

NO PET ODOR

0.002

D H E C

PROMOTE PROTECT PROSPER

W. Marshall Taylor Jr., Acting Director

Promoting and protecting the health of the public and the environment

MR DONNIE MALPHRUS
MALPHRUS ENTERPRISES
PO BOX 488
HARDEEVILLE SC 29927-0488

MAR 2 4 2015

UST DOCKETING 46tcl

Re: **Public Notice**
Pantry 911, 6195 South Okatie Highway, Hardeeville, SC 29927-8034
UST Permit #10628; CA #48653
Corrective Action Plan Received March 20, 2015
Jasper County

Dear Mr. Malphrus:

As you may be aware, petroleum products have been identified in the soil and groundwater at the referenced facilities. To prevent the release from becoming an unacceptable risk, Midlands Environmetnal Consultants, Inc. has requested to initiate a corrective action approach to clean up the impacted soil and groundwater using vacuum extraction, soil vapor extraction, and carbon injection.

Section 280.67 of the South Carolina Underground Storage Tank Regulations requires the SCDHEC to provide notice to those members of the public that may be affected by a planned corrective action. A copy of the public notice is enclosed for your information.

If you have any questions or comments regarding the proposed corrective action, please contact me by phone at (803) 898-0606, by fax at (803) 898-0673, or by email at bryantjc@dhec.sc.gov. All comments should be submitted on or before April 15, 2015.

Sincerely,

John C. Bryant, Hydrogeologist
Corrective Action Section
Underground Storage Tank Program
Bureau of Land and Waste Management

enc: Public Notice
Citizens Guides

cc: Midlands Environmental Consultants, Inc., PO Box 854, Lexington, SC 29071 (w/ enc)

Technical File

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

PUBLIC NOTICE

Notice # 10628-01
March 23, 2015

This notice is to inform the public that the S. C. Department of Health and Environmental Control (Agency) is taking public comments on a Corrective Action Plan (CAP). This CAP addresses the cleanup of soil and groundwater contamination at the facility listed below. The contamination was caused by petroleum products that were released from the underground storage tank system at this facility.

FACILITY: **Shree Jakshani, LLC DBA Okatie Mart, 6195 S. Okatie Hwy, Hardeeville, SC**

APPLICANT: **Midlands Environmental Consultants, Inc., PO Box 854, Lexington, SC on behalf of Mr. Donnie Malphrus, PO Box 488, Hardeeville, SC**

SUMMARY OF CAP: Petroleum and petroleum byproducts naturally break down over time through chemical, physical, and biological processes. These processes are called natural attenuation. Midlands Environmental Consultants, Inc. has submitted a CAP proposing the use of the following technologies in addition to natural attenuation to clean up the contamination.

- Carbon Injection and Aggressive Fluid Vapor Recovery: Carbon is injected to trap the mobility of the petroleum contamination. The carbon and contamination are then recovered through aggressive fluid vapor recovery events, where a high-pressure vacuum is attached to recovery wells to remove petroleum vapors, contaminated groundwater, and the petroleum product.

PUBLIC COMMENT PERIOD DEADLINE: The **deadline** for submitting written comments is **5 PM April 15, 2015.** Any interested person(s) may submit written comments concerning the cleanup to the Project Manager listed below. Please bring this notice to the attention of persons whom you know will be interested in this matter. Where there is a significant degree of public interest, the Agency will hold a public hearing.

John Bryant
SCDHEC - UST Management Division
2600 Bull Street
Columbia SC 29201
803-896-6323

CONTACT INFORMATION: For additional information, please call the Project Manager listed above. To view a copy of the CAP, contact the Freedom of Information Office at 803-898-3882.

Section 280.67 of the S.C. Underground Storage Tank Control Regulations (R.61-92) requires that any CAP prepared to meet the requirements of 280.66 be placed on notice for public comment.

D H E C

PROMOTE PROTECT PROSPER

W. Marshall Taylor Jr., Acting Director

Promoting and protecting the health of the public and the environment

MR DONNIE MALPHRUS
MALPHRUS ENTERPRISES
PO BOX 488
HARDEEVILLE SC 29927

APR 27 2015

Re: **Notice to Proceed**
Pantry 911, 6195 South Okatie Highway, Hardeeville, SC 29927-8034
UST Permit #10628; CA #50158
Release reported April 28, 1995
Corrective Action Plan received March 20, 2015
Public Notice Completed April 15, 2015
Jasper County

Dear Mr. Malphrus:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (Agency) has reviewed the referenced documents. As required by Section 280.67 of the South Carolina Underground Storage Tank Regulations R.61-92, the UST Management Division has provided a public notice period including notice of the pending corrective actions to the surrounding landowners. No objections to the proposed actions were expressed; therefore, the Corrective Action Plan (CAP) is approved. The UST Management Division recognizes that modifications to the CAP are usually necessary as site conditions change during implementation. If changes to the CAP are later deemed necessary to achieve the Site-Specific Target Levels in a timely manner, please notify the UST Management Division. Any changes or modifications to the CAP will not result in a change order. The required Underground Injection Control (UIC) Permit is enclosed.

The Corrective Action Report, contractor checklist (QAPP Appendix K), and invoice are due within 120 days from the date of this letter. The report submitted at the completion of these activities should include the required information outlined in the QAPP. Please note that all applicable South Carolina certification requirements apply to the services and report preparation. All site rehabilitation activities must be performed and submitted by a South Carolina Certified Underground Storage Tank Site Rehabilitation Contractor.

Corrective Action activities at the site should begin immediately upon receipt of this letter. Cost agreement # 50158 has been approved for the amount shown on the enclosed cost agreement form for corrective action activities, AFVR and groundwater sampling. Groundwater analyses should be conducted for BTEX, Naphthalene, MTBE, Oxygenates, 1,2-DCA, Ethanol, and EDB. Analyses should be in accordance with Appendix E of the QAPP to include duplicate samples, field and trip blanks.

In accordance with the QAPP Rev. 2.0, if any quality assurance problems arise, you must contact the Agency project manager within 24 hours via phone or e-mail. In addition, a discussion of the problem(s) encountered, including quality assurance problems, the actions taken, and the results must be included in the final report submitted to the UST Management Division.

Your contractor can submit an invoice for direct payment from State Underground Petroleum Environmental Response Bank (SUPERB) Account for pre-approved costs. By law, the SUPERB Account cannot compensate any costs that are not pre-approved. Please note that applicable South Carolina certification requirements regarding laboratory services, well installation, and report preparation must be satisfied. If the invoice is not submitted within 120 days from the date of this letter, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available.

Please note that Sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that no costs will be allowed unless prior approval from the Agency is obtained. If for any reason additional tasks will be completed, these additional tasks and the associated cost must be pre-approved by the Division for the cost to be paid. The Agency reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria. Further, the Agency reserves the right to question and/or reject costs if deemed unreasonable and the right to audit project records at any time during the project or after completion of work.

Please note, if unnecessary dilutions are completed resulting in reporting limits of individual CoC in excess of Risk-Based Screening Levels (RBSLs), the data cannot be used. In those cases, the UST Division may deny payment for any non-detect analysis where the reporting limit exceeds the RBSL. The UST Management Division encourages the use of 'J' values as necessary so the appropriate action can be determined for a release.

The Agency grants pre-approval for transportation of virgin petroleum impacted soil and groundwater from the referenced site to a permitted treatment facility. The transport and disposal must be conducted in accordance with the QAPP. If the CoC concentrations based on laboratory analysis are below RBSLs, please contact the project manager for approval to dispose of soil and/or groundwater on site. The SUPERB Account will not reimburse for transportation or treatment of soil and/or groundwater with concentrations below RBSLs.

On all correspondence regarding this site, please reference UST Permit # 10628 and CA # 50158. If you have any questions regarding this correspondence, please contact me by telephone at (803) 898-0606, by fax at (803) 898-0673, or by e-mail at bryantjc@dhec.sc.gov.

Sincerely,

John C. Bryant, Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

enc: Approved Cost Agreement
UIC Permit

cc: Midlands Environmental Consultants, Inc., PO Box 854, Lexington, SC 29071 (w/enc)
Technical File (w/enc)

D H E C
PROMOTE PROTECT PROSPER
W. Marshall Taylor Jr., Acting Director
Promoting and protecting the health of the public and the environment

March 25, 2015

(BOW-GWPROT-CAW)
Mr. Bryan T. Shane
Midland's Environmental Consultants, Inc.
235 Dooley Rd.
Lexington, SC 29073

Re: Underground Injection Control Permit #SCHE03020434
Pantry 911/Okatie Mart (USTP #10628) Site
Jasper County

Dear Mr. Shane:

Enclosed is a Permit to Construct for eighty (80) Class V.A.-I injection wells at the Pantry 911/Okatie Mart (USTP #10628) Site, Jasper County as requested in the permit application received March 20, 2015.

South Carolina Board of Health and Environmental Control
Guide to Board Review
Pursuant to S.C. Code Ann. § 44-1-60
Effective April 1, 2013

The decision of the South Carolina Department of Health and Environmental Control (Department) becomes the final agency decision fifteen (15) calendar days after notice of the decision has been mailed to the applicant, permittee, licensee and affected persons who have requested in writing to be notified, unless a written request for final review accompanied by a filing fee in the amount of $100 is filed with Department by the applicant, permittee, licensee or affected person.

Applicants, permittees, licensees, and affected parties are encouraged to engage in mediation during the final review process.

If the Board declines in writing to schedule a final review conference, the Department's decision becomes the final agency decision and an applicant, permittee, licensee, or affected person may request a contested case hearing before the Administrative Law Court within thirty (30) calendar days after notice is mailed that the Board declined to hold a final review conference.

I. Filing of Request for Final Review

1. A written Request for Final Review (RFR)and the required filing fee of one hundred dollars ($100) must be received by Clerk of the Board within fifteen (15)calendar days after notice of the staff decision has been mailed to the applicant, permittee, licensee, or affected persons. If the 15th day occurs on a weekend or State holiday, the RFR must be received by the Clerk on the next working day. RFRs will not be accepted after5:00 p.m.

2. RFRs shall be in writing and should include, at a minimum, the following information:

    - The grounds for amending, modifying, or rescinding the staff decision;
    - a statement of any significant issues or factors the Board should consider in deciding how to handle the matter;
    - the relief requested; and
    - a copy of the decision for which review is requested.

3. RFRs should be filed in person or by mail at the following address:

South Carolina Board of Health and Environmental Control

Attention: Clerk of the Board

2600 Bull Street

Columbia, South Carolina 29201

Alternatively, RFR's may be filed with the Clerk by facsimile (803-898-3393) or by electronic mail (boardclerk@dhec.sc.gov).

4. The filing fee maybe paid by cash, certified check or credit card. If a RFR is filed by facsimile or electronic mail, the filing fee may be mailed to the Clerk of the Board and the envelope must be postmarked within the time allowed for filing a RFR.

5. If there is any perceived discrepancy in compliance with this RFR filing procedure, the Clerk should consult with the Chairman or, if the Chairman is unavailable, the Vice-Chairman. The Chairman or the Vice-Chairman will determine whether the RFR is timely and properly filed and direct the Clerk to (1) process the RFR for consideration by the Board or (2) return the RFR and filing fee to the requestor with a cover letter explaining why the RFR was not timely or properly filed. Processing an RFR for consideration by the Board shall not be interpreted as a waiver of any claim or defense by the agency in subsequent proceedings concerning the RFR.

6. If the RFR will be processed for Board consideration, the Clerk will send an Acknowledgement of RFR to the Requestor and the applicant, permittee, or licensee, if other than the Requestor.

7. The Clerk will email the RFR to all Board members for review, and all Board members will confirm receipt of the RFR to the Clerk by email. If a Board member does not confirm receipt of the RFR within twenty-four (24) hour period, the Clerk will contact the Board member and confirm receipt. If a Board member believes the RFR should be considered by the RFR Committee, he or she will respond to the Clerk's email within forty-eight (48) hours and will request further review. If no Board member requests further review of the RFR within the forty-eight (48) hour period, the Clerk will send a letter by certified mail to the Requestor, with copy by regular mail to the applicant, permittee, or licensee, if not the Requestor, stating the Board will not hold a Final Review Conference. A copy of the Notice of Appeal Procedure will be included with the letter.

NOTE: If the time periods described above end on a weekend or State holiday, the time is automatically extended to 5:00 p.m. on the next business day.

8. If the RFR is to be considered by the RFR Committee, the Clerk will forward a copy of the RFR to Department staff and Office of General Counsel. A Department response to the RFR should be provided by Department staff to the Clerk within eight (8) working days after the RFR is forwarded.

II. Final Review Conference Scheduling

1. If a Conference will be held, the Clerk will send a letter by certified mail to the Requestor, with copy by regular mail to the applicant, permittee, or licensee, if not the Requestor, informing the Requestor of the determination.

2. The Clerk will request Department staff provide the Administrative Record.

3. The Clerk will send Notice of Final Review Conference to the parties at least ten (10) days before the Conference. The Conference will be publicly noticed and should:

   - include the place, date and time of the Conference;
   - state the presentation times allowed in the Conference;
   - state evidence may be presented at the Conference;
   - if the conference will be held by committee, include a copy of the Chairman's order appointing the committee; and
   - inform the Requestor of his or her right to request a transcript of the proceedings of the Conference prepared at Requestor's expense.

4. If a party requests a transcript of the proceedings of the Conference and agrees to pay all related costs in writing, including costs for the transcript, the Clerk will schedule a court reporter for the Conference.

III. **Final Review Conference and Decision**

1. The order of presentation in the Conference will, subject to the presiding officer's discretion, be as follows:

   - Department staff will provide an overview of the staff decision and the applicable law to include [10 minutes]:
     - Type of decision (permit, enforcement, etc.) and description of the program.
     - Parties
     - Description of facility/site
     - Applicable statutes and regulations
     - Decision and materials relied upon in the administrative record to support the staff decision.
   - Requestor(s) will state the reasons for protesting the staff decision and may provide evidence to support amending, modifying, or rescinding the staff decision. [15 minutes] *NOTE: The burden of proof is on the Requestor(s)*
   - Rebuttal by Department staff[15 minutes]
   - Rebuttal by Requestor(s)[10 minutes]

   Note: Times noted in brackets are for information only and are superseded by times stated in the Notice of Final Review Conference or by the presiding officer.

2. Parties may present evidence during the conference; however, the rules of evidence do not apply.
3. At any time during the conference, the officers conducting the conference may request additional information and may question the Requestor, the staff, and anyone else providing information at the conference.
4. The presiding officer, in his or her sole discretion, may allow additional time for presentations and may impose time limits on the Conference.
5. All Conferences are open to the public.
6. The officers may deliberate in closed session.
7. The officers may announce the decision at conclusion of the Conference or it may be reserved for consideration.
8. The Clerk will mail the written final agency decision (FAD) to parties within 30 days after the Conference. The written decision must explain the basis for the decision and inform the parties of their right to request a contested case hearing before the Administrative Law Court. The FAD will be sent by certified mail, return receipt requested.
9. Communications may also be sent by electronic mail, in addition to the forms stated herein, when electronic mail addresses are provided to the Clerk.

The above information is provided as a courtesy; parties are responsible for complying with all applicable legal requirements.

Please submit all of the well logs for the installed wells to schedule a well inspection. An inspection of the UIC System must be conducted prior to issuance of the Permit to Operate. If you have any questions, please call Christopher Wargo at (803) 898-3799.

Sincerely,

Christopher Wargo, Hydrogeologist
Groundwater Protection Section
Bureau of Water

cc: John Bryant, SCDHEC-BLWM-USTP

D H E C

PROMOTE PROTECT PROSPER

W. Marshall Taylor Jr., Acting Director

Promoting and protecting the health of the public and the environment

WATER MONITORING ASSESSMENT & PROTECTION DIVISION

Injection Well Construction Permit
for
Class II, III, and V.A. Injection Well(s)

Permit #SCHE03020434

Date Issued: March 25, 2015
Date Expired: March 25, 2016

For (Operator): Midland's Environmental Consultants, Inc.

In accordance with R.61-72 this permit will become final unless it is appealed within fifteen (15) days of the issuance date.

In accordance with provisions of Title 48, Chapter 1, South Carolina Code of Laws, 1976, as amended, permission is granted for construction of eighty (80) Class V.A.-I injection wells with a true diameter of two (2) inches, and a total depth of approximately fifteen (15) feet located at Pantry 911/Okatie Mart (USTP #10628), Jasper County, SC with the following provisions:

1) The operator shall submit completed SCDHEC well record forms to the Departments Water Monitoring, Assessment & Protection Division after completion of the injection wells.

2) Upon completion of construction, injection activities shall not commence prior to receiving approval from the Department to operate the injection wells.

3) When the injection wells are no longer in use, or upon request by the Department, within sixty (60) days all injection wells must be permanently abandoned in accordance with the South Carolina Well Standards and Regulations (R.61-71).

Charles Gorman, Director
Groundwater Protection Section
Bureau of Water

STATEMENT OF BASIS - UIC DRAFT PERMIT #SCHE03020434

In accordance with the South Carolina Underground Injection Control Regulations, Section R61-87.13(J), this Statement of Basis has been prepared for the Pantry 911/Okatie Mart (USTP #10628) Site Underground Injection Control permit application received March 20, 2015.

Ownership of the proposed injection wells is Midland's Environmental Consultants, Inc., 235 Dooley Rd., Lexington, SC 29073. The permit (UIC SCHE03020434) is for the construction of eighty (80) injection wells for a corrective action system at the Pantry 911/Okatie Mart (USTP #10628) Site. The intent of the injection wells is to inject a solution of pulverized activated carbon into the subsurface to remediate contaminated groundwater as described in the cleanup plan dated March 11, 2015. The final permit for the underground injection proposal has been prepared based on staff review and the application of the Pollution Control Act of South Carolina and the Underground Injection Control Regulations of South Carolina.

Conditions of the permit issuance include the submittal of well records for all injection wells installed and the inspection of well construction by the Department prior to injection.

Approved Cost Agreement 50158

Facility: 10628 SHREEJAKSHANI LLC DBA OKATIE MART

BRYANTJC

PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
01 PLAN						
		A1	SITE SPECIFIC WORK PLAN	1.0000	150.00	150.00
04 MOB/DEMOB						
		A1	EQUIPMENT	1.0000	1,020.00	1,020.00
		B1	PERSONNEL	2.0000	423.00	846.00
06 SOIL BORINGS (DRILLED)						
		AA	SOIL BORING/FLD SCR. STANDARD	1,200.0000	15.00	18,000.00
08 ABANDONMENT						
		A1	ABANDONMENT 2" DIA OR LESS	1,200.0000	3.10	3,720.00
10 SAMPLE COLLECTION						
		A1	GROUNDWATER (PURGE)	18.0000	60.00	1,080.00
		C1	WATER SUPPLY	1.0000	22.00	22.00
		D1	GROUNDWATER NO PURGE/DUPLICATE	1.0000	28.00	28.00
		H1	FIELD BLANK	1.0000	24.60	24.60
11 ANALYSES	GW GROUNDWATER					
		A2	BTEXNM+OXYGS+1,2-DCA+ETH-8260B	22.0000	122.00	2,684.00
		F1	EDB BY 8011	21.0000	45.20	949.20
17 DISPOSAL						
		AA	WASTEWATER	200.0000	0.56	112.00
19 RPT/PROJECT MNGT & COORDINATIO						
		PRT	REPORT PREPARATION	0.1200	87,452.80	10,494.34
23 EFR						
		A4	96 HOUR EVENT	3.0000	12,567.50	37,702.50
		C4	OFF GAS TREATMENT 96 HOUR	3.0000	780.00	2,340.00
		F1	EFFLUENT DISPOSAL	40,000.0000	0.44	17,600.00
		G	AFVR EQUIPMENT MOB	3.0000	391.50	1,174.50
					Total Amount	97,947.14

D H E C
PROMOTE PROTECT PROSPER
W. Marshall Taylor Jr., Acting Director
Promoting and protecting the health of the public and the environment

May 6, 2015

(BOW-GWPROT-CAW)
Mr. Bryan T. Shane
Midland's Environmental Consultants, Inc.
235 Dooley Rd.
Lexington, SC 29073

Re: Underground Injection Control Permit #SCHE03020434
Pantry 911/Okatie Mart (USTP #10628) Site
Jasper County

Dear Mr. Shane:

Enclosed is a Permit to Operate eighty (80) Class V.A.-I (Aquifer Remediation) injection wells at the Pantry 911/Okatie Mart (USTP #10628) Site, Jasper County, SC.

South Carolina Board of Health and Environmental Control
Guide to Board Review
Pursuant to S.C. Code Ann. § 44-1-60
Effective April 1, 2013

The decision of the South Carolina Department of Health and Environmental Control (Department) becomes the final agency decision fifteen (15) calendar days after notice of the decision has been mailed to the applicant, permittee, licensee and affected persons who have requested in writing to be notified, unless a written request for final review accompanied by a filing fee in the amount of $100 is filed with Department by the applicant, permittee, licensee or affected person.

Applicants, permittees, licensees, and affected parties are encouraged to engage in mediation during the final review process.

If the Board declines in writing to schedule a final review conference, the Department's decision becomes the final agency decision and an applicant, permittee, licensee, or affected person may request a contested case hearing before the Administrative Law Court within thirty (30) calendar days after notice is mailed that the Board declined to hold a final review conference.

I. Filing of Request for Final Review

1. A written Request for Final Review (RFR)and the required filing fee of one hundred dollars ($100) must be received by Clerk of the Board within fifteen (15)calendar days after notice of the staff decision has been mailed to the applicant, permittee, licensee, or affected persons. If the 15th day occurs on a weekend or State holiday, the RFR must be received by the Clerk on the next working day. RFRs will not be accepted after5:00 p.m.

2. RFRs shall be in writing and should include, at a minimum, the following information:

   - The grounds for amending, modifying, or rescinding the staff decision;
   - a statement of any significant issues or factors the Board should consider in deciding how to handle the matter;
   - the relief requested; and
   - a copy of the decision for which review is requested.

4. If a party requests a transcript of the proceedings of the Conference and agrees to pay all related costs in writing, including costs for the transcript, the Clerk will schedule a court reporter for the Conference.

III. Final Review Conference and Decision

1. The order of presentation in the Conference will, subject to the presiding officer's discretion, be as follows:

   - Department staff will provide an overview of the staff decision and the applicable law to include [10 minutes]:
     - Type of decision (permit, enforcement, etc.) and description of the program.
     - Parties
     - Description of facility/site
     - Applicable statutes and regulations
     - Decision and materials relied upon in the administrative record to support the staff decision.
   - Requestor(s) will state the reasons for protesting the staff decision and may provide evidence to support amending, modifying, or rescinding the staff decision. [15 minutes] *NOTE: The burden of proof is on the Requestor(s)*
   - Rebuttal by Department staff[15 minutes]
   - Rebuttal by Requestor(s)[10 minutes]

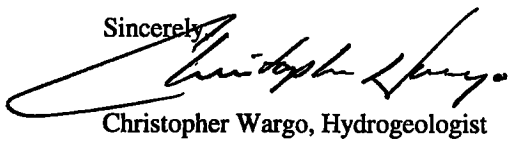
   Note: Times noted in brackets are for information only and are superseded by times stated in the Notice of Final Review Conference or by the presiding officer.

2. Parties may present evidence during the conference; however, the rules of evidence do not apply.
3. At any time during the conference, the officers conducting the conference may request additional information and may question the Requestor, the staff, and anyone else providing information at the conference.
4. The presiding officer, in his or her sole discretion, may allow additional time for presentations and may impose time limits on the Conference.
5. All Conferences are open to the public.
6. The officers may deliberate in closed session.
7. The officers may announce the decision at conclusion of the Conference or it may be reserved for consideration.
8. The Clerk will mail the written final agency decision (FAD) to parties within 30 days after the Conference. The written decision must explain the basis for the decision and inform the parties of their right to request a contested case hearing before the Administrative Law Court. The FAD will be sent by certified mail, return receipt requested.
9. Communications may also be sent by electronic mail, in addition to the forms stated herein, when electronic mail addresses are provided to the Clerk.

The above information is provided as a courtesy; parties are responsible for complying with all applicable legal requirements.

If you have any questions, please call Christopher Wargo at (803) 898-3799.

Sincerely,



Christopher Wargo, Hydrogeologist
Groundwater Protection Section
Bureau of Water

cc: John Bryant, SCDHEC-BLWM-USTP

Provisions to the Injection Well Operating Approval
for
Underground Injection Well Permit #SCHE03020434
Pantry 911/Okatie Mart (USTP #10628)
Jasper County, S.C.
May 6, 2015

1) Construction of new or abandonment of existing wells must be reported to the Department within thirty (30) days of completion.

2) Only a solution of pulverized activated carbon as described in the corrective action plan may be injected into the subsurface at the eighty (80) Class V.A.-I (Aquifer Remediation) injection wells. Any changes in the system operation other than as presented in the UIC Permit Application must be reported to the Department prior to implementation.

D H E C

PROMOTE PROTECT PROSPER

Communication Slip

Date: 5/7/15

To: JOHN BRYANT
BLM-USTP

- ☐ Approval
- ☐ As Requested
- ☐ Necessary Action
- ☐ Note and Return
- ☐ Prepare Reply
- ☒ Note and File
- ☐ Comment
- ☐ Other

Remarks:

From: CARGO BMW-UIC

DHEC 3001 (6/10)

D H E C
PROMOTE PROTECT PROSPER
W. Marshall Taylor Jr., Acting Director
Promoting and protecting the health of the public and the environment

May 6, 2015

(BOW-GWPROT-CAW)
Mr. Bryan T. Shane
Midland's Environmental Consultants, Inc.
235 Dooley Rd.
Lexington, SC 29073

Re: Underground Injection Control Permit #SCHE03020434
Pantry 911/Okatie Mart (USTP #10628) Site
Jasper County

Dear Mr. Shane:

Enclosed is a Permit to Operate eighty (80) Class V.A.-I (Aquifer Remediation) injection wells at the Pantry 911/Okatie Mart (USTP #10628) Site, Jasper County, SC.

South Carolina Board of Health and Environmental Control
Guide to Board Review
Pursuant to S.C. Code Ann. § 44-1-60
Effective April 1, 2013

The decision of the South Carolina Department of Health and Environmental Control (Department) becomes the final agency decision fifteen (15) calendar days after notice of the decision has been mailed to the applicant, permittee, licensee and affected persons who have requested in writing to be notified, unless a written request for final review accompanied by a filing fee in the amount of $100 is filed with Department by the applicant, permittee, licensee or affected person.

Applicants, permittees, licensees, and affected parties are encouraged to engage in mediation during the final review process.

If the Board declines in writing to schedule a final review conference, the Department's decision becomes the final agency decision and an applicant, permittee, licensee, or affected person may request a contested case hearing before the Administrative Law Court within thirty (30) calendar days after notice is mailed that the Board declined to hold a final review conference.

I. Filing of Request for Final Review

1. A written Request for Final Review (RFR)and the required filing fee of one hundred dollars ($100) must be received by Clerk of the Board within fifteen (15)calendar days after notice of the staff decision has been mailed to the applicant, permittee, licensee, or affected persons. If the 15th day occurs on a weekend or State holiday, the RFR must be received by the Clerk on the next working day. RFRs will not be accepted after5:00 p.m.

2. RFRs shall be in writing and should include, at a minimum, the following information:

   - The grounds for amending, modifying, or rescinding the staff decision;
   - a statement of any significant issues or factors the Board should consider in deciding how to handle the matter;
   - the relief requested; and
   - a copy of the decision for which review is requested.

3. RFRs should be filed in person or by mail at the following address:

South Carolina Board of Health and Environmental Control

Attention: Clerk of the Board

2600 Bull Street

Columbia, South Carolina 29201

Alternatively, RFR's may be filed with the Clerk by facsimile (803-898-3393) or by electronic mail (boardclerk@dhec.sc.gov).

4. The filing fee maybe paid by cash, certified check or credit card. If a RFR is filed by facsimile or electronic mail, the filing fee may be mailed to the Clerk of the Board and the envelope must be postmarked within the time allowed for filing a RFR.

5. If there is any perceived discrepancy in compliance with this RFR filing procedure, the Clerk should consult with the Chairman or, if the Chairman is unavailable, the Vice-Chairman. The Chairman or the Vice-Chairman will determine whether the RFR is timely and properly filed and direct the Clerk to (1) process the RFR for consideration by the Board or (2) return the RFR and filing fee to the requestor with a cover letter explaining why the RFR was not timely or properly filed. Processing an RFR for consideration by the Board shall not be interpreted as a waiver of any claim or defense by the agency in subsequent proceedings concerning the RFR.

6. If the RFR will be processed for Board consideration, the Clerk will send an Acknowledgement of RFR to the Requestor and the applicant, permittee, or licensee, if other than the Requestor.

7. The Clerk will email the RFR to all Board members for review, and all Board members will confirm receipt of the RFR to the Clerk by email. If a Board member does not confirm receipt of the RFR within twenty-four (24) hour period, the Clerk will contact the Board member and confirm receipt. If a Board member believes the RFR should be considered by the RFR Committee, he or she will respond to the Clerk's email within forty-eight (48) hours and will request further review. If no Board member requests further review of the RFR within the forty-eight (48) hour period, the Clerk will send a letter by certified mail to the Requestor, with copy by regular mail to the applicant, permittee, or licensee, if not the Requestor, stating the Board will not hold a Final Review Conference. A copy of the Notice of Appeal Procedure will be included with the letter.

NOTE: If the time periods described above end on a weekend or State holiday, the time is automatically extended to 5:00 p.m. on the next business day.

8. If the RFR is to be considered by the RFR Committee, the Clerk will forward a copy of the RFR to Department staff and Office of General Counsel. A Department response to the RFR should be provided by Department staff to the Clerk within eight (8) working days after the RFR is forwarded.

II. Final Review Conference Scheduling

1. If a Conference will be held, the Clerk will send a letter by certified mail to the Requestor, with copy by regular mail to the applicant, permittee, or licensee, if not the Requestor, informing the Requestor of the determination.

2. The Clerk will request Department staff provide the Administrative Record.

3. The Clerk will send Notice of Final Review Conference to the parties at least ten (10) days before the Conference. The Conference will be publicly noticed and should:

- include the place, date and time of the Conference;
- state the presentation times allowed in the Conference;
- state evidence may be presented at the Conference;
- if the conference will be held by committee, include a copy of the Chairman's order appointing the committee; and
- inform the Requestor of his or her right to request a transcript of the proceedings of the Conference prepared at Requestor's expense.

4. If a party requests a transcript of the proceedings of the Conference and agrees to pay all related costs in writing, including costs for the transcript, the Clerk will schedule a court reporter for the Conference.

III. Final Review Conference and Decision

1. The order of presentation in the Conference will, subject to the presiding officer's discretion, be as follows:

   - Department staff will provide an overview of the staff decision and the applicable law to include [10 minutes]:
     - Type of decision (permit, enforcement, etc.) and description of the program.
     - Parties
     - Description of facility/site
     - Applicable statutes and regulations
     - Decision and materials relied upon in the administrative record to support the staff decision.
   - Requestor(s) will state the reasons for protesting the staff decision and may provide evidence to support amending, modifying, or rescinding the staff decision. [15 minutes] *NOTE: The burden of proof is on the Requestor(s)*
   - Rebuttal by Department staff[15 minutes]
   - Rebuttal by Requestor(s)[10 minutes]

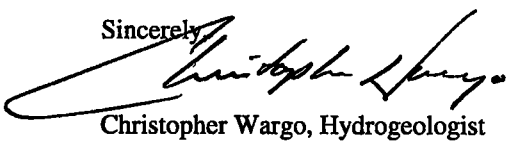
   Note: Times noted in brackets are for information only and are superseded by times stated in the Notice of Final Review Conference or by the presiding officer.

2. Parties may present evidence during the conference; however, the rules of evidence do not apply.
3. At any time during the conference, the officers conducting the conference may request additional information and may question the Requestor, the staff, and anyone else providing information at the conference.
4. The presiding officer, in his or her sole discretion, may allow additional time for presentations and may impose time limits on the Conference.
5. All Conferences are open to the public.
6. The officers may deliberate in closed session.
7. The officers may announce the decision at conclusion of the Conference or it may be reserved for consideration.
8. The Clerk will mail the written final agency decision (FAD) to parties within 30 days after the Conference. The written decision must explain the basis for the decision and inform the parties of their right to request a contested case hearing before the Administrative Law Court. The FAD will be sent by certified mail, return receipt requested.
9. Communications may also be sent by electronic mail, in addition to the forms stated herein, when electronic mail addresses are provided to the Clerk.

The above information is provided as a courtesy; parties are responsible for complying with all applicable legal requirements.

If you have any questions, please call Christopher Wargo at (803) 898-3799.

Sincerely,



Christopher Wargo, Hydrogeologist
Groundwater Protection Section
Bureau of Water

cc: John Bryant, SCDHEC-BLWM-USTP

D H E C

PROMOTE PROTECT PROSPER

W. Marshall Taylor Jr., Acting Director

Promoting and protecting the health of the public and the environment

WATER MONITORING ASSESSMENT & PROTECTION DIVISION

Injection Well Operating Approval

for

Class II, III, and V.A. Injection Well(s)

Permit #SCHE03020434 Date of Issue: May 6, 2015

In accordance with R.61-72 this permit will become final unless it is appealed within fifteen (15) days of the issuance date.

In accordance with the provisions of Title 48, Chapter 1, South Carolina Code of Laws, 1976, as amended, and pursuant to receiving a Permit to Operate eighty (80) Class V.A.-I (Aquifer Remediation) injection wells, authorization is granted to Midland's Environmental Consultants, Inc. to operate eighty (80) Class V.A.-I (Aquifer Remediation) injection wells located at the Pantry 911/Okatie Mart (USTP #10628) Site, Jasper County, SC, and are subject to the attached provisos noted for the operator.

The Class V.A.-I injection wells are two (2) inches in diameter and approximately fifteen (15) feet deep

Pursuant to Title 48, Chapter 1, South Carolina Code of Laws, 1976, as amended, this authorization may be rescinded if these injection wells should, at any time, contaminate, pollute, or otherwise adversely affect other water in the vicinity or for any other conditions contained in R61-87, Title 48, Chapter 1, South Carolina Code of Laws, 1976, as amended.

Expires: May 6, 2016

Date May 6, 2015

Charles Gorman, Director
Groundwater Protection Section
Bureau of Water

Provisions to the Injection Well Operating Approval
for
Underground Injection Well Permit #SCHE03020434
Pantry 911/Okatie Mart (USTP #10628)
Jasper County, S.C.
May 6, 2015

1) Construction of new or abandonment of existing wells must be reported to the Department within thirty (30) days of completion.

2) Only a solution of pulverized activated carbon as described in the corrective action plan may be injected into the subsurface at the eighty (80) Class V.A.-I (Aquifer Remediation) injection wells. Any changes in the system operation other than as presented in the UIC Permit Application must be reported to the Department prior to implementation.

D H E C
PROMOTE PROTECT PROSPER

Drilling/Soil Boring Audit Form
Underground Storage Tank Management Division

RESULTS:
- [x] Satisfactory
- [ ] Issues

Date: 5/12/15 Project Manager: John B. DHEC Field Staff: John B.

Contractor: Midlands Env. Contractor Field Staff: Jeff Coleman

Drilling Company: EDPS Driller's Name: Tommy Bolyard

Driller's Certification Number: _____ Same information as ACQAP/SSWP? _____

Site Number: 10628 Site Name: Pantry 911

Time Arrived at Site: 10:05 Time Leaving Site: 14:10 Weather Conditions: Sunny / Hot / 93° F

Which SB/MW location? Injection Monitoring Well Approval Form on Site? (✓) YES ( ) NO

Type of Rig: Geo Probe Bit Size: Injection Rods Auger Size: _____

Method: [ ] Hollow-stem [ ] Solid-stem [ ] Mud-rotary [ ] Air-rotary [✓] Other: Injection (Carbon)

Drilling fluids? ( ) YES (✓) NO Type of Sampler: [ ] Hammer-weight [ ] Fall [ ] Other: _____

Depth to Groundwater: _____ Total Depth of Borehole: _____

Screened Interval: NA Gravel Pack Size: NA Gravel Pack Interval: NA

Bentonite Type: NA Bentonite Interval: NA

Bentonite Hydrated: ( ) YES ( ) NO Length of Time: _____

UST 43tech DOCKETING

Geologist's and/or driller's log completed correctly? ..... (✓) YES ( ) NO

IDW contained properly? ..... (✓) YES ( ) NO Labeled properly? ..... ( ) YES ( ) NO NA

Equipment decontamination observed? ..... (✓) YES ( ) NO

Equipment appeared to be decontaminated? ..... (✓) YES ( ) NO

Materials stored and handled properly? ..... (✓) YES ( ) NO

PPE handled, stored, and worn properly? ..... (✓) YES ( ) NO

Soil samples collected and stored properly? ..... ( ) YES ( ) NO NA

Type of soil sample collected: [ ] Lithology [ ] Screening [ ] Grain Size [ ] Lab Analysis [ ] Other: _____

Signature: _____ Date: 5/12/15

Notes: Field Audit was for monitoring Carbon Injection for cleanup on the Site. Injection was going well.

Notes (continued): _____

UST DRILLING AND SOIL BORING AUDIT FORM

- Purpose of the form is to record information gathered during an audit of drilling and soil boring activities.
- DHEC UST Project Managers and Field Staff.
- Item-by-item instructions for completing the form.
  - Fill in all Site Information boxes
  - Answer all the questions and record any applicable information in the blanks.
  - Sign and date the form.
  - Record any applicable notes.
- Form is scanned and saved electronically – Record Group Number 169, Retention Schedule 13300

Midlands Environmental Consultants, Inc.

May 27, 2015

Mr. John C. Bryant, Hydrogeologist
Corrective Action Section
South Carolina Department of Health
and Environmental Control
UST Management Division
2600 Bull Street
Columbia, South Carolina 29201

Subject: Report of Remedial Activities
Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID# 10628, CA# 50158
MECI Project number 15-5186
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Brayant,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Remedial Activities Implementation Report for the referenced site (figure 1). This document describes our Remedial Activities implementation conducted at the subject site with respect to South Carolina Department of Health and Environmental Control (SCDHEC) guidelines set forth under bid specification IFB-5400004353. This summary is intended to document site rehabilitation measures as outlined in the Corrective Action Plan (CAP) that was submitted to SCDHEC on March 20, 2015 and approved with a Notice to Proceed on April 27, 2015.

The Corrective Action Plan described our proposed rehabilitative approach composed of direct injection of 6,000 pounds of Pulverized Activated Carbon (PAC) based product into the desired smear zone at the referenced site.

REMEDIAL IMPLEMENTATION FIELD ACTIVITIES

From May 12 through May 14, 2015, eighty (80) direct injection wells were advanced at the site. The attached Figure 3 presents the locations of injection wells. These injection wells were advanced by Environmental Drilling and Probing Services, LLC. (EDPS) of Charlotte, Nouth Carolina (S.C. Driller Certification: Ryan Price #D 02149). The direct injection wells were advanced utilizing a direct-push drilling rig, employing 2.25 inch injection rods and a 2.25 inch injection probe. During the advancement of each injection well, a slurry of potable water and PAC was injected into the subsurface at 5 foot intervals until the desired termination depth was achieved. The slurry was mixed and injected at the required pressures. Following the injection of PAC, the hole left open by the direct push apparatus was abandoned with a bentonite/portland

Post Office Box 854, Lexington SC 29071 • 231 Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

grout slurry. The find the attached 1903 well record forms documenting the advancement and abandonment of the injection wells.

The following table presents injection details conducted at the site:

Injection Location ID#	Date of Injection	Injection Interval (Feet BGS)	Total PAC Injected (lbs)
TIP-1	5/12/2015	5.0-15.0	70
TIP-2	5/12/2015	5.0-15.0	70
TIP-3	5/12/2015	5.0-15.0	70
TIP-4	5/12/2015	5.0-15.0	70
TIP-5	5/12/2015	5.0-15.0	70
TIP-6	5/12/2015	5.0-15.0	70
TIP-7	5/12/2015	5.0-15.0	70
TIP-8	5/12/2015	5.0-15.0	70
TIP-9	5/12/2015	5.0-15.0	70
TIP-10	5/12/2015	5.0-15.0	70
TIP-11	5/12/2015	5.0-15.0	70
TIP-12	5/12/2015	5.0-15.0	70
TIP-13	5/12/2015	5.0-15.0	70
TIP-14	5/12/2015	5.0-15.0	70
TIP-15	5/12/2015	5.0-15.0	130
TIP-16	5/12/2015	5.0-15.0	130
TIP-17	5/12/2015	5.0-15.0	130
TIP-18	5/12/2015	5.0-15.0	70
TIP-19	5/12/2015	5.0-15.0	70
TIP-20	5/12/2015	5.0-15.0	70
TIP-21	5/12/2015	5.0-15.0	70
TIP-22	5/12/2015	5.0-15.0	180
TIP-23	5/13/2015	5.0-15.0	70
TIP-24	5/13/2015	5.0-15.0	70
TIP-25	5/13/2015	5.0-15.0	70
TIP-26	5/13/2015	5.0-15.0	70
TIP-27	5/13/2015	5.0-15.0	70
TIP-28	5/13/2015	5.0-15.0	70
TIP-29	5/13/2015	5.0-15.0	70
TIP-30	5/13/2015	5.0-15.0	70
TIP-31	5/13/2015	5.0-15.0	70
TIP-32	5/13/2015	5.0-15.0	70
TIP-33	5/13/2015	5.0-15.0	70
TIP-34	5/13/2015	5.0-15.0	70
TIP-35	5/13/2015	5.0-15.0	70
TIP-36	5/13/2015	5.0-15.0	70
TIP-37	5/13/2015	5.0-15.0	70
TIP-38	5/13/2015	5.0-15.0	70
TIP-39	5/13/2015	5.0-15.0	70
TIP-40	5/13/2015	5.0-15.0	70
TIP-41	5/13/2015	5.0-15.0	70
TIP-42	5/13/2015	5.0-15.0	70
TIP-43	5/13/2015	5.0-15.0	70
TIP-44	5/13/2015	5.0-15.0	70

Injection Location ID#	Date of Injection	Injection Interval (Feet BGS)	Total PAC Injected (lbs)
TIP-45	5/13/2015	5.0-15.0	70
TIP-46	5/13/2015	5.0-15.0	70
TIP-47	5/13/2015	5.0-15.0	70
TIP-48	5/13/2015	5.0-15.0	70
TIP-49	5/13/2015	5.0-15.0	70
TIP-50	5/13/2015	5.0-15.0	70
TIP-51	5/13/2015	5.0-15.0	70
TIP-52	5/13/2015	5..0-15.0	70
TIP-53	5/13/2015	5.0-15.0	70
TIP-54	5/13/2015	5.0-15.0	70
TIP-55	5/13/2015	5.0-15.0	70
TIP-56	5/13/2015	5.0-15.0	70
TIP-57	5/13/2015	5.0-15.0	70
TIP-58	5/13/2015	5.0-15.0	70
TIP-59	5/13/2015	5.0-15.0	70
TIP-60	5/13/2015	5.0-15.0	70
TIP-61	5/13/2015	5.0-15.0	70
TIP-62	5/13/2015	5.0-15.0	70
TIP-63	5/13/2015	5.0-15.0	70
TIP-64	5/13/2015	5.0-15.0	70
TIP-65	5/13/2015	5.0-15.0	70
TIP-66	5/13/2015	5.0-15.0	70
TIP-67	5/13/2015	5.0-15.0	70
TIP-68	5/14/2015	5.0-15.0	70
TIP-69	5/14/2015	5.0-15.0	70
TIP-70	5/14/2015	5.0-15.0	70
TIP-71	5/14/2015	5.0-15.0	70
TIP-72	5/14/2015	5.0-15.0	70
TIP-73	5/14/2015	5.0-15.0	70
TIP-74	5/14/2015	5.0-15.0	70
TIP-75	5/14/2015	5.0-15.0	70
TIP-76	5/14/2015	5.0-15.0	70
TIP-77	5/14/2015	5.0-15.0	70
TIP-78	5/14/2015	5.0-15.0	70
TIP-79	5/14/2015	5.0-15.0	70
TIP-80	5/14/2015	5.0-15.0	180
Total PAC Injected (lbs)			**6,000 lbs.**

Notes:

1) PAC = Pulverized Activated Carbon
2) TIP = Injection Point
3) BGS = Below Ground Surface
4) Targeted Injection depths & Target PAC loads (lbs) varied based on surface blowouts, occurrence of well impact, and geological restrictions.

ADDITIONAL SCHEDULED REMEDIAL ACTIVITIES

In accordance with the SCDHEC approved Corrective Action Plan, a three 96-hour Aggressive Fluid Vapor Recovery (AFVR) events will be conducted approximately 60 days from the final CAP

implementation date (5/14/2015). The entire monitoring well network will be sampled approximately 45 days following the third and final AFVR event. Samples will be collected in accordance with SCDHEC's Quality Assurance Program Plan for the Underground Storage Tank Management Division (QAPP, Revision 2.0) and MECI's Standard Operating Procedures (MECI SOP, January 2014). Groundwater samples obtained will be sent to PACE Analytical Services, Inc. of Huntersville, NC (SCDHEC Laboratory Certification #99006001) to be analyzed for BTEX, Naphthalene, MtBE, 1,2-DCA, 8-Oxygenates (EPA Method 8260-B), and EDB (EPA Method 8011).

The follow table presents an approximate timetable for corrective action activities based on CAP implementation dates:

Item	Start Date	End Date	Comments
CAP Preparation	3/11/2015	3/20/2015	Completed
CAP Approval	3/20/2015	4/27/2015	Approved
CAP Implementation/PAC Injection Event	4/27/2015	5/14/2015	Completed
CAP Implementation Report	5/14/2015	5/29/2015	Completed
Recovery Well Installation	5/22/2015	5/27/2015	Completed
AFVR (Event A)	7/13/2015	7/17/2015	AFVR Event A will begin approximately 60 days from CAP Implementation date of May 14, 2015.
AFVR (Event B)	7/20/2015	7/24/2015	AFVR Event B will be conducted the week following AFVR Event A.
AFVR (Event C)	7/27/2015	7/31/2015	AFVR Event C will be conducted the week following AFVR Event B.
Comprehensive Sampling Event	7/31/2015	9/14/2015	A Comprehensive Sampling Event will be conducted approx. 45 days following the commencement of AFVR Event C.
Final Report Submitted	9/14/2015	10/14/2015	A final report outlining all remedial activities will be submitted approx. 30 days from the comprehensive sampling event.

Please find the attached partial invoice for activities performed at the referenced site thus far. The approved coat agreement should remain open until future remedial activities have been completed and invoiced (i.e. AFVR/Groundwater Sampling).

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at (803) 808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

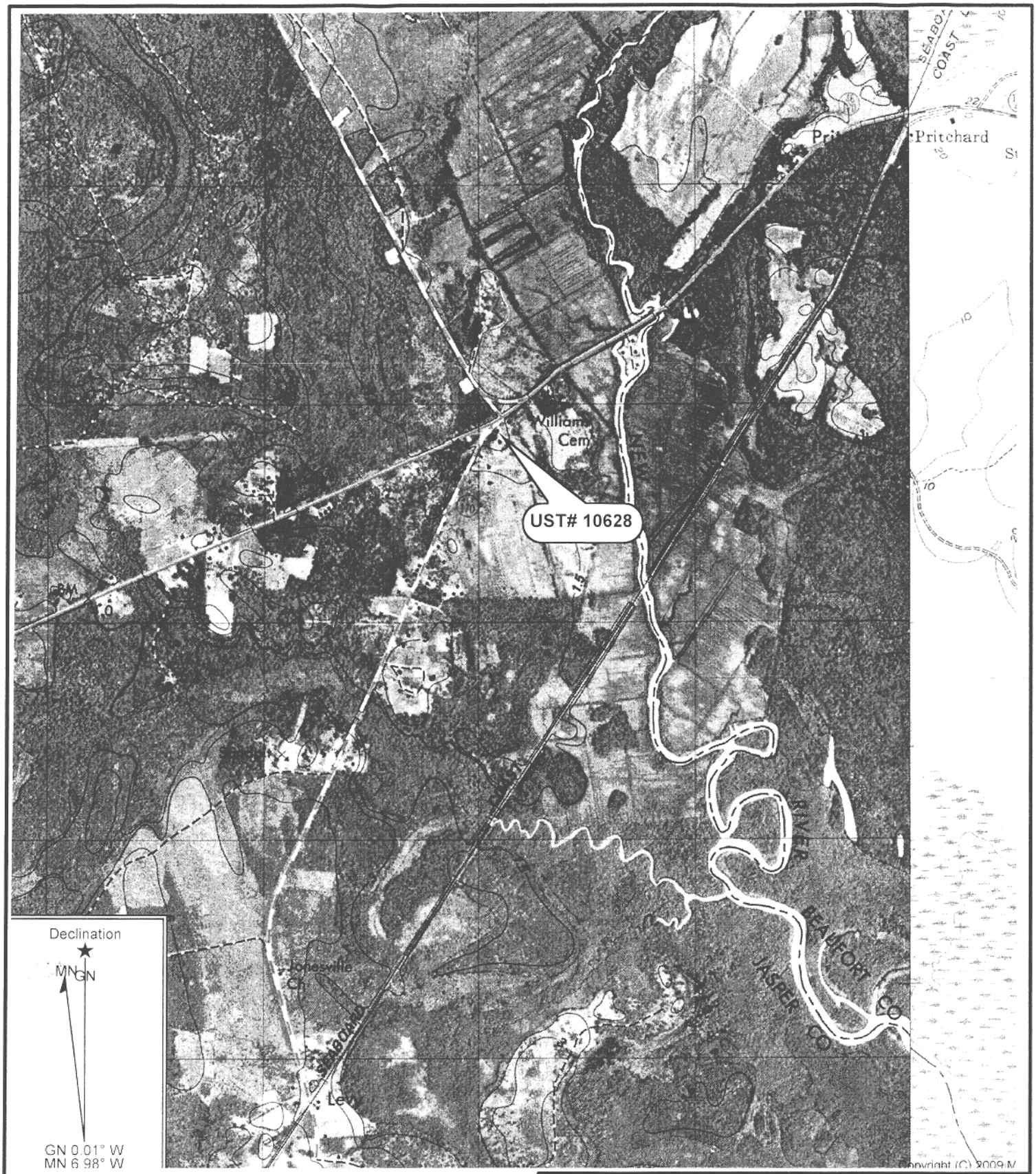
Jeff E. Coleman
Senior Scientist

Bryan T. Shane, P.G.
Principal Geologist

enc: Figures
1903 Well Records

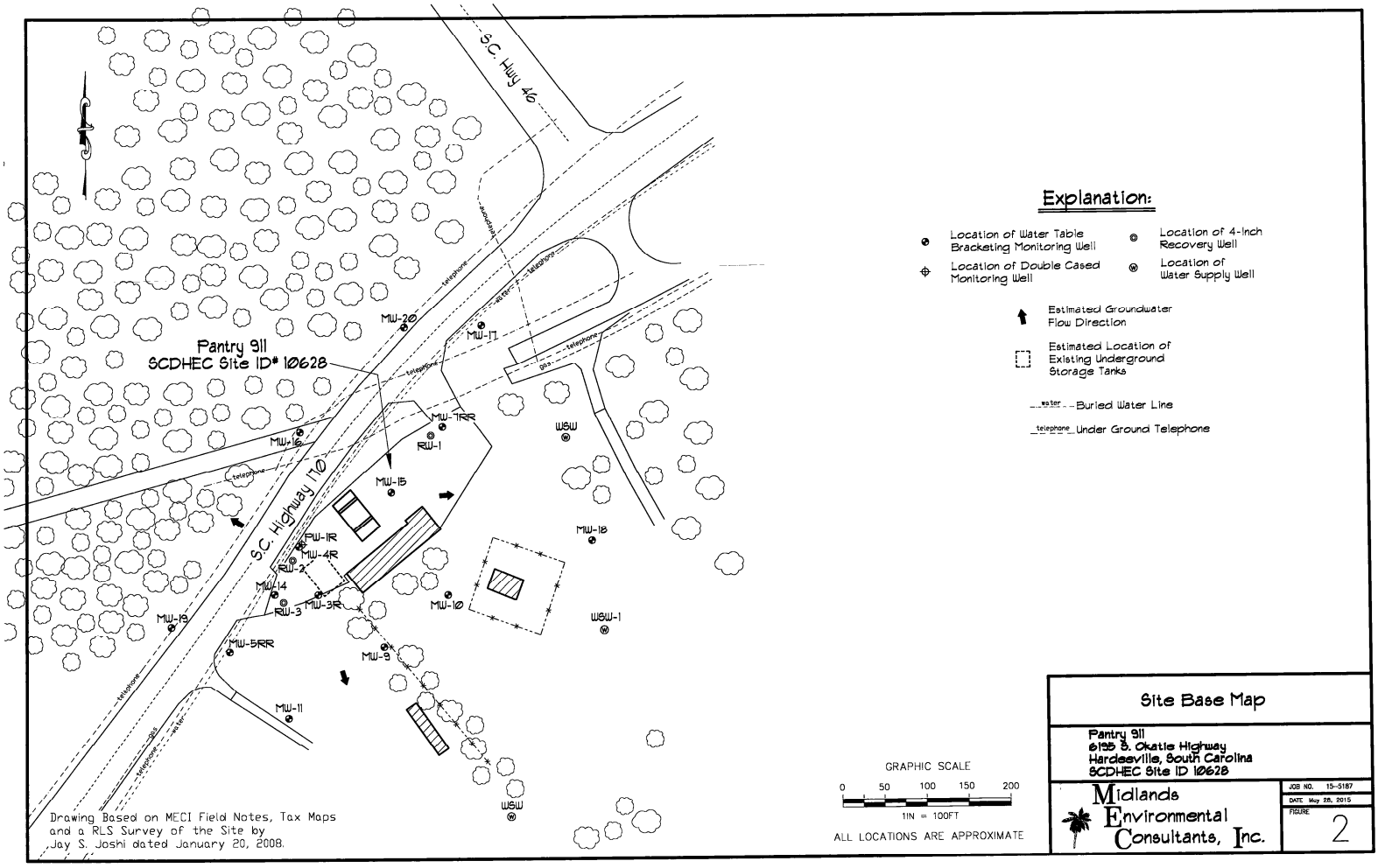
cc: Mr. Donnie Malphrus, 2789 Okatie Highway, Ridgeland, SC 29936
Shree Jakshani, LLC., 6194 South Okatie Highway, Hardeeville, SC 29927
Mr. Chris Wargo, 2600 Bull Street, Columbia, SC 29201

FIGURES



Reference: Limehouse and Hardeeville, South Carolina
Jasper and Pritchardville, South Carolina
USGS 7.5 Min. Quad
Contour Interval–1.5 Meters

Midlands Environmental Consultants, Inc.	Site Location
Pantry 911 6195 South Okatie Highway, Hardeeville, SC SCDHEC Site ID# 10628	
Figure 1	MECI 15-5187



Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of 4-Inch Recovery Well
- Location of Double Cased Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Existing Underground Storage Tanks
- water — Buried Water Line
- telephone — Under Ground Telephone

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

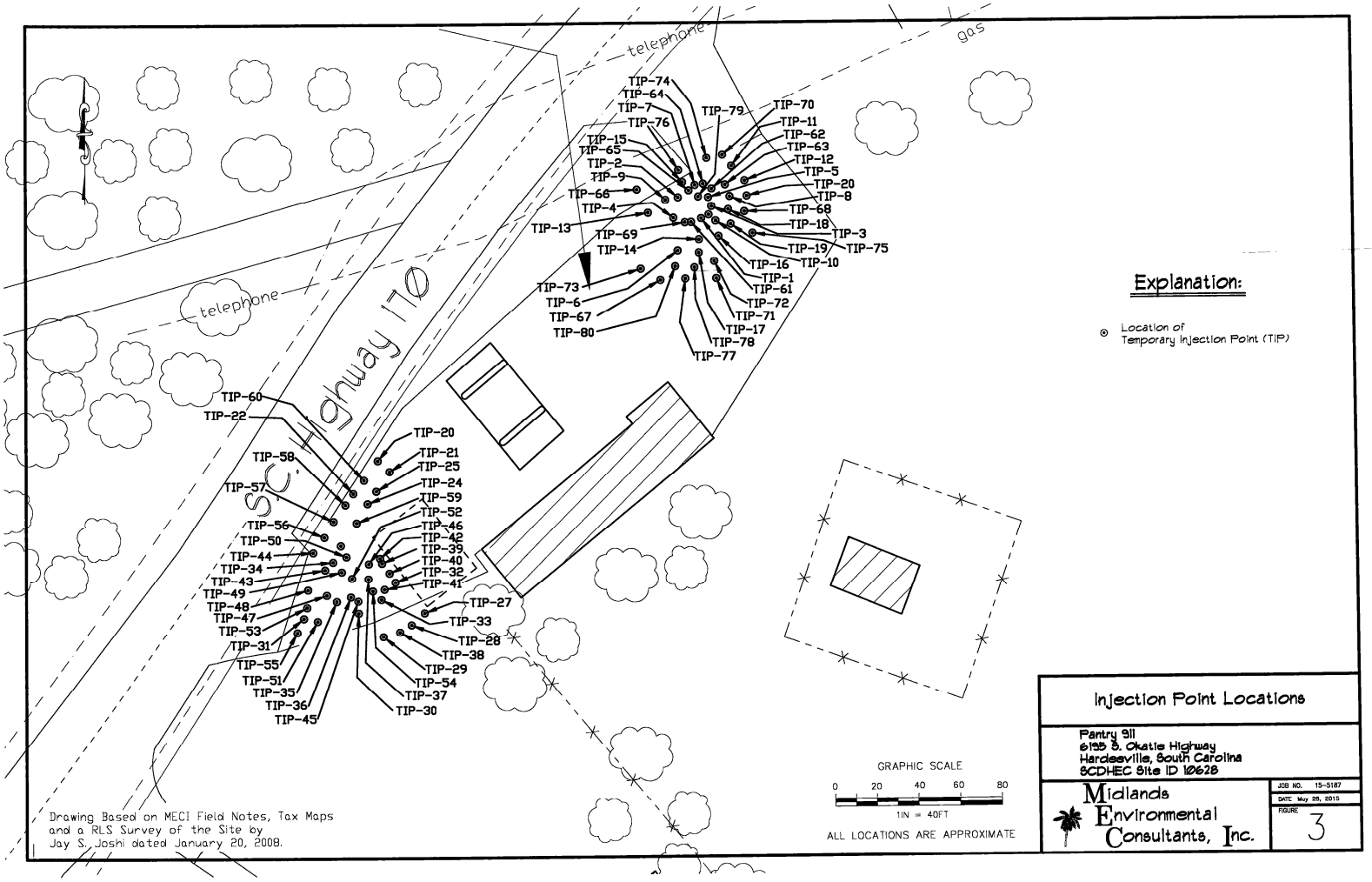
ALL LOCATIONS ARE APPROXIMATE

Site Base Map

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 15-5187
DATE May 28, 2015
FIGURE 2



Injection Point Locations

Pantry 911
6135 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 15-5187
DATE May 28, 2015
FIGURE 3

1903 FORMS

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-1

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/12/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-1

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/12/2015 Date Completed: 5/12/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D ✓ (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State. SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-2

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/12/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-2

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 5/12/2015
15.0 ft. Date Completed: 5/12/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: _____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
_____ in. to _____ ft. depth
_____ in. to _____ ft. depth
Height: Above/Below Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: _____ Diam.: _____
Slot/Gauge: _____ Length: _____
Set Between: _____ ft. and _____ ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL _____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from _____ ft. to _____ ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other _____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe_____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D ✓ (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Well Driller Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-3

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/12/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-3

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/12/2015 Date Completed: 5/12/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below
Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-4

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/12/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-4

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/12/2015 Date Completed: 5/12/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not Installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm.
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D ✓ (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-5

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/12/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-5

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/12/2015 Date Completed: 5/12/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D ✓ (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-6

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/12/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-6

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 5/12/2015
15.0 ft. Date Completed: 5/12/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-7

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/12/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-7

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/12/2015 Date Completed: 5/12/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D ✓ (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-8

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/12/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-8

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 5/12/2015
15.0 ft. Date Completed: 5/12/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-9

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/12/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-9

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/12/2015 Date Completed: 5/12/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D ✓ (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-10

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/12/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-10

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 5/12/2015
15.0 ft. Date Completed: 5/12/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D ✓ (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-11

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/12/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-11

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/12/2015 Date Completed: 5/12/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D ✓ (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-12

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/12/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: TIP-12

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/12/2015 Date Completed: 5/12/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-13

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/12/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: TIP-13

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/12/2015 Date Completed: 5/12/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004) COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-14

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/12/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-14

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 5/12/2015
15.0 ft. Date Completed: 5/12/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: _____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
_____ in. to _____ ft. depth
_____ in. to _____ ft. depth
Height: Above/Below
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: _____ Diam.: _____
Slot/Gauge: _____ Length: _____
Set Between: _____ ft. and _____ ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL _____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from _____ ft. to _____ ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other _____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe _____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Well Driller Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004) COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-15

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/12/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-15

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/12/2015 Date Completed: 5/12/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-16

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/12/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-16

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 5/12/2015
15.0 ft. Date Completed: 5/12/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below
Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft. **NOTE: MULTIPLE SCREENS**
____ ft. and ____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-18

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/12/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-18

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/12/2015 Date Completed: 5/12/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below
Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft. **NOTE: MULTIPLE SCREENS**
____ ft. and ____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-19

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/12/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-19

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/12/2015 Date Completed: 5/12/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft. **NOTE: MULTIPLE SCREENS**
____ ft. and ____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-20

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/12/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-20

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 5/12/2015
15.0 ft. Date Completed: 5/12/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004) COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-21

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/12/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-21

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/12/2015 Date Completed: 5/12/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft. **NOTE: MULTIPLE SCREENS**
____ ft. and ____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not Installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-22

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/12/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-22

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 5/12/2015
15.0 ft. Date Completed: 5/12/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft. **NOTE: MULTIPLE SCREENS**
____ ft. and ____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-23

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-23

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/13/2015 Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D ✓ (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-24

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-24

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/13/2015 Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below
Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft. **NOTE: MULTIPLE SCREENS**
____ ft. and ____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-25

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-25

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/13/2015 Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft. **NOTE: MULTIPLE SCREENS**
____ ft. and ____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D ✓ (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-26

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-26

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/13/2015 Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below
Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-27

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-27

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 5/13/2015
15.0 ft. Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: _____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
_____ in. to _____ ft. depth
_____ in. to _____ ft. depth
Height: Above/Below
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: _____ Diam.: _____
Slot/Gauge: _____ Length: _____
Set Between: _____ ft. and _____ ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL _____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from _____ ft. to _____ ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other _____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe_____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Well Driller Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004) COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-28

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-28

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 5/13/2015
15.0 ft. Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below
Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft. **NOTE: MULTIPLE SCREENS**
____ ft. and ____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date Installed: ____ Not Installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004) COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-29

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-29

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/13/2015 Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft. **NOTE: MULTIPLE SCREENS**
____ ft. and ____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-30

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-30

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/13/2015 Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D ✓ (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-31

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-31

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 5/13/2015
15.0 ft. Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below
Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft. **NOTE: MULTIPLE SCREENS**
____ ft. and ____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-32

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-32

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/13/2015 Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below
Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-33

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-33

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/13/2015 Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below
Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft. **NOTE: MULTIPLE SCREENS**
____ ft. and ____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004) **COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER**

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-34

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-34

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 5/13/2015
15.0 ft. Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: _____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
_____ in. to _____ ft. depth
_____ in. to _____ ft. depth
Height: Above/Below
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: _____ Diam.: _____
Slot/Gauge: _____ Length: _____
Set Between: _____ ft. and _____ ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL _____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from _____ ft. to _____ ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other _____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe _____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Well Driller Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-35

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-35

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/13/2015 Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below
Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft. **NOTE: MULTIPLE SCREENS**
____ ft. and ____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

D H E C
PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-36

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-36

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/13/2015 Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft. NOTE: MULTIPLE SCREENS
____ ft. and ____ ft. USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-37

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-37

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 5/13/2015
15.0 ft. Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: _____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
_____ in. to _____ ft. depth
_____ in. to _____ ft. depth
Height: Above/Below
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: _____ Diam.: _____
Slot/Gauge: _____ Length: _____
Set Between: _____ ft. and _____ ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL _____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from _____ ft. to _____ ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other _____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe _____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 5/28/2015
Well Driller

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004) COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-38

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-38

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/13/2015 Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-39

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-39

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/13/2015 Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below
Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D ✓ (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-40

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-40

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/13/2015 Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below
Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft. **NOTE: MULTIPLE SCREENS**
____ ft. and ____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-41

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-41

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/13/2015 Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below
Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004) COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-42

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-42

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/13/2015 Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below
Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-43

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-43

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/13/2015 Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price CERT. NO.: 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-44

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-44

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 5/13/2015
15.0 ft. Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: _____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
_____ in. to _____ ft. depth
_____ in. to _____ ft. depth
Height: Above/Below
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: _____ Diam.: _____
Slot/Gauge: _____ Length: _____
Set Between: _____ ft. and _____ ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL _____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from _____ ft. to _____ ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other _____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe_____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-1529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Well Driller Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-45

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-45

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/13/2015 Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft. **NOTE: MULTIPLE SCREENS**
____ ft. and ____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004) COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-46

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-46

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/13/2015 Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below
Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D ✓ (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-47

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-47

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/13/2015 Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D ✓ (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-48

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-48

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft Date Started: 5/13/2015 Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below
Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft. **NOTE: MULTIPLE SCREENS**
____ ft. and ____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004) **COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER**

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-49

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-49

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/13/2015 Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-50

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-50

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 5/13/2015
15.0 ft. Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: _____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
_____ in. to _____ ft. depth
_____ in. to _____ ft. depth
Height: Above/Below
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: _____ Diam.: _____
Slot/Gauge: _____ Length: _____
Set Between: _____ ft. and _____ ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL _____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from _____ ft. to _____ ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other _____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe _____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D ✓ (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Well Driller Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-51

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-51

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 5/13/2015
15.0 ft. Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft. **NOTE: MULTIPLE SCREENS**
____ ft. and ____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P.____ Volts____ Length of drop pipe____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-52

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-52

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/13/2015 Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D ✓ (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004) COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-53

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-53

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/13/2015 Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below
Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D ✓ (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-54

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-54

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 5/13/2015
15.0 ft. Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft. **NOTE: MULTIPLE SCREENS**
____ ft. and ____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-55

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: TIP-55

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/13/2015 Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D ✓ (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-56

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-56

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/13/2015 Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004) COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-57

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-57

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/13/2015 Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below
Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft. **NOTE: MULTIPLE SCREENS**
____ ft. and ____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004) COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

DHEC
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-58

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-58

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 5/13/2015
15.0 ft. Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: _____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
_____ in. to _____ ft. depth
_____ in. to _____ ft. depth
Height: Above/Below Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: _____ Diam.: _____
Slot/Gauge: _____ Length: _____
Set Between: _____ ft. and _____ ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL _____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from _____ ft. to _____ ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other _____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe_____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-807-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-59

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-59

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 5/13/2015
15.0 ft. Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: _____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
_____ in. to _____ ft. depth
_____ in. to _____ ft. depth
Height: Above/Below Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: _____ Diam.: _____
Slot/Gauge: _____ Length: _____
Set Between: _____ ft. and _____ ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL _____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from _____ ft. to _____ ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other _____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe_____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-60

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-60

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/13/2015 Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D ✓ (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

DHEC
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-61

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-61

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/13/2015 Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004) COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-62

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-62

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 5/13/2015
15.0 ft. Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: _____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
_____ in. to _____ ft. depth
_____ in. to _____ ft. depth
Height: Above/Below Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: _____ Diam.: _____
Slot/Gauge: _____ Length: _____
Set Between: _____ ft. and _____ ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL _____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from _____ ft. to _____ ft
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other _____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe_____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D ✓ (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

D H E C
PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-63

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-63

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/13/2015 Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below
Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D ✓ (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004) COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-64

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-64

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 5/13/2015
15.0 ft. Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: _____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
_____ in. to _____ ft. depth
_____ in. to _____ ft. depth
Height: Above/Below
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: _____ Diam.: _____
Slot/Gauge: _____ Length: _____
Set Between: _____ ft. and _____ ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL _____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from _____ ft. to _____ ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other _____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe_____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Well Driller Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-65

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-65

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 5/13/2015
15.0 ft. Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below
Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft. **NOTE: MULTIPLE SCREENS**
____ ft. and ____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-66

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-66

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/13/2015 Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D ✓ (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-67

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/13/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-67

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/13/2015 Date Completed: 5/13/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-68

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/14/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-68

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 5/14/2015
15.0 ft. Date Completed: 5/14/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date Installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-69

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/14/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-69

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/14/2015 Date Completed: 5/14/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D ✓ (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004) COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-70

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/14/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-70

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/14/2015 Date Completed: 5/14/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D ✓ (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004) COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-71

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/14/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-71

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 5/14/2015
15.0 ft. Date Completed: 5/14/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below
Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft. **NOTE: MULTIPLE SCREENS**
____ ft. and ____ ft. **USE SECOND SHEET**
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D ✓ (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-72

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/14/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-72

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/14/2015 Date Completed: 5/14/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P.____ Volts____ Length of drop pipe____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-1529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004) COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name. SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-73

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/14/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-73

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 5/14/2015
15.0 ft. Date Completed: 5/14/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: _____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
_____ in. to _____ ft. depth
_____ in. to _____ ft. depth
Height: Above/Below
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: _____ Diam.: _____
Slot/Gauge: _____ Length: _____
Set Between: _____ ft. and _____ ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL _____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from _____ ft. to _____ ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other _____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe_____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Well Driller Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004) **COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER**

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-74

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/14/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-74

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/14/2015 Date Completed: 5/14/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D ✓ (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

DHEC
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-75

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/14/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-75

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/14/2015 Date Completed: 5/14/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below
Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D ✓ (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-76

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/14/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-76

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/14/2015 Date Completed: 5/14/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P.____ Volts____ Length of drop pipe____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D ✓ (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-77

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/14/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-77

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 5/14/2015
15.0 ft. Date Completed: 5/14/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: _____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
_____ in. to _____ ft. depth
_____ in. to _____ ft. depth
Height: Above/Below
Surface _____ ft.
Weight _____ lb./ft
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: _____ Diam.: _____
Slot/Gauge: _____ Length: _____
Set Between: _____ ft. and _____ ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL _____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from _____ ft. to _____ ft
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other _____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe_____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Well Driller Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-78

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/14/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-78

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 5/14/2015
15.0 ft. Date Completed: 5/14/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: _____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
_____ in. to _____ ft. depth
_____ in. to _____ ft. depth
Height: Above/Below
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: _____ Diam.: _____
Slot/Gauge: _____ Length: _____
Set Between: _____ ft. and _____ ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL _____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from _____ ft. to _____ ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other _____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe_____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D (circle one) ✓
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004) COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-79

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/14/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-79

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/14/2015 Date Completed: 5/14/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below
Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D ✓ (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 South Okatie Highway
City: Hardeeville Zip: 29927-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** TIP-80

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0.0 ft. to 15.0 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Direct Push Injection Point	0.0	15.0
Temporary Boring Abandoned		
by Environmental Drilling and		
Probing Services, LLC via tremie		
pipe with Portland-Bentonite		
Cement Slurry on 5/14/2015		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
TIP-80

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER: SCHE03020434

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/14/2015 Date Completed: 5/14/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: ____
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
____ in. to ____ ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: ____ Diam.: ____
Slot/Gauge: ____ Length: ____
Set Between: ____ ft. and ____ ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL ____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ____ ft. to ____ ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other ____
Depth: From 15.0 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type ____
Well Disinfected ☐ Yes ☐ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☐
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Ryan Price **CERT. NO.:** 02149
Address: (Print) Level: A B C D ✓ (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: ____ (Well Driller) Date: 5/28/2015

If D Level Driller, provide supervising driller's name:
Tommy Bolyard

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

Midlands Environmental Consultants, Inc.

August 26, 2015

Mr. John Bryant, Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Aggressive Fluid Vapor Recovery Report
Pantry 911
6195 South Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID # 10628; CA# 50158
MECI Project Number 15-5188
Certified Site Rehabilitation Site Contractor UCC-0009

Dear Mr. Bryant,

Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

FIRST AGGRESSIVE FLUID VAPOR RECOVERY EVENT

MECI personnel conducted three 96-Hour Aggressive Fluid Vapor Recovery (AFVR) events at the Pantry 911. The first event was commenced on July 20, 2015 and concluded on July 24, 2015. This 96-Hour event was conducted on wells MW-7RR, RW-1, RW-4, and RW-5. The AFVR event was conducted to reduce elevated dissolved CoC concentrations in all wells. Prior to the AFVR event, groundwater was gauged utilizing a Heron H. Oil/Water Interface Meter. The following table presents depth to water, depth to product, and product thickness measurements obtained prior to the commencement of the event:

Pre-AFVR Well Data			
Well ID#	***Depth to Product (ft.)***	***Depth to Water (ft.)***	***Product Thickness (ft.)***
MW-7RR	Not Detected	6.73	Not Detected
RW-1	Not Detected	7.32	Not Detected
RW-4	Not Detected	7.03	Not Detected
RW-5	Not Detected	6.81	Not Detected

The event was continuously conducted for the 96-Hours by MECI personnel utilizing a vacuum extraction unit. Following the extended AFVR event, free product and groundwater levels were measured and

Post Office Box 854, Lexington SC 29071 • 231 Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

recorded. The following table presents the post-AFVR free product and groundwater measurements obtained after completion of the AFVR event:

Post-AFVR Well Data			
Well ID#	***Depth to Product (ft.)***	***Depth to Water (ft.)***	***Product Thickness (ft.)***
MW-7RR	Not Detected	8.20	Not Detected
RW-1	Not Detected	9.98	Not Detected
RW-4	Not Detected	9.19	Not Detected
RW-5	Not Detected	11.30	Not Detected

Recovery well RW-1 was not hooked up until 12:00pm on July 22, 2015 as a result of the well being filled with carbon. MECI treated the off gas produced during the AFVR event using an activated carbon filter system, which achieved an average calculated reduction rate of 98.93% throughout the duration of the referenced event. Calculated total petroleum hydrocarbons removed during the event was 86.30 pounds or approximately 14.91 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 0.90 pounds per hour. Concentrations of off gas (Pre-Treatment) produced during the event were recorded from 128.4 parts per million by volume (PPM) to 1,761 PPM. Vacuum readings were recorded at 25.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1A.

SECOND AGGRESSIVE FLUID VAPOR RECOVERY EVENT

The second event was commenced on July 27, 2015 and concluded on July 31, 2015. This 96-Hour event was conducted on wells MW-4R, MW-14, RW-2, RW-3, and RW-6. The AFVR event was conducted to remove free phase petroleum product from MW-14 and to reduce elevated dissolved CoC concentrations in all wells. Prior to the AFVR event, groundwater was gauged utilizing a Heron H. Oil/Water Interface Meter. The following table presents depth to water, depth to product, and product thickness measurements obtained prior to the commencement of the event:

Pre-AFVR Well Data			
Well ID#	***Depth to Product (ft.)***	***Depth to Water (ft.)***	***Product Thickness (ft.)***
MW-4R	Not Detected	2.33	Not Detected
MW-14	3.33	3.41	0.08
RW-2	Not Detected	2.09	Not Detected
RW-3	Not Detected	1.58	Not Detected
RW-6	Not Detected	3.36	Not Detected

The event was continuously conducted for the 96-Hours by MECI personnel utilizing a vacuum extraction unit. Following the extended AFVR event, free product and groundwater levels were measured and recorded. The following table presents the post-AFVR free product and groundwater measurements obtained after completion of the AFVR event:

Post-AFVR Well Data			
Well ID#	***Depth to Product (ft.)***	***Depth to Water (ft.)***	***Product Thickness (ft.)***
MW-4R	Not Detected	13.01	Not Detected
MW-14	Not Detected	10.79	Not Detected
RW-2	Not Detected	10.57	Not Detected
RW-3	Not Detected	9.97	Not Detected
RW-6	Not Detected	13.72	Not Detected

MECI treated the off gas produced during the AFVR event using an activated carbon filter system, which achieved an average calculated reduction rate of 98.94% throughout the duration of the referenced event. Calculated total petroleum hydrocarbons removed during the event was 79.14 pounds or approximately 13.67 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 0.82 pounds per hour. Concentrations of off gas (Pre-Treatment) produced during the event were recorded from 59.6 parts per million by volume (PPM) to 1,842 PPM. Vacuum readings were recorded at a range of 23.0 to 25.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1B.

THIRD AGGRESSIVE FLUID VAPOR RECOVERY EVENT

The third event was commenced on August 3, 2015 and concluded on August 7, 2015. This 96-Hour event was conducted on two separate sets of wells. The first 48-hours were conducted on wells MW-7RR, RW-1, RW-4, and RW-5. The second 48-hours were conducted on wells MW-4R, MW-14, RW-2, RW-3, and RW-6. The AFVR event was conducted to remove free phase petroleum product from RW-1 and RW-6 and to reduce elevated dissolved CoC concentrations in all wells. Prior to the AFVR event, groundwater was gauged utilizing a Heron H. Oil/Water Interface Meter. The following table presents depth to water, depth to product, and product thickness measurements obtained prior to the commencement of the event:

Pre-AFVR Well Data			
Well ID#	***Depth to Product (ft.)***	***Depth to Water (ft.)***	***Product Thickness (ft.)***
MW-7RR	Not Detected	7.12	Not Detected
RW-1	7.17	7.19	0.02
RW-4	Not Detected	7.43	Not Detected
RW-5	Not Detected	7.13	Not Detected
MW-4R	Not Detected	3.05	Not Detected
MW-14	Not Detected	2.65	Not Detected
RW-2	Not Detected	3.50	Not Detected
RW-3	Not Detected	2.56	Not Detected
RW-6	4.37	4.41	0.04

The event was continuously conducted for the 96-Hours by MECI personnel utilizing a vacuum extraction unit. Following the extended AFVR event, free product and groundwater levels were measured and recorded. The following table presents the post-AFVR free product and groundwater measurements obtained after completion of the AFVR event:

Post-AFVR Well Data			
Well ID#	***Depth to Product (ft.)***	***Depth to Water (ft.)***	***Product Thickness (ft.)***
MW-7RR	Not Detected	10.29	Not Detected
RW-1	Not Detected	10.75	Not Detected
RW-4	Not Detected	12.24	Not Detected
RW-5	Not Detected	12.97	Not Detected
MW-4R	Not Detected	13.57	Not Detected
MW-14	Not Detected	10.21	Not Detected
RW-2	Not Detected	11.40	Not Detected
RW-3	Not Detected	14.15	Not Detected
RW-6	Not Detected	14.26	Not Detected

MECI treated the off gas produced during the AFVR event using an activated carbon filter system, which achieved an average calculated reduction rate of 97.56% throughout the duration of the referenced event. Calculated total petroleum hydrocarbons removed during the event were 59.77 pounds or approximately

10.32 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 0.62 pounds per hour. Concentrations of off gas (Pre-Treatment) produced during the event were recorded from 338.3 parts per million by volume (PPM) to 1,319 PPM. Vacuum readings were recorded at 25.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1C.

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2A, Table 2B, and Table 2C. Monitoring well locations are depicted on attached Figure 2.

A total of 21,340 gallons of liquid was removed from the site during this event. Free phase product was not observed in the holding tank at the end the referenced event. The fluids were transported to U.S. Water Recovery in Goose Creek, SC for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI, Mr. Donnie Malphrus of Malphrus Enterprises, and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Kyle V. Pudney
Project Biologist

Jeff L. Coleman
Senior Scientist

Attachments:

TABLE 1A
AFVR MONITORING DATA
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 15-5188
SCDHEC SITE ID NUMBER 10628

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements: Pre-Treatment Concentration (PPM)	Post-Treatment Concentration (PPM)	Treatment Reduction Rate (%)	Offgas Velocity (ft/min)	Flow Rate (CFM)	Removal Rate (Lbs/Hr)	Interval Removal (Lbs)
MW-7RR	07/20/15	12:00	0.50	25.0	128.4	0.6	99.53%	570	51.30	0.08	0.04
RW-1	07/20/15	12:30	0.50	25.0	201.7	1.3	99.36%	550	49.50	0.12	0.06
RW-4	07/20/15	13:00	0.50	25.0	294.5	1.9	99.35%	560	50.40	0.18	0.09
RW-5	07/20/15	13:30	0.50	25.0	346.0	2.3	99.34%	530	47.70	0.20	0.10
▼	07/20/15	14:00	0.50	25.0	401.7	2.8	99.30%	540	48.60	0.23	0.12
▼	07/20/15	14:30	0.50	25.0	478.9	3.4	99.29%	550	49.50	0.28	0.14
▼	07/20/15	15:00	0.50	25.0	521.6	3.9	99.25%	580	52.20	0.33	0.16
▼	07/20/15	15:30	0.50	25.0	588.8	4.7	99.20%	570	51.30	0.36	0.18
▼	07/20/15	16:00	0.50	25.0	615.4	5.6	99.09%	560	50.40	0.37	0.19
▼	07/20/15	16:30	0.50	25.0	669.2	6.2	99.07%	550	49.50	0.40	0.20
▼	07/20/15	17:00	0.50	25.0	697.3	6.8	99.02%	550	49.50	0.41	0.21
▼	07/20/15	17:30	0.50	25.0	730.1	7.2	99.01%	560	50.40	0.44	0.22
▼	07/20/15	18:00	0.50	25.0	774.5	7.8	98.99%	550	49.50	0.46	0.23
▼	07/20/15	18:30	0.50	25.0	815.6	8.5	98.96%	560	50.40	0.49	0.25
▼	07/20/15	19:00	0.50	25.0	850.0	8.9	98.95%	540	48.60	0.50	0.25
▼	07/20/15	19:30	0.50	25.0	891.9	9.3	98.96%	550	49.50	0.53	0.26
▼	07/20/15	20:00	0.50	25.0	946.0	9.9	98.95%	540	48.60	0.55	0.28
	07/20/15	21:00	1.00	25.0	991.3	10.2	98.97%	540	48.60	0.58	0.58
	07/20/15	22:00	1.00	25.0	1,024	10.7	98.96%	550	49.50	0.61	0.61
	07/20/15	23:00	1.00	25.0	1,049	11.1	98.94%	560	50.40	0.63	0.63
	07/21/15	0:00	1.00	25.0	1,073	11.5	98.93%	570	51.30	0.66	0.66
	07/21/15	1:00	1.00	25.0	1,099	11.8	98.93%	550	49.50	0.65	0.65
	07/21/15	2:00	1.00	25.0	1,124	12.3	98.91%	540	48.60	0.66	0.66
	07/21/15	3:00	1.00	25.0	1,147	12.7	98.89%	560	50.40	0.69	0.69
	07/21/15	4:00	1.00	25.0	1,164	13.0	98.88%	570	51.30	0.72	0.72
	07/21/15	5:00	1.00	25.0	1,190	13.4	98.87%	580	52.20	0.75	0.75
	07/21/15	6:00	1.00	25.0	1,216	13.7	98.87%	570	51.30	0.75	0.75
	07/21/15	7:00	1.00	25.0	1,233	14.1	98.86%	550	49.50	0.73	0.73
	07/21/15	8:00	1.00	25.0	1,258	14.5	98.85%	550	49.50	0.75	0.75
	07/21/15	9:00	1.00	25.0	1,283	14.8	98.85%	560	50.40	0.78	0.78
	07/21/15	10:00	1.00	25.0	1,308	15.2	98.84%	550	49.50	0.78	0.78
	07/21/15	11:00	1.00	25.0	1,363	15.5	98.86%	550	49.50	0.81	0.81
	07/21/15	12:00	1.00	25.0	1,395	15.9	98.86%	570	51.30	0.86	0.86
	07/21/15	14:00	2.00	25.0	1,420	16.3	98.85%	560	50.40	0.86	1.72
	07/21/15	16:00	2.00	25.0	1,463	16.9	98.84%	530	47.70	0.84	1.67
	07/21/15	18:00	2.00	25.0	1,506	17.3	98.85%	550	49.50	0.89	1.79
	07/21/15	20:00	2.00	25.0	1,543	17.7	98.85%	560	50.40	0.93	1.87
	07/21/15	22:00	2.00	25.0	1,578	18.0	98.86%	570	51.30	0.97	1.94
	07/22/15	0:00	2.00	25.0	1,610	18.4	98.86%	580	52.20	1.01	2.02
	07/22/15	2:00	2.00	25.0	1,635	18.8	98.85%	580	52.20	1.02	2.05
	07/22/15	4:00	2.00	25.0	1,659	19.1	98.85%	560	50.40	1.00	2.01
	07/22/15	6:00	2.00	25.0	1,693	19.4	98.85%	570	51.30	1.04	2.08
	07/22/15	8:00	2.00	25.0	1,724	19.7	98.86%	550	49.50	1.02	2.05
	07/22/15	10:00	2.00	25.0	1,581	17.3	98.91%	590	53.10	1.01	2.02
***	07/22/15	12:00	2.00	25.0	1,543	17.8	98.85%	540	48.60	0.90	1.80
▼	07/22/15	14:00	2.00	25.0	1,564	17.9	98.86%	580	52.20	0.98	1.96
▼	07/22/15	16:00	2.00	25.0	1,592	17.9	98.88%	540	48.60	0.93	1.86
▼	07/22/15	18:00	2.00	25.0	1,544	18.3	98.81%	570	51.30	0.95	1.90
▼	07/22/15	20:00	2.00	25.0	1,611	18.1	98.88%	590	53.10	1.03	2.05
▼	07/22/15	22:00	2.00	25.0	1,682	17.8	98.94%	510	45.90	0.93	1.85
▼	07/23/15	0:00	2.00	25.0	1,592	18.5	98.84%	540	48.60	0.93	1.86
	07/23/15	2:00	2.00	25.0	1,613	19.0	98.82%	530	47.70	0.92	1.85
	07/23/15	4:00	2.00	25.0	1,675	18.7	98.88%	560	50.40	1.01	2.03
	07/23/15	6:00	2.00	25.0	1,698	19.1	98.88%	570	51.30	1.05	2.09
	07/23/15	8:00	2.00	25.0	1,746	19.4	98.89%	570	51.30	1.07	2.15
	07/23/15	10:00	2.00	25.0	1,783	19.6	98.90%	560	50.40	1.08	2.16
	07/23/15	12:00	2.00	25.0	1,695	19.7	98.84%	550	49.50	1.01	2.01
	07/23/15	14:00	2.00	25.0	1,584	19.9	98.74%	510	45.90	0.87	1.75
	07/23/15	16:00	2.00	25.0	1,613	20.3	98.74%	530	47.70	0.92	1.85
	07/23/15	18:00	2.00	25.0	1,702	18.7	98.90%	510	45.90	0.94	1.88
	07/23/15	20:00	2.00	25.0	1,659	19.3	98.84%	540	48.60	0.97	1.93
	07/23/15	22:00	2.00	25.0	1,595	19.9	98.75%	570	51.30	0.98	1.96
	07/24/15	0:00	2.00	25.0	1,633	20.1	98.77%	590	53.10	1.04	2.08
	07/24/15	2:00	2.00	25.0	1,671	20.3	98.79%	610	54.90	1.10	2.20
	07/24/15	4:00	2.00	25.0	1,680	20.4	98.79%	600	54.00	1.09	2.18
	07/24/15	6:00	2.00	25.0	1,711	20.5	98.80%	610	54.90	1.13	2.25
	07/24/15	8:00	2.00	25.0	1,725	20.7	98.80%	620	55.80	1.15	2.31
	07/24/15	10:00	2.00	25.0	1,719	20.7	98.80%	630	56.70	1.17	2.34
	07/24/15	12:00	2.00	25.0	1,761	20.6	98.83%	640	57.60	1.22	2.43

Well Data: Well No.	Diameter (in)	Screened Interval (ft)	Pre AFVR Event: Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Post AFVR Event: Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Corrected Depth to Water Change (ft)
MW-7RR	2"	2-12	***	6.73	***	***	8.20	***	1.47
RW-1	4"	2-12	***	7.32	***	***	9.98	***	2.66
RW-4	4"	2-15	***	7.03	***	***	9.19	***	2.16
RW-5	4"	2-15	***	6.81	***	***	11.30	***	4.49

Vacuum Truck Information		Well ID	Initial Stinger Depth (ft)
Contractor:	MECI	MW-7RR	7.50
Truck Operator:	F. Mitlin	RW-1	8.00
	T. Elder	RW-4	7.50
	W. Huss	RW-5	7.50
	P. Wylie		
Stack I.D. (feet)	0.33 feet		

Notes:

▼= Stinger Depth lowered 0.50 Feet
(Maximum Stinger Depth MW-7RR = 11.0 Feet)
(Maximum Stinger Depth RW-1 = 11.0 Feet)
(Maximum Stinger Depth RW-4 = 14.0 Feet)
(Maximum Stinger Depth RW-5 = 14.0 Feet)

Recovery / Disposal Information

Hydrocarbons Removed (vapor):	86.30	Pounds
Hydrocarbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	14.91	Equivilant Gallons
Molecular Weight Utilized:	75	g / mole
Total Liquids Removed	Approx. 7,110	Gallons
Disposal Facility	US Water Recovery	
Average Treatment System Reduction Rate:	98.93%	

*** *RW-1 Hooked up to AFVR After Carbon Completely Removed From Well*

TABLE 1B
AFVR MONITORING DATA
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 15-5188
SCDHEC SITE ID NUMBER 10628

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements: Pre-Treatment Concentration (PPM)	Post-Treatment Concentration (PPM)	Treatment Reduction Rate (%)	Offgas Velocity (ft/min)	Flow Rate (CFM)	Removal Rate (Lbs/Hr)	Interval Removal (Lbs)
MW-4R	07/27/15	7:30	0.50	23.0	59.6	0.5	99.16%	140	12.60	0.01	0.00
MW-14	07/27/15	8:00	0.50	23.0	102.4	1.0	99.02%	140	12.60	0.02	0.01
RW-2▼	07/27/15	8:30	0.50	24.0	174.6	1.2	99.31%	150	13.50	0.03	0.01
RW-3▼	07/27/15	9:00	0.50	24.0	187.9	1.3	99.31%	140	12.60	0.03	0.01
RW-6▼	07/27/15	9:30	0.50	24.0	202.1	1.6	99.21%	150	13.50	0.03	0.02
▼	07/27/15	10:00	0.50	24.0	214.3	1.8	99.16%	150	13.50	0.03	0.02
▼	07/27/15	10:30	0.50	25.0	227.1	1.9	99.16%	160	14.40	0.04	0.02
▼	07/27/15	11:00	0.50	25.0	238.7	2.0	99.16%	160	14.40	0.04	0.02
▼	07/27/15	11:30	0.50	25.0	257.1	2.2	99.14%	160	14.40	0.04	0.02
▼	07/27/15	12:00	0.50	25.0	284.3	2.4	99.16%	160	14.40	0.05	0.02
▼	07/27/15	12:30	0.50	24.0	291.1	2.6	99.11%	160	14.40	0.05	0.03
▼	07/27/15	13:00	0.50	24.0	299.4	2.9	99.03%	170	15.30	0.05	0.03
▼	07/27/15	13:30	0.50	24.0	308.7	3.3	98.93%	170	15.30	0.06	0.03
▼	07/27/15	14:00	0.50	24.0	317.6	3.7	98.84%	170	15.30	0.06	0.03
▼	07/27/15	14:30	0.50	24.0	342.2	3.9	98.86%	180	16.20	0.07	0.03
▼	07/27/15	15:00	0.50	24.0	356.4	4.2	98.82%	180	16.20	0.07	0.03
▼	07/27/15	15:30	0.50	25.0	377.8	4.3	98.86%	180	16.20	0.07	0.04
▼	07/27/15	16:30	1.00	24.0	388.3	4.8	98.76%	180	16.20	0.08	0.08
▼	07/27/15	17:30	1.00	24.0	408.6	4.9	98.80%	190	17.10	0.08	0.08
▼	07/27/15	18:30	1.00	24.0	411.2	5.3	98.71%	190	17.10	0.08	0.08
▼	07/27/15	19:30	1.00	23.0	461.4	5.7	98.76%	190	17.10	0.09	0.09
▼	07/27/15	20:30	1.00	24.0	526.7	6.4	98.78%	220	19.80	0.13	0.13
	07/27/15	21:30	1.00	24.0	571.8	6.8	98.81%	240	21.60	0.15	0.15
	07/27/15	22:30	1.00	25.0	615.3	7.4	98.80%	270	24.30	0.18	0.18
	07/27/15	23:30	1.00	24.0	639.9	7.9	98.77%	340	30.60	0.23	0.23
	07/28/15	0:30	1.00	24.0	681.0	8.3	98.78%	380	34.20	0.28	0.28
	07/28/15	1:30	1.00	24.0	720.8	8.8	98.78%	440	39.60	0.34	0.34
	07/28/15	2:30	1.00	24.0	746.2	9.3	98.75%	460	41.40	0.37	0.37
	07/28/15	3:30	1.00	25.0	777.4	9.5	98.78%	500	45.00	0.42	0.42
	07/28/15	4:30	1.00	25.0	802.1	9.9	98.77%	510	45.90	0.44	0.44
	07/28/15	5:30	1.00	25.0	827.5	10.1	98.78%	520	46.80	0.46	0.46
	07/28/15	6:30	1.00	25.0	856.3	10.2	98.81%	530	47.70	0.49	0.49
▼	07/28/15	7:30	1.00	25.0	891.2	10.5	98.82%	540	48.60	0.52	0.52
▼	07/28/15	9:30	2.00	25.0	917.4	10.8	98.82%	540	48.60	0.54	1.07
	07/28/15	11:30	2.00	25.0	944.7	11.0	98.84%	550	49.50	0.56	1.12
	07/28/15	13:30	2.00	25.0	976.2	11.3	98.84%	550	49.50	0.58	1.16
	07/28/15	15:30	2.00	25.0	1,000	11.8	98.82%	560	50.40	0.60	1.21
	07/28/15	17:30	2.00	25.0	1,044	11.4	98.91%	560	50.40	0.63	1.26
	07/28/15	19:30	2.00	25.0	1,106	12.3	98.89%	540	48.60	0.65	1.29
	07/28/15	21:30	2.00	25.0	1,147	12.5	98.91%	550	49.50	0.68	1.36
	07/28/15	23:30	2.00	25.0	1,170	12.8	98.91%	540	48.60	0.68	1.36
	07/29/15	1:30	2.00	25.0	1,197	13.0	98.91%	530	47.70	0.69	1.37
	07/29/15	3:30	2.00	25.0	1,215	13.2	98.91%	540	48.60	0.71	1.42
	07/29/15	5:30	2.00	25.0	1,239	13.4	98.92%	530	47.70	0.71	1.42
	07/29/15	7:30	2.00	25.0	1,262	13.7	98.91%	540	48.60	0.74	1.47
	07/29/15	9:30	2.00	25.0	1,271	13.7	98.92%	560	50.40	0.77	1.54
	07/29/15	11:30	2.00	25.0	1,298	13.9	98.93%	590	53.10	0.83	1.65
	07/29/15	13:30	2.00	25.0	1,324	14.4	98.91%	620	55.80	0.89	1.77
	07/29/15	15:30	2.00	25.0	1,354	14.7	98.91%	610	54.90	0.89	1.78
	07/29/15	17:30	2.00	25.0	1,388	14.9	98.93%	630	56.70	0.94	1.89
	07/29/15	19:30	2.00	25.0	1,399	14.8	98.94%	650	58.50	0.98	1.96
	07/29/15	21:30	2.00	25.0	1,418	15.1	98.94%	670	60.30	1.03	2.05
	07/29/15	23:30	2.00	25.0	1,443	15.4	98.93%	660	59.40	1.03	2.06
	07/30/15	1:30	2.00	25.0	1,469	15.6	98.94%	680	61.20	1.08	2.16
	07/30/15	3:30	2.00	25.0	1,492	15.3	98.97%	700	63.00	1.13	2.26
	07/30/15	5:30	2.00	25.0	1,515	15.7	98.96%	710	63.90	1.16	2.32
	07/30/15	7:30	2.00	25.0	1,538	15.9	98.97%	730	65.70	1.21	2.43
	07/30/15	9:30	2.00	25.0	1,574	16.1	98.98%	740	66.60	1.26	2.52
	07/30/15	11:30	2.00	25.0	1,579	16.1	98.98%	740	66.60	1.26	2.52
	07/30/15	13:30	2.00	25.0	1,606	16.2	98.99%	760	68.40	1.32	2.64
	07/30/15	15:30	2.00	25.0	1,641	16.4	99.00%	790	71.10	1.40	2.80
	07/30/15	17:30	2.00	25.0	1,671	16.3	99.02%	780	70.20	1.41	2.82
	07/30/15	19:30	2.00	25.0	1,694	16.6	99.02%	800	72.00	1.46	2.93
	07/30/15	21:30	2.00	25.0	1,718	16.7	99.03%	810	72.90	1.50	3.01
	07/30/15	23:30	2.00	25.0	1,735	16.9	99.03%	830	74.70	1.56	3.11
	07/31/15	1:30	2.00	25.0	1,761	16.8	99.05%	800	72.00	1.52	3.04
	07/31/15	3:30	2.00	25.0	1,787	17.1	99.04%	820	73.80	1.58	3.17
	07/31/15	5:30	2.00	25.0	1,815	17.2	99.05%	830	74.70	1.63	3.25
	07/31/15	7:30	2.00	25.0	1,842	17.3	99.06%	810	72.90	1.61	3.22

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-4R	2"	5-15	***	2.33	***	***	13.01	***	10.68
MW-14	2"	3-13	3.33	3.41	0.08	***	10.79	***	7.45
RW-2	4"	2-12	***	2.09	***	***	10.57	***	8.48
RW-3	4"	2-12	***	1.58	***	***	9.97	***	8.39
RW-6	4"	2-15	***	3.36	***	***	13.72	***	10.36

Vacuum Truck Information		Well ID	Initial Stinger Depth (ft)
Contractor:	MECI	MW-4R	3.00
Truck Operator:	F. Mitlin	MW-14	4.00
	T. Elder	RW-2	3.00
	A. Best	RW-3	3.00
	P. Wylie	RW-6	4.00
Stack I.D. (feet)	0.33 feet		

Notes:
▼= Stinger Depth lowered 0.50 Feet
(Maximum Stinger Depth MW-4R = 14.0 Feet)
(Maximum Stinger Depth MW-14 = 12.0 Feet)
(Maximum Stinger Depth RW-2 = 11.0 Feet)
(Maximum Stinger Depth RW-3 = 11.0 Feet)
(Maximum Stinger Depth RW-6 = 14.0 Feet)

Recovery / Disposal Information

Hydrocarbons Removed (vapor):	79.14	Pounds
Hydrocarbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	13.67	Equivilant Gallons
Molecular Weight Utilized:	75	g / mole
Total Liquids Removed	Approx. 7,110	Gallons
Disposal Facility	US Water Recovery	
Average Treatment System Reduction Rate:	98.94%	

TABLE 1C
AFVR MONITORING DATA
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 15-5188
SCDHEC SITE ID NUMBER 10628

Extraction Well	Date	Time	Differential Time	Extraction Well Head Vacuum	Off Gas Measurements						
					Pre-Treatment Concentration	Post-Treatment Concentration	Treatment Reduction Rate	Offgas Velocity	Flow Rate	Removal Rate	Interval Removal
		(hh:mm)	(hr)	(in. Hg)	(PPM)	(PPM)	(%)	(ft/min)	(CFM)	(Lbs/Hr)	(Lbs)
MW-7RR	08/03/15	7:30	0.50	25.0	928.3	23.1	97.51%	500	45.00	0.50	0.25
RW-1	08/03/15	8:00	0.50	25.0	932.4	23.0	97.53%	500	45.00	0.50	0.25
▼RW-4	08/03/15	8:30	0.50	25.0	912.1	23.2	97.46%	530	47.70	0.52	0.26
RW-5	08/03/15	9:00	0.50	25.0	909.7	23.4	97.43%	530	47.70	0.52	0.26
▼	08/03/15	9:30	0.50	25.0	918.2	23.2	97.47%	530	47.70	0.53	0.26
▼	08/03/15	10:00	0.50	25.0	911.6	23.3	97.44%	530	47.70	0.52	0.26
▼	08/03/15	10:30	0.50	25.0	901.2	23.5	97.39%	530	47.70	0.52	0.26
▼	08/03/15	11:00	0.50	25.0	904.3	23.5	97.40%	540	48.60	0.53	0.26
▼	08/03/15	11:30	0.50	25.0	863.7	23.6	97.27%	540	48.60	0.50	0.25
▼	08/03/15	12:00	0.50	25.0	911.2	23.6	97.41%	550	49.50	0.54	0.27
▼	08/03/15	12:30	0.50	25.0	921.6	23.7	97.43%	550	49.50	0.55	0.27
▼	08/03/15	13:00	0.50	25.0	938.7	23.6	97.49%	550	49.50	0.56	0.28
▼	08/03/15	13:30	0.50	25.0	951.1	23.7	97.51%	550	49.50	0.56	0.28
▼	08/03/15	14:00	0.50	25.0	959.0	23.7	97.53%	560	50.40	0.58	0.29
▼	08/03/15	14:30	0.50	25.0	941.3	23.6	97.49%	560	50.40	0.57	0.28
▼	08/03/15	15:00	0.50	25.0	946.2	23.4	97.53%	560	50.40	0.57	0.29
	08/03/15	15:30	0.50	25.0	951.3	23.6	97.52%	560	50.40	0.58	0.29
	08/03/15	16:30	1.00	25.0	981.4	23.9	97.56%	560	50.40	0.59	0.59
	08/03/15	17:30	1.00	25.0	976.3	24.0	97.54%	570	51.30	0.60	0.60
	08/03/15	18:30	1.00	25.0	979.9	24.1	97.54%	570	51.30	0.60	0.60
	08/03/15	19:30	1.00	25.0	985.2	24.0	97.56%	580	52.20	0.62	0.62
	08/03/15	20:30	1.00	25.0	990.8	24.1	97.57%	580	52.20	0.62	0.62
	08/03/15	21:30	1.00	25.0	996.3	24.1	97.58%	580	52.20	0.62	0.62
	08/03/15	22:30	1.00	25.0	1,004	24.2	97.59%	580	52.20	0.63	0.63
	08/03/15	23:30	1.00	25.0	1,044	24.4	97.66%	580	52.20	0.65	0.65
	08/04/15	0:30	1.00	25.0	1,072	24.6	97.71%	580	52.20	0.67	0.67
	08/04/15	1:30	1.00	25.0	1,093	24.8	97.73%	580	52.20	0.68	0.68
	08/04/15	2:30	1.00	25.0	1,124	24.8	97.79%	590	53.10	0.72	0.72
	08/04/15	3:30	1.00	25.0	1,157	25.1	97.83%	590	53.10	0.74	0.74
	08/04/15	4:30	1.00	25.0	1,174	25.1	97.86%	590	53.10	0.75	0.75
	08/04/15	5:30	1.00	25.0	1,201	25.2	97.90%	590	53.10	0.77	0.77
	08/04/15	6:30	1.00	25.0	1,214	25.4	97.91%	590	53.10	0.77	0.77
	08/04/15	7:30	1.00	25.0	1,236	25.4	97.94%	600	54.00	0.80	0.80
	08/04/15	9:30	2.00	25.0	1,210	25.2	97.92%	620	55.80	0.81	1.62
	08/04/15	11:30	2.00	25.0	1,221	25.3	97.93%	600	54.00	0.79	1.58
	08/04/15	13:30	2.00	25.0	1,225	25.2	97.94%	610	54.90	0.81	1.61
	08/04/15	15:30	2.00	25.0	1,239	25.1	97.97%	610	54.90	0.82	1.63
	08/04/15	17:30	2.00	25.0	1,250	25.2	97.98%	610	54.90	0.82	1.65
	08/04/15	19:30	2.00	25.0	1,260	25.3	97.99%	620	55.80	0.84	1.69
	08/04/15	21:30	2.00	25.0	1,276	25.3	98.02%	620	55.80	0.85	1.71
	08/04/15	23:30	2.00	25.0	1,288	25.5	98.02%	620	55.80	0.86	1.72
	08/05/15	1:30	2.00	25.0	1,301	25.7	98.02%	620	55.80	0.87	1.74
	08/05/15	3:30	2.00	25.0	1,307	25.8	98.03%	620	55.80	0.88	1.75
	08/05/15	5:30	2.00	25.0	1,312	25.9	98.03%	620	55.80	0.88	1.76
***	08/05/15	7:30	2.00	25.0	1,319	26.1	98.02%	620	55.80	0.88	1.77
MW-4R	08/05/15	9:30	2.00	25.0	241.8	17.2	92.89%	440	39.60	0.11	0.23
MW-14	08/05/15	11:30	2.00	25.0	338.3	17.5	94.83%	450	40.50	0.16	0.33
RW-2	08/05/15	13:30	2.00	25.0	436.5	17.7	95.95%	460	41.40	0.22	0.43
RW-3	08/05/15	15:30	2.00	25.0	538.3	17.6	96.73%	470	42.30	0.27	0.55
RW-6	08/05/15	17:30	2.00	25.0	587.6	17.6	97.00%	490	44.10	0.31	0.62
	08/05/15	19:30	2.00	25.0	636.4	17.9	97.19%	520	46.80	0.36	0.71
	08/05/15	21:30	2.00	25.0	681.7	18.3	97.32%	550	49.50	0.40	0.81
	08/05/15	23:30	2.00	25.0	726.4	18.8	97.41%	560	50.40	0.44	0.88
	08/06/15	1:30	2.00	25.0	766.7	19.1	97.51%	550	49.50	0.46	0.91
	08/06/15	3:30	2.00	25.0	806.6	19.6	97.57%	530	47.70	0.46	0.92
	08/06/15	5:30	2.00	25.0	850.9	20.1	97.64%	540	48.60	0.50	0.99
	08/06/15	7:30	2.00	25.0	901.5	20.4	97.74%	550	49.50	0.54	1.07
	08/06/15	9:30	2.00	25.0	937.0	21.0	97.76%	560	50.40	0.57	1.13
	08/06/15	11:30	2.00	25.0	986.4	21.1	97.86%	570	51.30	0.61	1.21
	08/06/15	13:30	2.00	25.0	1,009	21.3	97.89%	550	49.50	0.60	1.20
	08/06/15	15:30	2.00	25.0	1,034	21.4	97.93%	540	48.60	0.60	1.21
	08/06/15	17:30	2.00	25.0	1,058	21.5	97.97%	560	50.40	0.64	1.28
	08/06/15	19:30	2.00	25.0	1,073	21.8	97.97%	580	52.20	0.67	1.34
	08/06/15	21:30	2.00	25.0	1,104	22.0	98.01%	560	50.40	0.67	1.34
	08/06/15	23:30	2.00	25.0	1,126	22.2	98.03%	550	49.50	0.67	1.34
	08/07/15	1:30	2.00	25.0	1,147	22.5	98.04%	570	51.30	0.71	1.41
	08/07/15	3:30	2.00	25.0	1,161	22.8	98.04%	560	50.40	0.70	1.40
	08/07/15	5:30	2.00	25.0	1,190	23.0	98.07%	530	47.70	0.68	1.36
	08/07/15	7:30	2.00	25.0	1,202	23.3	98.06%	550	49.50	0.71	1.43

Well Data:			Pre AFVR Event			Post AFVR Event			Corrected Depth to Water Change (ft)
Well No.	Diameter (in)	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	
MW-7RR	2"	2-12	***	7.12	***	***	10.29	***	3.17
RW-1	4"	2-12	7.17	7.19	0.02	***	10.75	***	3.58
RW-4	4"	2-15	***	7.43	***	***	12.24	***	4.81
RW-5	4"	2-15	***	7.13	***	***	12.97	***	5.84
MW-4R	2"	5-15	***	3.05	***	***	13.57	***	10.52
MW-14	2"	3-13	***	2.65	***	***	10.21	***	7.56
RW-2	4"	2-12	***	3.50	***	***	11.40	***	7.90
RW-3	4"	2-12	***	2.56	***	***	14.15	***	11.59
RW-6	4"	2-15	4.37	4.41	0.04	***	14.26	***	9.88

Vacuum Truck Information		Well ID	Initial Stinger Depth (ft)
Contractor:	MECI	MW-7RR	8.00
Truck Operator:	F. Mitlin	RW-1	8.00
	T. Elder	RW-4	8.50
	A. Best	RW-5	8.00
	P. Wylie	MW-4R	4.00
		MW-14	4.00
		RW-2	4.00
		RW-3	4.00
Stack I.D. (feet)	0.33 feet	RW-6	5.00

Recovery / Disposal Information		
Hydrocarbons Removed (vapor):	59.77	Pounds
Hydrocarbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	10.32	Equivilant Gallons
Molecular Weight Utilized:	75	g / mole
Total Liquids Removed	Approx. 7,120	Gallons
Disposal Facility	US Water Recovery	
Average Treatment System Reduction Rate:	97.56%	

Notes:

▼= Stinger Depth lowered 0.50 Feet
(Maximum Stinger Depth MW-7RR = 11.0 Feet)
(Maximum Stinger Depth RW-1 = 11.0 Feet)
(Maximum Stinger Depth RW-4 = 14.0 Feet)
(Maximum Stinger Depth RW-5 = 14.0 Feet)
(Maximum Stinger Depth MW-4R = 14.0 Feet)
(Maximum Stinger Depth MW-14 = 12.0 Feet)
(Maximum Stinger Depth RW-2 = 11.0 Feet)
(Maximum Stinger Depth RW-3 = 11.0 Feet)
(Maximum Stinger Depth RW-6 = 14.0 Feet)

****** After 48 Hours, Pumping Event was Moved to MW-4R, MW-14, RW-2, RW-3, and RW-6***

TABLE 2A
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 15-5188
SCDHEC SITE ID NUMBER 10628

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-15	MW-16	MW-20
Nearest Extraction Well:		RW-1	RW-1	RW-5
Approximate Distance:		82 ft	156 ft	122 ft
Time	Elapsed Time	Differential Pressure Readings (inches of water)		
Prior to AFVR		0.0	0.0	0.0
12:00	0.0	0.0	0.0	0.0
12:30	0.5	0.0	0.0	0.0
13:00	1.0	0.0	0.0	0.0
13:30	1.5	0.0	0.0	0.0
14:00	2.0	0.0	0.0	0.0
14:30	2.5	0.0	0.0	0.0
15:00	3.0	0.0	0.0	0.0
15:30	3.5	0.0	0.0	0.0
16:00	4.0	0.0	0.0	0.0
16:30	4.5	0.0	0.0	0.0
17:00	5.0	0.0	0.0	0.0
17:30	5.5	0.0	0.0	0.0
18:00	6.0	0.0	0.0	0.0
18:30	6.5	0.0	0.0	0.0
19:00	7.0	0.0	0.0	0.0
19:30	7.5	0.0	0.0	0.0
20:00	8.0	0.0	0.0	0.0
21:00	9.0	0.0	0.0	0.0
22:00	10.0	0.0	0.0	0.0
23:00	11.0	0.0	0.0	0.0
0:00	12.0	0.0	0.0	0.0
1:00	13.0	0.0	0.0	0.0
2:00	14.0	0.0	0.0	0.0
3:00	15.0	0.0	0.0	0.0
4:00	16.0	0.0	0.0	0.0
5:00	17.0	0.0	0.0	0.0
6:00	18.0	0.0	0.0	0.0
7:00	19.0	0.0	0.0	0.0
8:00	20.0	0.0	0.0	0.0
9:00	21.0	0.0	0.0	0.0
10:00	22.0	0.0	0.0	0.0
11:00	23.0	0.0	0.0	0.0
12:00	24.0	0.0	0.0	0.0
14:00	26.0	0.0	0.0	0.0
16:00	28.0	0.0	0.0	0.0
18:00	30.0	0.0	0.0	0.0
20:00	32.0	0.0	0.0	0.0
22:00	34.0	0.0	0.0	0.0
0:00	36.0	0.0	0.0	0.0
2:00	38.0	0.0	0.0	0.0
4:00	40.0	0.0	0.0	0.0
6:00	42.0	0.0	0.0	0.0
8:00	44.0	0.0	0.0	0.0
10:00	46.0	0.0	0.0	0.0
12:00	48.0	0.0	0.0	0.0
14:00	50.0	0.0	0.0	0.0
16:00	52.0	0.0	0.0	0.0
18:00	54.0	0.0	0.0	0.0
20:00	56.0	0.0	0.0	0.0
22:00	58.0	0.0	0.0	0.0
0:00	60.0	0.0	0.0	0.0
2:00	62.0	0.0	0.0	0.0
4:00	64.0	0.0	0.0	0.0
6:00	66.0	0.0	0.0	0.0
8:00	68.0	0.0	0.0	0.0
10:00	70.0	0.0	0.0	0.0
12:00	72.0	0.0	0.0	0.0
14:00	74.0	0.0	0.0	0.0
16:00	76.0	0.0	0.0	0.0
18:00	78.0	0.0	0.0	0.0
20:00	80.0	0.0	0.0	0.0
22:00	82.0	0.0	0.0	0.0
0:00	84.0	0.0	0.0	0.0
2:00	86.0	0.0	0.0	0.0
4:00	88.0	0.0	0.0	0.0
6:00	90.0	0.0	0.0	0.0
8:00	92.0	0.0	0.0	0.0
10:00	94.0	0.0	0.0	0.0
12:00	96.0	0.0	0.0	0.0
Maximum Change:		0.0	0.0	0.0

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-15	MW-16	MW-20
Nearest Extraction Well:		RW-1	RW-1	RW-5
Approximate Distance:		82 ft	156 ft	122 ft
Time	Elapsed Time	Depth to Liquid (feet below of casing):		
Prior to AFVR		3.02	8.57	9.96
16:00	4 hours	3.14	8.58	9.98
20:00	8 hours	3.25	8.60	10.00
0:00	12 hours	3.30	8.62	10.01
4:00	16 hours	3.35	8.63	10.02
8:00	20 hours	3.40	8.64	10.03
12:00	24 hours	3.44	8.65	10.04
16:00	28 hours	3.45	8.66	10.04
20:00	32 hours	3.46	8.66	10.05
0:00	36 hours	3.48	8.67	10.05
4:00	40 hours	3.49	8.67	10.06
8:00	44 hours	3.50	8.68	10.06
12:00	48 hours	3.49	8.67	10.04
16:00	52 hours	3.50	8.67	10.05
20:00	56 hours	3.51	8.69	10.05
0:00	60 hours	3.51	8.67	10.06
4:00	64 hours	3.52	8.68	10.06
8:00	68 hours	3.53	8.69	10.07
12:00	72 hours	3.53	8.69	10.07
16:00	76 hours	3.54	8.69	10.08
20:00	80 hours	3.54	8.68	10.08
0:00	84 hours	3.55	8.70	10.08
4:00	88 hours	3.55	8.70	10.09
8:00	92 hours	3.56	8.71	10.10
12:00	96 hours	3.57	8.72	10.11
Maximum Change:		-0.55	-0.15	-0.15

TABLE 2B
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 15-5188
SCDHEC SITE ID NUMBER 10628

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-5RR	**MW-20**	**MW-15**
Nearest Extraction Well:		MW-14	MW-4R	MW-4R
Approximate Distance:		77 ft	289 ft	128 ft
Time	**Elapsed Time**	**Differential Pressure Readings (inches of water)**		
Prior to AFVR		**0.0**	**0.0**	**0.0**
7:30	0.0	2.0	0.0	0.0
8:00	0.5	2.0	0.0	0.0
8:30	1.0	2.0	0.0	0.0
9:00	1.5	2.0	0.0	0.0
9:30	2.0	2.0	0.0	0.0
10:00	2.5	2.0	0.0	0.0
10:30	3.0	2.0	0.0	0.0
11:00	3.5	2.0	0.0	0.0
11:30	4.0	2.0	0.0	0.0
12:00	4.5	2.0	0.0	0.0
12:30	5.0	2.0	0.0	0.0
13:00	5.5	2.0	0.0	0.0
13:30	6.0	2.0	0.0	0.0
14:00	6.5	2.0	0.0	0.0
14:30	7.0	2.0	0.0	0.0
15:00	7.5	2.0	0.0	0.0
15:30	8.0	2.0	0.0	0.0
16:30	9.0	2.0	0.0	0.0
17:30	10.0	2.0	0.0	0.0
18:30	11.0	2.0	0.0	0.0
19:30	12.0	2.0	0.0	0.0
20:30	13.0	2.0	0.0	0.0
21:30	14.0	2.0	0.0	0.0
22:30	15.0	2.0	0.0	0.0
23:30	16.0	2.0	0.0	0.0
0:30	17.0	2.0	0.0	0.0
1:30	18.0	2.0	0.0	0.0
2:30	19.0	2.0	0.0	0.0
3:30	20.0	2.0	0.0	0.0
4:30	21.0	2.0	0.0	0.0
5:30	22.0	2.0	0.0	0.0
6:30	23.0	2.0	0.0	0.0
7:30	24.0	2.0	0.0	0.0
9:30	26.0	2.0	0.0	0.0
11:30	28.0	2.0	0.0	0.0
13:30	30.0	2.0	0.0	0.0
15:30	32.0	2.0	0.0	0.0
17:30	34.0	2.0	0.0	0.0
19:30	36.0	2.0	0.0	0.0
21:30	38.0	2.0	0.0	0.0
23:30	40.0	2.0	0.0	0.0
1:30	42.0	2.0	0.0	0.0
3:30	44.0	2.0	0.0	0.0
5:30	46.0	2.0	0.0	0.0
7:30	48.0	2.0	0.0	0.0
9:30	50.0	2.0	0.0	0.0
11:30	52.0	2.0	0.0	0.0
13:30	54.0	2.0	0.0	0.0
15:30	56.0	2.0	0.0	0.0
17:30	58.0	2.0	0.0	0.0
19:30	60.0	2.0	0.0	0.0
21:30	62.0	2.0	0.0	0.0
23:30	64.0	2.0	0.0	0.0
1:30	66.0	2.0	0.0	0.0
3:30	68.0	2.0	0.0	0.0
5:30	70.0	2.0	0.0	0.0
7:30	72.0	2.0	0.0	0.0
9:30	74.0	2.0	0.0	0.0
11:30	76.0	2.0	0.0	0.0
13:30	78.0	2.0	0.0	0.0
15:30	80.0	2.0	0.0	0.0
17:30	82.0	2.0	0.0	0.0
19:30	84.0	2.0	0.0	0.0
21:30	86.0	2.0	0.0	0.0
23:30	88.0	2.0	0.0	0.0
1:30	90.0	2.0	0.0	0.0
3:30	92.0	2.0	0.0	0.0
5:30	94.0	2.0	0.0	0.0
7:30	96.0	2.0	0.0	0.0
Maximum Change:		**2.0**	**0.0**	**0.0**

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-5RR	**MW-20**	**MW-15**
Nearest Extraction Well:		MW-14	MW-4R	MW-4R
Approximate Distance:		77 ft	289 ft	128 ft
Time	**Elapsed Time**	**Depth to Liquid (feet below of casing):**		
Prior to AFVR		3.16	10.24	3.26
11:30	4 hours	3.19	10.24	3.27
15:30	8 hours	3.27	10.25	3.28
19:30	12 hours	3.28	10.25	3.29
23:30	16 hours	3.36	10.27	3.30
3:30	20 hours	3.31	10.28	3.31
7:30	24 hours	3.33	10.29	3.33
11:30	28 hours	3.34	10.30	3.33
15:30	32 hours	3.38	10.32	3.34
19:30	36 hours	3.41	10.34	3.35
23:30	40 hours	3.42	10.35	3.36
3:30	44 hours	3.43	10.36	3.37
7:30	48 hours	3.44	10.36	3.38
11:30	52 hours	3.45	10.37	3.39
15:30	56 hours	3.46	10.37	3.41
19:30	60 hours	3.47	10.38	3.42
23:30	64 hours	3.48	10.39	3.43
3:30	68 hours	3.49	10.39	3.44
7:30	72 hours	3.50	10.40	3.45
11:30	76 hours	3.51	10.41	3.46
15:30	80 hours	3.51	10.42	3.48
19:30	84 hours	3.52	10.43	3.49
23:30	88 hours	3.53	10.44	3.50
3:30	92 hours	3.54	10.45	3.51
7:30	96 hours	3.55	10.45	3.52
Maximum Change:		-0.39	-0.21	-0.26

TABLE 2C
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 15-5188
SCDHEC SITE ID NUMBER 10628

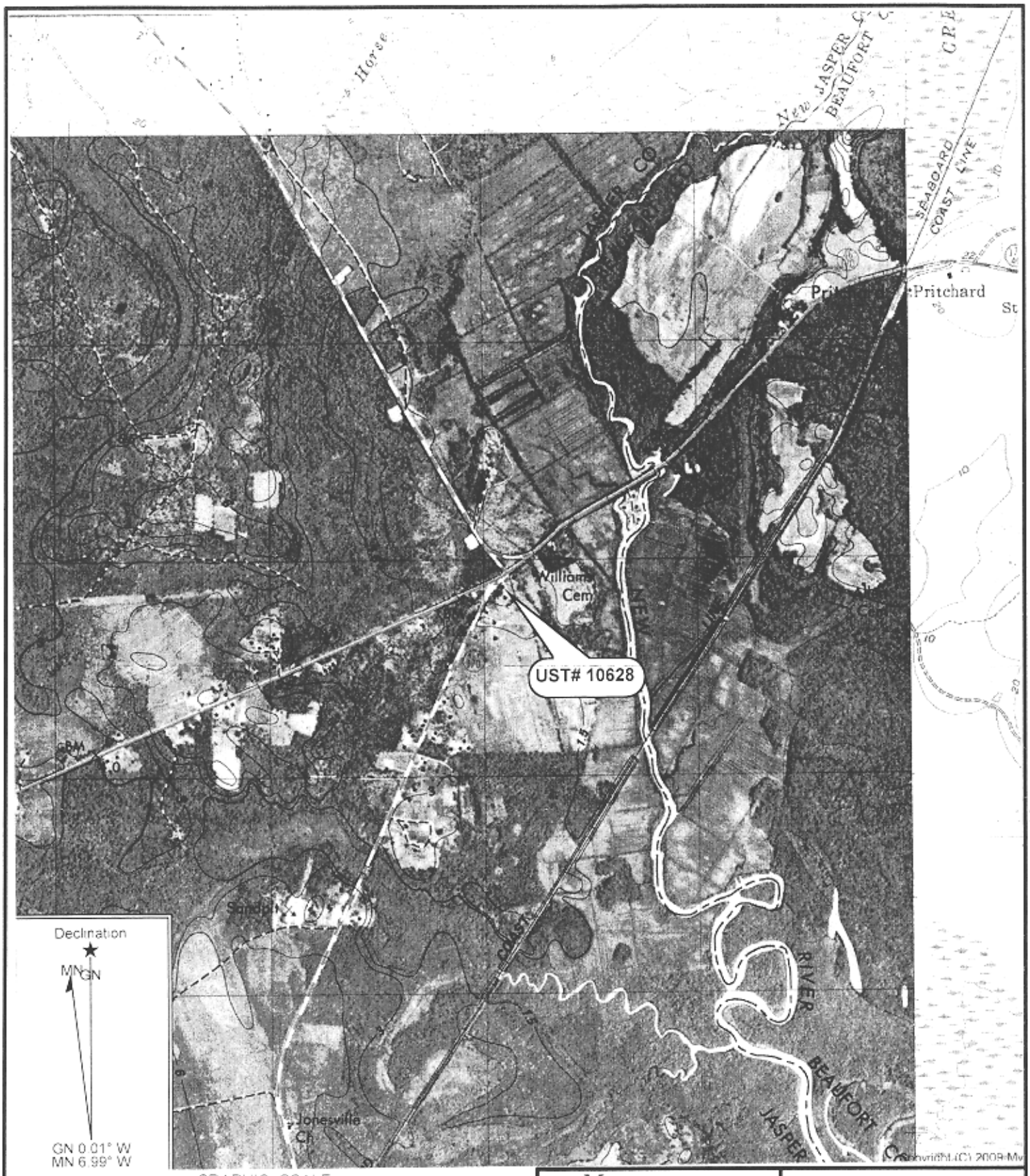
DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW-20	MW-15	MW-5RR
Nearest Extraction Well:		RW-5	RW-1	RW-1
Approximate Distance:		121 ft	82 ft	351 ft
Time	Elapsed Time	Differential Pressure Readings (inches of water)		
Prior to AFVR		0.0	0.0	0.0
7:30	0.0	0.0	0.0	0.0
8:00	0.5	0.0	0.0	0.0
8:30	1.0	0.0	0.0	0.0
9:00	1.5	0.0	0.0	0.0
9:30	2.0	0.0	0.0	0.0
10:00	2.5	0.0	0.0	0.0
10:30	3.0	0.0	0.0	0.0
11:00	3.5	0.0	0.0	0.0
11:30	4.0	0.0	0.0	0.0
12:00	4.5	0.0	0.0	0.0
12:30	5.0	0.0	0.0	0.0
13:00	5.5	0.0	0.0	0.0
13:30	6.0	0.0	0.0	0.0
14:00	6.5	0.0	0.0	0.0
14:30	7.0	0.0	0.0	0.0
15:00	7.5	0.0	0.0	0.0
15:30	8.0	0.0	0.0	0.0
16:30	9.0	0.0	0.0	0.0
17:30	10.0	0.0	0.0	0.0
18:30	11.0	0.0	0.0	0.0
19:30	12.0	0.0	0.0	0.0
20:30	13.0	0.0	0.0	0.0
21:30	14.0	0.0	0.0	0.0
22:30	15.0	0.0	0.0	0.0
23:30	16.0	0.0	0.0	0.0
0:30	17.0	0.0	0.0	0.0
1:30	18.0	0.0	0.0	0.0
2:30	19.0	0.0	0.0	0.0
3:30	20.0	0.0	0.0	0.0
4:30	21.0	0.0	0.0	0.0
5:30	22.0	0.0	0.0	0.0
6:30	23.0	0.0	0.0	0.0
7:30	24.0	0.0	0.0	0.0
9:30	26.0	0.0	0.0	0.0
11:30	28.0	0.0	0.0	0.0
13:30	30.0	0.0	0.0	0.0
15:30	32.0	0.0	0.0	0.0
17:30	34.0	0.0	0.0	0.0
19:30	36.0	0.0	0.0	0.0
21:30	38.0	0.0	0.0	0.0
23:30	40.0	0.0	0.0	0.0
1:30	42.0	0.0	0.0	0.0
3:30	44.0	0.0	0.0	0.0
5:30	46.0	0.0	0.0	0.0
7:30 ***	48.0	0.0	0.0	0.0
9:30	50.0	0.0	0.0	0.0
11:30	52.0	0.0	0.0	0.0
13:30	54.0	0.0	0.0	0.0
15:30	56.0	0.0	0.0	0.0
17:30	58.0	0.0	0.0	0.0
19:30	60.0	0.0	0.0	0.0
21:30	62.0	0.0	0.0	0.0
23:30	64.0	0.0	0.0	0.0
1:30	66.0	0.0	0.0	0.0
3:30	68.0	0.0	0.0	0.0
5:30	70.0	0.0	0.0	0.0
7:30	72.0	0.0	0.0	0.0
9:30	74.0	0.0	0.0	0.0
11:30	76.0	0.0	0.0	0.0
13:30	78.0	0.0	0.0	0.0
15:30	80.0	0.0	0.0	0.0
17:30	82.0	0.0	0.0	0.0
19:30	84.0	0.0	0.0	0.0
21:30	86.0	0.0	0.0	0.0
23:30	88.0	0.0	0.0	0.0
1:30	90.0	0.0	0.0	0.0
3:30	92.0	0.0	0.0	0.0
5:30	94.0	0.0	0.0	0.0
7:30	96.0	0.0	0.0	0.0
Maximum Change:		0.0	0.0	0.0

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW-20	MW-15	MW-5RR
Nearest Extraction Well:		RW-5	RW-1	RW-1
Approximate Distance:		121 ft	82 ft	351 ft
Time	Elapsed Time	Depth to Liquid (feet below of casing):		
Prior to AFVR		10.27	3.36	3.88
11:30	4 hours	10.43	3.55	4.07
15:30	8 hours	10.46	3.58	4.09
19:30	12 hours	10.47	3.60	4.11
23:30	16 hours	10.48	3.61	4.11
3:30	20 hours	10.51	3.61	4.12
7:30	24 hours	10.52	3.62	4.14
11:30	28 hours	10.56	3.65	4.17
15:30	32 hours	10.61	3.69	4.19
19:30	36 hours	10.66	3.72	4.23
23:30	40 hours	10.66	3.74	4.24
3:30	44 hours	10.68	3.74	4.24
7:30	48 hours	10.69	3.75	4.24
11:30	52 hours	10.69	3.76	4.25
15:30	56 hours	10.68	3.76	4.26
19:30	60 hours	10.70	3.75	4.26
23:30	64 hours	10.71	3.74	4.27
3:30	68 hours	10.70	3.77	4.28
7:30	72 hours	10.69	3.78	4.29
11:30	76 hours	10.67	3.78	4.29
15:30	80 hours	10.68	3.77	4.28
19:30	84 hours	10.69	3.76	4.28
23:30	88 hours	10.69	3.75	4.29
3:30	92 hours	10.70	3.76	4.30
7:30	96 hours	10.71	3.78	4.30
Maximum Change:		-0.44	-0.42	-0.42

*** = After 48 Hours, Pumping Event was Moved to MW-4R, MW-14, RW-2, RW-3, and RW-6



Reference: Limehouse and Hardeeville, South Carolina
Jasper and Pritchardville, South Carolina
USGS 7.5 Min. Quad
Contour Interval—1.5 Meters

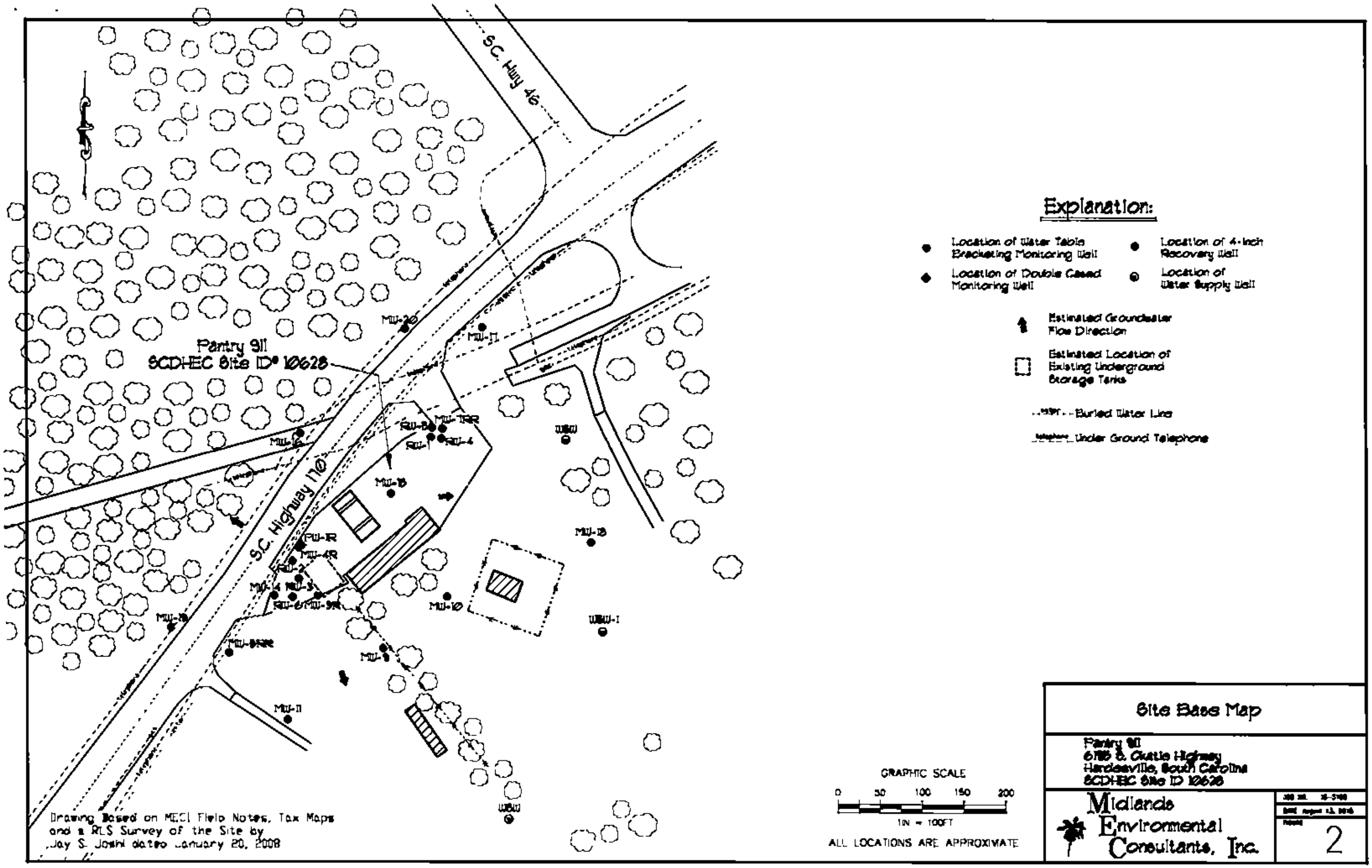
Midlands Environmental Consultants, Inc.

Site Location

Pantry 911
6195 South Okatie Highway, Hardeeville, SC
SCDHEC Site ID# 10628

Figure 1

MECI 15-5188



S.C. Hwy 46
Pantry 911
SCDHEC Site ID# 10628
S.C. Highway 170
MW-20
MW-17
MW-16
MW-15
MW-13
MW-10
MW-19
MW-11
WSW
WSW-1
Explanation:
Location of Water Table Bracketing Monitoring Well
Location of 4-inch Recovery Well
Location of Double Cased Monitoring Well
Location of Water Supply Well
Estimated Groundwater Flow Direction
Estimated Location of Existing Underground Storage Tanks
Buried Water Line
Under Ground Telephone
GRAPHIC SCALE
0 50 100 150 200
1IN = 100FT
ALL LOCATIONS ARE APPROXIMATE
Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008
Site Base Map
Pantry 911
SCDHEC Site ID 10628
Midlands Environmental Consultants, Inc.
2

US Water Recovery

Non-Hazardous Manifest: Waste Water or Drums

Number:

1. Generator's EPA ID# (if applicable):

Waste ID Number:

2. Generator's Name and Mailing Address:

Midland Environmental

Phone ( )

P O #:

Hardeeville SC

3. Agent of Generator and Mailing Address:

Phone ( )

P O #:

4. Transporter Company Name:

Goodsell Transport

Phone ( )

Truck & Trailer License Number:

Goose Creek SC

5. Transporter U.S. EPA ID#:

6. Facility Name and Site Address:
US Water Recovery
511 Old Mt. Holly Rd.
Goose Creek, SC 29445

Phone: (843) 797-8674

Fax: (843) 797-2126

Mailing Address:
US Water Recovery
511 Old Mt. Holly Rd.
Goose Creek, SC 29445

Phone: (843) 797-3111

Fax: (843) 797-1884

7 Facility U.S. EPA ID#:

Start Level:

End Level:

Total Gallons:

Tank Number

8. U.S. DOT Description	Container No.	Container Type	Unit	Quantity
a. Non-Hazardous, non-regulated waste water	104	VT	G	5800

9. Generator's Certification: I hereby declare that the contents of this consignment are not hazardous by definition or listing and are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and the laws of the State of South Carolina. I further certify that the contents of this consignment are as represented by the description contained on the Waste Profile Form previously submitted to and approved by the Designated Facility.

Printed/Typed Name: Adrian Best Signature: Date: 7/28/15

10. Transporter Acknowledgement of Receipt of Materials

Printed/Typed Name: Sharron Haward Signature: Sharron Howard Date: 7-28-15

11. Discrepancy Indication space:

12. Facility Owner or Operator: Certification of Receipt of Materials

Printed/Typed Name: Paul Goodsell Signature: Date 7-28-15

White - Facility Yellow - Office Pink - Transporter Blue - Generator

11088

US Water Recovery

Non-Hazardous Manifest: Waste Water or Drums

Number:

1. Generator's EPA ID# (if applicable):
   Waste ID Number:
2. Generator's Name and Mailing Address: CITGO
   6195 South Okatie HWY
   Hardeeville SC
   Phone ( )
   P O #:
3. Agent of Generator and Mailing Address:
   MECI
   731 Dooky Rd
   Lexington, SC 29073
   Phone ( )
   P O #:
4. Transporter Company Name: Goodell Transport
   511 old Mt Holly Rd
   Goose Creek SC 29445
   Phone ( )
   Truck & Trailer License Number:
5. Transporter U.S. EPA ID#:

6. Facility Name and Site Address:
   US Water Recovery
   511 Old Mt. Holly Rd.
   Goose Creek, SC 29445

   Mailing Address:
   US Water Recovery
   511 Old Mt. Holly Rd.
   Goose Creek, SC 29445

   Phone: (843) 797-3111
   Fax: (843) 797-1884

7. Facility U.S. EPA ID#:

Start Level: End Level: Total Gallons: Tank Number

8. U.S. DOT Description	Container No.	Container Type	Unit	Quantity
a. Non-Hazardous, non-regulated waste water	103	VT	Gal	5200

9. Generator's Certification: I hereby declare that the contents of this consignment are not hazardous by definition or listing and are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and the laws of the State of South Carolina. I further certify that the contents of this consignment are as represented by the description contained on the Waste Profile Form previously submitted to and approved by the Designated Facility.

Printed/Typed Name: Todd Ekker Signature: Todd Ekker Date: 7/30/15

10. Transporter Acknowledgement of Receipt of Materials

Printed/Typed Name: Daniel Kinman Signature: Daniel Kinman Date: 7/30/15

11. Discrepancy indication space:

12. Facility Owner or Operator: Certification of Receipt of Materials

Printed/Typed Name: Daniel Ward Signature: Daniel Ward Date 7-30-15

White - Facility Yellow - Office Pink - Transporter Blue - Generator

11826

US Water Recovery

Non-Hazardous Manifest: Waste Water or Drums

Number:

1. Generator's EPA ID# (if applicable):

Waste ID Number:

2. Generator's Name and Mailing Address: GTPS
6195 South Okatie Hwy
Hardeeville SC

Phone ( )

P O #:

3. Agent of Generator and Mailing Address:
Midlands Environmental Consultants Inc
231 Dooley Road
Lexington SC 29073

Phone ( )

P O #:

4. Transporter Company Name: Goodsell Services
511 Old Mt Holly Rd
Goose Creek SC 29445

Phone ( )

Truck & Trailer License Number:

5. Transporter U.S. EPA ID#:

6. Facility Name and Site Address:
US Water Recovery
511 Old Mt. Holly Rd.
Goose Creek, SC 29445

Mailing Address:
US Water Recovery
511 Old Mt. Holly Rd.
Goose Creek, SC 29445

Phone: (843) 797-3111
Fax: (843) 797-1984

7. Facility U.S. EPA ID#:

Start Level: End Level: Total Gallons: Tank Number

8. U.S. DOT Description	Container No.	Container Type	Unit	Quantity
a. Non-Hazardous, non-regulated waste water	103	VT	Gal	2340

9. Generator's Certification: I hereby declare that the contents of this consignment are not hazardous by definition or listing and are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and the laws of the State of South Carolina. I further certify that the contents of this consignment are as represented by the description contained on the Waste Profile Form previously submitted to and approved by the Designated Facility.

Printed/Typed Name: Peter J Wylie Signature: Peter J Wylie Date: 7/31/15

10. Transporter Acknowledgement of Receipt of Materials

Printed/Typed Name: Daniel Kinsella Signature: Daniel Kinsella Date: 7/31/15

11. Discrepancy Indication space:

12. Facility Owner or Operator: Certification of Receipt of Materials

Printed/Typed Name: Daniel Kinsella Signature: Daniel Kinsella Date 7/31/15

White - Facility Yellow - Office Pink - Transporter Blue - Generator

11827

US Water Recovery

Non-Hazardous Manifest: Waste Water or Drums

Number:

1. Generator's EPA ID# (if applicable):

Waste ID Number:

2. Generator's Name and Mailing Address: City of
6195 South Old Hwy
Hendersville SC

Phone ( )
P O #:

3. Agent of Generator and Mailing Address:
Midlands Environmental Consultants
231 Dooley Road
Lexington, SC 29073

Phone ( )
P O #:

4. Transporter Company Name: Lowder Services
511 old MT Holly Rd
Goose Creek SC 29445

Phone ( )

Truck & Trailer License Number:

5. Transporter U.S. EPA ID#:

6. Facility Name and Site Address:
US Water Recovery
511 Old Mt. Holly Rd.
Goose Creek, SC 29445

Mailing Address:
US Water Recovery
511 Old Mt. Holly Rd.
Goose Creek, SC 29445

Phone: (843) 797-3111
Fax: (843) 797-1884

7. Facility U.S. EPA ID#:

Start Level: End Level: Total Gallons: Tank Number

8. U.S. DOT Description	Container No.	Container Type	Unit	Quantity
a. Non-Hazardous, non-regulated waste water	5	VT	Gal	2800

9. Generator's Certification: I hereby declare that the contents of this consignment are not hazardous by definition or listing and are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and the laws of the State of South Carolina. I further certify that the contents of this consignment are as represented by the description contained on the Waste Profile Form previously submitted to and approved by the Designated Facility.

Printed/Typed Name: Peter J. Wylie Signature: Peter J. McCo Date: 8/5/15

10. Transporter Acknowledgement of Receipt of Materials

Printed/Typed Name: Daniel Kinsman Signature: Date: 8/5/15

11. Discrepancy Indication space:

12. Facility Owner or Operator: Certification of Receipt of Materials

Printed/Typed Name: Daniel Kinsman Signature: Date 8/5/15

White - Facility Yellow - Office Pink - Transporter Blue - Generator

11840

US Water Recovery

Non-Hazardous Manifest: Waste Water or Drums

Number:

1. Generator's EPA ID# (If applicable): Waste ID Number:

2. Generator's Name and Mailing Address: CITGO 6195 South Okatie Hwy Hardeville SC — Phone ( ) — P O #:

3. Agent of Generator and Mailing Address: Midlands EAV — Phone ( ) — P O #:

4. Transporter Company Name: Goodsell Services 571 old MT Holly Rd Goose Creek SC 29445 — Phone ( )

Truck & Trailer License Number: Columbia

5. Transporter U.S. EPA ID#:

6. Facility Name and Site Address:
US Water Recovery
511 Old Mt. Holly Rd.
Goose Creek, SC 29445

Mailing Address:
US Water Recovery
511 Old Mt. Holly Rd.
Goose Creek, SC 29445

Phone: (843) 797-3111
Fax: (843) 797-1884

7 Facility U.S. EPA ID#:

Start Level: End Level: Total Gallons: Tank Number

8. U.S. DOT Description	Container No.	Container Type	Unit	Quantity
a. Non-Hazardous, non-regulated waste water	103	VT	Gal	5200

9. Generator's Certification: I hereby declare that the contents of this consignment are not hazardous by definition or listing and are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and the laws of the State of South Carolina. I further certify that the contents of this consignment are as represented by the description contained on the Waste Profile Form previously submitted to and approved by the Designated Facility.

Printed/Typed Name: Daniel Kinsman Signature: Date: 8/8/15

10. Transporter Acknowledgement of Receipt of Materials

Printed/Typed Name: Daniel Kinsman Signature: Date: 8/8/15

11. Discrepancy Indication space:

12. Facility Owner or Operator: Certification of Receipt of Materials

Printed/Typed Name: Paul Goodsell Signature: Date 8/8/15

White - Facility Yellow - Office Pink - Transporter Blue - Generator

11843

Document Receipt Information

☒ Hard Copy ☒ CD ☐ Email

Date Received 12-11-15

Permit Number 10628

Project Manager John Bryant

Name of Contractor MECI

UST Certification Number

Docket Number 46bbb

Scanned

GWS/Chemical Analyses

REPORT OF GROUNDWATER SAMPLING AND CHEMICAL ANALYSES

Pantry 911
6195 South Okatie Highway
Hardeeville, South Carolina
SCDHEC SITE ID 10628
CA # 30158

Prepared By:

Midlands
Environmental
Consultants, Inc.
251 Dooley Road, Lexington, SC 29073
(803) 808-2043 Fax: 808-2048

November 10, 2015

MECI Project No. 15-5189

Midlands Environmental Consultants, Inc.

November 10, 2015

Mr. John C. Bryant, Hydrogeologist
Corrective Action Section
Assessment & Corrective Action Division
Underground Storage Tank Program
Bureau of Land & Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Report of Groundwater Sampling and Chemical Analyses
Pantry 911
6195 South Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID# 10628, CA # 50158
MECI Project Number 15-5189
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Bryant,

On behalf of Mr. Donnie Malphrus of Malphrus Enterprises, Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Report of Monitoring Well Installation, Ground Water Sampling and Chemical Analysis for the referenced site. This report describes assessment activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines, including adherence to the UST Division Programmatic Quality Assurance Program Plan (QAPP).

Midlands Environmental appreciates the opportunity to offer our professional environmental services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman
Senior Scientist

Bryan T. Shane, P.G.
Principal Geologist

Post Office Box 854, Lexington SC 29071 • 231 Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

TABLE OF CONTENTS

TABLE OF CONTENTS (cont.)

NOTE: ITEMS LISTED WITH AN ** BESIDE IT WERE NOT NEEDED AS A PART OF THIS SCOPE OF WORK

1.0 INTRODUCTION

A. **Owner/Operator Information**

Facility Name:	Malphrus Enterprises UST Permit #: 10628
Facility Address:	6195 South Okatie Highway, Hardeeville, SC 29927
Name:	Mr. Donnie Malphrus
Address:	2789 North Okatie Highway, Ridgeland, SC 29936
Telephone #:	(843) 263-3050

B. **Property Owner Information**

Name	Malphrus Enterprises
Address	2789 North Okatie Highway, Ridgeland, SC 29936
Telephone #	(843) 263-3050

C. **Contractor Information**

Name:	Midlands Environmental Consultants, Inc.
Certification #:	9
Address:	P. O. Box 854, Lexington, SC 29071
Telephone #:	(803) 808-2043

D. **SCDHEC Certified Well Driller**

Name:	Environmental Drilling & Probing Services, LLC.
Driller:	David Brown
Certification #:	B 02053
Address:	17538 Greenhill Road, Charlotte, NC 28278
Telephone #:	(704) 607-7529

E. **SCDHEC Certified Laboratory**

Name:	Shealy Environmental Services, Inc.
Certification #:	32010
Address:	106 Vantage Point Drive, West Columbia, SC 29172
Telephone #:	(803) 791-9700

1.1 PROJECT INFORMATION

The subject site (Pantry 911) is located at 6195 South Okatie Highway, Hardeeville, Jasper County, South Carolina. The subject site maintains one 10,000 gallon regular unleaded gasoline underground storage tank (UST), one 10,000 gallon premium gasoline, and one 10,000 gallon diesel UST. These UST's were given a compliance date of March 7, 2012. The South Carolina Department of Health and Environmental Control (SCDHEC) reported a release of petroleum product from these UST's in April of 1995 and confirmed the release in March of 1996. The subject site is currently rated a Class 2BB.

In May of 2015, MECI implemented corrective action efforts at the site to reduce dissolved CoC concentrations and to remove free phase petroleum product. MECI's rehabilitative approach was composed of injection of Pulverized Activated Carbon (PAC) based product, followed by extended Aggressive Fluid Vapor Recovery (AFVR) events to aid in the removal of free phase petroleum product and elevated CoC's.

The above project information is based on MECI field notes and SCDHEC files.

2.0 SURROUNDING PROPERTY USAGE

The site is located outside the town limits of Hardeeville, South Carolina. The property is currently operating as an active gasoline service station (Pantry 911). South Okatie Highway (S.C. Highway 46) forms the western and northern borders of the subject property, beyond which are wooded and undeveloped properties. South and east of the subject property are residential properties and wooded areas.

3.0 AREA GEOLOGY AND HYDROGEOLOGY

The project site is located in the Atlantic Coastal Plain Physiographic Province. The soils in this province are generally interbedded silts, sands and clays that have been deposited during successive advances and retreats of the ocean over the past several million years. This interbedding can cause perched water and makes hydrogeological interpretation difficult.

In this geologic setting, the uppermost aquifer is the surficial aquifer of sands with lenses and layers of clays and silts. Water occupies the interstices between the formation particles and is in hydrostatic balance with the atmosphere at the water table surface.

Local precipitation is the source of freshwater recharge to the Coastal Plain formations. Groundwater recharge varies considerably over the region and is attributed to the differences in precipitation and to the variability in the infiltration rates.

Coastal Plain formations generally dip toward the Atlantic Ocean. Consequently, regional groundwater movement is to the southeast. On a regional scale, hydraulic gradients are relatively low.

Locally, in the surficial aquifer, groundwater discharges into streams, lakes or springs where the groundwater table intersects lows occupied by these water bodies. Current groundwater elevation data reveal a radial flow pattern to the west, north, and east.

3.1 LOCAL SUBSURFACE CONDITIONS

Coastal plain sediments were encountered during previous drilling activities conducted at the site. The soils encountered during previous assessment activities generally consisted sandy clays and silts.

On October 27, 2015, stabilized groundwater levels were measured in the monitoring wells. Depth to groundwater ranged from 1.42 to 9.10 feet below top of casing in the wells measured. The groundwater measurements are summarized in tabular form in Table 2 and on Figure 5. Groundwater levels may fluctuate several feet with seasonal and rainfall variations and with change in the water level of adjacent drainage features. Normally, the highest groundwater levels occur in late winter and spring. The lowest levels occur in late summer and fall.

4.0 FIELD EXPLORATION

Field exploration conducted at the site included:

- Injection of 6,000 lbs. of Pulverized Activated Carbon (PAC);
- Installation of three groundwater recovery wells;
- Completion of three 96-hour Aggressive Fluid Vapor Recovery events;
- Sampling of groundwater monitoring wells;
- collection of one water supply well sample; and,
- chemical analyses of water samples.

4.1 PULVERIZED ACTIVATED CARBON INJECTION

From May 12 through May 14, 2015, eighty (80) direct injection wells were advanced at the site. These injection wells were advanced by Environmental Drilling and Probing Services, LLC. (EDPS) of Charlotte, North Carolina (S.C. Driller Certification: Ryan Price #D 02149). The direct injection wells were advanced utilizing a direct-push drilling rig, employing 2.25 inch injection rods and a 2.25 inch injection probe. During the advancement of each injection well, a slurry of potable water and PAC was injected into the subsurface at 5 foot intervals until the desired termination depth was achieved. A total of 6,000 lbs of pulverized activated carbon was injected at the site. The slurry was mixed and injected at the required pressures. Following the injection of PAC, the hole left open by the direct push apparatus was abandoned with a bentonite/portland grout slurry.

4.2 RECOVERY WELL INSTALLATION

On May 27, 2015, six single cased 4-inch recovery wells were installed at the subject site to provide additional recovery points for future AFVR events. These wells were installed by Environmental Drilling and Probing Services, LLC. (EDPS) of Charlotte, North Carolina (S.C. Driller Certification: David Brown #B 02053) using a ATV-mounted drilling rig employing 10.0-inch outer diameter hollow stem augers to construct the boreholes. The following table presents new well installation details:

Well Number	*Screened Interval (ft)*	*Total Depth (ft)*
RW-4	2.0-15.0	15.0
RW-5	2.0-15.0	15.0
RW-5	2.0-15.0	15.0

The soils encountered during drilling activities generally consisted of silty fine to medium grained sands of the Atlantic Coastal Plain Province. Representative portions of soil samples were screened with a Photo Ionization Detector (PID) and classified by MECI personnel. Test boring records showing soil descriptions and screening result and 1903 forms are attached.

Drill cuttings were containerized and transported to Waste Management/Richland Landfill in Elgin, SC by MECI personnel. A total of 0.49 tons was disposed of in this manner. A disposal manifest for these soils is attached at the end of this report.

4.3 AGGRESSIVE FLUID VAPOR RECOVERY EVENTS

MECI personnel conducted three 96-Hour Aggressive Fluid Vapor Recovery (AFVR) events at the Pantry 911. Calculated total petroleum hydrocarbons removed during the events was 225.21 pounds or approximately 38.9 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 0.93 pounds per hour. A total of 21,340 gallons of liquid was removed from the site during this event. Free phase product was not observed in the holding tank at the end the referenced event.

4.4 MONITORING WELL SAMPLING AND CHEMICAL ANALYSES

On October 27, 2015, MECI personnel collected groundwater samples from seventeen (17) monitoring wells at the subject site. Monitoring wells RW-1 and RW-6 were gauged and determined to contain measurable free phase petroleum product. Monitoring wells MW-10 and MW-17 were not located during sampling activities. Based on a request by SCDHEC personnel, all monitoring were to be purged prior to sample collection, however MW-18 was found to be obstructed and this well was unable to be purged prior to sample collection. Sixteen (16) monitoring wells were purged prior to sampling.

Prior to sampling, MECI personnel utilized an electronic water level indicator for water level measurements and an oil/water interface probe for free phase petroleum product level measurements. Purging was completed by bailing at least three to five well volumes of water from the well, or until all water was evacuated from the well, whichever occurred first. Sampling/purging was completed utilizing a prepackaged, clear, disposable polyethylene bailer and nylon rope. A new set of nitrile gloves were worn at each monitoring well, and at all time samples were handled. Field measurements of pH, conductivity, dissolved oxygen, water temperature, and turbidity were obtained before well sampling process. MECI utilized YSI PRO 20 meter for DO (mg/L) and temperature readings (°C), YSI PRO 1030 meter for pH and conductivity (uS) readings, and MicroTPI/TPW Turbidimeter for turbidity readings (NTU). The attached Field Data Information Sheets and Table 2 present the results of the field measurements obtained during purging processes. The wells were sampled in accordance with the most recent revision of SCDHEC's Quality Assurance Program Plan for the Underground Storage Tank Management Division and the most recent revision of MECI's Standard Operating Procedures.

The following sampling matrix contains well development and requested analyses for each well:

Monitoring Well	Purge	No Purge	Gauge Well Only	Not Located	BTEX, Naphthalene, MTBE (EPA Method 8260-B)	8 Oxygenates (EPA Method 8260-B)	1,2 DCA (EPA Method 8260-B)	Ethanol (EPA Method 8260-B)	EDB (EPA Method 8011)	Total Lead (EPA Method 6010)	Filtered Lead (EPA Method 6010)	8 RCRA Metals (EPA Method 6010)	TPH (EPA Method 9071)	PAH's (EPA Method 8270)
					Analyte Sampled									
MW-3R	X				X	X	X	X	X					
MW-4R	X				X	X	X	X	X					
MW-5RR	X				X	X	X	X	X					
MW-7RR	X				X	X	X	X	X					

Notes: BTEX = benzene, toluene, ethylbenzene, & total xylenes MTBE=methyl tertiary butyl ether 1,2 DCA = 1,2 dicloroethane
PAH = polycyclic aromatic hydrocarbons

Monitoring Well	Purge	No Purge	Gauge Well Only	Not Located	BTEX, Naphthalene, MTBE (EPA Method 8260-B)	8 Oxygenates (EPA Method 8260-B)	1,2 DCA (EPA Method 8260-B)	Ethanol (EPA Method 8260-B)	EDB (EPA Method 8011)	Total Lead (EPA Method 6010)	Filtered Lead (EPA Method 6010)	8 RCRA Metals (EPA Method 6010)	TPH (EPA Method 9071)	PAH's (EPA Method 8270)
					Analyte Sampled									
MW-9	X				X	X	X	X	X					
MW-10				X										
MW-11	X				X	X	X	X	X					
MW-14	X				X	X	X	X	X					
MW-15	X				X	X	X	X	X					
MW-16	X				X	X	X	X	X					
MW-17				X										
MW-18		X			X	X	X	X	X					
MW-19	X				X	X	X	X	X					
MW-20	X				X	X	X	X	X					
PW-1R	X				X	X	X	X	X					
RW-1			X											
RW-2	X				X	X	X	X	X					
RW-3	X				X	X	X	X	X					
RW-4	X				X	X	X	X	X					
RW-5	X				X	X	X	X	X					
RW-6			X											
RW-3R Dup. **		X			X	X	X	X	X					
Field Blank		X			X	X	X	X	X					
Trip Blank					X	X	X	X						

Notes: BTEX = benzene, toluene, ethylbenzene, & total xylenes MTBE=methyl tertiary butyl ether 1,2 DCA = 1,2 dicloroethane
PAH = polycyclic aromatic hydrocarbons

The results of the laboratory analyses are summarized in Table 3 & 3A and presented in Appendix B.

Purge water produced by the purging process was treated on-site utilizing a granular activated carbon unit. A total of 51.75 gallons of purge water was disposed of in this manner. A disposal manifest for the referenced purge water is presented in Appendix G.

4.5 WATER SUPPLY WELL SAMPLING AND CHEMICAL ANALYSIS

On October 27, 2015, MECI personnel collected one (1) water supply well sample. This water supply well (WSW-1) is located approximately 350 feet east of the current UST basin. The following matrix contains well status, owner(s), and tax map identification numbers:

Water Supply Well Number	Well Owner	Jasper County Tax Map Number:	Notes:	Well Status
WSW-1	Stella Crosby Jeffers	039-00-10-029	Sampled (274 New River Rd.)	Active

The samples obtained from WSW-1 were analyzed for volatile organic compounds including BTEX, naphthalene, and methyl-tertiary-butyl-ether, 1,2 DCA, 8 Oxygenates (EPA Method 8260B) and EDB (EPA Method 8011). Results of the laboratory analyses are summarized in Table 3, Table 3A, Figure 4, and Figure 4C. The laboratory reports are also presented in Appendix B.

5.0 TEST RESULTS AND EVALUATION

The following sections discuss groundwater test results for the subject site.

5.1 GROUNDWATER ANALYTICAL RESULTS

As discussed in Section 4.4, groundwater samples obtained from the monitoring wells during the October 27, 2015 groundwater sampling event were analyzed for dissolved phase petroleum constituents. During sampling activities monitoring wells MW-10 and MW-17 were unable to be located. Monitoring wells RW-1 and RW-6 were located were gauged and determined to contain measurable free phase petroleum product. The analytical results indicate petroleum impact to the surficial aquifer ("Shallow" Zone), with the highest dissolved concentrations being detected in the area of MW-7RR, RW-4 and RW-5. Of the sixteen monitoring wells sampled, nine wells (MW-3R, MW-4R, MW-7RR, MW-14, MW-20, RW-2, RW-3, RW-4 and RW-5) detected petroleum constituents above Risked Based Screening Levels (RBSL's).

Petroleum constituents detected above the established RBSL include:

Compound	*RBSL (ug/l)*	*Wells Above RBSL*
Product	>0.01 Foot	RW-1 & RW-6
Benzene	5	MW-3R, MW-4R, MW-7RR, MW-14, RW-3, RW-4 & RW-5
Toluene	1,000	MW-3R, MW-7RR, MW-14, RW-3, RW-4 & RW-5
Ethylbenzene	700	MW-3R, MW-7RR, MW-14, RW-4 & RW-5
Total Xylenes	10,000	MW-3R & MW-7RR
Naphthalene	25	MW-3R, MW-4R, MW-14, RW-4 & RW-5
MTBE	40	MW-3R, MW-14 & RW-3
1,2 DCA	5	MW-7RR, RW-4 & RW-5
EDB	0.05	MW-7RR, RW-4 & RW-5
Lead	15	N/A
TAA	240	MW-4R, MW-7RR, MW-14, MW-20, RW-4 & RW-5
TAME	128	MW-14 & RW-3
3,3-Dimethyl-1-butanol	NE	N/A
TBA	1,400	MW-4R, MW-14, RW-2 & RW-3
TBF	NE	N/A
DIPE	150	MW-7RR, RW-4 & RW-5
Ethanol	10,000	None
ETBE	47	MW-4R & RW-3

In addition, the analytical results also detected petroleum constituents above the laboratory method detection limit or "J" values in monitoring wells MW-5R and MW-9, however the concentrations

detected did not exceed the RBSL. The results of the analyses for each monitoring well and specific parameters are listed on Table 3, Table 3A, and provided in Appendix B.

5.2 WATER SUPPLY WELL ANALYTICAL RESULTS

As discussed in section 4.5, water samples were obtained from WSW-1 during the October 27, 2015 groundwater sampling event. The samples obtained from the above mentioned water supply well was analyzed for petroleum constituents. The laboratory results from the samples obtained did not indicate petroleum impact and all petroleum compounds were below detection limits. The results of the analysis for the water supply well and specific parameters are listed on Table 3, Table 3A, and provided in the laboratory reports (Appendix B).

6.0 ASSESSMENT SUMMARY & RECOMMENDATIONS

Based on the results of our assessment activities, it appears that impact to the surficial aquifer has occurred due to a release of petroleum hydrocarbons. The highest concentrations of dissolved phase contaminants appear to be located near the former dispenser islands and former tank basin. The contaminants appear to be gasoline range constituents. Groundwater elevation data for the October 27, 2015 gauging event was plotted, and points of equal elevation were interpolated between the monitoring wells. A groundwater contour map of the surficial aquifer was thus prepared and is presented on Figure 5. Current groundwater elevation data reveal a radial flow pattern to south, west, and the east.

During sampling activities monitoring wells MW-10 and MW-17 were unable to be located. Monitoring wells RW-1 and RW-6 were located were gauged and determined to contain measurable free phase petroleum product. The analytical results indicate petroleum impact to the surficial aquifer ("Shallow" Zone), with the highest dissolved concentrations being detected in the area of MW-7RR, RW-4 and RW-5. Of the sixteen monitoring wells sampled, nine wells (MW-3R, MW-4R, MW-7RR, MW-14, MW-20, RW-2, RW-3, RW-4 and RW-5) detected petroleum constituents above Risked Based Screening Levels (RBSL's).

Petroleum constituents detected above the established RBSL include:

Compound	***RBSL (ug/l)***	***Wells Above RBSL***
Product	>0.01 Foot	RW-1 & RW-6
Benzene	5	MW-3R, MW-4R, MW-7RR, MW-14, RW-3, RW-4 & RW-5
Toluene	1,000	MW-3R, MW-7RR, MW-14, RW-3, RW-4 & RW-5
Ethylbenzene	700	MW-3R, MW-7RR, MW-14, RW-4 & RW-5
Total Xylenes	10,000	MW-3R & MW-7RR
Naphthalene	25	MW-3R, MW-4R, MW-14, RW-4 & RW-5
MTBE	40	MW-3R, MW-14 & RW-3
1,2 DCA	5	MW-7RR, RW-4 & RW-5
EDB	0.05	MW-7RR, RW-4 & RW-5
Lead	15	N/A
TAA	240	MW-4R, MW-7RR, MW-14, MW-20, RW-4 & RW-5
TAME	128	MW-14 & RW-3
3,3-Dimethyl-1-butanol	NE	N/A
TBA	1,400	MW-4R, MW-14, RW-2 & RW-3
TBF	NE	N/A
DIPE	150	MW-7RR, RW-4 & RW-5
Ethanol	10,000	None
ETBE	47	MW-4R & RW-3

In addition, the analytical results also detected petroleum constituents above the laboratory method detection limit or "J" values in monitoring wells MW-5R and MW-9, however the concentrations detected did not exceed the RBSL. The results of the analyses for each monitoring well and specific parameters are listed on Table 3, Table 3A, and provided in Appendix B.

Figure 4 depicts graphically the concentrations of Total BTEX dissolved in the surficial aquifer at the site. Figure 4A depicts graphically the concentrations of Naphthalene dissolved in the surficial aquifer at the site. Figure 4B depicts graphically the concentrations of MTBE dissolved in the surficial aquifer at the site. Figure 4C presents the analytical results for the eight Oxygenates.

As discussed above, free phase petroleum still remains at the site in recovery well RW-1 at a thickness of 0.02 feet and in recovery well RW-6 at a thickness of 0.15 feet. Since the July 2014 groundwater sampling event, analytical results from MW-4R, MW-14 and MW-14 have decreased significantly and product has appeared to have been removed from monitoring well MW-7RR. Dissolved CoC concentrations from the remainder of the monitoring wells have remained constant since July 2014. This reduction may the direct result of successful corrective action efforts recently completed at the site. Based on these results, MECI feels that the remedial approach has shown progress in reducing dissolved phase CoC concentrations and MECI proposes a selected sampling event be performed at the referenced site in approximately 6 months to allow for more time for the injectant to absorb petroleum contaminants, as well as create substrate for indigenous bacteria to colonize and regenerate carbon *in-situ.* If free phase product still remains at the site in 6 months, addition extended Aggressive Fluid Vapor Recovery (AFVR) events may be warranted.

7.0 QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assessment are consistent with those normally employed in hydrogeological assessment and waste management projects of this type. Our evaluation of site conditions has been based on our understanding of the site, project information provided to us, and data obtained in our exploration. The general subsurface conditions utilized in our evaluation have been based on interpretation of subsurface data between borings. Contents of this report are intended for the sole use of Mr. Donnie Malphrus of Malphrus Enterprises, MECI, and SCDHEC under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

-oOo-

TABLES

TABLE 2
PAGE 1 OF 2
POTENTIOMETRIC DATA
OCTOBER 27, 2015 SAMPLING EVENT
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 15-5189
SCDHEC SITE ID NUMBER 10628

Well Number	Sample Date	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Well-head Elevation	Groundwater Elevation
MW-3R	1/8/2009	2-12	***	3.02	***	94.56	91.54
	7/25/2012	-	***	2.91	***	94.56	91.65
	6/27/2013	-	***	3.16	***	94.56	91.40
	7/10/2014	-	***	3.26	***	94.56	91.30
	10/27/2015	-	***	3.34	***	94.56	91.22
MW-4R	1/8/2009	5-15	***	4.29	***	93.75	89.46
	7/25/2012	-	***	7.61	***	93.75	86.14
	6/27/2013	-	***	3.99	***	93.75	89.76
	7/10/2014	-	***	3.40	***	93.75	90.35
	10/27/2015	-	***	2.80	***	93.75	90.95
MW-5R	1/8/2009	5-15	***	3.00	***	91.70	88.70
	7/25/2012	-	***	7.35	***	91.70	84.35
MW-5RR	6/27/2013	2-12	***	3.20	***	92.18	88.98
	7/10/2014	-	***	4.86	***	92.18	87.32
	10/27/2015	-	***	2.85	***	92.18	89.33
MW-7RR	1/8/2009	2-12	***	6.38	***	95.80	89.42
	7/25/2012*	-	10.61	10.72	0.11	95.80	85.17
	6/27/2013*	-	6.32	6.34	0.02	95.80	89.48
	7/10/2014*	-	8.65	8.78	0.13	95.80	87.13
	10/27/2015	-	***	9.10	***	95.80	86.70
MW-9	1/8/2009	8-18	***	6.09	***	96.73	90.64
	7/25/2012	-	***	NL	***	96.73	NL
	6/27/2013	-	***	5.05	***	96.73	91.68
	7/10/2014	-	***	7.53	***	96.73	89.20
	10/27/2015	-	***	6.13	***	96.73	90.60
MW-10	1/8/2009	2-12	***	4.36	***	93.29	88.93
	7/25/2012	-	***	NL	***	93.29	NL
	6/27/2013	-	***	3.81	***	93.29	89.48
	7/10/2014	-	***	6.49	***	93.29	86.80
	10/27/2015	-	***	NL	***	93.29	NL
MW-11	1/8/2009	2-12	***	1.45	***	91.62	90.17
	7/25/2012	-	***	3.90	***	91.62	87.72
	6/27/2013	-	***	0.41	***	91.62	91.21
	7/10/2014	-	***	3.63	***	91.62	87.99
	10/27/2015	-	***	1.72	***	91.62	89.90
MW-14	1/8/2009	3.05-13.05	***	2.23	***	93.23	91.00
	7/25/2012	-	***	2.29	***	93.23	90.94
	6/27/2013	-	***	1.30	***	93.23	91.93
	7/10/2014	-	***	1.81	***	93.23	91.42
	10/27/2015	-	***	1.76	***	93.23	91.47
MW-15	1/8/2009	2-12	***	4.50	***	96.12	91.62
	7/25/2012	-	***	4.80	***	96.12	91.32
	6/27/2013	-	***	3.52	***	96.12	92.60
	7/10/2014	-	***	3.97	***	96.12	92.15
	10/27/2015	-	***	6.93	***	96.12	89.19

Notes:

1. Elevations are referenced to an assumed site datum .
2. Groundwater depths were measured from the top of the PVC riser pipe.
3. Groundwater levels measured 10/27/2015.
4. NL = Not Located.
5. * = Groundwater elevation corrected for the presence of free phase petroleum product using a specific gravity for fuel of 0.85

TABLE 2
PAGE 2 OF 2
POTENTIOMETRIC DATA
OCTOBER 27, 2015 SAMPLING EVENT
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 15-5189
SCDHEC SITE ID NUMBER 10628

Well Number	Sample Date	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Well-head Elevation	Groundwater Elevation
MW-16	1/8/2009	7-17	***	8.11	***	97.02	88.91
	7/25/2012	-	***	12.83	***	97.02	84.19
	6/27/2013	-	***	8.41	***	97.02	88.61
	7/10/2014	-	***	10.30	***	97.02	86.72
	10/27/2015	-	***	5.89	***	97.02	91.13
MW-17	1/8/2009	3-13	***	5.88	***	94.96	89.08
	7/25/2012	-	***	9.49	***	94.96	85.47
	6/27/2013	-	***	5.35	***	94.96	89.61
	7/10/2014	-	***	NL	***	94.96	NL
	10/27/2015	-	***	NL	***	94.96	NL
MW-18	1/8/2009	2-12	***	2.48	***	91.34	88.86
	7/25/2012	-	***	NL	***	91.34	NL
	6/27/2013	-	***	2.87	***	91.34	88.47
	7/10/2014	-	***	3.87	***	91.34	87.47
	10/27/2015	-	***	1.85	***	91.34	89.49
MW-19	6/27/2013	2-12	***	4.14	***	93.01	88.87
	7/10/2014	-	***	6.69	***	93.01	86.32
	10/27/2015	-	***	4.20	***	93.01	88.81
MW-20	6/27/2013	4-14	***	9.14	***	98.84	89.70
	7/10/2014	-	***	11.17	***	98.84	87.67
	10/27/2015	-	***	8.55	***	98.84	90.29
PW-1R	1/8/2009	30-35	***	4.57	***	93.47	88.90
	7/25/2012	-	***	9.59	***	93.47	83.88
	6/27/2013	-	***	4.80	***	93.47	88.67
	7/10/2014	-	***	6.29	***	93.47	87.18
	10/27/2015	-	***	4.15	***	93.47	89.32
RW-1	7/25/2012	2-12	***	10.53	***	96.15	85.62
	6/27/2013	-	***	6.47	***	96.15	89.68
	7/10/2014*	-	8.77	8.92	0.15	96.15	87.36
	10/27/2015*	-	6.20	6.22	0.02	96.15	89.95
RW-2	7/25/2012	2-12	***	2.59	***	93.56	90.97
	6/27/2013	-	***	2.19	***	93.56	91.37
	7/10/2014	-	***	2.04	***	93.56	91.52
	10/27/2015	-	***	1.42	***	93.56	92.14
RW-3	7/25/2012*	2-12	2.56	2.61	0.05	93.22	90.65
	6/27/2013*	-	1.32	1.44	0.12	93.22	91.88
	7/10/2014	-	***	1.74	***	93.22	91.48
	10/27/2015	-	***	1.82	***	93.22	91.40
RW-4	10/27/2015	2-15	***	6.30	***	96.05	89.75
RW-5	10/27/2015	2-15	***	5.95	***	95.60	89.65
RW-6	10/27/2015*	2-15	2.20	2.35	0.15	93.07	90.85

Notes:

1. Elevations are referenced to an assumed site datum .
2. Groundwater depths were measured from the top of the PVC riser pipe.
3. Groundwater levels measured 10/27/2015.
4. NL = Not Located.
5. * = Groundwater elevation corrected for the presence of free phase petroleum product using a specific gravity for fuel of 0.85

TABLE 3
PAGE 1 OF 2
GROUNDWATER COC CONCENTRATION DATA
OCTOBER 27, 2015 SAMPLING EVENT
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 15-5189
SCDHEC ID NUMBER 10628

Well Number	Sample Date	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	Naphthalene (µg/l)	MTBE (µg/l)	1,2 DCA (µg/l)	EDB (µg/l)	Total Lead (µg/l)
MW-3R	1/8/2009	2,700	9,080	1,410	11,000	24,190	748	2,580	<250	<0.19	<5.0
	7/25/2012	1,600	2,500	740	4,000	8,840	180	970	<10	<0.019	NT
	6/27/2013	1,000	4,500E	1,100	7,600	14,200E	350	200	<100	<0.020	NT
	7/10/2014	1,500	3,900	940	7,500	13,840	240	620	<100	0.27	NT
	10/27/2015	2,870	7,130	1,290	12,100	23,390	548	531	<500	<0.021	NT
MW-4R	1/8/2009	4,640	5,070	1,360	3,990	15,060	<1,000	21,000	<1,000	<0.020	<5.0
	7/25/2012	2,220	2,500	470	1,600	6,790	260	4,200	62	<0.020	NT
	6/27/2013	4,900	8,800	1,700	5,900	21,300	<500	5,600	<500	<0.021	NT
	7/10/2014	2,600	3,800	970	3,700	11,070	100	1,200	<100	<0.020	NT
	10/27/2015	1,320	584	206	673	2,783	<62.5	471	<62.5	<0.021	NT
MW-5R	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	2.3J	<5.0	<0.020	<5.0
	7/25/2012	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	8.9	<5.0	<0.020	NT
MW-5RR	6/27/2013	<500	<500	<500	<500	BDL	<500	<500	<500	<0.026	NT
	6/27/2013	<5.0H	<5.0H	<5.0H	<5.0H	BDL	<5.0H	<5.0H	<5.0H	NT	NT
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	10/27/2015	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	3.5J	<5.0	<0.020	NT
MW-7RR	1/8/2009	17,500	22,700	1,850	10,900	52,950	<1,000	<1,000	731J	1.5	157
	7/25/2012	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
	6/27/2013	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
	7/10/2014	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
	10/27/2015	8,910	14,900	1,810	13,700	39,320	1,790	<625	232J	0.72	NT
MW-9	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.019	<5.0
	7/25/2012	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
	6/27/2013	<500	<500	<500	<500	BDL	<500	<500	<500	<0.020	NT
	6/27/2013	<5.0H	<5.0H	<5.0H	<5.0H	BDL	<5.0H	<5.0H	<5.0H	NT	NT
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	2.4J	<5.0	<0.020	NT
	10/27/2015	<5.0	5.3	<5.0	<10.0	5.3	<5.0	<5.0	<5.0	<0.020	NT
MW-10	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	3.8J	<5.0	<0.019	11.6
	7/25/2012	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	2.3J	<5.0	<0.020	NT
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	3.9J	<5.0	<0.020	NT
	10/27/2015	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW-11	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.019	<5.0
	7/25/2012	<5.0	22	<5.0	<5.0	22	<5.0	<5.0	<5.0	<0.019	NT
	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	10/27/2015	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
MW-14	1/8/2009	11,800	13,700	2,420	11,000	38,920	<500	4,020	<500	<0.020	<5.0
	7/25/2012	9,200	15,000	3,300	14,000	41,500	540	1,600	<500	<0.020	NT
	6/27/2013	6,000	4,500	1,800	6,800	19,100	240J	900	<250	<0.020	NT
	7/10/2014	9,800	31,000	3,700	19,000	63,500	560J	1,400	<1,000	<0.020	NT
	10/27/2015	2,460	2,840	791	2,910	9,001	<125	473	<125	<0.021	NT
MW-15	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	2.8J	<5.0	<0.019	<5.0
	7/25/2012	1.1J	2.0J	<5.0	2.1J	5.2J	<5.0	1.2J	<5.0	<0.019	NT
	6/27/2013	0.51J	<5.0	<5.0	<5.0	0.51J	<5.0	0.70J	<5.0	<0.020	NT
	7/10/2014	0.66J	<5.0	<5.0	<5.0	0.66J	<5.0	0.67J	<5.0	<0.020	NT
	10/27/2015	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.019	NT
MW-16	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.021	<5.0
	7/25/2012	0.30J	<5.0	<5.0	<5.0	0.30J	<5.0	<5.0	<5.0	<0.019	NT
	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	10/27/2015	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
MW-17	1/8/2009	39.1	<5.0	<5.0	<10.0	39.1	<5.0	<5.0	<5.0	<0.023	<5.0
	7/25/2012	0.23J	<5.0	<5.0	<5.0	0.23J	<5.0	<5.0	<5.0	<0.020	NT
	6/27/2013	250	<25	45	66	361	<25	<25	10J	<0.020	NT
	7/10/2014	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
	10/27/2015	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL

Notes:

1. BDL = Below Practical Quantitative Limits
2. ug/l = micrograms per liter
3. MTBE = Methyl-Tertiary-Butyl Ether
4. 1,2 DCA = 1,2-Dichloroethane
5. EDB = 1,2 - Dibromoethane
6. NL = Not Located
7. NT = Not Tested
8. H = Out of Hold Time
9. PROD = Free Phase Petroleum Product
10. "J" Values included in Total BTEX Calculations.
11. "J" values report concentrations above the method detection limits (MDL) and below actual reporting limit (RL).

TABLE 3
PAGE 2 OF 2
GROUNDWATER COC CONCENTRATION DATA
OCTOBER 27, 2015 SAMPLING EVENT
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 15-5189
SCDHEC ID NUMBER 10628

Well Number	Sample Date	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	Naphthalene (µg/l)	MTBE (µg/l)	1,2 DCA (µg/l)	EDB (µg/l)	Total Lead (µg/l)
MW-18	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.023	<5.0
	7/25/2012	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	10/27/2015	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
MW-19	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	1.5J	<5.0	<0.029	NT
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	10/27/2015	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
MW-20	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.022	NT
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019	NT
	10/27/2015	<5.0	<5.0	<5.0	<10.0	BDL	2.8J	<5.0	<5.0	<0.020	NT
PW-1R	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.019	<5.0
	7/25/2012	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	10/27/2015	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
RW-1	7/25/2012	31,000	32,000	2,800	13,000	78,800	510J	<1,000	1,500	1.2	NT
	6/27/2013	27,000	31,000	2,600	11,000	71,600	610J	<1,000	<1,000	0.59P	NT
	7/10/2014	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
	10/27/2015	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-2	7/25/2012	160	3.6J	67	69	299.6J	8.7	13	<5.0	<0.020	NT
	6/27/2013	1,800	110	870	870	3,650	190	140	<50	<0.020	NT
	7/10/2014	2,100	2,500	820	2,100	7,520	210	470	<100	<0.020	NT
	10/27/2015	2.6J	<5.0	<5.0	<10.0	2.6J	<5.0	3.8J	<5.0	<0.020	NT
RW-3	7/25/2012	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
	6/27/2013	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
	7/10/2014	10,000	39,000	3,800	22,000	74,800	920J	1,800	240J	<0.020	NT
	10/27/2015	12,400	10,200	524	1,680	24,804	<500	1,420	<500	<0.020	NT
RW-4	10/27/2015	19,000	18,500	1,580	8,850	47,930	1,390	<1,250	473J	1.5	NT
RW-5	10/27/2015	16,200	16,300	1,520	7,400	41,420	925J	<1,000	667J	0.50	NT
RW-6	10/27/2015	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
WSW-1	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.019	NT
	7/25/2012	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019	NT
	6/27/2013	<1.0	<1.0	<1.0	<1.0	BDL	<1.0	<1.0	<1.0	<0.020	NT
	7/10/2014	<1.0	<1.0	<1.0	<1.0	BDL	<1.0	<1.0	<1.0	<0.020	NT
	10/27/2015	<1.0	<1.0	<1.0	<2.0	BDL	<1.0	<1.0	<1.0	<0.020	NT
MW-3R Dup.	7/10/2014	1,600	3,900	1,000	7,000	13,500	220	590	<100	0.28	NT
RW-1 Dup.	7/25/2012	30,000	30,000	2,700	12,000	74,700	500	53J	1,500	0.86	NT
RW-2 Dup.	6/27/2013	1,900	100	880	880	3,760	190	140	<50	<0.020	NT
RW-5 Dup.	10/27/2015	19,200	18,600	1,990	8,950	48,740	967J	<1,000	701J	0.44	NT
Field Blank	7/25/2012	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.021	NT
	10/27/2015	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
Trip Blank	7/25/2012	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	NT	NT
	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	NT	NT
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	NT	NT
	10/27/2015	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	NT	NT

Notes:

1. BDL = Below Practical Quantitative Limits
2. ug/l = micrograms per liter
3. MTBE = Methyl-Tertiary-Butyl Ether
4. 1,2 DCA = 1,2-Dichloroethane
5. EDB = 1,2 - Dibromoethane
6. NL = Not Located
7. NT = Not Tested
8. H = Out of Hold Time
9. PROD = Free Phase Petroleum Product
10. "J" Values included in Total BTEX Calculations.
11. "J" values report concentrations above the method detection limits (MDL) and below actual reporting limit (RL).

TABLE 3A
PAGE 1 OF 2
GROUNDWATER COC CONCENTRATION DATA (OXYGENATES)
OCTOBER 27, 2015 SAMPLING EVENT
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 15-5189
SCDHEC SITE ID NUMBER 10628

Well Number	Sample Date	TAA (µg/l)	TAME (µg/l)	TBF (µg/l)	DIPE (µg/l)	3,3-Dimethyl-1-butanol (µg/l)	Ethanol (µg/l)	ETBE (µg/l)	TBA (µg/l)
MW-3R	07/25/12	**2,500**	**150**	<200	**1.7J**	<200	<2,000	**42J**	**4,300**
	06/27/13	**540J**	**45J**	<2,000	<200	<2,000	<20,000	**9.5J**	**250J**
	07/10/14	**2,600**	**130J**	<2,000	<200	<2,000	<20,000	**68J**	**3,100**
	10/27/15	<10,000	<1,000	<5,000	<500	<10,000	<20,000	<1,000	<10,000
MW-4R	07/25/12	**4,000**	**390**	<100	**6.2J**	<100	<1,000	**170**	**23,000**
	05/27/13	**5,200J**	**250J**	<10,000	<1,000	<10,000	<100,000	**99J**	**28,000**
	07/10/14	**4,200**	**110J**	<2,000	<200	<2,000	<20,000	**91J**	**11,000**
	10/27/15	**2,690**	<125	<625	<62.5	<1,250	<2,500	**48.8J**	**8,190**
MW-5R	07/25/12	**64J**	<10	<100	**4.2J**	<100	<1,000	<100	**43J**
MW-5RR	06/27/13	<10,000	<1,000	<10,000	<1,000	<10,000	<100,000	<10,000	<10,000
	06/27/13	<100H	<10H	<100H	<10H	<100H	<1,000H	<100H	<100H
	07/10/14	<100	<10	<100	<10	<100	<1,000	<100	<100
	10/27/15	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	**96.1J**
MW-7RR	07/25/12	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**
	06/27/13	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**
	07/10/14	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**
	10/27/15	**25,600**	<1,250	<6,250	**4,560**	<12,500	<25,000	<1,250	<12,500
MW-9	07/25/12	NL	NL	NL	NL	NL	NL	NL	NL
	06/27/13	<10,000	<1,000	<10,000S	<1,000	<10,000	<100,000	<10,000	<10,000
	06/27/13	<100H	<10H	<100H	<10H	<100H	<1,000H	<100H	<100H
	07/10/14	<100	<10	<100	<10	<100	<1,000	<100	<100
	10/27/15	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-10	07/25/12	NL	NL	NL	NL	NL	NL	NL	NL
	06/27/13	<100	<10	<100	<10	<100	<1,000	<100	<100
	07/10/14	<100	<10	<100	<10	<100	<1,000	<100	<100
	10/27/15	NL	NL	NL	NL	NL	NL	NL	NL
MW-11	07/25/12	<100	<10	<100	<10	<100	<1,000	<100	<100
	06/27/13	<100	<10	<100	<10	<100	<1,000	<100	<100
	07/10/14	<100	<10	<100	<10	<100	<1,000	<100	<100
	10/27/15	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-14	07/25/12	**9,900J**	**460J**	<10,000	<1,000	<10,000	<100,000	**69J**	**3,200J**
	06/27/13	**6,000**	**310J**	<5,000	<500	<5,000	<50,000	**68J**	**2,400J**
	07/10/14	**7,500J**	**630J**	<20,000	<2,000	<20,000	<200,000	**170J**	**3,600J**
	10/27/15	**3,490**	**140J**	<1,250	<125	<2,500	<5,000	<250	**4,460**
MW-15	07/25/12	**13J**	<10	<100	**0.65J**	<100	<1,000	<100	**27J**
	06/27/13	<100	<10	<100	<10	<100	<1,000	<100	<100
	07/10/14	**12J**	<10	<100	**0.65J**	<100	<1,000	<100	**26J**
	10/27/15	**113**	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-16	07/25/12	<100	<10	<100	<10	<100	<1,000	<100	<100
	06/27/13	<100	<10	<100	<10	<100	<1,000	<100	<100
	07/10/14	<100	<10	<100	<10	<100	<1,000	<100	<100
	10/27/15	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-17	07/25/12	<100	<10	<100	**3.6J**	<100	<1,000	<100	<100
	06/27/13	**230J**	**5.9J**	<500	**180**	<500	<5,000	**18J**	<500
	07/10/14	NL	NL	NL	NL	NL	NL	NL	NL
	10/27/15	NL	NL	NL	NL	NL	NL	NL	NL

Notes:

1. ug/l = micrograms per liter
2. DIPE = Diisopropyl Ether
3. ETBE = Ethyl ter-butyl Ether
4. TAA = tert-Amyl Alcohol
5. TAME = tert-Amyl Methyl Ether
6. TBA = ter-Butyl Alcohol
7. TBF = tert-Butyl Formate
8. NL = Not Located
9. H = Out of Holding Time
10. PROD = Free Phase Petroleum Product
11. "J" values report concentrations above the method detection limits (MDL) and below actual reporting limit (RL).

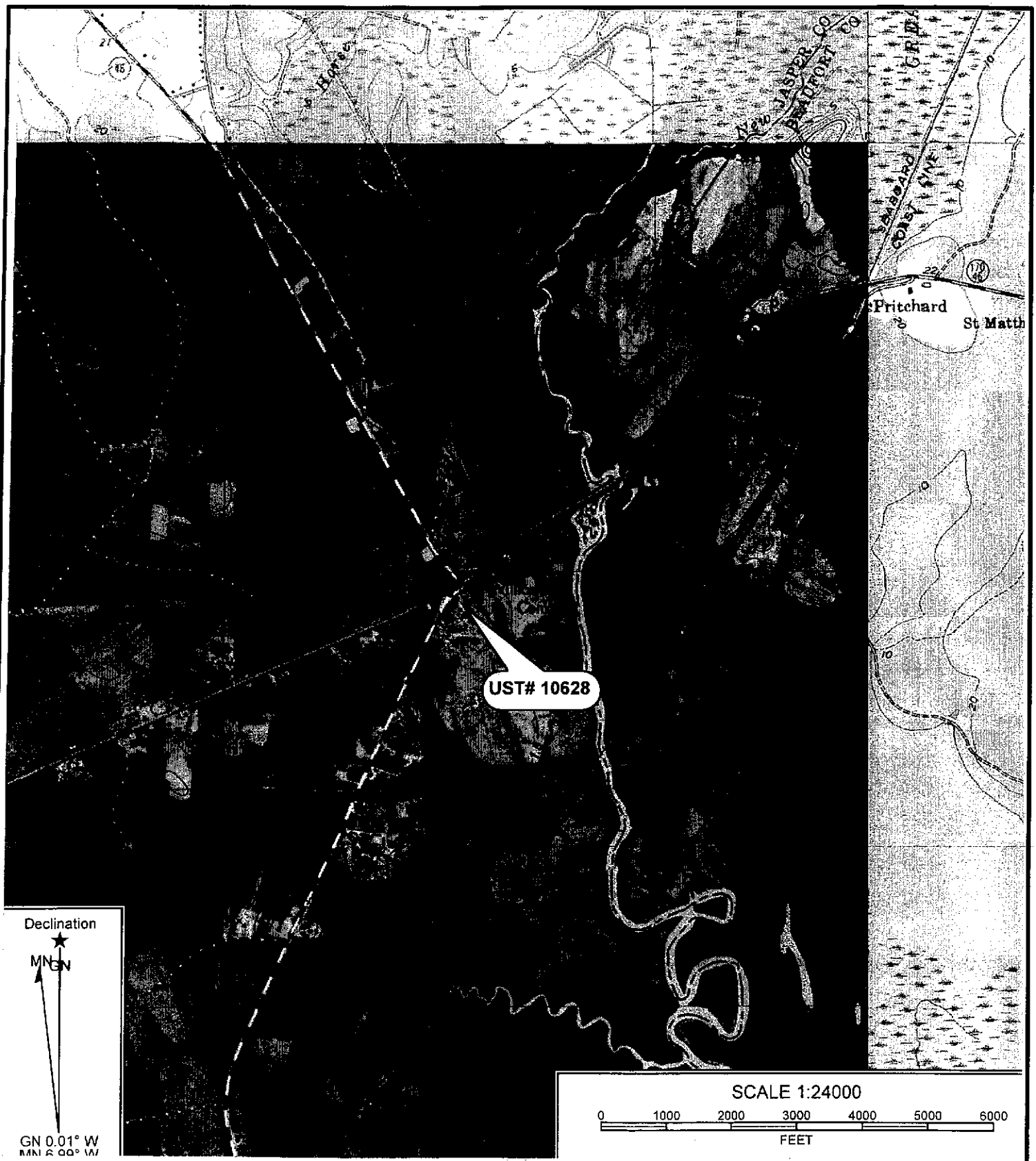
TABLE 3A
PAGE 2 OF 2
GROUNDWATER COC CONCENTRATION DATA (OXYGENATES)
OCTOBER 27, 2015 SAMPLING EVENT
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 15-5189
SCDHEC SITE ID NUMBER 10628

Well Number	Sample Date	TAA (µg/l)	TAME (µg/l)	TBF (µg/l)	DIPE (µg/l)	3,3-Dimethyl-1-butanol (µg/l)	Ethanol (µg/l)	ETBE (µg/l)	TBA (µg/l)
MW-18	07/25/12	NL	NL	NL	NL	NL	NL	NL	NL
	06/27/13	<100	<10	<100	**6.5J**	<100	<1,000	<100	<100
	07/10/14	<100	<10	<100	**4.5J**	<101	<1,000	<100	<100
	10/27/15	<100	<10.0	<50.0	**5.1**	<100	<200	<10.0	<100
MW-19	06/27/13	**75J**	<10	<100	<10	<100	<1,000	<100	**110**
	07/10/14	<100	<10	<100	<10	<100	<1,000	<100	<100
	10/27/15	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-20	06/27/13	**270**	<10	<100	**65**	<100	<1,000	<100	**10J**
	07/10/14	**1,000**	<10	<100	**160**	<100	<1,000	<100	**33J**
	10/27/15	**424**	<10.0	<50.0	**96.6**	<100	<200	<10.0	<100
PW-1R	07/25/12	<100	<10	<100	<10	<100	<1,000	<100	<100
	06/27/13	<100	<10	<100	<10	<100	<1,000	<100	<100
	07/10/14	<100	<10	<100	<10	<100	<1,000	<100	<100
	10/27/15	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
RW-1	07/25/12	**53,000**	<2,000	<20,000	**12,000**	<20,000	<200,000	<20,000	<20,000
	06/27/13	**54,000**	<2,000	<20,000	**10,000**	<20,000	<200,000	<20,000	**610J**
	07/10/14	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**
	10/27/15	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**
RW-2	07/25/12	**41J**	**1.8J**	<100	<10	<100	<1,000	**2.0J**	**310**
	06/27/13	**740J**	**31J**	<1,000	<100	<1,000	<10,000	**34J**	**4,900**
	07/10/14	**1,300J**	**89J**	<2,000	<200	<2,000	<20,000	**53J**	**5,200**
	10/27/15	**104**	<10.0	<50.0	<5.0	<100	<200	<10.0	**1,610**
RW-3	07/25/12	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**
	06/27/13	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**
	07/10/14	**7,000J**	**910J**	<20,000	<2,000	<20,000	<200,000	**290J**	**4,900J**
	10/27/15	<10,000	**600J**	<5,000	<500	<10,000	<20,000	**409J**	**11,000**
RW-4	10/27/15	**48,300**	<2,500	<12,500	**4,220**	<25,000	<50,000	<2,500	<25,000
RW-5	10/27/15	**53,400**	<2,000	<10,000	**6,330**	<20,000	<40,000	<2,000	<20,000
RW-6	10/27/15	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**
WSW-1	07/25/12	<100	<10	<100	<10	<100	<1,000	<100	<100
	06/27/13	<100	<10	<100	<10	<100	<1,000	<100	<100
	07/10/14	<100	<10	<100	<10	<100	<1,000	<100	<100
	10/27/15	<100	<10.0	<50.0	<1.0	<100	<200	<10.0	<100
MW-3R Dup.	07/10/14	**2,500**	**110J**	<2,000	<200	<2,000	<20,000	**62J**	**3,000**
RW-1 Dup.	07/25/12	**54,000**	<1,000	<10,000	**12,000**	<10,000	<100,000	<10,000	**1,400J**
RW-2 Dup.	06/27/13	**690J**	**30J**	<1,000	<100	<1,000	<10,000	**34J**	**4,700**
RW-5 Dup.	10/27/15	**53,600**	<2,000	<10,000	**7,270**	<20,000	<40,000	<2,000	<20,000
Field Blank	07/25/12	<100	<10	<100	<10	<100	<1,000	<100	**41J**
	06/27/13	<100	<10	<100	<10	<100	<1,000	<100	<100
	07/10/14	<100	<10	<100	<10	<100	<1,000	<100	<100
	10/27/15	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
Trip Blank	07/25/12	<100	<10	<100	<10	<100	<1,000	<100	<100
	06/27/13	<100	<10	<100	<10	<100	<1,000	<100	<100
	07/10/14	<100	<10	<100	<10	<100	<1,000	<100	<100
	10/27/15	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100

Notes:

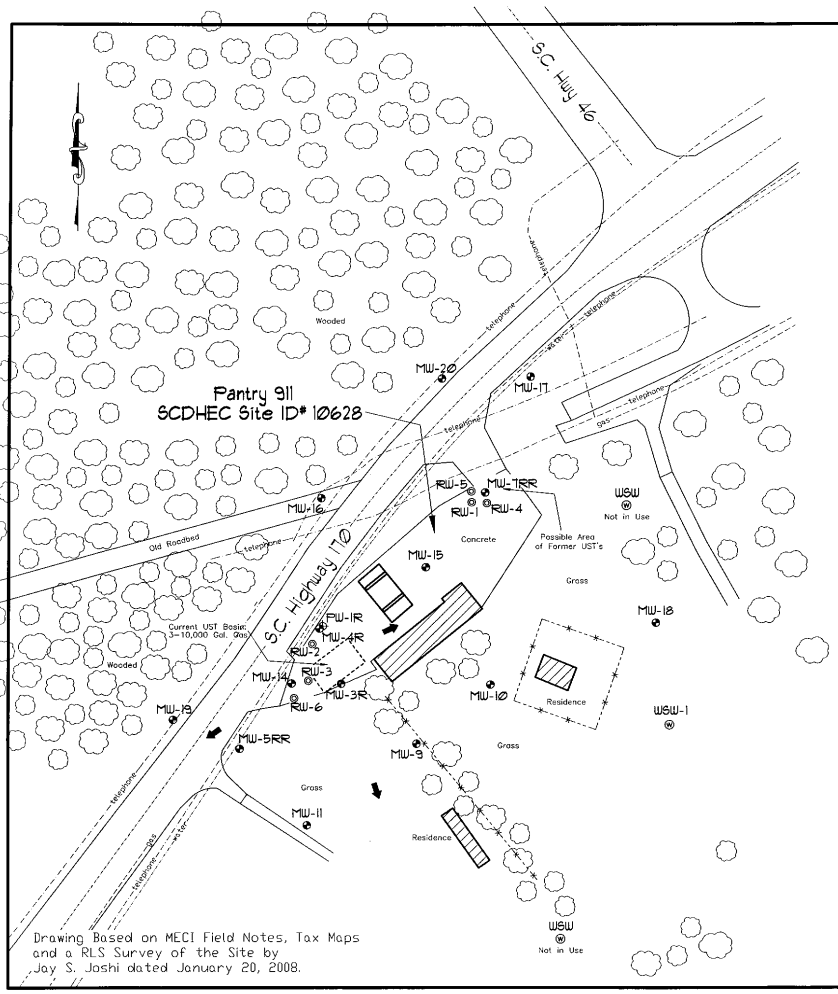
1. ug/l = micrograms per liter
2. DIPE = Diisopropyl Ether
3. ETBE = Ethyl ter-butyl Ether
4. TAA = tert-Amyl Alcohol
5. TAME = tert-Amyl Methyl Ether
6. TBA = ter-Butyl Alcohol
7. TBF = tert-Butyl Formate
8. NL = Not Located
9. PROD = Free Phase Petroleum Product
10. "J" values report concentrations above the method detection limits (MDL) and below actual reporting limit (RL).

FIGURES



Reference: Limehouse and Hardeeville, South Carolina
Jasper and Pritchardville, South Carolina
USGS 7.5 Min. Quad
Contour Interval–1.5 Meters

Midlands Environmental Consultants, Inc.	Site Location
Pantry 911 6195 South Okatie Highway, Hardeeville, SC SCDHEC Site ID# 10628	
Figure 1	MECI 15-5189



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of 4-Inch Recovery Well
- Location of Double Cased Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Existing Underground Storage Tanks
- water — Buried Water Line
- telephone — Under Ground Telephone

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

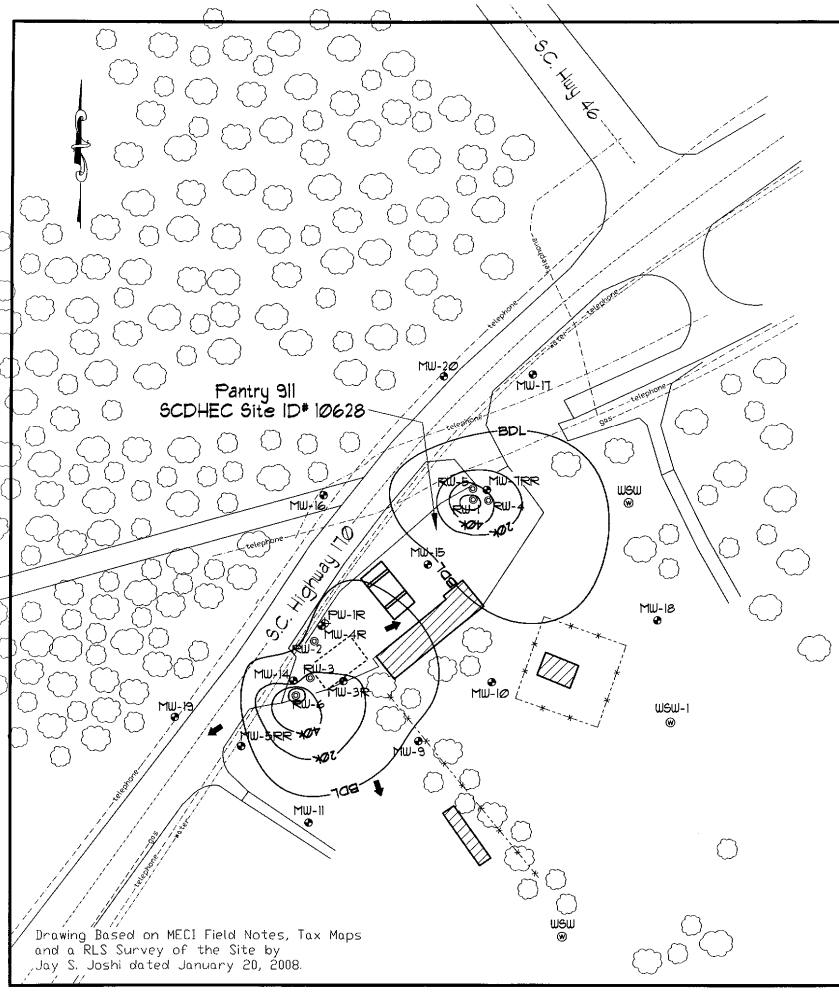
ALL LOCATIONS ARE APPROXIMATE

Site Base Map

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 15-5189
DATE November 10, 2015
FIGURE 2



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Double Cased "Deep" Monitoring Well
- Location of 4-inch Recovery Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Total BTEX Concentration Isopleth (ug/l)

Groundwater COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	Naphthalene (ug/l)	MTBE (ug/l)	1,2 DCA (ug/l)	EDB (ug/l)
MW-3R	2,870	7,130	1,290	12,100	23,390	548	531	<500	<0.021
MW-4R	1,320	584	206	673	2,783	<62.5	471	<62.5	<0.021
MW-5RR	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	3.5J	<5.0	<0.020
MW-7RR	8,910	14,900	1,810	13,700	39,320	1,790	<625	232J	0.72
MW-9	<5.0	5.3	<5.0	<10.0	5.3	<5.0	<5.0	<5.0	<0.020
MW-10	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW-11	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-14	2,460	2,840	791	2,910	9,001	<125	473	<125	<0.021
MW-15	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.019
MW-16	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-17	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW-18	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-19	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-20	<5.0	<5.0	<5.0	<10.0	BDL	2.8J	<5.0	<5.0	<0.020
PW-1R	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020
RW-1	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-2	2.6J	<5.0	<5.0	<10.0	2.6J	<5.0	3.8J	<5.0	<0.020
RW-3	12,400	10,200	524	1,680	24,804	<500	1,420	<500	<0.020
RW-4	19,000	18,500	1,580	8,850	47,930	1,390	<1,250	473J	1.5
RW-5	16,200	16,300	1,520	7,400	41,420	925J	<1,000	667J	0.50
RW-6	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
WSW-1	<1.0	<1.0	<1.0	<2.0	BDL	<1.0	<1.0	<1.0	<0.020
RW-5 Dup	19,200	18,600	1,990	8,950	48,740	967J	<1,000	701J	0.44
Field Blank	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020
Trip Blank	<5.0	<5.0	<5.0	<10.0	BDL	<5.0L	<5.0	<5.0	NT

Notes:
- Groundwater samples collected on October 27, 2015.
- Isopleth Interval = 20,000 ug/l
- BDL = Below Detection Limits
- Monitoring well PW-1R not used in Isopleth data.
- NL = Not Located
- NT = Not Tested
- PROD = Free Phase Petroleum Detected
- Isopleths Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE
0 50 100 150 200
1IN = 100FT

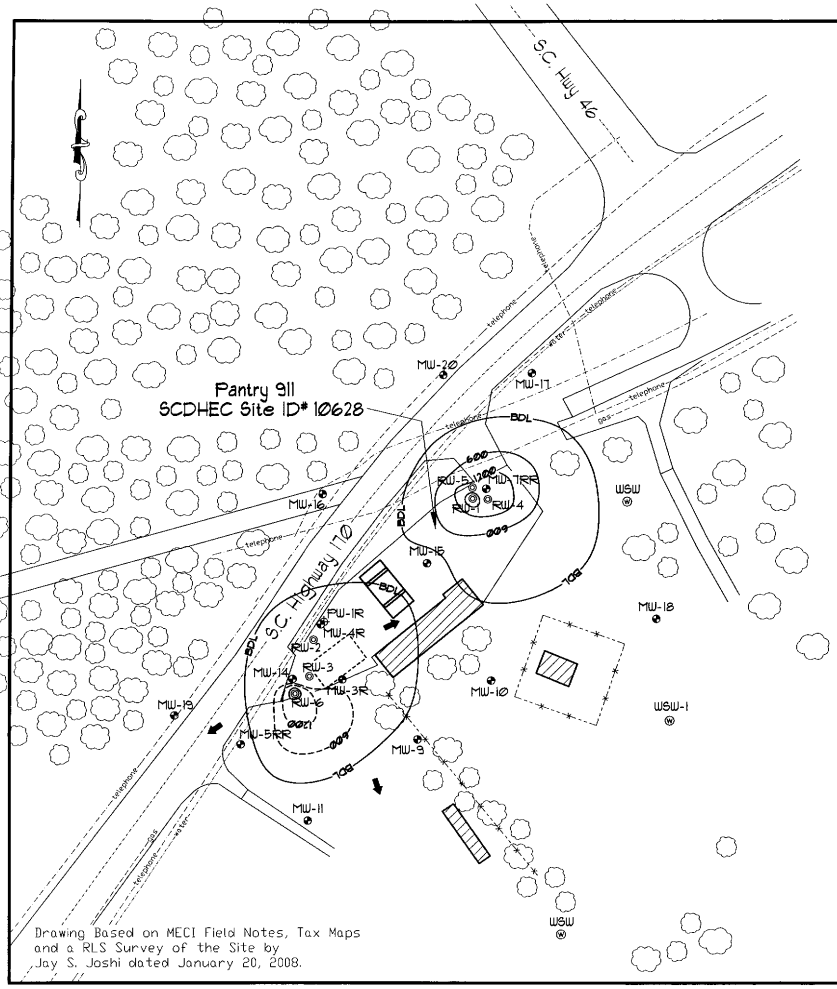
ALL LOCATIONS ARE APPROXIMATE

Groundwater CoC Site Map
(Total BTEX Isopleth)

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 15-5189
DATE November 10, 2015
FIGURE 4



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Double Cased "Deep" Monitoring Well
- Location of 4-Inch Recovery Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Naphthalene Concentration Isopleth (ug/l)

Groundwater COC Concentration Data

Sample *	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	Naphthalene (ug/l)	MTBE (ug/l)	1,2 DCA (ug/l)	EDB (ug/l)
MW-3R	2,870	7,130	1,290	12,100	23,390	548	531	<500	<0.021
MW-4R	1,320	584	206	673	2,783	<62.5	471	<62.5	<0.021
MW-5RR	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	3.5J	<5.0	<0.020
MW-7RR	8,910	14,900	1,810	13,700	39,320	1,790	<625	232J	0.72
MW-9	<5.0	5.3	<5.0	<10.0	5.3	<5.0	<5.0	<5.0	<0.020
MW-10	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW-11	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-14	2,460	2,840	791	2,910	9,001	<125	473	<125	<0.021
MW-15	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.019
MW-16	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-17	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW-18	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-19	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-20	<5.0	<5.0	<5.0	<10.0	BDL	2.8J	<5.0	<5.0	<0.020
PW-1R	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020
RW-1	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-2	2.6J	<5.0	<5.0	<10.0	2.6J	<5.0	3.8J	<5.0	<0.020
RW-3	12,400	10,200	524	1,680	24,804	<500	1,420	<500	<0.020
RW-4	19,000	18,500	1,580	8,850	47,930	1,390	<1,250	473J	1.5
RW-5	16,200	16,300	1,520	7,400	41,420	925J	<1,000	667J	0.50
RW-6	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
WSW-1	<1.0	<1.0	<1.0	<2.0	BDL	<1.0	<1.0	<1.0	<0.020
RW-5 Dup	19,200	18,600	1,990	8,950	48,740	967J	<1,000	701J	0.44
Field Blank	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020
Trip Blank	<5.0	<5.0	<5.0	<10.0	BDL	<5.0L	<5.0	<5.0	NT

Notes:
- Groundwater samples collected on October 27, 2015.
- Isopleth interval = 600 ug/l
- BDL = Below Detection Limits
- Monitoring well PW-1R not used in Isopleth data.
- NL = Not Located
- NT = Not Tested
- PROD = Free Phase Petroleum Detected
- Isopleths Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

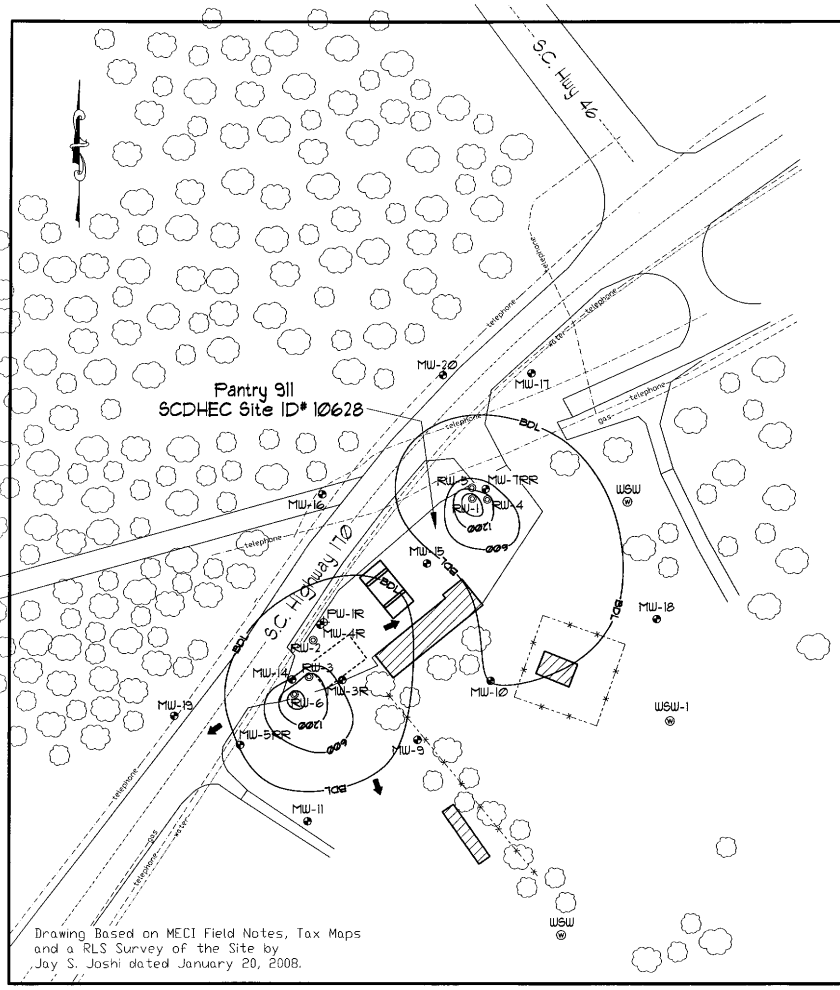
ALL LOCATIONS ARE APPROXIMATE

Groundwater CoC Site Map
(Naphthalene Isopleth)

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 15-5189
DATE November 10, 2015
FIGURE 4A



Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Double Cased "Deep" Monitoring Well
- Location of 4-Inch Recovery Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- MTBE Concentration Isopleth (ug/l)

Groundwater COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	Naphthalene (ug/l)	MTBE (ug/l)	1,2 DCA (ug/l)	EDB (ug/l)
MW-3R	2,870	7,130	1,290	12,100	23,390	548	531	<500	<0.021
MW-4R	1,320	584	206	873	2,783	<62.5	471	<62.5	<0.021
MW-5RR	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	3.5J	<5.0	<0.020
MW-7RR	8,910	14,900	1,810	13,700	39,320	1,790	<625	232J	0.72
MW-9	<5.0	5.3	<5.0	<10.0	5.3	<5.0	<5.0	<5.0	<0.020
MW-10	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW-11	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-14	2,460	2,840	791	2,910	9,001	<125	473	<125	<0.021
MW-15	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.019
MW-16	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-17	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW-18	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-19	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-20	<5.0	<5.0	<5.0	<10.0	BDL	2.8J	<5.0	<5.0	<0.020
PW-1R	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020
RW-1	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-2	2.6J	<5.0	<5.0	<10.0	2.6J	<5.0	3.6J	<5.0	<0.020
RW-3	12,400	10,200	524	1,680	24,804	<500	1,420	<500	<0.020
RW-4	19,000	18,500	1,580	8,850	47,930	1,390	<1,250	473J	1.5
RW-5	16,200	16,300	1,520	7,400	41,420	925J	<1,000	667J	0.50
RW-6	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
WSW-1	<1.0	<1.0	<1.0	<2.0	BDL	<1.0	<1.0	<1.0	<0.020
RW-5 Dup	19,200	18,600	1,990	8,950	48,740	967J	<1,000	701J	0.44
Field Blank	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020
Trip Blank	<5.0	<5.0	<5.0	<10.0	BDL	<5.0L	<5.0	<5.0	NT

Notes:
- Groundwater samples collected on October 27, 2015.
- Isopleth Intervol = 600 ug/l
- BDL = Below Detection Limits
- Monitoring well PW-1R not used in Isopleth data.
- NL = Not Located
- NT = Not Tested
- PROD = Free Phase Petroleum Detected
- Isopleths Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE
0 50 100 150 200
1IN = 100FT

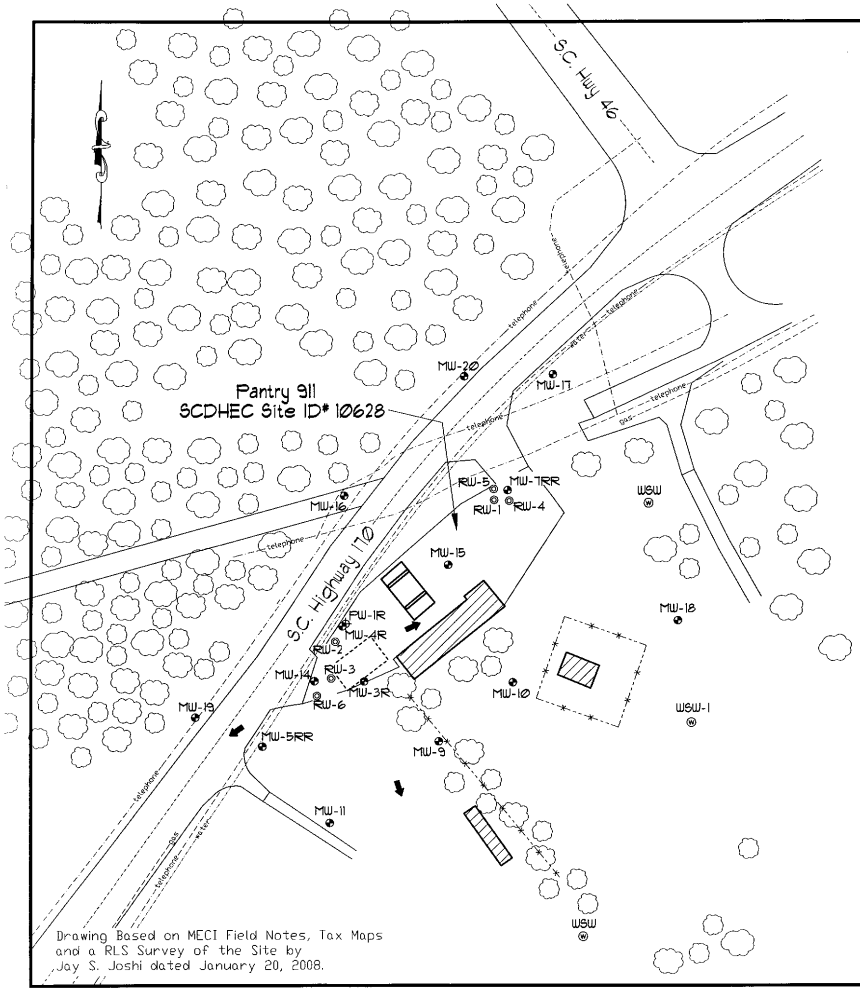
ALL LOCATIONS ARE APPROXIMATE

Groundwater CoC Site Map
(MTBE Isopleth)

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 15-S189
DATE November 10, 2015
FIGURE 4B



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Double Cased "Deep" Monitoring Well
- Location of 4-Inch Recovery Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks

Groundwater COC Concentration Data - Oxygenates

Sample *	TAA (ug/l)	TAME (ug/l)	TBF (ug/l)	DIPE (ug/l)	3,3-Dimethyl-1-butanol (ug/l)	Ethanol (ug/l)	ETBE (ug/l)	TBA (ug/l)
MW-3R	<10,000	<1,000	<5,000	<500	<10,000	<20,000	<1,000	<10,000
MW-4R	2,690	<125	<625	<62.5	<1,250	<2,500	48.8J	8,190
MW-5RR	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	96.1J
MW-7RR	25,600	<1,250	<6,250	4,560	<12,500	<25,000	<1,250	<12,500
MW-9	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-10	NL	NL	NL	NL	NL	NL	NL	NL
MW-11	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-14	3,490	140J	<1,250	<125	<2,500	<5,000	<250	4,460
MW-15	113	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-16	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-17	NL	NL	NL	NL	NL	NL	NL	NL
MW-18	<100	<10.0	<50.0	5.1	<100	<200	<10.0	<100
MW-19	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-20	424	<10.0	<50.0	98.6	<100	<200	<10.0	<100
PW-1R	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
RW-1	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-2	104	<10.0	<50.0	<5.0	<100	<200	<10.0	1,610
RW-3	<10,000	600J	<5,000	<500	<10,000	<20,000	409J	11,000
RW-4	48,300	<2,500	<12,500	4,220	<25,000	<50,000	<2,500	<25,000
RW-5	53,400	<2,000	<10,000	6,330	<20,000	<40,000	<2,000	<20,000
RW-6	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
WSW-1	<100	<10.0	<50.0	<1.0	<100	<200	<10.0	<100
RW-5 Dup	53,600	<2,000	<10,000	7,270	<20,000	<40,000	<2,000	<20,000
Field Blank	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
Trip Blank	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100

Notes: Groundwater samples collected on October 27, 2015.

DIPE = Diisopropyl Ether
ETBE = Ethyl tert-butyl Ether
TAA = tert-Amyl Alcohol
TAME = tert-Amy Methyl Ether
TBA = tert-Butyl Alcohol
TBF = tert-Butyl Formate

GRAPHIC SCALE
0 50 100 150 200
1IN = 100FT

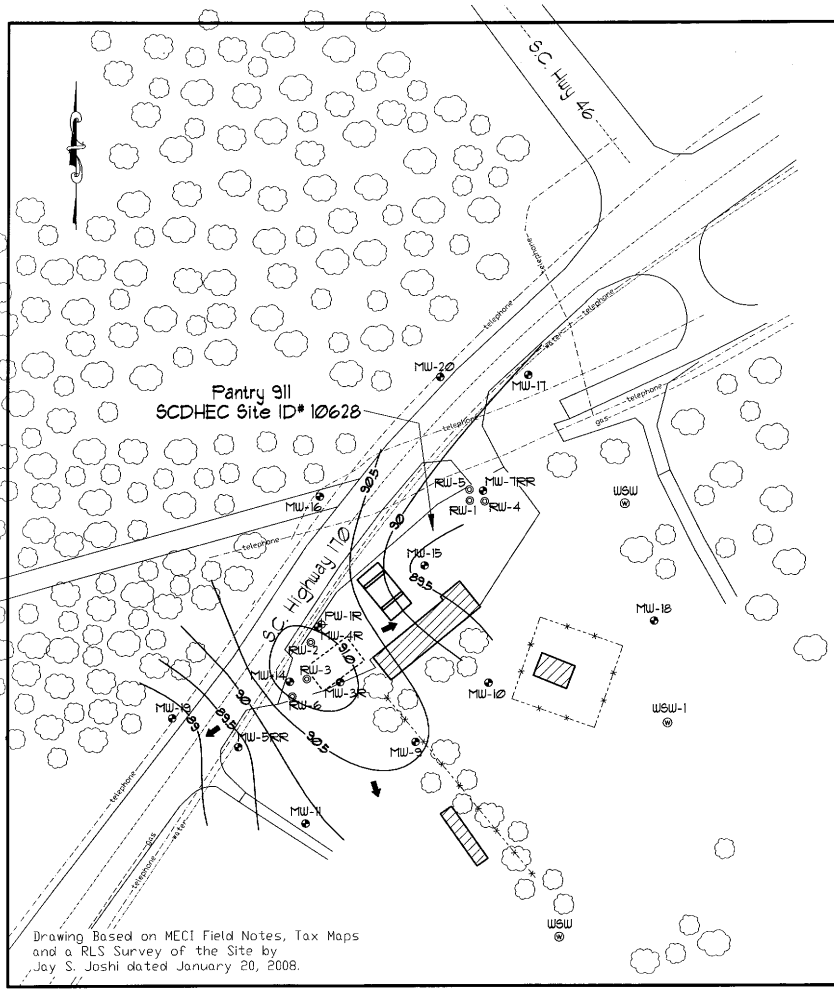
ALL LOCATIONS ARE APPROXIMATE

Groundwater CoC Site Map
(Oxygenates)

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 15-5189
DATE November 10, 2015
FIGURE 4C



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Double Cased "Deep" Monitoring Well
- Location of 4-Inch Recovery Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Groundwater Elevation Contour (feet)

Potentiometric Data

Well #	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Well Head Elevation	Groundwater Elevation
MW-3R	2-12	---	3.34	---	94.56	91.22
MW-4R	5-15	---	2.80	---	93.75	90.95
MW-5RR	2-12	---	2.85	---	92.18	89.33
MW-7RR	2-12	---	9.10	---	95.80	86.70
MW-9	8-18	---	6.13	---	96.73	90.60
MW-10	2-12	---	NL	---	93.29	NL
MW-11	2-12	---	1.72	---	91.62	89.90
MW-14	3.05-13.05	---	1.76	---	93.23	91.47
MW-15	2-12	---	6.93	---	96.12	89.19
MW-16	7-17	---	5.89	---	97.02	91.13
MW-17	3-13	---	NL	---	94.96	NL
MW-18	2-12	---	1.85	---	91.34	89.49
MW-19	2-12	---	4.20	---	93.01	88.81
MW-20	4-14	---	8.55	---	98.84	90.29
PW-1R	30-35	---	4.15	---	93.47	89.32
RW-1	2-12	6.20	6.22	0.02	96.15	89.95
RW-2	2-12	---	1.42	---	93.56	92.14
RW-3	2-12	---	1.82	---	93.22	91.40
RW-4	2-15	---	6.30	---	96.05	89.75
RW-5	2-15	---	5.95	---	95.60	89.65
RW-6	2-15	2.20	2.35	0.15	93.07	90.85

Notes:
- Depth to groundwater measured on October 27, 2015.
- Site Datum Based on Assumed Spot Elevation.
- Contour Interval = 0.50 Feet
- Monitoring well MW-7RR, RW-2, MW-16 AND PW-1R not used in contouring.
- Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE
0 50 100 150 200
1IN = 100FT

ALL LOCATIONS ARE APPROXIMATE

Potentiometric Data Site Map
(Groundwater Contour)

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 15-5189
DATE November 10, 2015
FIGURE 5

APPENDIX A:

SITE SURVEY

(Not Applicable)

APPENDIX B:

SAMPLING LOGS, LABORATORY DATA SHEETS, & CHAIN-OF-CUSTODY FORMS

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	10/27/2015	**Site ID #:**	10628	**Site Name:**	Pantry 911	**Field Personnel:**	T. Elder, B. Garner, J. Floyd, C. Hansen		
County:	Jasper	**Project Manager:**	John Bryant	**General Weather Conditions:**	Overcast/Light Rain	**Ambient Air Temp (°F):**	68		

Quality Assurance

Meter Name	**Serial #:**	**Calibration:**							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	pH 4.0: Y or N	Y	pH 7.0: Y or N	Y	pH 10.0: Y or N	Y	S.C.: Y or N	Y
YSI Pro 20 (Dissolved Oxygen)	12G102878	Y or N	Y						
MicroTPI/TPW (Turbidity)	201301183	0.0 NTU: Y or N	Y	1.0 NTU: Y or N	Y	10.0 NTU: Y or N	Y		

Well Information

Well ID:	MW-3R	**Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652**	0.163	**Method of Purging/Sample Collection**	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	MW	**Screened Interval (ft.):**	2-12	**Total Well Depth (TWD) (ft.):**	12
Depth to Free Product (DFP) (ft.):	ND	**Depth to Groundwater (DGW) (ft.):**	3.34	**Free Product Thickness (ft.):**	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	8.66	**1 casing volume (CV = LWC x C) (gals.):**	1.41	**5 casing volumes (5 x CV) (gals.):**	7.06

Purging Data

	Initial	**1st Vol.**	**2nd Vol.**	**3rd Vol.**	**4th Vol.**	**5th Vol.**	**Post**	**Sampling**
Volume Purged (gallons)	0.00	1.41	2.82	4.23	5.65	7.06		2.50
Time (military)	13:36	13:37						13:38
PH (s.u.)	Sheen	Sheen						Sheen
Specific Conductivity (µS/cm)	Sheen	Sheen						Sheen
Water Temperature (°C)	Sheen	Sheen						Sheen
Dissolved Oxygen (mg/L)	Sheen	Sheen						Sheen
Turbidity (NTU)	Sheen	Sheen						Sheen

Sampling Data

Sampled By:	T. Elder, B. Garner, J. Floyd, C. Hansen	**Sampling Time:**	13:38	**Duplicate: Y or N**	N	**If yes, Duplicate Time:**	N/A	**Total Gallons Purged:**	2.50

Notes: Odor, Sheen, Dry @ 2.50 Gallons

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	10/27/2015	**Site ID #:**	10628	**Site Name:**	Pantry 911	**Field Personnel:**	T. Elder, B. Garner, J. Floyd, C. Hansen		
County:	Jasper	**Project Manager:**	John Bryant	**General Weather Conditions:**	Overcast/Light Rain	**Ambient Air Temp (°F):**	68		

Quality Assurance

Meter Name	**Serial #:**	**Calibration:**							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	**pH 4.0: Y or N**	Y	**pH 7.0: Y or N**	Y	**pH 10.0: Y or N**	Y	**S.C.: Y or N**	Y
YSI Pro 20 (Dissolved Oxygen)	12G102878	**Y or N**	Y						
MicroTPI/TPW (Turbidity)	201301183	**0.0 NTU: Y or N**	Y	**1.0 NTU: Y or N**	Y	**10.0 NTU: Y or N**	Y		

Well Information

Well ID:	MW-4R	**Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652**	0.163	**Method of Purging/Sample Collection**	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	MW	**Screened Interval (ft.):**	5-15	**Total Well Depth (TWD) (ft.):**	15
Depth to Free Product (DFP) (ft.):	ND	**Depth to Groundwater (DGW) (ft.):**	2.8	**Free Product Thickness (ft.):**	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	12.2	**1 casing volume (CV = LWC x C) (gals.):**	1.99	**5 casing volumes (5 x CV) (gals.):**	9.94

Purging Data

	Initial	**1st Vol.**	**2nd Vol.**	**3rd Vol.**	**4th Vol.**	**5th Vol.**	**Post**	**Sampling**
Volume Purged (gallons)	0.00	1.99	3.98	5.97	7.95	9.94		2.00
Time (military)	13:03	13:05						13:07
PH (s.u.)	5.42	5.45						5.48
Specific Conductivity (µS/cm)	156.1	175.8						201.2
Water Temperature (°C)	24.2	24.4						24.5
Dissolved Oxygen (mg/L)	1.71	1.85						1.84
Turbidity (NTU)	19.42	42.56						76.22

Sampling Data

Sampled By:	T. Elder, B. Garner, J. Floyd, C. Hansen	**Sampling Time:**	13:07	**Duplicate: Y or N**	N	**If yes, Duplicate Time:**	N/A	**Total Gallons Purged:**	2.00

Notes: Odor, Dry @ 2.00 Gallons

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	10/27/2015	*Site ID #:*	10628	*Site Name:*	Pantry 911	*Field Personnel:*	T. Elder, B. Garner, J. Floyd, C. Hansen		
County:	Jasper	*Project Manager:*	John Bryant	*General Weather Conditions:*	Overcast/Light Rain	*Ambient Air Temp (°F):*	68		

Quality Assurance

Meter Name	*Serial #:*	*Calibration:*							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	*pH 4.0: Y or N*	Y	*pH 7.0: Y or N*	Y	*pH 10.0: Y or N*	Y	*S.C.: Y or N*	Y
YSI Pro 20 (Dissolved Oxygen)	12G102878	*Y or N*	Y						
MicroTPI/TPW (Turbidity)	201301183	*0.0 NTU: Y or N*	Y	*1.0 NTU: Y or N*	Y	*10.0 NTU: Y or N*	Y		

Well Information

Well ID:	MW-5RR	*Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652*	0.163	*Method of Purging/Sample Collection*	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	MW	*Screened Interval (ft.):*	2-12	*Total Well Depth (TWD) (ft.):*	12
Depth to Free Product (DFP) (ft.):	ND	*Depth to Groundwater (DGW) (ft.):*	2.85	*Free Product Thickness (ft.):*	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	9.15	*1 casing volume (CV = LWC x C) (gals.):*	1.49	*5 casing volumes (5 x CV) (gals.):*	7.46

Purging Data

	Initial	*1st Vol.*	*2nd Vol.*	*3rd Vol.*	*4th Vol.*	*5th Vol.*	*Post*	*Sampling*
Volume Purged (gallons)	0.00	1.49	2.98	4.47	5.97	7.46		1.25
Time (military)	11:48	11:51						11:54
PH (s.u.)	6.47	6.52						6.54
Specific Conductivity (µS/cm)	606	513						308.9
Water Temperature (°C)	22.6	23.1						23.2
Dissolved Oxygen (mg/L)	2.32	1.82						2.28
Turbidity (NTU)	106.9	491.3						411.5

Sampling Data

Sampled By:	T. Elder, B. Garner, J. Floyd, C. Hansen	*Sampling Time:*	11:54	*Duplicate: Y or N*	N	*If yes, Duplicate Time:*	N/A	*Total Gallons Purged:*	1.25

Notes: No Odor, Dry @ 1.25 Gallons

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	10/27/2015	**Site ID #:**	10628	**Site Name:**	Pantry 911	**Field Personnel:**	T. Elder, B. Garner, J. Floyd, C. Hansen		
County:	Jasper	**Project Manager:**	John Bryant	**General Weather Conditions:**	Overcast/Light Rain	**Ambient Air Temp (°F):**	68		

Quality Assurance

Meter Name	**Serial #:**	**Calibration:**							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	**pH 4.0: Y or N**	Y	**pH 7.0: Y or N**	Y	**pH 10.0: Y or N**	Y	**S.C.: Y or N**	Y
YSI Pro 20 (Dissolved Oxygen)	12G102878	**Y or N**	Y						
MicroTPI/TPW (Turbidity)	201301183	**0.0 NTU: Y or N**	Y	**1.0 NTU: Y or N**	Y	**10.0 NTU: Y or N**	Y		

Well Information

Well ID:	MW-7RR	**Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652**	0.163	**Method of Purging/Sample Collection**	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	MW	**Screened Interval (ft.):**	2-12	**Total Well Depth (TWD) (ft.):**	12
Depth to Free Product (DFP) (ft.):	ND	**Depth to Groundwater (DGW) (ft.):**	9.1	**Free Product Thickness (ft.):**	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	2.9	**1 casing volume (CV = LWC x C) (gals.):**	0.47	**5 casing volumes (5 x CV) (gals.):**	2.36

Purging Data

	Initial	**1st Vol.**	**2nd Vol.**	**3rd Vol.**	**4th Vol.**	**5th Vol.**	**Post**	**Sampling**
Volume Purged (gallons)	0.00	0.47	0.95	1.42	1.89	2.36		0.75
Time (military)	12:22	12:24						12:28
PH (s.u.)	Sheen	Sheen						Sheen
Specific Conductivity (µS/cm)	Sheen	Sheen						Sheen
Water Temperature (°C)	Sheen	Sheen						Sheen
Dissolved Oxygen (mg/L)	Sheen	Sheen						Sheen
Turbidity (NTU)	Sheen	Sheen						Sheen

Sampling Data

Sampled By:	T. Elder, B. Garner, J. Floyd, C. Hansen	**Sampling Time:**	12:28	**Duplicate: Y or N**	N	**If yes, Duplicate Time:**	N/A	**Total Gallons Purged:**	0.75

Notes: Odor, Sheen, Dry @ 0.75 Gallons

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	10/27/2015	*Site ID #:*	10628	*Site Name:*	Pantry 911	*Field Personnel:*	T. Elder, B. Garner, J. Floyd, C. Hansen		
County:	Jasper	*Project Manager:*	John Bryant	*General Weather Conditions:*	Overcast/Light Rain	*Ambient Air Temp (°F):*	68		

Quality Assurance

Meter Name	*Serial #:*	*Calibration:*							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	*pH 4.0: Y or N*	Y	*pH 7.0: Y or N*	Y	*pH 10.0: Y or N*	Y	*S.C.: Y or N*	Y
YSI Pro 20 (Dissolved Oxygen)	12G102878	*Y or N*	Y						
MicroTPI/TPW (Turbidity)	201301183	*0.0 NTU: Y or N*	Y	*1.0 NTU: Y or N*	Y	*10.0 NTU: Y or N*	Y		

Well Information

Well ID:	MW-9	*Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652*	0.163	*Method of Purging/Sample Collection*	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	MW	*Screened Interval (ft.):*	8-18	*Total Well Depth (TWD) (ft.):*	18
Depth to Free Product (DFP) (ft.):	ND	*Depth to Groundwater (DGW) (ft.):*	6.13	*Free Product Thickness (ft.):*	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	11.87	*1 casing volume (CV = LWC x C) (gals.):*	1.93	*5 casing volumes (5 x CV) (gals.):*	9.67

Purging Data

	Initial	*1st Vol.*	*2nd Vol.*	*3rd Vol.*	*4th Vol.*	*5th Vol.*	*Post*	*Sampling*
Volume Purged (gallons)	0.00	1.93	3.87	5.80	7.74	9.67		5.50
Time (military)	11:18	11:21	11:26	11:28				11:29
PH (s.u.)	5.05	5.17	5.14	5.16				5.18
Specific Conductivity (µS/cm)	400.7	399.1	451.2	524.0				507
Water Temperature (°C)	20.5	20.5	20.9	20.7				20.7
Dissolved Oxygen (mg/L)	1.85	1.52	2.26	3.34				3.41
Turbidity (NTU)	291.70	60.88	312.80	531.40				516.00

Sampling Data

Sampled By:	T. Elder, B. Garner, J. Floyd, C. Hansen	*Sampling Time:*	11:29	*Duplicate: Y or N*	N	*If yes, Duplicate Time:*	N/A	*Total Gallons Purged:*	5.50

Notes: No Odor, Dry @ 5.50 Gallons

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	10/27/2015	*Site ID #:*	10628	*Site Name:*	Pantry 911	*Field Personnel:*	T. Elder, B. Garner, J. Floyd, C. Hansen		
County:	Jasper	*Project Manager:*	John Bryant	*General Weather Conditions:*	Overcast/Light Rain	*Ambient Air Temp (°F):*	68		

Quality Assurance

Meter Name	*Serial #:*	*Calibration:*							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	*pH 4.0: Y or N*	Y	*pH 7.0: Y or N*	Y	*pH 10.0: Y or N*	Y	*S.C.: Y or N*	Y
YSI Pro 20 (Dissolved Oxygen)	12G102878	*Y or N*	Y						
MicroTPI/TPW (Turbidity)	201301183	*0.0 NTU: Y or N*	Y	*1.0 NTU: Y or N*	Y	*10.0 NTU: Y or N*	Y		

Well Information

Well ID:	MW-10	*Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652*	0.163	*Method of Purging/Sample Collection*	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	MW	*Screened Interval (ft.):*	2-12	*Total Well Depth (TWD) (ft.):*	12
Depth to Free Product (DFP) (ft.):	ND	*Depth to Groundwater (DGW) (ft.):*	NL	*Free Product Thickness (ft.):*	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	#VALUE!	*1 casing volume (CV = LWC x C) (gals.):*	#VALUE!	*5 casing volumes (5 x CV) (gals.):*	#VALUE!

Purging Data

	Initial	*1st Vol.*	*2nd Vol.*	*3rd Vol.*	*4th Vol.*	*5th Vol.*	*Post*	*Sampling*
Volume Purged (gallons)	0.00	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!		
Time (military)	NL							
PH (s.u.)	NL							
Specific Conductivity (µS/cm)	NL							
Water Temperature (°C)	NL							
Dissolved Oxygen (mg/L)	NL							
Turbidity (NTU)	NL							

Sampling Data

Sampled By:	T. Elder, B. Garner, J. Floyd, C. Hansen	*Sampling Time:*	NL	*Duplicate: Y or N*	N	*If yes, Duplicate Time:*	N/A	*Total Gallons Purged:*	0.00

Notes: NL = Not Located, Well possibly under broken down car

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	10/27/2015	*Site ID #:*	10628	*Site Name:*	Pantry 911	*Field Personnel:*	T. Elder, B. Garner, J. Floyd, C. Hansen		
County:	Jasper	*Project Manager:*	John Bryant	*General Weather Conditions:*	Overcast/Light Rain	*Ambient Air Temp (°F):*	68		

Quality Assurance

Meter Name	*Serial #:*	*Calibration:*							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	*pH 4.0: Y or N*	Y	*pH 7.0: Y or N*	Y	*pH 10.0: Y or N*	Y	*S.C.: Y or N*	Y
YSI Pro 20 (Dissolved Oxygen)	12G102878	*Y or N*	Y						
MicroTPI/TPW (Turbidity)	201301183	*0.0 NTU: Y or N*	Y	*1.0 NTU: Y or N*	Y	*10.0 NTU: Y or N*	Y		

Well Information

Well ID:	MW-11	*Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652*	0.163	*Method of Purging/Sample Collection*	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	MW	*Screened Interval (ft.):*	2-12	*Total Well Depth (TWD) (ft.):*	12
Depth to Free Product (DFP) (ft.):	ND	*Depth to Groundwater (DGW) (ft.):*	1.72	*Free Product Thickness (ft.):*	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	10.28	*1 casing volume (CV = LWC x C) (gals.):*	1.68	*5 casing volumes (5 x CV) (gals.):*	8.38

Purging Data

	Initial	*1st Vol.*	*2nd Vol.*	*3rd Vol.*	*4th Vol.*	*5th Vol.*	*Post*	*Sampling*
Volume Purged (gallons)	0.00	1.68	3.35	5.03	6.70	8.38		1.75
Time (military)	11:55	11:57						11:59
PH (s.u.)	6.65	6.20						6.34
Specific Conductivity (µS/cm)	415.8	414.6						413.9
Water Temperature (°C)	22.0	22.3						22.2
Dissolved Oxygen (mg/L)	2.06	1.86						1.92
Turbidity (NTU)	39.15	192.30						221.30

Sampling Data

Sampled By:	T. Elder, B. Garner, J. Floyd, C. Hansen	*Sampling Time:*	11:59	*Duplicate: Y or N*	N	*If yes, Duplicate Time:*	N/A	*Total Gallons Purged:*	1.75

Notes: No Odor, Dry @ 1.75 Gallons

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	10/27/2015	*Site ID #:*	10628	*Site Name:*	Pantry 911	*Field Personnel:*	T. Elder, B. Garner, J. Floyd, C. Hansen		
County:	Jasper	*Project Manager:*	John Bryant	*General Weather Conditions:*	Overcast/Light Rain	*Ambient Air Temp (°F):*	68		

Quality Assurance

Meter Name	*Serial #:*	*Calibration:*							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	*pH 4.0: Y or N*	Y	*pH 7.0: Y or N*	Y	*pH 10.0: Y or N*	Y	*S.C.: Y or N*	Y
YSI Pro 20 (Dissolved Oxygen)	12G102878	*Y or N*	Y						
MicroTPI/TPW (Turbidity)	201301183	*0.0 NTU: Y or N*	Y	*1.0 NTU: Y or N*	Y	*10.0 NTU: Y or N*	Y		

Well Information

Well ID:	MW-14	*Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652*	0.163	*Method of Purging/Sample Collection*	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	MW	*Screened Interval (ft.):*	3.05-13.05	*Total Well Depth (TWD) (ft.):*	13.05
Depth to Free Product (DFP) (ft.):	ND	*Depth to Groundwater (DGW) (ft.):*	1.76	*Free Product Thickness (ft.):*	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	11.29	*1 casing volume (CV = LWC x C) (gals.):*	1.84	*5 casing volumes (5 x CV) (gals.):*	9.20

Purging Data

	Initial	*1st Vol.*	*2nd Vol.*	*3rd Vol.*	*4th Vol.*	*5th Vol.*	*Post*	*Sampling*
Volume Purged (gallons)	0.00	1.84	3.68	5.52	7.36	9.20		1.50
Time (military)	13:16	13:19						13:21
PH (s.u.)	6.16	Sheen						Sheen
Specific Conductivity (µS/cm)	202.6	Sheen						Sheen
Water Temperature (°C)	24.9	Sheen						Sheen
Dissolved Oxygen (mg/L)	1.57	Sheen						Sheen
Turbidity (NTU)	33.00	Sheen						Sheen

Sampling Data

Sampled By:	T. Elder, B. Garner, J. Floyd, C. Hansen	*Sampling Time:*	13:21	*Duplicate: Y or N*	N	*If yes, Duplicate Time:*	N/A	*Total Gallons Purged:*	1.50

Notes: Odor, Sheen, Dry @ 1.50 Gallons

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	10/27/2015	*Site ID #:*	10628	*Site Name:*	Pantry 911	*Field Personnel:*	T. Elder, B. Garner, J. Floyd, C. Hansen
County:	Jasper	*Project Manager:*	John Bryant	*General Weather Conditions:*	Overcast/Light Rain	*Ambient Air Temp (°F):*	68

Quality Assurance

Meter Name	*Serial #:*	*Calibration:*							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	*pH 4.0: Y or N*	Y	*pH 7.0: Y or N*	Y	*pH 10.0: Y or N*	Y	*S.C.: Y or N*	Y
YSI Pro 20 (Dissolved Oxygen)	12G102878	*Y or N*	Y						
MicroTPI/TPW (Turbidity)	201301183	*0.0 NTU: Y or N*	Y	*1.0 NTU: Y or N*	Y	*10.0 NTU: Y or N*	Y		

Well Information

Well ID:	MW-15	*Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652*	0.163	*Method of Purging/Sample Collection*	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	MW	*Screened Interval (ft.):*	2-12	*Total Well Depth (TWD) (ft.):*	12
Depth to Free Product (DFP) (ft.):	ND	*Depth to Groundwater (DGW) (ft.):*	6.93	*Free Product Thickness (ft.):*	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	5.07	*1 casing volume (CV = LWC x C) (gals.):*	0.83	*5 casing volumes (5 x CV) (gals.):*	4.13

Purging Data

	Initial	*1st Vol.*	*2nd Vol.*	*3rd Vol.*	*4th Vol.*	*5th Vol.*	*Post*	*Sampling*
Volume Purged (gallons)	0.00	0.83	1.65	2.48	3.31	4.13		1.50
Time (military)	12:51	12:53	12:54					12:55
PH (s.u.)	6.12	5.99	6.08					6.10
Specific Conductivity (µS/cm)	344.6	465.0	480.0					507.0
Water Temperature (°C)	24.7	25.5	25.6					25.4
Dissolved Oxygen (mg/L)	2.13	1.97	2.10					2.14
Turbidity (NTU)	62.89	67.95	90.31					139.90

Sampling Data

Sampled By:	T. Elder, B. Garner, J. Floyd, C. Hansen	*Sampling Time:*	12:55	*Duplicate: Y or N*	N	*If yes, Duplicate Time:*	N/A	*Total Gallons Purged:*	1.50

Notes: No Odor, Dry @ 1.50 Gallons

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	10/27/2015	**Site ID #:**	10628	**Site Name:**	Pantry 911	**Field Personnel:**	T. Elder, B. Garner, J. Floyd, C. Hansen		
County:	Jasper	**Project Manager:**	John Bryant	**General Weather Conditions:**	Overcast/Light Rain	**Ambient Air Temp (°F):**	68		

Quality Assurance

Meter Name	**Serial #:**	**Calibration:**							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	pH 4.0: Y or N	Y	pH 7.0: Y or N	Y	pH 10.0: Y or N	Y	S.C.: Y or N	Y
YSI Pro 20 (Dissolved Oxygen)	12G102878	Y or N	Y						
MicroTPI/TPW (Turbidity)	201301183	0.0 NTU: Y or N	Y	1.0 NTU: Y or N	Y	10.0 NTU: Y or N	Y		

Well Information

Well ID:	MW-16	**Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652**	0.163	**Method of Purging/Sample Collection**	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	MW	**Screened Interval (ft.):**	7-17	**Total Well Depth (TWD) (ft.):**	13.5
Depth to Free Product (DFP) (ft.):	ND	**Depth to Groundwater (DGW) (ft.):**	6.93	**Free Product Thickness (ft.):**	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	6.57	**1 casing volume (CV = LWC x C) (gals.):**	1.07	**5 casing volumes (5 x CV) (gals.):**	5.35

Purging Data

	Initial	**1st Vol.**	**2nd Vol.**	**3rd Vol.**	**4th Vol.**	**5th Vol.**	**Post**	**Sampling**
Volume Purged (gallons)	0.00	1.07	2.14	3.21	4.28	5.35		1.25
Time (military)	12:19	12:20						12:21
PH (s.u.)	6.21	6.13						5.91
Specific Conductivity (µS/cm)	290.8	287.4						302.4
Water Temperature (°C)	24.2	24.0						24.1
Dissolved Oxygen (mg/L)	1.62	1.81						1.75
Turbidity (NTU)	157.30	190.40						270.30

Sampling Data

Sampled By:	T. Elder, B. Garner, J. Floyd, C. Hansen	**Sampling Time:**	12:55	**Duplicate: Y or N**	N	**If yes, Duplicate Time:**	N/A	**Total Gallons Purged:**	1.25

Notes: No Odor, Dry @ 1.50 Gallons, TD: 13.50' BTOC

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	10/27/2015	**Site ID #:**	10628	**Site Name:**	Pantry 911	**Field Personnel:**	T. Elder, B. Garner, J. Floyd, C. Hansen		
County:	Jasper	**Project Manager:**	John Bryant	**General Weather Conditions:**	Overcast/Light Rain	**Ambient Air Temp (°F):**	68		

Quality Assurance

Meter Name	**Serial #:**	**Calibration:**							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	**pH 4.0: Y or N**	Y	**pH 7.0: Y or N**	Y	**pH 10.0: Y or N**	Y	**S.C.: Y or N**	Y
YSI Pro 20 (Dissolved Oxygen)	12G102878	**Y or N**	Y						
MicroTPI/TPW (Turbidity)	201301183	**0.0 NTU: Y or N**	Y	**1.0 NTU: Y or N**	Y	**10.0 NTU: Y or N**	Y		

Well Information

Well ID:	MW-17	**Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652**	0.163	**Method of Purging/Sample Collection**	Baller
Sample Type: (i.e. MW, IW, RW, WSW)	MW	**Screened Interval (ft.):**	3-13	**Total Well Depth (TWD) (ft.):**	13
Depth to Free Product (DFP) (ft.):	ND	**Depth to Groundwater (DGW) (ft.):**	NL	**Free Product Thickness (ft.):**	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	#VALUE!	**1 casing volume (CV = LWC x C) (gals.):**	#VALUE!	**5 casing volumes (5 x CV) (gals.):**	#VALUE!

Purging Data

	Initial	**1st Vol.**	**2nd Vol.**	**3rd Vol.**	**4th Vol.**	**5th Vol.**	**Post**	**Sampling**
Volume Purged (gallons)	0.00	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!		
Time (military)	NL							
PH (s.u.)	NL							
Specific Conductivity (µS/cm)	NL							
Water Temperature (°C)	NL							
Dissolved Oxygen (mg/L)	NL							
Turbidity (NTU)	NL							

Sampling Data

Sampled By:	T. Elder, B. Garner, J. Floyd, C. Hansen	**Sampling Time:**	NL	**Duplicate: Y or N**	N	**If yes, Duplicate Time:**	N/A	**Total Gallons Purged:**	0.00

Notes: NL = Not Located, Well possibly under broken down car

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	10/27/2015	*Site ID #:*	10628	*Site Name:*	Pantry 911	*Field Personnel:*	T. Elder, B. Garner, J. Floyd, C. Hansen
County:	Jasper	*Project Manager:*	John Bryant	*General Weather Conditions:*	Overcast/Light Rain	*Ambient Air Temp (°F):*	68

Quality Assurance

Meter Name	*Serial #:*	*Calibration:*							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	*pH 4.0: Y or N*	Y	*pH 7.0: Y or N*	Y	*pH 10.0: Y or N*	Y	*S.C.: Y or N*	Y
YSI Pro 20 (Dissolved Oxygen)	12G102878	*Y or N*	Y						
MicroTPI/TPW (Turbidity)	201301183	*0.0 NTU: Y or N*	Y	*1.0 NTU: Y or N*	Y	*10.0 NTU: Y or N*	Y		

Well Information

Well ID:	MW-18	*Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652*	0.163	*Method of Purging/Sample Collection*	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	MW	*Screened Interval (ft.):*	2-12	*Total Well Depth (TWD) (ft.):*	12
Depth to Free Product (DFP) (ft.):	ND	*Depth to Groundwater (DGW) (ft.):*	1.85	*Free Product Thickness (ft.):*	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	10.15	*1 casing volume (CV = LWC x C) (gals.):*	1.65	*5 casing volumes (5 x CV) (gals.):*	8.27

Purging Data

	Initial	*1st Vol.*	*2nd Vol.*	*3rd Vol.*	*4th Vol.*	*5th Vol.*	*Post*	*Sampling*
Volume Purged (gallons)	0.00	1.65	3.31	4.96	6.62	8.27		0.00
Time (military)	11:22							11:35
PH (s.u.)	5.51							5.39
Specific Conductivity (µS/cm)	153.3							160.9
Water Temperature (°C)	20.7							20.9
Dissolved Oxygen (mg/L)	2.48							2.33
Turbidity (NTU)	81.49							269.80

Sampling Data

Sampled By:	T. Elder, B. Garner, J. Floyd, C. Hansen	*Sampling Time:*	11:35	*Duplicate: Y or N*	N	*If yes, Duplicate Time:*	N/A	*Total Gallons Purged:*	0.00

Notes: No Odor, Well Obstructed at 2.50' feet BTOC, Unable to purge

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	10/27/2015	**Site ID #:**	10628	**Site Name:**	Pantry 911	**Field Personnel:**	T. Elder, B. Garner, J. Floyd, C. Hansen		
County:	Jasper	**Project Manager:**	John Bryant	**General Weather Conditions:**	Overcast/Light Rain	**Ambient Air Temp (°F):**	68		

Quality Assurance

Meter Name	**Serial #:**	**Calibration:**							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	**pH 4.0: Y or N**	Y	**pH 7.0: Y or N**	Y	**pH 10.0: Y or N**	Y	**S.C.: Y or N**	Y
YSI Pro 20 (Dissolved Oxygen)	12G102878	**Y or N**	Y						
MicroTPI/TPW (Turbidity)	201301183	**0.0 NTU: Y or N**	Y	**1.0 NTU: Y or N**	Y	**10.0 NTU: Y or N**	Y		

Well Information

Well ID:	MW-19	**Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652**	0.163	**Method of Purging/Sample Collection**	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	MW	**Screened Interval (ft.):**	2-12	**Total Well Depth (TWD) (ft.):**	12
Depth to Free Product (DFP) (ft.):	ND	**Depth to Groundwater (DGW) (ft.):**	4.2	**Free Product Thickness (ft.):**	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	7.8	**1 casing volume (CV = LWC x C) (gals.):**	1.27	**5 casing volumes (5 x CV) (gals.):**	6.36

Purging Data

	Initial	**1st Vol.**	**2nd Vol.**	**3rd Vol.**	**4th Vol.**	**5th Vol.**	**Post**	**Sampling**
Volume Purged (gallons)	0.00	1.27	2.54	3.81	5.09	6.36		1.50
Time (military)	12:02	12:04						12:05
PH (s.u.)	6.12	6.05						6.08
Specific Conductivity (µS/cm)	449.2	415.5						422.8
Water Temperature (°C)	23.7	23.9						23.9
Dissolved Oxygen (mg/L)	1.59	1.28						1.32
Turbidity (NTU)	50.72	515.40						575.20

Sampling Data

Sampled By:	T. Elder, B. Garner, J. Floyd, C. Hansen	**Sampling Time:**	12:05	**Duplicate: Y or N**	N	**If yes, Duplicate Time:**	N/A	**Total Gallons Purged:**	1.50

Notes: No Odor, Dry @ 1.50 Gallons

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	10/27/2015	**Site ID #:**	10628	**Site Name:**	Pantry 911	**Field Personnel:**	T. Elder, B. Garner, J. Floyd, C. Hansen		
County:	Jasper	**Project Manager:**	John Bryant	**General Weather Conditions:**	Overcast/Light Rain	**Ambient Air Temp (°F):**	68		

Quality Assurance

Meter Name	**Serial #:**	**Calibration:**							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	**pH 4.0: Y or N**	Y	**pH 7.0: Y or N**	Y	**pH 10.0: Y or N**	Y	**S.C.: Y or N**	Y
YSI Pro 20 (Dissolved Oxygen)	12G102878	**Y or N**	Y						
MicroTPI/TPW (Turbidity)	201301183	**0.0 NTU: Y or N**	Y	**1.0 NTU: Y or N**	Y	**10.0 NTU: Y or N**	Y		

Well Information

Well ID:	MW-20	**Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652**	0.163	**Method of Purging/Sample Collection**	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	MW	**Screened Interval (ft.):**	4-14	**Total Well Depth (TWD) (ft.):**	14
Depth to Free Product (DFP) (ft.):	ND	**Depth to Groundwater (DGW) (ft.):**	8.55	**Free Product Thickness (ft.):**	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	5.45	**1 casing volume (CV = LWC x C) (gals.):**	0.89	**5 casing volumes (5 x CV) (gals.):**	4.44

Purging Data

	Initial	**1st Vol.**	**2nd Vol.**	**3rd Vol.**	**4th Vol.**	**5th Vol.**	**Post**	**Sampling**
Volume Purged (gallons)	0.00	0.89	1.78	2.67	3.55	4.44		1.00
Time (military)	12:12	12:15	12:17					12:18
PH (s.u.)	5.87	5.74	5.80					5.78
Specific Conductivity (µS/cm)	369.1	427.7	440.9					402.7
Water Temperature (°C)	23.8	23.7	23.6					23.7
Dissolved Oxygen (mg/L)	0.82	0.90	0.94					0.88
Turbidity (NTU)	157.40	360.20	402.20					420.90

Sampling Data

Sampled By:	T. Elder, B. Garner, J. Floyd, C. Hansen	**Sampling Time:**	12:05	**Duplicate: Y or N**	N	**If yes, Duplicate Time:**	N/A	**Total Gallons Purged:**	1.00

Notes: No Odor, Dry @ 1.00 Gallons

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	10/27/2015	**Site ID #:**	10628	**Site Name:**	Pantry 911	**Field Personnel:**	T. Elder, B. Garner, J. Floyd, C. Hansen
County:	Jasper	**Project Manager:**	John Bryant	**General Weather Conditions:**	Overcast/Light Rain	**Ambient Air Temp (°F):**	68

Quality Assurance

Meter Name	Serial #:	Calibration:							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	pH 4.0: Y or N	Y	pH 7.0: Y or N	Y	pH 10.0: Y or N	Y	S.C.: Y or N	Y
YSI Pro 20 (Dissolved Oxygen)	12G102878	Y or N	Y						
MicroTPI/TPW (Turbidity)	201301183	0.0 NTU: Y or N	Y	1.0 NTU: Y or N	Y	10.0 NTU: Y or N	Y		

Well Information

Well ID:	PW-1R	**Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652**	0.163	**Method of Purging/Sample Collection**	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	MW	**Screened Interval (ft.):**	30-35	**Total Well Depth (TWD) (ft.):**	35
Depth to Free Product (DFP) (ft.):	ND	**Depth to Groundwater (DGW) (ft.):**	4.15	**Free Product Thickness (ft.):**	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	30.85	**1 casing volume (CV = LWC x C) (gals.):**	5.03	**5 casing volumes (5 x CV) (gals.):**	25.14

Purging Data

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sampling
Volume Purged (gallons)	0.00	5.03	10.06	15.09	20.11	25.14		5.00
Time (military)	12:59	13:02						13:04
PH (s.u.)	6.70	6.95						7.00
Specific Conductivity (µS/cm)	231.1	202.8						211.3
Water Temperature (°C)	23.6	22.2						22.1
Dissolved Oxygen (mg/L)	3.18	1.63						1.87
Turbidity (NTU)	480.10	490.00			—			481.00

Sampling Data

Sampled By:	T. Elder, B. Garner, J. Floyd, C. Hansen	**Sampling Time:**	13:04	**Duplicate: Y or N**	N	**If yes, Duplicate Time:**	N/A	**Total Gallons Purged:**	5.00

Notes: No Odor, Dry @ 5.00 Gallons

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	10/27/2015	**Site ID #:**	10628	**Site Name:**	Pantry 911	**Field Personnel:**	T. Elder, B. Garner, J. Floyd, C. Hansen		
County:	Jasper	**Project Manager:**	John Bryant	**General Weather Conditions:**	Overcast/Light Rain	**Ambient Air Temp (°F):**	68		

Quality Assurance

Meter Name	**Serial #:**	**Calibration:**							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	*pH 4.0: Y or N*	Y	*pH 7.0: Y or N*	Y	*pH 10.0: Y or N*	Y	*S.C.: Y or N*	Y
YSI Pro 20 (Dissolved Oxygen)	12G102878	*Y or N*	Y						
MicroTPI/TPW (Turbidity)	201301183	*0.0 NTU: Y or N*	Y	*1.0 NTU: Y or N*	Y	*10.0 NTU: Y or N*	Y		

Well Information

Well ID:	RW-1	***Well Diameter (ft.):* *Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652***	0.652	***Method of Purging/Sample Collection***	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	RW	***Screened Interval (ft.):***	2-12	***Total Well Depth (TWD) (ft.):***	12
Depth to Free Product (DFP) (ft.):	6.20	***Depth to Groundwater (DGW) (ft.):***	6.22	***Free Product Thickness (ft.):***	0.02
Length of water column (LWC = TWD – DGW) (ft.):	5.78	***1 casing volume (CV = LWC x C) (gals.):***	3.77	***5 casing volumes (5 x CV) (gals.):***	18.84

Purging Data

	Initial	*1st Vol.*	*2nd Vol.*	*3rd Vol.*	*4th Vol.*	*5th Vol.*	*Post*	*Sampling*
Volume Purged (gallons)	0.00	3.77	7.54	11.31	15.07	18.84		
Time (military)	PROD							
PH (s.u.)	PROD							
Specific Conductivity (µS/cm)	PROD							
Water Temperature (°C)	PROD							
Dissolved Oxygen (mg/L)	PROD							
Turbidity (NTU)	PROD							

Sampling Data

Sampled By:	T. Elder, B. Garner, J. Floyd, C. Hansen	***Sampling Time:***	PROD	***Duplicate: Y or N***	N	***If yes, Duplicate Time:***	N/A	***Total Gallons Purged:***	0.00

Notes: **Product Detected**

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	10/27/2015	*Site ID #:*	10628	*Site Name:*	Pantry 911	*Field Personnel:*	T. Elder, B. Garner, J. Floyd, C. Hansen		
County:	Jasper	*Project Manager:*	John Bryant	*General Weather Conditions:*	Overcast/Light Rain	*Ambient Air Temp (°F):*	68		

Quality Assurance

Meter Name	*Serial #:*	*Calibration:*							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	*pH 4.0: Y or N*	Y	*pH 7.0: Y or N*	Y	*pH 10.0: Y or N*	Y	*S.C.: Y or N*	Y
YSI Pro 20 (Dissolved Oxygen)	12G102878	*Y or N*	Y						
MicroTPI/TPW (Turbidity)	201301183	*0.0 NTU: Y or N*	Y	*1.0 NTU: Y or N*	Y	*10.0 NTU: Y or N*	Y		

Well Information

Well ID:	RW-2	*Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652*	0.652	*Method of Purging/Sample Collection*	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	RW	*Screened Interval (ft.):*	2-12	*Total Well Depth (TWD) (ft.):*	12
Depth to Free Product (DFP) (ft.):	ND	*Depth to Groundwater (DGW) (ft.):*	1.42	*Free Product Thickness (ft.):*	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	10.58	*1 casing volume (CV = LWC x C) (gals.):*	6.90	*5 casing volumes (5 x CV) (gals.):*	34.49

Purging Data

	Initial	*1st Vol.*	*2nd Vol.*	*3rd Vol.*	*4th Vol.*	*5th Vol.*	*Post*	*Sampling*
Volume Purged (gallons)	0.00	6.90	13.80	20.69	27.59	34.49		3.50
Time (military)	13:07	13:09						13:10
PH (s.u.)	6.42	5.19						5.29
Specific Conductivity (µS/cm)	529.0	204.7						246.6
Water Temperature (°C)	24.6	25.0						251
Dissolved Oxygen (mg/L)	1.82	0.82						0.81
Turbidity (NTU)	24.96	25.70						95.66

Sampling Data

Sampled By:	T. Elder, B. Garner, J. Floyd, C. Hansen	*Sampling Time:*	13:10	*Duplicate: Y or N*	N	*If yes, Duplicate Time:*	N/A	*Total Gallons Purged:*	3.50

Notes: No Odor, Dry @ 3.50 Gallons

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	10/27/2015	**Site ID #:**	10628	**Site Name:**	Pantry 911	**Field Personnel:**	T. Elder, B. Garner, J. Floyd, C. Hansen
County:	Jasper	**Project Manager:**	John Bryant	**General Weather Conditions:**	Overcast/Light Rain	**Ambient Air Temp (°F):**	68

Quality Assurance

Meter Name	Serial #:	Calibration:							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	pH 4.0: Y or N	Y	pH 7.0: Y or N	Y	pH 10.0: Y or N	Y	S.C.: Y or N	Y
YSI Pro 20 (Dissolved Oxygen)	12G102878	Y or N	Y						
MicroTPI/TPW (Turbidity)	201301183	0.0 NTU: Y or N	Y	1.0 NTU: Y or N	Y	10.0 NTU: Y or N	Y		

Well Information

Well ID:	RW-3	**Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652**	0.652	**Method of Purging/Sample Collection**	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	RW	**Screened Interval (ft.):**	2-12	**Total Well Depth (TWD) (ft.):**	12
Depth to Free Product (DFP) (ft.):	ND	**Depth to Groundwater (DGW) (ft.):**	1.82	**Free Product Thickness (ft.):**	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	10.18	**1 casing volume (CV = LWC x C) (gals.):**	6.64	**5 casing volumes (5 x CV) (gals.):**	33.19

Purging Data

	Initial	1st Vol.	2nd Vol.	3rd Vol.	4th Vol.	5th Vol.	Post	Sampling
Volume Purged (gallons)	0.00	6.64	13.27	19.91	26.55	33.19		7.50
Time (military)	13:09	13:15						13:19
PH (s.u.)	Sheen	Sheen						Sheen
Specific Conductivity (µS/cm)	Sheen	Sheen						Sheen
Water Temperature (°C)	Sheen	Sheen						Sheen
Dissolved Oxygen (mg/L)	Sheen	Sheen						Sheen
Turbidity (NTU)	Sheen	Sheen						Sheen

Sampling Data

Sampled By:	T. Elder, B. Garner, J. Floyd, C. Hansen	**Sampling Time:**	13:19	**Duplicate: Y or N**	N	**If yes, Duplicate Time:**	N/A	**Total Gallons Purged:**	7.50

Notes: Odor, Sheen, Dry @ 7.50 Gallons

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	10/27/2015	**Site ID #:**	10628	**Site Name:**	Pantry 911	**Field Personnel:**	T. Elder, B. Garner, J. Floyd, C. Hansen
County:	Jasper	**Project Manager:**	John Bryant	**General Weather Conditions:**	Overcast/Light Rain	**Ambient Air Temp (°F):**	68

Quality Assurance

Meter Name	**Serial #:**	**Calibration:**							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	**pH 4.0: Y or N**	Y	**pH 7.0: Y or N**	Y	**pH 10.0: Y or N**	Y	**S.C.: Y or N**	Y
YSI Pro 20 (Dissolved Oxygen)	12G102878	**Y or N**	Y						
MicroTPI/TPW (Turbidity)	201301183	**0.0 NTU: Y or N**	Y	**1.0 NTU: Y or N**	Y	**10.0 NTU: Y or N**	Y		

Well Information

Well ID:	RW-4	**Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16; 4" well = 0.652**	0.652	**Method of Purging/Sample Collection**	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	RW	**Screened Interval (ft.):**	2-15	**Total Well Depth (TWD) (ft.):**	15
Depth to Free Product (DFP) (ft.):	ND	**Depth to Groundwater (DGW) (ft.):**	6.30	**Free Product Thickness (ft.):**	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	8.7	**1 casing volume (CV = LWC x C) (gals.):**	5.67	**5 casing volumes (5 x CV) (gals.):**	28.36

Purging Data

	Initial	**1st Vol.**	**2nd Vol.**	**3rd Vol.**	**4th Vol.**	**5th Vol.**	**Post**	**Sampling**
Volume Purged (gallons)	0.00	5.67	11.34	17.02	22.69	28.36		4.75
Time (military)	12:48	12:54						12:55
PH (s.u.)	Sheen	Sheen						Sheen
Specific Conductivity (µS/cm)	Sheen	Sheen						Sheen
Water Temperature (°C)	Sheen	Sheen						Sheen
Dissolved Oxygen (mg/L)	Sheen	Sheen						Sheen
Turbidity (NTU)	Sheen	Sheen						Sheen

Sampling Data

Sampled By:	T. Elder, B. Garner, J. Floyd, C. Hansen	**Sampling Time:**	12:55	**Duplicate: Y or N**	N	**If yes, Duplicate Time:**	N/A	**Total Gallons Purged:**	4.75

Notes: Odor, Sheen, Dry @ 4.50 Gallons

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	10/27/2015	**Site ID #:**	10628	**Site Name:**	Pantry 911	**Field Personnel:**	T. Elder, B. Garner, J. Floyd, C. Hansen
County:	Jasper	**Project Manager:**	John Bryant	**General Weather Conditions:**	Overcast/Light Rain	**Ambient Air Temp (°F):**	68

Quality Assurance

Meter Name	**Serial #:**	**Calibration:**							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	pH 4.0: Y or N	Y	pH 7.0: Y or N	Y	pH 10.0: Y or N	Y	S.C.: Y or N	Y
YSI Pro 20 (Dissolved Oxygen)	12G102878	Y or N	Y						
MicroTPI/TPW (Turbidity)	201301183	0.0 NTU: Y or N	Y	1.0 NTU: Y or N	Y	10.0 NTU: Y or N	Y		

Well Information

Well ID:	RW-5	**Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652**	0.652	**Method of Purging/Sample Collection**	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	RW	**Screened Interval (ft.):**	2-15	**Total Well Depth (TWD) (ft.):**	15
Depth to Free Product (DFP) (ft.):	ND	**Depth to Groundwater (DGW) (ft.):**	5.95	**Free Product Thickness (ft.):**	Not Detected
Length of water column (LWC = TWD – DGW) (ft.):	9.05	**1 casing volume (CV = LWC x C) (gals.):**	5.90	**5 casing volumes (5 x CV) (gals.):**	29.50

Purging Data

	Initial	**1st Vol.**	**2nd Vol.**	**3rd Vol.**	**4th Vol.**	**5th Vol.**	**Post**	**Sampling**
Volume Purged (gallons)	0.00	5.90	11.80	17.70	23.60	29.50		8.00
Time (military)	12:26	12:27	12:28					12:30
PH (s.u.)	Sheen	Sheen						Sheen
Specific Conductivity (µS/cm)	Sheen	Sheen						Sheen
Water Temperature (°C)	Sheen	Sheen						Sheen
Dissolved Oxygen (mg/L)	Sheen	Sheen						Sheen
Turbidity (NTU)	Sheen	Sheen						Sheen

Sampling Data

Sampled By:	T. Elder, B. Garner, J. Floyd, C. Hansen	**Sampling Time:**	12:30	**Duplicate: Y or N**	Y	**If yes, Duplicate Time:**	12:31	**Total Gallons Purged:**	8.00

Notes: Odor, Sheen, Dry @ 8.00 Gallons

Underground Storage Tank Management Division Field Data Information Sheet – Sampling

Date:	10/27/2015	*Site ID #:*	10628	*Site Name:*	Pantry 911	*Field Personnel:*	T. Elder, B. Garner, J. Floyd, C. Hansen
County:	Jasper	*Project Manager:*	John Bryant	*General Weather Conditions:*	Overcast/Light Rain	*Ambient Air Temp (°F):*	68

Quality Assurance

Meter Name	*Serial #:*	*Calibration:*							
YSI Pro1030 (pH, Specific Conductivity, Temp.)	15H101448	*pH 4.0: Y or N*	Y	*pH 7.0: Y or N*	Y	*pH 10.0: Y or N*	Y	*S.C.: Y or N*	Y
YSI Pro 20 (Dissolved Oxygen)	12G102878	*Y or N*	Y						
MicroTPI/TPW (Turbidity)	201301183	*0.0 NTU: Y or N*	Y	*1.0 NTU: Y or N*	Y	*10.0 NTU: Y or N*	Y		

Well Information

Well ID:	RW-6	*Well Diameter (ft.): Conversion Factor (C): 1" well = 0.047, 2" well = 0.16, 4" well = 0.652*	0.652	*Method of Purging/Sample Collection*	Bailer
Sample Type: (i.e. MW, IW, RW, WSW)	RW	*Screened Interval (ft.):*	2-15	*Total Well Depth (TWD) (ft.):*	15
Depth to Free Product (DFP) (ft.):	2.20	*Depth to Groundwater (DGW) (ft.):*	2.35	*Free Product Thickness (ft.):*	0.15
Length of water column (LWC = TWD – DGW) (ft.):	12.65	*1 casing volume (CV = LWC x C) (gals.):*	8.25	*5 casing volumes (5 x CV) (gals.):*	41.24

Purging Data

	Initial	*1st Vol.*	*2nd Vol.*	*3rd Vol.*	*4th Vol.*	*5th Vol.*	*Post*	*Sampling*
Volume Purged (gallons)	0.00	8.25	16.50	24.74	32.99	41.24		
Time (military)	PROD							
PH (s.u.)	PROD							
Specific Conductivity (µS/cm)	PROD							
Water Temperature (°C)	PROD							
Dissolved Oxygen (mg/L)	PROD							
Turbidity (NTU)	PROD							

Sampling Data

Sampled By:	T. Elder, B. Garner, J. Floyd, C. Hansen	*Sampling Time:*	PROD	*Duplicate: Y or N*	N	*If yes, Duplicate Time:*	N/A	*Total Gallons Purged:*	0.00

Notes: **Product Detected**

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

November 06, 2015

Mr. Bryan Shane
Midlands Environmental
PO Box 854
Lexington, SC 29071

RE: Project: PANTRY 911 15-5189
Pace Project No.: 92273855

Dear Mr. Shane:
Enclosed are the analytical results for sample(s) received by the laboratory on October 28, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Trey Carter
trey.carter@pacelabs.com
Project Manager

Enclosures

cc: Mr. Jeff Coleman, Midlands Environmental
Mr. Kyle Pudney, Midlands Environmental

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

Charlotte Certification IDs
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92273855001	**MW-3R**	Water	10/27/15 13:38	10/28/15 17:35
92273855002	**MW-4R**	Water	10/27/15 13:07	10/28/15 17:35
92273855003	**MW-5RR**	Water	10/27/15 11:54	10/28/15 17:35
92273855004	**MW-7RR**	Water	10/27/15 12:28	10/28/15 17:35
92273855005	**MW-9**	Water	10/27/15 11:29	10/28/15 17:35
92273855006	**MW-11**	Water	10/27/15 11:59	10/28/15 17:35
92273855007	**MW-14**	Water	10/27/15 13:21	10/28/15 17:35
92273855008	**MW-15**	Water	10/27/15 12:55	10/28/15 17:35
92273855009	**MW-16**	Water	10/27/15 12:21	10/28/15 17:35
92273855010	**MW-18**	Water	10/27/15 11:35	10/28/15 17:35
92273855011	**MW-19**	Water	10/27/15 12:05	10/28/15 17:35
92273855012	**MW-20**	Water	10/27/15 12:18	10/28/15 17:35
92273855013	**PW-1R**	Water	10/27/15 13:04	10/28/15 17:35
92273855014	**RW-2**	Water	10/27/15 13:10	10/28/15 17:35
92273855015	**RW-3**	Water	10/27/15 13:19	10/28/15 17:35
92273855016	**RW-4**	Water	10/27/15 12:55	10/28/15 17:35
92273855017	**RW-5**	Water	10/27/15 12:30	10/28/15 17:35
92273855018	**WSW-1**	Water	10/27/15 11:40	10/28/15 17:35
92273855019	**RW-5 DUP**	Water	10/27/15 12:31	10/28/15 17:35
92273855020	**FIELD BLANK**	Water	10/27/15 13:32	10/28/15 17:35
92273855021	**TRIP BLANK**	Water	10/27/15 13:32	10/28/15 17:35

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92273855001	MW-3R	EPA 8011	RES	2	PASI-C
		EPA 8260	GAW	20	PASI-C
92273855002	MW-4R	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92273855003	MW-5RR	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92273855004	MW-7RR	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92273855005	MW-9	EPA 8011	RES	2	PASI-C
		EPA 8260	GAW	20	PASI-C
92273855006	MW-11	EPA 8011	RES	2	PASI-C
		EPA 8260	GAW	20	PASI-C
92273855007	MW-14	EPA 8011	RES	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92273855008	MW-15	EPA 8011	RES	2	PASI-C
		EPA 8260	GAW	20	PASI-C
92273855009	MW-16	EPA 8011	HSK	2	PASI-C
		EPA 8260	GAW	20	PASI-C
92273855010	MW-18	EPA 8011	HSK	2	PASI-C
		EPA 8260	GAW	20	PASI-C
92273855011	MW-19	EPA 8011	HSK	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92273855012	MW-20	EPA 8011	HSK	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92273855013	PW-1R	EPA 8011	HSK	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92273855014	RW-2	EPA 8011	HSK	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92273855015	RW-3	EPA 8011	HSK	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92273855016	RW-4	EPA 8011	HSK	2	PASI-C
		EPA 8260	GAW	20	PASI-C
92273855017	RW-5	EPA 8011	HSK	2	PASI-C
		EPA 8260	GAW	20	PASI-C
92273855018	WSW-1	EPA 8011	HSK	2	PASI-C
		EPA 8260	GAW	20	PASI-C
92273855019	RW-5 DUP	EPA 8011	HSK	2	PASI-C

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 8260	GAW	20	PASI-C
92273855020	FIELD BLANK	EPA 8011	HSK	2	PASI-C
		EPA 8260	GAW	20	PASI-C
92273855021	TRIP BLANK	EPA 8260	GAW	20	PASI-C

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

Sample: MW-3R **Lab ID: 92273855001** Collected: 10/27/15 13:38 Received: 10/28/15 17:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.021	0.021	1	10/29/15 15:50	10/30/15 07:50	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	129	%	60-140		1	10/29/15 15:50	10/30/15 07:50	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	10000	7680	100		11/04/15 06:34	75-85-4	
tert-Amylmethyl ether	ND	ug/L	1000	340	100		11/04/15 06:34	994-05-8	
Benzene	**2870**	ug/L	500	170	100		11/04/15 06:34	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	10000	3210	100		11/04/15 06:34	624-95-3	
tert-Butyl Alcohol	ND	ug/L	10000	5770	100		11/04/15 06:34	75-65-0	
tert-Butyl Formate	ND	ug/L	5000	730	100		11/04/15 06:34	762-75-4	
1,2-Dichloroethane	ND	ug/L	500	180	100		11/04/15 06:34	107-06-2	
Diisopropyl ether	ND	ug/L	500	170	100		11/04/15 06:34	108-20-3	
Ethanol	ND	ug/L	20000	13800	100		11/04/15 06:34	64-17-5	
Ethylbenzene	**1290**	ug/L	500	160	100		11/04/15 06:34	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	1000	360	100		11/04/15 06:34	637-92-3	
Methyl-tert-butyl ether	**531**	ug/L	500	170	100		11/04/15 06:34	1634-04-4	
Naphthalene	**548**	ug/L	500	200	100		11/04/15 06:34	91-20-3	
Toluene	**7130**	ug/L	500	160	100		11/04/15 06:34	108-88-3	
Xylene (Total)	**12100**	ug/L	1000	270	100		11/04/15 06:34	1330-20-7	
m&p-Xylene	**8310**	ug/L	1000	310	100		11/04/15 06:34	179601-23-1	
o-Xylene	**3840**	ug/L	500	160	100		11/04/15 06:34	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		100		11/04/15 06:34	460-00-4	D3
1,2-Dichloroethane-d4 (S)	100	%	70-130		100		11/04/15 06:34	17060-07-0	
Toluene-d8 (S)	83	%	70-130		100		11/04/15 06:34	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

Sample: MW-4R **Lab ID: 92273855002** Collected: 10/27/15 13:07 Received: 10/28/15 17:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.021	0.021	1	10/29/15 15:50	10/30/15 08:09	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	125	%	60-140		1	10/29/15 15:50	10/30/15 08:09	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	**2690**	ug/L	1250	960	12.5		11/05/15 17:52	75-85-4	
tert-Amylmethyl ether	ND	ug/L	125	42.5	12.5		11/05/15 17:52	994-05-8	
Benzene	**1320**	ug/L	62.5	21.2	12.5		11/05/15 17:52	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	1250	401	12.5		11/05/15 17:52	624-95-3	
tert-Butyl Alcohol	**8190**	ug/L	1250	721	12.5		11/05/15 17:52	75-65-0	
tert-Butyl Formate	ND	ug/L	625	91.2	12.5		11/05/15 17:52	762-75-4	
1,2-Dichloroethane	ND	ug/L	62.5	22.5	12.5		11/05/15 17:52	107-06-2	
Diisopropyl ether	ND	ug/L	62.5	21.2	12.5		11/05/15 17:52	108-20-3	
Ethanol	ND	ug/L	2500	1720	12.5		11/05/15 17:52	64-17-5	
Ethylbenzene	**206**	ug/L	62.5	20.0	12.5		11/05/15 17:52	100-41-4	
Ethyl-tert-butyl ether	**48.8J**	ug/L	125	45.0	12.5		11/05/15 17:52	637-92-3	
Methyl-tert-butyl ether	**471**	ug/L	62.5	21.2	12.5		11/05/15 17:52	1634-04-4	
Naphthalene	ND	ug/L	62.5	25.0	12.5		11/05/15 17:52	91-20-3	
Toluene	**584**	ug/L	62.5	20.0	12.5		11/05/15 17:52	108-88-3	
Xylene (Total)	**673**	ug/L	125	33.8	12.5		11/05/15 17:52	1330-20-7	
m&p-Xylene	**450**	ug/L	125	38.8	12.5		11/05/15 17:52	179601-23-1	
o-Xylene	**223**	ug/L	62.5	20.0	12.5		11/05/15 17:52	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		12.5		11/05/15 17:52	460-00-4	
1,2-Dichloroethane-d4 (S)	84	%	70-130		12.5		11/05/15 17:52	17060-07-0	
Toluene-d8 (S)	100	%	70-130		12.5		11/05/15 17:52	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

Sample: MW-5RR **Lab ID: 92273855003** Collected: 10/27/15 11:54 Received: 10/28/15 17:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	10/29/15 15:50	10/30/15 08:28	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	105	%	60-140		1	10/29/15 15:50	10/30/15 08:28	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		11/06/15 05:12	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		11/06/15 05:12	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		11/06/15 05:12	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		11/06/15 05:12	624-95-3	
tert-Butyl Alcohol	**96.1J**	ug/L	100	57.7	1		11/06/15 05:12	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		11/06/15 05:12	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		11/06/15 05:12	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		11/06/15 05:12	108-20-3	
Ethanol	ND	ug/L	200	138	1		11/06/15 05:12	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		11/06/15 05:12	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		11/06/15 05:12	637-92-3	
Methyl-tert-butyl ether	**3.5J**	ug/L	5.0	1.7	1		11/06/15 05:12	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		11/06/15 05:12	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		11/06/15 05:12	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		11/06/15 05:12	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		11/06/15 05:12	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		11/06/15 05:12	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		11/06/15 05:12	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	70-130		1		11/06/15 05:12	17060-07-0	
Toluene-d8 (S)	103	%	70-130		1		11/06/15 05:12	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

Sample: MW-7RR **Lab ID: 92273855004** Collected: 10/27/15 12:28 Received: 10/28/15 17:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**0.72**	ug/L	0.020	0.020	1	10/29/15 15:50	10/30/15 08:47	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	131	%	60-140		1	10/29/15 15:50	10/30/15 08:47	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	**25600**	ug/L	12500	9600	125		11/05/15 18:08	75-85-4	
tert-Amylmethyl ether	ND	ug/L	1250	425	125		11/05/15 18:08	994-05-8	
Benzene	**8910**	ug/L	625	212	125		11/05/15 18:08	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	12500	4010	125		11/05/15 18:08	624-95-3	
tert-Butyl Alcohol	ND	ug/L	12500	7210	125		11/05/15 18:08	75-65-0	
tert-Butyl Formate	ND	ug/L	6250	912	125		11/05/15 18:08	762-75-4	
1,2-Dichloroethane	**232J**	ug/L	625	225	125		11/05/15 18:08	107-06-2	
Diisopropyl ether	**4560**	ug/L	625	212	125		11/05/15 18:08	108-20-3	
Ethanol	ND	ug/L	25000	17200	125		11/05/15 18:08	64-17-5	
Ethylbenzene	**1810**	ug/L	625	200	125		11/05/15 18:08	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	1250	450	125		11/05/15 18:08	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	625	212	125		11/05/15 18:08	1634-04-4	
Naphthalene	**1790**	ug/L	625	250	125		11/05/15 18:08	91-20-3	
Toluene	**14900**	ug/L	625	200	125		11/05/15 18:08	108-88-3	
Xylene (Total)	**13700**	ug/L	1250	338	125		11/05/15 18:08	1330-20-7	
m&p-Xylene	**9350**	ug/L	1250	388	125		11/05/15 18:08	179601-23-1	
o-Xylene	**4350**	ug/L	625	200	125		11/05/15 18:08	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	94	%	70-130		125		11/05/15 18:08	460-00-4	
1,2-Dichloroethane-d4 (S)	86	%	70-130		125		11/05/15 18:08	17060-07-0	
Toluene-d8 (S)	99	%	70-130		125		11/05/15 18:08	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

Sample: MW-9 **Lab ID: 92273855005** Collected: 10/27/15 11:29 Received: 10/28/15 17:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	10/29/15 15:50	10/30/15 09:07	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	119	%	60-140		1	10/29/15 15:50	10/30/15 09:07	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		11/03/15 17:24	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		11/03/15 17:24	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		11/03/15 17:24	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		11/03/15 17:24	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		11/03/15 17:24	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		11/03/15 17:24	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		11/03/15 17:24	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		11/03/15 17:24	108-20-3	
Ethanol	ND	ug/L	200	138	1		11/03/15 17:24	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		11/03/15 17:24	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		11/03/15 17:24	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		11/03/15 17:24	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		11/03/15 17:24	91-20-3	
Toluene	**5.3**	ug/L	5.0	1.6	1		11/03/15 17:24	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		11/03/15 17:24	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		11/03/15 17:24	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		11/03/15 17:24	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		1		11/03/15 17:24	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130		1		11/03/15 17:24	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		11/03/15 17:24	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

Sample: MW-11 **Lab ID: 92273855006** Collected: 10/27/15 11:59 Received: 10/28/15 17:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	10/29/15 15:50	10/30/15 09:26	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	105	%	60-140		1	10/29/15 15:50	10/30/15 09:26	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		11/03/15 17:41	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		11/03/15 17:41	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		11/03/15 17:41	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		11/03/15 17:41	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		11/03/15 17:41	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		11/03/15 17:41	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		11/03/15 17:41	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		11/03/15 17:41	108-20-3	
Ethanol	ND	ug/L	200	138	1		11/03/15 17:41	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		11/03/15 17:41	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		11/03/15 17:41	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		11/03/15 17:41	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		11/03/15 17:41	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		11/03/15 17:41	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		11/03/15 17:41	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		11/03/15 17:41	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		11/03/15 17:41	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	82	%	70-130		1		11/03/15 17:41	460-00-4	
1,2-Dichloroethane-d4 (S)	73	%	70-130		1		11/03/15 17:41	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		11/03/15 17:41	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

Sample: MW-14 **Lab ID: 92273855007** Collected: 10/27/15 13:21 Received: 10/28/15 17:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.021	0.021	1	10/29/15 15:51	10/30/15 09:45	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	134	%	60-140		1	10/29/15 15:51	10/30/15 09:45	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	**3490**	ug/L	2500	1920	25		11/06/15 04:25	75-85-4	
tert-Amylmethyl ether	**140J**	ug/L	250	85.0	25		11/06/15 04:25	994-05-8	
Benzene	**2460**	ug/L	125	42.5	25		11/06/15 04:25	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	2500	802	25		11/06/15 04:25	624-95-3	
tert-Butyl Alcohol	**4460**	ug/L	2500	1440	25		11/06/15 04:25	75-65-0	
tert-Butyl Formate	ND	ug/L	1250	182	25		11/06/15 04:25	762-75-4	
1,2-Dichloroethane	ND	ug/L	125	45.0	25		11/06/15 04:25	107-06-2	
Diisopropyl ether	ND	ug/L	125	42.5	25		11/06/15 04:25	108-20-3	
Ethanol	ND	ug/L	5000	3440	25		11/06/15 04:25	64-17-5	
Ethylbenzene	**791**	ug/L	125	40.0	25		11/06/15 04:25	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	250	90.0	25		11/06/15 04:25	637-92-3	
Methyl-tert-butyl ether	**473**	ug/L	125	42.5	25		11/06/15 04:25	1634-04-4	
Naphthalene	ND	ug/L	125	50.0	25		11/06/15 04:25	91-20-3	
Toluene	**2840**	ug/L	125	40.0	25		11/06/15 04:25	108-88-3	
Xylene (Total)	**2910**	ug/L	250	67.5	25		11/06/15 04:25	1330-20-7	
m&p-Xylene	**2160**	ug/L	250	77.5	25		11/06/15 04:25	179601-23-1	
o-Xylene	**754**	ug/L	125	40.0	25		11/06/15 04:25	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		25		11/06/15 04:25	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	70-130		25		11/06/15 04:25	17060-07-0	
Toluene-d8 (S)	101	%	70-130		25		11/06/15 04:25	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

Sample: MW-15 **Lab ID: 92273855008** Collected: 10/27/15 12:55 Received: 10/28/15 17:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	10/29/15 15:51	10/30/15 10:04	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	122	%	60-140		1	10/29/15 15:51	10/30/15 10:04	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	**113**	ug/L	100	76.8	1		11/03/15 17:58	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		11/03/15 17:58	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		11/03/15 17:58	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		11/03/15 17:58	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		11/03/15 17:58	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		11/03/15 17:58	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		11/03/15 17:58	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		11/03/15 17:58	108-20-3	
Ethanol	ND	ug/L	200	138	1		11/03/15 17:58	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		11/03/15 17:58	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		11/03/15 17:58	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		11/03/15 17:58	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		11/03/15 17:58	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		11/03/15 17:58	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		11/03/15 17:58	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		11/03/15 17:58	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		11/03/15 17:58	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	107	%	70-130		1		11/03/15 17:58	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130		1		11/03/15 17:58	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		11/03/15 17:58	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

Sample: MW-16 **Lab ID: 92273855009** Collected: 10/27/15 12:21 Received: 10/28/15 17:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	11/03/15 19:47	11/03/15 20:12	106-93-4	L3
Surrogates									
1-Chloro-2-bromopropane (S)	112	%	60-140		1	11/03/15 19:47	11/03/15 20:12	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		11/03/15 18:15	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		11/03/15 18:15	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		11/03/15 18:15	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		11/03/15 18:15	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		11/03/15 18:15	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		11/03/15 18:15	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		11/03/15 18:15	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		11/03/15 18:15	108-20-3	
Ethanol	ND	ug/L	200	138	1		11/03/15 18:15	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		11/03/15 18:15	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		11/03/15 18:15	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		11/03/15 18:15	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		11/03/15 18:15	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		11/03/15 18:15	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		11/03/15 18:15	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		11/03/15 18:15	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		11/03/15 18:15	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	105	%	70-130		1		11/03/15 18:15	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130		1		11/03/15 18:15	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		11/03/15 18:15	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

Sample: MW-18 **Lab ID: 92273855010** Collected: 10/27/15 11:35 Received: 10/28/15 17:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	11/03/15 19:47	11/03/15 20:32	106-93-4	L3
Surrogates									
1-Chloro-2-bromopropane (S)	83	%	60-140		1	11/03/15 19:47	11/03/15 20:32	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		11/03/15 18:32	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		11/03/15 18:32	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		11/03/15 18:32	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		11/03/15 18:32	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		11/03/15 18:32	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		11/03/15 18:32	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		11/03/15 18:32	107-06-2	
Diisopropyl ether	**5.1**	ug/L	5.0	1.7	1		11/03/15 18:32	108-20-3	
Ethanol	ND	ug/L	200	138	1		11/03/15 18:32	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		11/03/15 18:32	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		11/03/15 18:32	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		11/03/15 18:32	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		11/03/15 18:32	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		11/03/15 18:32	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		11/03/15 18:32	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		11/03/15 18:32	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		11/03/15 18:32	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	106	%	70-130		1		11/03/15 18:32	460-00-4	
1,2-Dichloroethane-d4 (S)	92	%	70-130		1		11/03/15 18:32	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		11/03/15 18:32	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

Sample: MW-19 **Lab ID: 92273855011** Collected: 10/27/15 12:05 Received: 10/28/15 17:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	11/03/15 19:47	11/03/15 20:53	106-93-4	L3
Surrogates									
1-Chloro-2-bromopropane (S)	72	%	60-140		1	11/03/15 19:47	11/03/15 20:53	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		11/06/15 05:28	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		11/06/15 05:28	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		11/06/15 05:28	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		11/06/15 05:28	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		11/06/15 05:28	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		11/06/15 05:28	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		11/06/15 05:28	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		11/06/15 05:28	108-20-3	
Ethanol	ND	ug/L	200	138	1		11/06/15 05:28	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		11/06/15 05:28	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		11/06/15 05:28	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		11/06/15 05:28	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		11/06/15 05:28	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		11/06/15 05:28	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		11/06/15 05:28	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		11/06/15 05:28	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		11/06/15 05:28	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		11/06/15 05:28	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-130		1		11/06/15 05:28	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		11/06/15 05:28	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

Sample: MW-20 **Lab ID: 92273855012** Collected: 10/27/15 12:18 Received: 10/28/15 17:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	11/03/15 19:47	11/03/15 21:13	106-93-4	L3
Surrogates									
1-Chloro-2-bromopropane (S)	100	%	60-140		1	11/03/15 19:47	11/03/15 21:13	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	**424**	ug/L	100	76.8	1		11/06/15 05:44	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		11/06/15 05:44	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		11/06/15 05:44	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		11/06/15 05:44	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		11/06/15 05:44	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		11/06/15 05:44	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		11/06/15 05:44	107-06-2	
Diisopropyl ether	**96.6**	ug/L	5.0	1.7	1		11/06/15 05:44	108-20-3	
Ethanol	ND	ug/L	200	138	1		11/06/15 05:44	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		11/06/15 05:44	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		11/06/15 05:44	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		11/06/15 05:44	1634-04-4	
Naphthalene	**2.8J**	ug/L	5.0	2.0	1		11/06/15 05:44	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		11/06/15 05:44	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		11/06/15 05:44	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		11/06/15 05:44	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		11/06/15 05:44	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		11/06/15 05:44	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-130		1		11/06/15 05:44	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		11/06/15 05:44	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

Sample: PW-1R **Lab ID: 92273855013** Collected: 10/27/15 13:04 Received: 10/28/15 17:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	11/03/15 19:47	11/03/15 21:34	106-93-4	L3
Surrogates									
1-Chloro-2-bromopropane (S)	94	%	60-140		1	11/03/15 19:47	11/03/15 21:34	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		11/06/15 06:00	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		11/06/15 06:00	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		11/06/15 06:00	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		11/06/15 06:00	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		11/06/15 06:00	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		11/06/15 06:00	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		11/06/15 06:00	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		11/06/15 06:00	108-20-3	
Ethanol	ND	ug/L	200	138	1		11/06/15 06:00	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		11/06/15 06:00	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		11/06/15 06:00	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		11/06/15 06:00	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		11/06/15 06:00	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		11/06/15 06:00	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		11/06/15 06:00	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		11/06/15 06:00	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		11/06/15 06:00	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		11/06/15 06:00	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-130		1		11/06/15 06:00	17060-07-0	
Toluene-d8 (S)	103	%	70-130		1		11/06/15 06:00	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

Sample: RW-2 **Lab ID: 92273855014** Collected: 10/27/15 13:10 Received: 10/28/15 17:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	11/03/15 19:47	11/03/15 21:54	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	37	%	60-140		1	11/03/15 19:47	11/03/15 21:54	301-79-56	S2
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	**104**	ug/L	100	76.8	1		11/04/15 16:53	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		11/04/15 16:53	994-05-8	
Benzene	**2.6J**	ug/L	5.0	1.7	1		11/04/15 16:53	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		11/04/15 16:53	624-95-3	L3
tert-Butyl Alcohol	**1610**	ug/L	250	144	2.5		11/05/15 14:26	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		11/04/15 16:53	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		11/04/15 16:53	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		11/04/15 16:53	108-20-3	
Ethanol	ND	ug/L	200	138	1		11/04/15 16:53	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		11/04/15 16:53	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		11/04/15 16:53	637-92-3	
Methyl-tert-butyl ether	**3.8J**	ug/L	5.0	1.7	1		11/04/15 16:53	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		11/04/15 16:53	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		11/04/15 16:53	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		11/04/15 16:53	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		11/04/15 16:53	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		11/04/15 16:53	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		1		11/04/15 16:53	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130		1		11/04/15 16:53	17060-07-0	
Toluene-d8 (S)	104	%	70-130		1		11/04/15 16:53	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

Sample: RW-3 **Lab ID: 92273855015** Collected: 10/27/15 13:19 Received: 10/28/15 17:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	11/03/15 19:47	11/03/15 22:15	106-93-4	L3
Surrogates									
1-Chloro-2-bromopropane (S)	120	%	60-140		1	11/03/15 19:47	11/03/15 22:15	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	10000	7680	100		11/06/15 04:41	75-85-4	
tert-Amylmethyl ether	**600J**	ug/L	1000	340	100		11/06/15 04:41	994-05-8	
Benzene	**12400**	ug/L	500	170	100		11/06/15 04:41	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	10000	3210	100		11/06/15 04:41	624-95-3	
tert-Butyl Alcohol	**11000**	ug/L	10000	5770	100		11/06/15 04:41	75-65-0	
tert-Butyl Formate	ND	ug/L	5000	730	100		11/06/15 04:41	762-75-4	
1,2-Dichloroethane	ND	ug/L	500	180	100		11/06/15 04:41	107-06-2	
Diisopropyl ether	ND	ug/L	500	170	100		11/06/15 04:41	108-20-3	
Ethanol	ND	ug/L	20000	13800	100		11/06/15 04:41	64-17-5	
Ethylbenzene	**524**	ug/L	500	160	100		11/06/15 04:41	100-41-4	
Ethyl-tert-butyl ether	**409J**	ug/L	1000	360	100		11/06/15 04:41	637-92-3	
Methyl-tert-butyl ether	**1420**	ug/L	500	170	100		11/06/15 04:41	1634-04-4	
Naphthalene	ND	ug/L	500	200	100		11/06/15 04:41	91-20-3	
Toluene	**10200**	ug/L	500	160	100		11/06/15 04:41	108-88-3	
Xylene (Total)	**1680**	ug/L	1000	270	100		11/06/15 04:41	1330-20-7	
m&p-Xylene	**1170**	ug/L	1000	310	100		11/06/15 04:41	179601-23-1	
o-Xylene	**507**	ug/L	500	160	100		11/06/15 04:41	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		100		11/06/15 04:41	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-130		100		11/06/15 04:41	17060-07-0	
Toluene-d8 (S)	99	%	70-130		100		11/06/15 04:41	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

Sample: RW-4 **Lab ID: 92273855016** Collected: 10/27/15 12:55 Received: 10/28/15 17:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**1.5**	ug/L	0.078	0.078	4	11/04/15 18:47	11/04/15 20:42	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	110	%	60-140		4	11/04/15 18:47	11/04/15 20:42	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	**48300**	ug/L	25000	19200	250		11/03/15 21:58	75-85-4	
tert-Amylmethyl ether	ND	ug/L	2500	850	250		11/03/15 21:58	994-05-8	
Benzene	**19000**	ug/L	1250	425	250		11/03/15 21:58	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	25000	8020	250		11/03/15 21:58	624-95-3	
tert-Butyl Alcohol	ND	ug/L	25000	14400	250		11/03/15 21:58	75-65-0	
tert-Butyl Formate	ND	ug/L	12500	1820	250		11/03/15 21:58	762-75-4	
1,2-Dichloroethane	**473J**	ug/L	1250	450	250		11/03/15 21:58	107-06-2	
Diisopropyl ether	**4220**	ug/L	1250	425	250		11/03/15 21:58	108-20-3	
Ethanol	ND	ug/L	50000	34400	250		11/03/15 21:58	64-17-5	
Ethylbenzene	**1580**	ug/L	1250	400	250		11/03/15 21:58	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	2500	900	250		11/03/15 21:58	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1250	425	250		11/03/15 21:58	1634-04-4	
Naphthalene	**1390**	ug/L	1250	500	250		11/03/15 21:58	91-20-3	
Toluene	**18500**	ug/L	1250	400	250		11/03/15 21:58	108-88-3	
Xylene (Total)	**8850**	ug/L	2500	675	250		11/03/15 21:58	1330-20-7	
m&p-Xylene	**5930**	ug/L	2500	775	250		11/03/15 21:58	179601-23-1	
o-Xylene	**2920**	ug/L	1250	400	250		11/03/15 21:58	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	105	%	70-130		250		11/03/15 21:58	460-00-4	
1,2-Dichloroethane-d4 (S)	90	%	70-130		250		11/03/15 21:58	17060-07-0	
Toluene-d8 (S)	96	%	70-130		250		11/03/15 21:58	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

Sample: RW-5 **Lab ID: 92273855017** Collected: 10/27/15 12:30 Received: 10/28/15 17:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**0.50**	ug/L	0.020	0.020	1	11/04/15 18:47	11/04/15 21:02	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	93	%	60-140		1	11/04/15 18:47	11/04/15 21:02	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	**53400**	ug/L	20000	15400	200		11/04/15 08:01	75-85-4	
tert-Amylmethyl ether	ND	ug/L	2000	680	200		11/04/15 08:01	994-05-8	
Benzene	**16200**	ug/L	1000	340	200		11/04/15 08:01	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	20000	6420	200		11/04/15 08:01	624-95-3	
tert-Butyl Alcohol	ND	ug/L	20000	11500	200		11/04/15 08:01	75-65-0	
tert-Butyl Formate	ND	ug/L	10000	1460	200		11/04/15 08:01	762-75-4	
1,2-Dichloroethane	**667J**	ug/L	1000	360	200		11/04/15 08:01	107-06-2	
Diisopropyl ether	**6330**	ug/L	1000	340	200		11/04/15 08:01	108-20-3	
Ethanol	ND	ug/L	40000	27600	200		11/04/15 08:01	64-17-5	
Ethylbenzene	**1520**	ug/L	1000	320	200		11/04/15 08:01	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	2000	720	200		11/04/15 08:01	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1000	340	200		11/04/15 08:01	1634-04-4	
Naphthalene	**925J**	ug/L	1000	400	200		11/04/15 08:01	91-20-3	
Toluene	**16300**	ug/L	1000	320	200		11/04/15 08:01	108-88-3	
Xylene (Total)	**7400**	ug/L	2000	540	200		11/04/15 08:01	1330-20-7	
m&p-Xylene	**5040**	ug/L	2000	620	200		11/04/15 08:01	179601-23-1	
o-Xylene	**2350**	ug/L	1000	320	200		11/04/15 08:01	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		200		11/04/15 08:01	460-00-4	
1,2-Dichloroethane-d4 (S)	86	%	70-130		200		11/04/15 08:01	17060-07-0	
Toluene-d8 (S)	97	%	70-130		200		11/04/15 08:01	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

Sample: WSW-1 **Lab ID: 92273855018** Collected: 10/27/15 11:40 Received: 10/28/15 17:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	11/03/15 19:47	11/03/15 23:16	106-93-4	L3
Surrogates									
1-Chloro-2-bromopropane (S)	108	%	60-140		1	11/03/15 19:47	11/03/15 23:16	301-79-56	
8260 MSV Low Level SC	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	50.0	1		11/03/15 04:13	75-85-4	L3
tert-Amylmethyl ether	ND	ug/L	10.0	0.10	1		11/03/15 04:13	994-05-8	
Benzene	ND	ug/L	1.0	0.25	1		11/03/15 04:13	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	50.0	1		11/03/15 04:13	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	3.6	1		11/03/15 04:13	75-65-0	L3
tert-Butyl Formate	ND	ug/L	50.0	1.9	1		11/03/15 04:13	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		11/03/15 04:13	107-06-2	
Diisopropyl ether	ND	ug/L	1.0	0.12	1		11/03/15 04:13	108-20-3	
Ethanol	ND	ug/L	200	33.0	1		11/03/15 04:13	64-17-5	L3
Ethylbenzene	ND	ug/L	1.0	0.30	1		11/03/15 04:13	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	0.070	1		11/03/15 04:13	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.21	1		11/03/15 04:13	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.24	1		11/03/15 04:13	91-20-3	
Toluene	ND	ug/L	1.0	0.26	1		11/03/15 04:13	108-88-3	
Xylene (Total)	ND	ug/L	2.0	0.66	1		11/03/15 04:13	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		11/03/15 04:13	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		11/03/15 04:13	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	115	%	70-130		1		11/03/15 04:13	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-130		1		11/03/15 04:13	17060-07-0	
Toluene-d8 (S)	110	%	70-130		1		11/03/15 04:13	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

Sample: RW-5 DUP **Lab ID: 92273855019** Collected: 10/27/15 12:31 Received: 10/28/15 17:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**0.44**	ug/L	0.020	0.020	1	11/04/15 18:48	11/04/15 21:22	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	94	%	60-140		1	11/04/15 18:48	11/04/15 21:22	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	**53600**	ug/L	20000	15400	200		11/03/15 22:16	75-85-4	
tert-Amylmethyl ether	ND	ug/L	2000	680	200		11/03/15 22:16	994-05-8	
Benzene	**19200**	ug/L	1000	340	200		11/03/15 22:16	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	20000	6420	200		11/03/15 22:16	624-95-3	
tert-Butyl Alcohol	ND	ug/L	20000	11500	200		11/03/15 22:16	75-65-0	
tert-Butyl Formate	ND	ug/L	10000	1460	200		11/03/15 22:16	762-75-4	
1,2-Dichloroethane	**701J**	ug/L	1000	360	200		11/03/15 22:16	107-06-2	
Diisopropyl ether	**7270**	ug/L	1000	340	200		11/03/15 22:16	108-20-3	
Ethanol	ND	ug/L	40000	27600	200		11/03/15 22:16	64-17-5	
Ethylbenzene	**1990**	ug/L	1000	320	200		11/03/15 22:16	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	2000	720	200		11/03/15 22:16	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1000	340	200		11/03/15 22:16	1634-04-4	
Naphthalene	**967J**	ug/L	1000	400	200		11/03/15 22:16	91-20-3	
Toluene	**18600**	ug/L	1000	320	200		11/03/15 22:16	108-88-3	
Xylene (Total)	**8950**	ug/L	2000	540	200		11/03/15 22:16	1330-20-7	
m&p-Xylene	**6180**	ug/L	2000	620	200		11/03/15 22:16	179601-23-1	
o-Xylene	**2770**	ug/L	1000	320	200		11/03/15 22:16	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	106	%	70-130		200		11/03/15 22:16	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	70-130		200		11/03/15 22:16	17060-07-0	
Toluene-d8 (S)	94	%	70-130		200		11/03/15 22:16	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

Sample: FIELD BLANK **Lab ID: 92273855020** Collected: 10/27/15 13:32 Received: 10/28/15 17:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	11/03/15 19:48	11/03/15 23:56	106-93-4	L3
Surrogates									
1-Chloro-2-bromopropane (S)	117	%	60-140		1	11/03/15 19:48	11/03/15 23:56	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		11/03/15 16:50	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		11/03/15 16:50	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		11/03/15 16:50	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		11/03/15 16:50	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		11/03/15 16:50	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		11/03/15 16:50	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		11/03/15 16:50	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		11/03/15 16:50	108-20-3	
Ethanol	ND	ug/L	200	138	1		11/03/15 16:50	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		11/03/15 16:50	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		11/03/15 16:50	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		11/03/15 16:50	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		11/03/15 16:50	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		11/03/15 16:50	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		11/03/15 16:50	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		11/03/15 16:50	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		11/03/15 16:50	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		11/03/15 16:50	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130		1		11/03/15 16:50	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		11/03/15 16:50	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

Sample: TRIP BLANK **Lab ID: 92273855021** Collected: 10/27/15 13:32 Received: 10/28/15 17:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		11/03/15 17:07	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		11/03/15 17:07	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		11/03/15 17:07	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		11/03/15 17:07	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		11/03/15 17:07	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		11/03/15 17:07	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		11/03/15 17:07	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		11/03/15 17:07	108-20-3	
Ethanol	ND	ug/L	200	138	1		11/03/15 17:07	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		11/03/15 17:07	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		11/03/15 17:07	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		11/03/15 17:07	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		11/03/15 17:07	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		11/03/15 17:07	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		11/03/15 17:07	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		11/03/15 17:07	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		11/03/15 17:07	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		11/03/15 17:07	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	70-130		1		11/03/15 17:07	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		11/03/15 17:07	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

QC Batch: MSV/34113
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Low Level SC
Associated Lab Samples: 92273855018

METHOD BLANK: 1597107
Matrix: Water
Associated Lab Samples: 92273855018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	1.0	0.24	11/03/15 03:20	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	50.0	11/03/15 03:20	
Benzene	ug/L	ND	1.0	0.25	11/03/15 03:20	
Diisopropyl ether	ug/L	ND	1.0	0.12	11/03/15 03:20	
Ethanol	ug/L	ND	200	33.0	11/03/15 03:20	
Ethyl-tert-butyl ether	ug/L	ND	10.0	0.070	11/03/15 03:20	
Ethylbenzene	ug/L	ND	1.0	0.30	11/03/15 03:20	
m&p-Xylene	ug/L	ND	2.0	0.66	11/03/15 03:20	
Methyl-tert-butyl ether	ug/L	ND	1.0	0.21	11/03/15 03:20	
Naphthalene	ug/L	ND	1.0	0.24	11/03/15 03:20	
o-Xylene	ug/L	ND	1.0	0.23	11/03/15 03:20	
tert-Amyl Alcohol	ug/L	ND	100	50.0	11/03/15 03:20	
tert-Amylmethyl ether	ug/L	ND	10.0	0.10	11/03/15 03:20	
tert-Butyl Alcohol	ug/L	ND	100	3.6	11/03/15 03:20	
tert-Butyl Formate	ug/L	ND	50.0	1.9	11/03/15 03:20	
Toluene	ug/L	ND	1.0	0.26	11/03/15 03:20	
Xylene (Total)	ug/L	ND	2.0	0.66	11/03/15 03:20	
1,2-Dichloroethane-d4 (S)	%	104	70-130		11/03/15 03:20	
4-Bromofluorobenzene (S)	%	111	70-130		11/03/15 03:20	
Toluene-d8 (S)	%	113	70-130		11/03/15 03:20	

LABORATORY CONTROL SAMPLE: 1597108

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	44.8	90	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	1240	124	70-130	
Benzene	ug/L	50	51.6	103	70-130	
Diisopropyl ether	ug/L	50	48.7	97	70-130	
Ethanol	ug/L	2000	3690	185	70-130	L0
Ethyl-tert-butyl ether	ug/L	100	105	105	70-130	
Ethylbenzene	ug/L	50	52.1	104	70-130	
m&p-Xylene	ug/L	100	101	101	70-130	
Methyl-tert-butyl ether	ug/L	50	60.9	122	70-130	
Naphthalene	ug/L	50	51.0	102	70-130	
o-Xylene	ug/L	50	50.3	101	70-130	
tert-Amyl Alcohol	ug/L	1000	1330	133	70-130	L0
tert-Amylmethyl ether	ug/L	100	111	111	70-130	
tert-Butyl Alcohol	ug/L	500	716	143	70-130	L0
tert-Butyl Formate	ug/L	400	419	105	70-130	
Toluene	ug/L	50	52.2	104	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

LABORATORY CONTROL SAMPLE: 1597108

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Xylene (Total)	ug/L	150	151	101	70-130	
1,2-Dichloroethane-d4 (S)	%			96	70-130	
4-Bromofluorobenzene (S)	%			103	70-130	
Toluene-d8 (S)	%			104	70-130	

MATRIX SPIKE SAMPLE: 1597110

Parameter	Units	92274169013 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	<0.24	20	19.1	95	70-130	
3,3-Dimethyl-1-Butanol	ug/L	<50.0	400	557	139	70-130	M1
Benzene	ug/L	<0.25	20	22.8	114	70-130	
Diisopropyl ether	ug/L	<0.12	20	20.4	102	70-130	
Ethanol	ug/L	<33.0	800	2680	335	70-130	M0
Ethyl-tert-butyl ether	ug/L	<0.070	40	43.4	108	70-130	
Ethylbenzene	ug/L	<0.30	20	23.4	117	70-130	
m&p-Xylene	ug/L	<0.66	40	44.6	112	70-130	
Methyl-tert-butyl ether	ug/L	<0.21	20	24.6	123	70-130	
Naphthalene	ug/L	<0.24	20	21.2	106	70-130	
o-Xylene	ug/L	<0.23	20	21.9	110	70-130	
tert-Amyl Alcohol	ug/L	<50.0	400	644	161	70-130	M0
tert-Amylmethyl ether	ug/L	<0.10	40	44.6	111	70-130	
tert-Butyl Alcohol	ug/L	<3.6	200	381	190	70-130	M0
tert-Butyl Formate	ug/L	<1.9	160	157	98	70-130	
Toluene	ug/L	<0.26	20	22.9	114	70-130	
1,2-Dichloroethane-d4 (S)	%				101	70-130	
4-Bromofluorobenzene (S)	%				106	70-130	
Toluene-d8 (S)	%				105	70-130	

SAMPLE DUPLICATE: 1597109

Parameter	Units	92273855018 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		30	
3,3-Dimethyl-1-Butanol	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethanol	ug/L	ND	151J		30	
Ethyl-tert-butyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
tert-Amyl Alcohol	ug/L	ND	ND		30	
tert-Amylmethyl ether	ug/L	ND	ND		30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

SAMPLE DUPLICATE: 1597109

Parameter	Units	92273855018 Result	Dup Result	RPD	Max RPD	Qualifiers
tert-Butyl Alcohol	ug/L	ND	7.8J		30	
tert-Butyl Formate	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	103	105	2		
4-Bromofluorobenzene (S)	%	115	113	2		
Toluene-d8 (S)	%	110	110	0		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

QC Batch: MSV/34081
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV SC
Associated Lab Samples: 92273855001

METHOD BLANK: 1596230
Matrix: Water
Associated Lab Samples: 92273855001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	1.8	11/03/15 22:13	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	32.1	11/03/15 22:13	
Benzene	ug/L	ND	5.0	1.7	11/03/15 22:13	
Diisopropyl ether	ug/L	ND	5.0	1.7	11/03/15 22:13	
Ethanol	ug/L	ND	200	138	11/03/15 22:13	
Ethyl-tert-butyl ether	ug/L	ND	10.0	3.6	11/03/15 22:13	
Ethylbenzene	ug/L	ND	5.0	1.6	11/03/15 22:13	
m&p-Xylene	ug/L	ND	10.0	3.1	11/03/15 22:13	
Methyl-tert-butyl ether	ug/L	ND	5.0	1.7	11/03/15 22:13	
Naphthalene	ug/L	ND	5.0	2.0	11/03/15 22:13	
o-Xylene	ug/L	ND	5.0	1.6	11/03/15 22:13	
tert-Amyl Alcohol	ug/L	ND	100	76.8	11/03/15 22:13	
tert-Amylmethyl ether	ug/L	ND	10.0	3.4	11/03/15 22:13	
tert-Butyl Alcohol	ug/L	ND	100	57.7	11/03/15 22:13	
tert-Butyl Formate	ug/L	ND	50.0	7.3	11/03/15 22:13	
Toluene	ug/L	ND	5.0	1.6	11/03/15 22:13	
Xylene (Total)	ug/L	ND	10.0	2.7	11/03/15 22:13	
1,2-Dichloroethane-d4 (S)	%	97	70-130		11/03/15 22:13	
4-Bromofluorobenzene (S)	%	105	70-130		11/03/15 22:13	
Toluene-d8 (S)	%	81	70-130		11/03/15 22:13	

LABORATORY CONTROL SAMPLE: 1596231

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	40.6	81	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	916	92	70-130	
Benzene	ug/L	50	54.0	108	70-130	
Diisopropyl ether	ug/L	50	53.2	106	70-130	
Ethanol	ug/L	2000	1970	99	70-130	
Ethyl-tert-butyl ether	ug/L	100	102	102	70-130	
Ethylbenzene	ug/L	50	48.5	97	70-130	
m&p-Xylene	ug/L	100	96.8	97	70-130	
Methyl-tert-butyl ether	ug/L	50	52.8	106	70-130	
Naphthalene	ug/L	50	48.7	97	70-130	
o-Xylene	ug/L	50	47.7	95	70-130	
tert-Amyl Alcohol	ug/L	1000	860	86	70-130	
tert-Amylmethyl ether	ug/L	100	99.4	99	70-130	
tert-Butyl Alcohol	ug/L	500	476	95	70-130	
tert-Butyl Formate	ug/L	400	427	107	70-130	
Toluene	ug/L	50	48.6	97	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

LABORATORY CONTROL SAMPLE: 1596231

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Xylene (Total)	ug/L	150	145	96	70-130	
1,2-Dichloroethane-d4 (S)	%			89	70-130	
4-Bromofluorobenzene (S)	%			108	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE SAMPLE: 1596232

Parameter	Units	92273854009 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	2.7J	20	22.8	100	70-130	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	363	91	70-130	
Benzene	ug/L	2.8J	20	25.3	112	70-130	
Diisopropyl ether	ug/L	ND	20	22.4	109	70-130	
Ethanol	ug/L	ND	800	756	94	70-130	
Ethyl-tert-butyl ether	ug/L	ND	40	41.8	105	70-130	
Ethylbenzene	ug/L	ND	20	21.0	105	70-130	
m&p-Xylene	ug/L	ND	40	41.3	103	70-130	
Methyl-tert-butyl ether	ug/L	152	20	178	131	70-130	M1
Naphthalene	ug/L	ND	20	18.4	89	70-130	
o-Xylene	ug/L	ND	20	20.4	102	70-130	
tert-Amyl Alcohol	ug/L	ND	400	429	99	70-130	
tert-Amylmethyl ether	ug/L	ND	40	41.9	100	70-130	
tert-Butyl Alcohol	ug/L	ND	200	323	149	70-130	M1
tert-Butyl Formate	ug/L	ND	160	ND	0	70-130	M1
Toluene	ug/L	ND	20	21.1	104	70-130	
1,2-Dichloroethane-d4 (S)	%				101	70-130	
4-Bromofluorobenzene (S)	%				102	70-130	
Toluene-d8 (S)	%				99	70-130	

SAMPLE DUPLICATE: 1596233

Parameter	Units	92273854010 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		30	
3,3-Dimethyl-1-Butanol	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethanol	ug/L	ND	ND		30	
Ethyl-tert-butyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
tert-Amyl Alcohol	ug/L	ND	ND		30	
tert-Amylmethyl ether	ug/L	ND	ND		30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

SAMPLE DUPLICATE: 1596233

Parameter	Units	92273854010 Result	Dup Result	RPD	Max RPD	Qualifiers
tert-Butyl Alcohol	ug/L	ND	ND		30	
tert-Butyl Formate	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	101	102	1		
4-Bromofluorobenzene (S)	%	119	104	13		
Toluene-d8 (S)	%	97	90	8		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

QC Batch: MSV/34122 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV SC
Associated Lab Samples: 92273855005, 92273855006, 92273855008, 92273855009, 92273855010, 92273855016, 92273855019, 92273855020, 92273855021

METHOD BLANK: 1597664 Matrix: Water
Associated Lab Samples: 92273855005, 92273855006, 92273855008, 92273855009, 92273855010, 92273855016, 92273855019, 92273855020, 92273855021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	1.8	11/03/15 14:49	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	32.1	11/03/15 14:49	
Benzene	ug/L	ND	5.0	1.7	11/03/15 14:49	
Diisopropyl ether	ug/L	ND	5.0	1.7	11/03/15 14:49	
Ethanol	ug/L	ND	200	138	11/03/15 14:49	
Ethyl-tert-butyl ether	ug/L	ND	10.0	3.6	11/03/15 14:49	
Ethylbenzene	ug/L	ND	5.0	1.6	11/03/15 14:49	
m&p-Xylene	ug/L	ND	10.0	3.1	11/03/15 14:49	
Methyl-tert-butyl ether	ug/L	ND	5.0	1.7	11/03/15 14:49	
Naphthalene	ug/L	ND	5.0	2.0	11/03/15 14:49	
o-Xylene	ug/L	ND	5.0	1.6	11/03/15 14:49	
tert-Amyl Alcohol	ug/L	ND	100	76.8	11/03/15 14:49	
tert-Amylmethyl ether	ug/L	ND	10.0	3.4	11/03/15 14:49	
tert-Butyl Alcohol	ug/L	ND	100	57.7	11/03/15 14:49	
tert-Butyl Formate	ug/L	ND	50.0	7.3	11/03/15 14:49	
Toluene	ug/L	ND	5.0	1.6	11/03/15 14:49	
Xylene (Total)	ug/L	ND	10.0	2.7	11/03/15 14:49	
1,2-Dichloroethane-d4 (S)	%	98	70-130		11/03/15 14:49	
4-Bromofluorobenzene (S)	%	103	70-130		11/03/15 14:49	
Toluene-d8 (S)	%	100	70-130		11/03/15 14:49	

LABORATORY CONTROL SAMPLE: 1597665

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	46.2	92	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	1060	106	70-130	
Benzene	ug/L	50	50.7	101	70-130	
Diisopropyl ether	ug/L	50	54.9	110	70-130	
Ethanol	ug/L	2000	1940	97	70-130	
Ethyl-tert-butyl ether	ug/L	100	105	105	70-130	
Ethylbenzene	ug/L	50	51.6	103	70-130	
m&p-Xylene	ug/L	100	108	108	70-130	
Methyl-tert-butyl ether	ug/L	50	57.7	115	70-130	
Naphthalene	ug/L	50	53.7	107	70-130	
o-Xylene	ug/L	50	54.9	110	70-130	
tert-Amyl Alcohol	ug/L	1000	848	85	70-130	
tert-Amylmethyl ether	ug/L	100	99.9	100	70-130	
tert-Butyl Alcohol	ug/L	500	520	104	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

LABORATORY CONTROL SAMPLE: 1597665

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
tert-Butyl Formate	ug/L	400	434	109	70-130	
Toluene	ug/L	50	44.9	90	70-130	
Xylene (Total)	ug/L	150	163	109	70-130	
1,2-Dichloroethane-d4 (S)	%			103	70-130	
4-Bromofluorobenzene (S)	%			111	70-130	
Toluene-d8 (S)	%			90	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

QC Batch: MSV/34131
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV SC
Associated Lab Samples: 92273855017

METHOD BLANK: 1598134
Matrix: Water
Associated Lab Samples: 92273855017

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	1.8	11/04/15 02:34	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	32.1	11/04/15 02:34	
Benzene	ug/L	ND	5.0	1.7	11/04/15 02:34	
Diisopropyl ether	ug/L	ND	5.0	1.7	11/04/15 02:34	
Ethanol	ug/L	ND	200	138	11/04/15 02:34	
Ethyl-tert-butyl ether	ug/L	ND	10.0	3.6	11/04/15 02:34	
Ethylbenzene	ug/L	ND	5.0	1.6	11/04/15 02:34	
m&p-Xylene	ug/L	ND	10.0	3.1	11/04/15 02:34	
Methyl-tert-butyl ether	ug/L	ND	5.0	1.7	11/04/15 02:34	
Naphthalene	ug/L	ND	5.0	2.0	11/04/15 02:34	
o-Xylene	ug/L	ND	5.0	1.6	11/04/15 02:34	
tert-Amyl Alcohol	ug/L	ND	100	76.8	11/04/15 02:34	
tert-Amylmethyl ether	ug/L	ND	10.0	3.4	11/04/15 02:34	
tert-Butyl Alcohol	ug/L	ND	100	57.7	11/04/15 02:34	
tert-Butyl Formate	ug/L	ND	50.0	7.3	11/04/15 02:34	
Toluene	ug/L	ND	5.0	1.6	11/04/15 02:34	
Xylene (Total)	ug/L	ND	10.0	2.7	11/04/15 02:34	
1,2-Dichloroethane-d4 (S)	%	89	70-130		11/04/15 02:34	
4-Bromofluorobenzene (S)	%	104	70-130		11/04/15 02:34	
Toluene-d8 (S)	%	101	70-130		11/04/15 02:34	

LABORATORY CONTROL SAMPLE: 1598135

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	44.4	89	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	1000	100	70-130	
Benzene	ug/L	50	53.3	107	70-130	
Diisopropyl ether	ug/L	50	54.8	110	70-130	
Ethanol	ug/L	2000	1980	99	70-130	
Ethyl-tert-butyl ether	ug/L	100	105	105	70-130	
Ethylbenzene	ug/L	50	49.9	100	70-130	
m&p-Xylene	ug/L	100	101	101	70-130	
Methyl-tert-butyl ether	ug/L	50	54.2	108	70-130	
Naphthalene	ug/L	50	52.6	105	70-130	
o-Xylene	ug/L	50	48.8	98	70-130	
tert-Amyl Alcohol	ug/L	1000	879	88	70-130	
tert-Amylmethyl ether	ug/L	100	109	109	70-130	
tert-Butyl Alcohol	ug/L	500	490	98	70-130	
tert-Butyl Formate	ug/L	400	415	104	70-130	
Toluene	ug/L	50	48.2	96	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

LABORATORY CONTROL SAMPLE: 1598135

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Xylene (Total)	ug/L	150	150	100	70-130	
1,2-Dichloroethane-d4 (S)	%			96	70-130	
4-Bromofluorobenzene (S)	%			101	70-130	
Toluene-d8 (S)	%			94	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

QC Batch: MSV/34143
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV SC
Associated Lab Samples: 92273855014

METHOD BLANK: 1598627
Matrix: Water
Associated Lab Samples: 92273855014

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	1.8	11/04/15 15:19	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	32.1	11/04/15 15:19	
Benzene	ug/L	ND	5.0	1.7	11/04/15 15:19	
Diisopropyl ether	ug/L	ND	5.0	1.7	11/04/15 15:19	
Ethanol	ug/L	175J	200	138	11/04/15 15:19	
Ethyl-tert-butyl ether	ug/L	ND	10.0	3.6	11/04/15 15:19	
Ethylbenzene	ug/L	ND	5.0	1.6	11/04/15 15:19	
m&p-Xylene	ug/L	ND	10.0	3.1	11/04/15 15:19	
Methyl-tert-butyl ether	ug/L	ND	5.0	1.7	11/04/15 15:19	
Naphthalene	ug/L	ND	5.0	2.0	11/04/15 15:19	
o-Xylene	ug/L	ND	5.0	1.6	11/04/15 15:19	
tert-Amyl Alcohol	ug/L	ND	100	76.8	11/04/15 15:19	
tert-Amylmethyl ether	ug/L	ND	10.0	3.4	11/04/15 15:19	
tert-Butyl Alcohol	ug/L	ND	100	57.7	11/04/15 15:19	
tert-Butyl Formate	ug/L	ND	50.0	7.3	11/04/15 15:19	
Toluene	ug/L	ND	5.0	1.6	11/04/15 15:19	
Xylene (Total)	ug/L	ND	10.0	2.7	11/04/15 15:19	
1,2-Dichloroethane-d4 (S)	%	91	70-130		11/04/15 15:19	
4-Bromofluorobenzene (S)	%	98	70-130		11/04/15 15:19	
Toluene-d8 (S)	%	111	70-130		11/04/15 15:19	

LABORATORY CONTROL SAMPLE: 1598628

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	44.9	90	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	1350	135	70-130	L0
Benzene	ug/L	50	55.9	112	70-130	
Diisopropyl ether	ug/L	50	61.1	122	70-130	
Ethanol	ug/L	2000	2570	129	70-130	
Ethyl-tert-butyl ether	ug/L	100	114	114	70-130	
Ethylbenzene	ug/L	50	52.9	106	70-130	
m&p-Xylene	ug/L	100	108	108	70-130	
Methyl-tert-butyl ether	ug/L	50	56.6	113	70-130	
Naphthalene	ug/L	50	58.0	116	70-130	
o-Xylene	ug/L	50	54.1	108	70-130	
tert-Amyl Alcohol	ug/L	1000	1180	118	70-130	
tert-Amylmethyl ether	ug/L	100	107	107	70-130	
tert-Butyl Alcohol	ug/L	500	593	119	70-130	
tert-Butyl Formate	ug/L	400	461	115	70-130	
Toluene	ug/L	50	55.0	110	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

LABORATORY CONTROL SAMPLE: 1598628

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Xylene (Total)	ug/L	150	162	108	70-130	
1,2-Dichloroethane-d4 (S)	%			94	70-130	
4-Bromofluorobenzene (S)	%			98	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE SAMPLE: 1598629

Parameter	Units	92273877003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	20.6	103	70-130	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	694	174	70-130	M0
Benzene	ug/L	ND	20	24.6	123	70-130	
Diisopropyl ether	ug/L	ND	20	22.2	111	70-130	
Ethanol	ug/L	ND	800	589	74	70-130	
Ethyl-tert-butyl ether	ug/L	ND	40	43.4	108	70-130	
Ethylbenzene	ug/L	ND	20	32.7	164	70-130	M1
m&p-Xylene	ug/L	ND	40	66.9	167	70-130	M1
Methyl-tert-butyl ether	ug/L	ND	20	20.9	104	70-130	
Naphthalene	ug/L	ND	20	33.3	166	70-130	M1
o-Xylene	ug/L	ND	20	32.8	164	70-130	M1
tert-Amyl Alcohol	ug/L	ND	400	485	121	70-130	
tert-Amylmethyl ether	ug/L	ND	40	48.4	121	70-130	
tert-Butyl Alcohol	ug/L	ND	200	331	164	70-130	M1
tert-Butyl Formate	ug/L	ND	160	ND	2	70-130	P5
Toluene	ug/L	ND	20	24.3	122	70-130	
1,2-Dichloroethane-d4 (S)	%				99	70-130	
4-Bromofluorobenzene (S)	%				93	70-130	
Toluene-d8 (S)	%				91	70-130	

SAMPLE DUPLICATE: 1598630

Parameter	Units	92273877004 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		30	
3,3-Dimethyl-1-Butanol	ug/L	ND	ND		30	
Benzene	ug/L	2.4J	2.8J		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethanol	ug/L	ND	ND		30	
Ethyl-tert-butyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	1.6J		30	
m&p-Xylene	ug/L	3.2J	3.6J		30	
Methyl-tert-butyl ether	ug/L	3.1J	3.5J		30	
Naphthalene	ug/L	47.0	52.2	10	30	
o-Xylene	ug/L	ND	ND		30	
tert-Amyl Alcohol	ug/L	ND	ND		30	
tert-Amylmethyl ether	ug/L	ND	ND		30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

SAMPLE DUPLICATE: 1598630

Parameter	Units	92273877004 Result	Dup Result	RPD	Max RPD	Qualifiers
tert-Butyl Alcohol	ug/L	ND	ND		30	
tert-Butyl Formate	ug/L	ND	ND		30	
Toluene	ug/L	ND	1.8J		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	108	105	3		
4-Bromofluorobenzene (S)	%	98	100	2		
Toluene-d8 (S)	%	97	95	3		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

QC Batch: MSV/34157 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV SC
Associated Lab Samples: 92273855002, 92273855004

METHOD BLANK: 1599803 Matrix: Water
Associated Lab Samples: 92273855002, 92273855004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	1.8	11/05/15 13:55	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	32.1	11/05/15 13:55	
Benzene	ug/L	ND	5.0	1.7	11/05/15 13:55	
Diisopropyl ether	ug/L	ND	5.0	1.7	11/05/15 13:55	
Ethanol	ug/L	ND	200	138	11/05/15 13:55	
Ethyl-tert-butyl ether	ug/L	ND	10.0	3.6	11/05/15 13:55	
Ethylbenzene	ug/L	ND	5.0	1.6	11/05/15 13:55	
m&p-Xylene	ug/L	ND	10.0	3.1	11/05/15 13:55	
Methyl-tert-butyl ether	ug/L	ND	5.0	1.7	11/05/15 13:55	
Naphthalene	ug/L	ND	5.0	2.0	11/05/15 13:55	
o-Xylene	ug/L	ND	5.0	1.6	11/05/15 13:55	
tert-Amyl Alcohol	ug/L	ND	100	76.8	11/05/15 13:55	
tert-Amylmethyl ether	ug/L	ND	10.0	3.4	11/05/15 13:55	
tert-Butyl Alcohol	ug/L	ND	100	57.7	11/05/15 13:55	
tert-Butyl Formate	ug/L	ND	50.0	7.3	11/05/15 13:55	
Toluene	ug/L	ND	5.0	1.6	11/05/15 13:55	
Xylene (Total)	ug/L	ND	10.0	2.7	11/05/15 13:55	
1,2-Dichloroethane-d4 (S)	%	89	70-130		11/05/15 13:55	
4-Bromofluorobenzene (S)	%	95	70-130		11/05/15 13:55	
Toluene-d8 (S)	%	101	70-130		11/05/15 13:55	

LABORATORY CONTROL SAMPLE: 1599804

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	41.7	83	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	1180	118	70-130	
Benzene	ug/L	50	50.4	101	70-130	
Diisopropyl ether	ug/L	50	53.8	108	70-130	
Ethanol	ug/L	2000	2440	122	70-130	
Ethyl-tert-butyl ether	ug/L	100	97.7	98	70-130	
Ethylbenzene	ug/L	50	50.6	101	70-130	
m&p-Xylene	ug/L	100	99.3	99	70-130	
Methyl-tert-butyl ether	ug/L	50	51.1	102	70-130	
Naphthalene	ug/L	50	56.5	113	70-130	
o-Xylene	ug/L	50	50.3	101	70-130	
tert-Amyl Alcohol	ug/L	1000	1060	106	70-130	
tert-Amylmethyl ether	ug/L	100	98.9	99	70-130	
tert-Butyl Alcohol	ug/L	500	530	106	70-130	
tert-Butyl Formate	ug/L	400	419	105	70-130	
Toluene	ug/L	50	50.7	101	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

LABORATORY CONTROL SAMPLE: 1599804

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Xylene (Total)	ug/L	150	150	100	70-130	
1,2-Dichloroethane-d4 (S)	%			88	70-130	
4-Bromofluorobenzene (S)	%			103	70-130	
Toluene-d8 (S)	%			103	70-130	

MATRIX SPIKE SAMPLE: 1599805

Parameter	Units	92273859011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	21.6	108	70-130	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	449	112	70-130	
Benzene	ug/L	8.0	20	32.7	123	70-130	
Diisopropyl ether	ug/L	ND	20	23.8	118	70-130	
Ethanol	ug/L	ND	800	751	94	70-130	
Ethyl-tert-butyl ether	ug/L	ND	40	45.9	115	70-130	
Ethylbenzene	ug/L	5.0J	20	29.7	124	70-130	
m&p-Xylene	ug/L	ND	40	47.5	118	70-130	
Methyl-tert-butyl ether	ug/L	25.0	20	57.3	162	70-130	M1
Naphthalene	ug/L	3.8J	20	26.9	116	70-130	
o-Xylene	ug/L	ND	20	23.4	116	70-130	
tert-Amyl Alcohol	ug/L	ND	400	514	113	70-130	
tert-Amylmethyl ether	ug/L	ND	40	44.5	107	70-130	
tert-Butyl Alcohol	ug/L	ND	200	345	166	70-130	M1
tert-Butyl Formate	ug/L	ND	160	ND	0	70-130	P5
Toluene	ug/L	ND	20	23.9	120	70-130	
1,2-Dichloroethane-d4 (S)	%				104	70-130	
4-Bromofluorobenzene (S)	%				99	70-130	
Toluene-d8 (S)	%				100	70-130	

SAMPLE DUPLICATE: 1599806

Parameter	Units	92273859022 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		30	
3,3-Dimethyl-1-Butanol	ug/L	ND	ND		30	
Benzene	ug/L	94.6	101	7	30	
Diisopropyl ether	ug/L	7.4	7.8	5	30	
Ethanol	ug/L	ND	ND		30	
Ethyl-tert-butyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	157	167	6	30	
Naphthalene	ug/L	18.8	19.9	6	30	
o-Xylene	ug/L	ND	ND		30	
tert-Amyl Alcohol	ug/L	163	175	7	30	
tert-Amylmethyl ether	ug/L	6.7J	7.1J		30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

SAMPLE DUPLICATE: 1599806

Parameter	Units	92273859022 Result	Dup Result	RPD	Max RPD	Qualifiers
tert-Butyl Alcohol	ug/L	ND	ND		30	
tert-Butyl Formate	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	87	88	1		
4-Bromofluorobenzene (S)	%	98	96	2		
Toluene-d8 (S)	%	104	103	1		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

QC Batch: MSV/34159 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV SC
Associated Lab Samples: 92273855003, 92273855007, 92273855011, 92273855012, 92273855013, 92273855015

METHOD BLANK: 1599930 Matrix: Water
Associated Lab Samples: 92273855003, 92273855007, 92273855011, 92273855012, 92273855013, 92273855015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	1.8	11/06/15 00:43	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	32.1	11/06/15 00:43	
Benzene	ug/L	ND	5.0	1.7	11/06/15 00:43	
Diisopropyl ether	ug/L	ND	5.0	1.7	11/06/15 00:43	
Ethanol	ug/L	ND	200	138	11/06/15 00:43	
Ethyl-tert-butyl ether	ug/L	ND	10.0	3.6	11/06/15 00:43	
Ethylbenzene	ug/L	ND	5.0	1.6	11/06/15 00:43	
m&p-Xylene	ug/L	ND	10.0	3.1	11/06/15 00:43	
Methyl-tert-butyl ether	ug/L	ND	5.0	1.7	11/06/15 00:43	
Naphthalene	ug/L	ND	5.0	2.0	11/06/15 00:43	
o-Xylene	ug/L	ND	5.0	1.6	11/06/15 00:43	
tert-Amyl Alcohol	ug/L	ND	100	76.8	11/06/15 00:43	
tert-Amylmethyl ether	ug/L	ND	10.0	3.4	11/06/15 00:43	
tert-Butyl Alcohol	ug/L	ND	100	57.7	11/06/15 00:43	
tert-Butyl Formate	ug/L	ND	50.0	7.3	11/06/15 00:43	
Toluene	ug/L	ND	5.0	1.6	11/06/15 00:43	
Xylene (Total)	ug/L	ND	10.0	2.7	11/06/15 00:43	
1,2-Dichloroethane-d4 (S)	%	90	70-130		11/06/15 00:43	
4-Bromofluorobenzene (S)	%	99	70-130		11/06/15 00:43	
Toluene-d8 (S)	%	99	70-130		11/06/15 00:43	

LABORATORY CONTROL SAMPLE: 1599931

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	44.9	90	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	1070	107	70-130	
Benzene	ug/L	50	51.4	103	70-130	
Diisopropyl ether	ug/L	50	53.7	107	70-130	
Ethanol	ug/L	2000	2200	110	70-130	
Ethyl-tert-butyl ether	ug/L	100	102	102	70-130	
Ethylbenzene	ug/L	50	51.4	103	70-130	
m&p-Xylene	ug/L	100	102	102	70-130	
Methyl-tert-butyl ether	ug/L	50	52.0	104	70-130	
Naphthalene	ug/L	50	56.5	113	70-130	
o-Xylene	ug/L	50	50.8	102	70-130	
tert-Amyl Alcohol	ug/L	1000	1070	107	70-130	
tert-Amylmethyl ether	ug/L	100	98.7	99	70-130	
tert-Butyl Alcohol	ug/L	500	537	107	70-130	
tert-Butyl Formate	ug/L	400	423	106	70-130	
Toluene	ug/L	50	54.0	108	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

LABORATORY CONTROL SAMPLE: 1599931

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Xylene (Total)	ug/L	150	153	102	70-130	
1,2-Dichloroethane-d4 (S)	%			101	70-130	
4-Bromofluorobenzene (S)	%			98	70-130	
Toluene-d8 (S)	%			102	70-130	

MATRIX SPIKE SAMPLE: 1599932

Parameter	Units	92274085008 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	20.6	103	70-130	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	563	141	70-130	M1
Benzene	ug/L	ND	20	25.6	128	70-130	
Diisopropyl ether	ug/L	ND	20	25.8	129	70-130	
Ethanol	ug/L	ND	800	1430	179	70-130	M1
Ethyl-tert-butyl ether	ug/L	ND	40	47.6	119	70-130	
Ethylbenzene	ug/L	ND	20	25.7	129	70-130	
m&p-Xylene	ug/L	ND	40	52.7	132	70-130	M1
Methyl-tert-butyl ether	ug/L	ND	20	24.7	123	70-130	
Naphthalene	ug/L	ND	20	26.5	133	70-130	M1
o-Xylene	ug/L	ND	20	25.8	129	70-130	
tert-Amyl Alcohol	ug/L	ND	400	477	119	70-130	
tert-Amylmethyl ether	ug/L	ND	40	46.1	115	70-130	
tert-Butyl Alcohol	ug/L	ND	200	374	187	70-130	M1
tert-Butyl Formate	ug/L	ND	160	9.6J	6	70-130	P5
Toluene	ug/L	ND	20	23.7	119	70-130	
1,2-Dichloroethane-d4 (S)	%				96	70-130	
4-Bromofluorobenzene (S)	%				100	70-130	
Toluene-d8 (S)	%				96	70-130	

SAMPLE DUPLICATE: 1599933

Parameter	Units	92274085009 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		30	
3,3-Dimethyl-1-Butanol	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethanol	ug/L	ND	ND		30	
Ethyl-tert-butyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
tert-Amyl Alcohol	ug/L	ND	ND		30	
tert-Amylmethyl ether	ug/L	ND	ND		30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

SAMPLE DUPLICATE: 1599933

Parameter	Units	92274085009 Result	Dup Result	RPD	Max RPD	Qualifiers
tert-Butyl Alcohol	ug/L	ND	ND		30	
tert-Butyl Formate	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	113	112	1		
4-Bromofluorobenzene (S)	%	97	98	1		
Toluene-d8 (S)	%	99	100	1		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

QC Batch: OEXT/38714 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 92273855001, 92273855002, 92273855003, 92273855004, 92273855005, 92273855006, 92273855007, 92273855008

METHOD BLANK: 1594644 Matrix: Water
Associated Lab Samples: 92273855001, 92273855002, 92273855003, 92273855004, 92273855005, 92273855006, 92273855007, 92273855008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	0.020	10/30/15 02:07	
1-Chloro-2-bromopropane (S)	%	107	60-140		10/30/15 02:07	

LABORATORY CONTROL SAMPLE & LCSD: 1594645 1594646

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.29	0.33	0.30	114	102	60-140	11	20	
1-Chloro-2-bromopropane (S)	%				108	98	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1594647 1594648

Parameter	Units	92273776012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	.28	.28	0.33	0.44	120	160	60-140	28	20	M1,R1
1-Chloro-2-bromopropane (S)	%						117	120	60-140			

SAMPLE DUPLICATE: 1594649

Parameter	Units	92273776013 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%	105	116	8		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

QC Batch: OEXT/38817 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 92273855009, 92273855010, 92273855011, 92273855012, 92273855013, 92273855014, 92273855015, 92273855018, 92273855020

METHOD BLANK: 1597396 Matrix: Water
Associated Lab Samples: 92273855009, 92273855010, 92273855011, 92273855012, 92273855013, 92273855014, 92273855015, 92273855018, 92273855020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	0.020	11/03/15 19:10	
1-Chloro-2-bromopropane (S)	%	111	60-140		11/03/15 19:10	

LABORATORY CONTROL SAMPLE & LCSD: 1597397 1597398

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.28	0.41	0.36	146	128	60-140	13	20	L0
1-Chloro-2-bromopropane (S)	%				136	111	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1597399 1597400

Parameter	Units	92273855020 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	.28	.28	0.35	0.36	128	130	60-140	2	20	
1-Chloro-2-bromopropane (S)	%						113	117	60-140			

SAMPLE DUPLICATE: 1597401

Parameter	Units	92273854001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%	112	115	2		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

QC Batch: OEXT/38862 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 92273855016, 92273855017, 92273855019

METHOD BLANK: 1599026 Matrix: Water
Associated Lab Samples: 92273855016, 92273855017, 92273855019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	0.020	11/04/15 19:42	
1-Chloro-2-bromopropane (S)	%	108	60-140		11/04/15 19:42	

LABORATORY CONTROL SAMPLE & LCSD: 1599027 1599028

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.28	0.35	0.35	122	124	60-140	1	20	
1-Chloro-2-bromopropane (S)	%				108	111	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1599029 1599030

Parameter	Units	92274241004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	.28	.28	0.33	0.33	116	118	60-140	2	20	
1-Chloro-2-bromopropane (S)	%						105	103	60-140			

SAMPLE DUPLICATE: 1599031

Parameter	Units	92274241005 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	0.050	0.050	0	20	
1-Chloro-2-bromopropane (S)	%	112	110	1		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether, Styrene, and Vinyl chloride.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
P5	The EPA or method required sample preservation degrades this compound, therefore acceptable recoveries may not be achieved in sample matrix spikes.
R1	RPD value was outside control limits.
S2	Surrogate recovery outside laboratory control limits due to matrix interferences (confirmed by similar results from sample re-analysis).

Pace Analytical
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92273855001	MW-3R	EPA 8011	OEXT/38714	EPA 8011	GCSV/23059
92273855002	MW-4R	EPA 8011	OEXT/38714	EPA 8011	GCSV/23059
92273855003	MW-5RR	EPA 8011	OEXT/38714	EPA 8011	GCSV/23059
92273855004	MW-7RR	EPA 8011	OEXT/38714	EPA 8011	GCSV/23059
92273855005	MW-9	EPA 8011	OEXT/38714	EPA 8011	GCSV/23059
92273855006	MW-11	EPA 8011	OEXT/38714	EPA 8011	GCSV/23059
92273855007	MW-14	EPA 8011	OEXT/38714	EPA 8011	GCSV/23059
92273855008	MW-15	EPA 8011	OEXT/38714	EPA 8011	GCSV/23059
92273855009	MW-16	EPA 8011	OEXT/38817	EPA 8011	GCSV/23102
92273855010	MW-18	EPA 8011	OEXT/38817	EPA 8011	GCSV/23102
92273855011	MW-19	EPA 8011	OEXT/38817	EPA 8011	GCSV/23102
92273855012	MW-20	EPA 8011	OEXT/38817	EPA 8011	GCSV/23102
92273855013	PW-1R	EPA 8011	OEXT/38817	EPA 8011	GCSV/23102
92273855014	RW-2	EPA 8011	OEXT/38817	EPA 8011	GCSV/23102
92273855015	RW-3	EPA 8011	OEXT/38817	EPA 8011	GCSV/23102
92273855016	RW-4	EPA 8011	OEXT/38862	EPA 8011	GCSV/23112
92273855017	RW-5	EPA 8011	OEXT/38862	EPA 8011	GCSV/23112
92273855018	WSW-1	EPA 8011	OEXT/38817	EPA 8011	GCSV/23102
92273855019	RW-5 DUP	EPA 8011	OEXT/38862	EPA 8011	GCSV/23112
92273855020	FIELD BLANK	EPA 8011	OEXT/38817	EPA 8011	GCSV/23102
92273855018	WSW-1	EPA 8260	MSV/34113		
92273855001	MW-3R	EPA 8260	MSV/34081		
92273855002	MW-4R	EPA 8260	MSV/34157		
92273855003	MW-5RR	EPA 8260	MSV/34159		
92273855004	MW-7RR	EPA 8260	MSV/34157		
92273855005	MW-9	EPA 8260	MSV/34122		
92273855006	MW-11	EPA 8260	MSV/34122		
92273855007	MW-14	EPA 8260	MSV/34159		
92273855008	MW-15	EPA 8260	MSV/34122		
92273855009	MW-16	EPA 8260	MSV/34122		
92273855010	MW-18	EPA 8260	MSV/34122		
92273855011	MW-19	EPA 8260	MSV/34159		
92273855012	MW-20	EPA 8260	MSV/34159		
92273855013	PW-1R	EPA 8260	MSV/34159		
92273855014	RW-2	EPA 8260	MSV/34143		
92273855015	RW-3	EPA 8260	MSV/34159		
92273855016	RW-4	EPA 8260	MSV/34122		
92273855017	RW-5	EPA 8260	MSV/34131		
92273855019	RW-5 DUP	EPA 8260	MSV/34122		

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PANTRY 911 15-5189
Pace Project No.: 92273855

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92273855020	**FIELD BLANK**	EPA 8260	MSV/34122		
92273855021	**TRIP BLANK**	EPA 8260	MSV/34122		

Pace Analytical	Sample Condition Upon Receipt (SCUR)	Page 1 of 2*
	Document Number: F-CHR-CS-003-rev.16	Issuing Authority: Pace Huntersville Quality Office

Client Name: MECI

* Page 2 of 2 is for Internal Use Only

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other _____

Optional
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☐ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

Thermometer Used: IR Gun T1402 Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Temp Correction Factor T1402 No Correction

Corrected Cooler Temp.: 3.6 °C Biological Tissue is Frozen: Yes No N/A

Date and Initials of person examining contents: AP 10.29.15

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☐Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☐Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☐Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☐Yes ☑No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☐No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☑No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☐N/A	11.
Sample Labels match COC:	☐Yes ☑No ☐N/A	12. NO date or time on samples
-Includes date/time/ID/Analysis Matrix: WT		
All containers needing preservation have been checked.	☐Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☑Yes ☐No	
Samples checked for dechlorination:	☐Yes ☐No ☐N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☐N/A	15.
Trip Blank Present:	☐Yes ☐No ☐N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

SCURF Review: NMG Date: 10-28-15

SRF Review: TC Date: 10/30/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

WO# : 92273855

92273855

(if no label available)

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 3

1903734

Section A Required Client Information:

Company: MECI
Address: 231 Dooley Rd
Lexington, SC 29073
Email To: JLC@meci.net
Phone: 803-808-2043 Fax: 803-808-2048
Requested Due Date/TAT:

Section B Required Project Information:

Report To: B. Shane
Copy To:
Purchase Order No.: 4600422413
Project Name: Pantry 911
Project Number: 15-5189

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: T. Carter
Pace Profile #: 8336-5

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER

Site Location STATE: SC — Jasper

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / , -) Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test: BTEX/MTBE	1,2-DCA	8-DAY	EDB	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92473555
1	MW-3R	WT	G			10/27/15	13:38						✓						✓	✓	✓	✓		Heavy Sheen; Odor	001
2	MW-4R						13:07						✓											Odor	002
3	MW-5RR						11:54						✓											No odor	003
4	MW-7RR						12:28						✓											Sheen	004
5	MW-9	WT	G				11:29						✓											No odor	005
6	MW-10																							Not Sampled	—
7	MW-11	WT	G				11:59						✓											No odor	006
8	MW-14	WT	G				13:21						✓											Sheen; Odor	007
9	MW-15	WT	G				12:55						✓											Sheen; Odor	008
10	MW-16	WT	G				12:21						✓											No odor	009
11	MW-17																							Not Sampled	—
12	MW-18	WT	G				11:35						✓											No odor	010

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
		10/28	10:45		10/28	1645				
		10/28	1735		10/28	1735	3.1	✓	✓	✓

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Todd Elder
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/27/15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 2 of 3

1903735

Section A Required Client Information:

Company: MECI
Address: 232 Dooley Rd
Lexington, SC 29073
Email To: JLee@meiner
Phone: 803-808-2043 Fax: 803-808-2048
Requested Due Date/TAT:

Section B Required Project Information:

Report To: B. Shane
Copy To:
Purchase Order No.: 4600422413
Project Name: Parry 911
Project Number: 15-5189

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: T. Carter
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER

Site Location STATE: SC — Jasper

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Requested Analysis Filtered (Y/N): BTEX/MTBE	1,2-DCA	X-OXY	EDB	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92273855
1	MW-19	WT	G			10/27/15	12:05		6				HCl					✓	✓	✓	✓	✓			No odor 011
2	MW-20	WT	G			10/27/15	12:18		6				HCl					✓	✓	✓	✓	✓			Odor 012
3	PW-1A	WT	G			10/27/15	13:04		6				HCl					✓	✓	✓	✓	✓			013
4	RW-1																								Not Sampled —
5	RW-2	WT	G			10/27/15	13:10		6				HCl					✓	✓	✓	✓	✓			Odor 014
6	RW-3	WT	G			10/27/15	13:19		6				HCl					✓	✓	✓	✓	✓			Sheen, odor 015
7	RW-4	WT	G			10/27/15	12:55		6				HCl					✓	✓	✓	✓	✓			Sheen, odor 016
8	RW-5	WT	G			10/27/15	12:30		6				HCl					✓	✓	✓	✓	✓			Heavy Sheen, Duplicated, Odor 017
9	RW-6																								Not Sampled —
10	WSW-1	DW	G			10/27/15	11:40		6				HCl					✓	✓	✓	✓	✓			LDL 018
11	RW-5 DUP	WT	G			10/27/15	12:31		6				HCl					✓	✓	✓	✓	✓			Duplicate Sample 019
12	Field Blank	WT	G			10/27/15	13:32		6				HCl					✓	✓	✓	✓	✓			Field Blank 020

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
		10/28	10:45		10/28	1045				
		10/28	1735		10.29.15	1735	3.5	✓	✓	✓

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Todd Elder
SIGNATURE of SAMPLER: Todd Elder
DATE Signed (MM/DD/YY): 10/27/15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 3 of 3

1903736

Section A Required Client Information:

Company: MECI
Address: 231 Dooley Rd
Lexington, SC 29073
Email To: JLC@meci.net
Phone: 803-808-2043 Fax: 803-808-2048
Requested Due Date/TAT:

Section B Required Project Information:

Report To: B. Shane
Copy To:
Purchase Order No.: 4600422413
Project Name: Pantry 911
Project Number: 15-5189

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: T. Carter
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☑ UST ☐ RCRA ☐ OTHER

Site Location STATE: SC Jasper

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test ↓: BTEX/MTBE	1,2-DCA	8-OXY	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	Trip Blank	WT	G			10/27/15	13:32		2				✓						✓	✓	✓		92273855 Trip Blank 021
2																								
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
		10/28	10:45		10/28	1045				
		10/28	1735		10/28	1735	3.6	✓	✓	✓

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Todd Elder

SIGNATURE of SAMPLER: Todd Elder DATE Signed (MM/DD/YY): 10/27/15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

APPENDIX C:

TAX MAP

(Not Applicable)

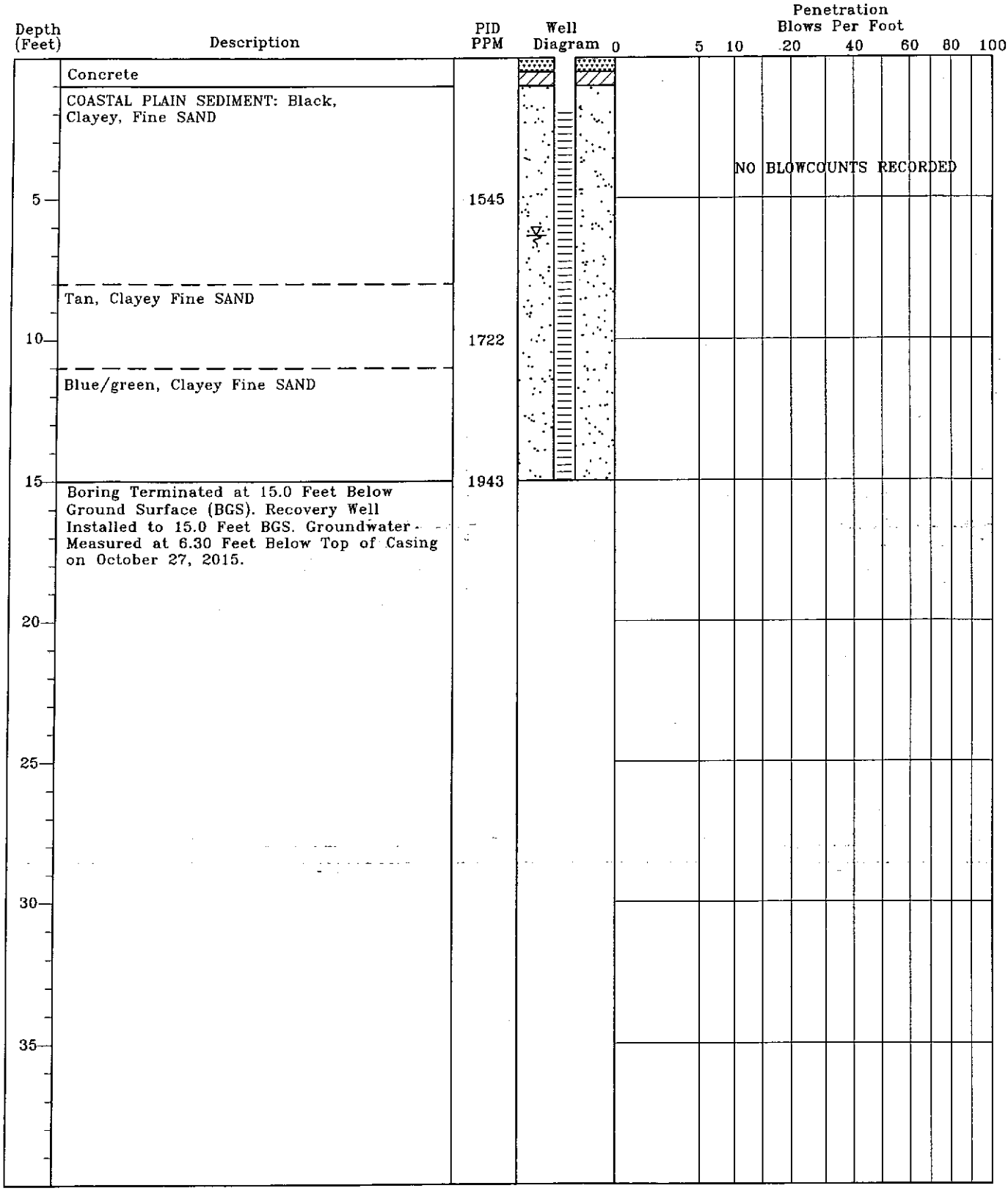
APPENDIX D:

SOIL BORING/FIELD SCREENING LOGS & 1903 FORMS

(Not Applicable)

APPENDIX E:

WELL COMPLETION LOGS & 1903 FORMS



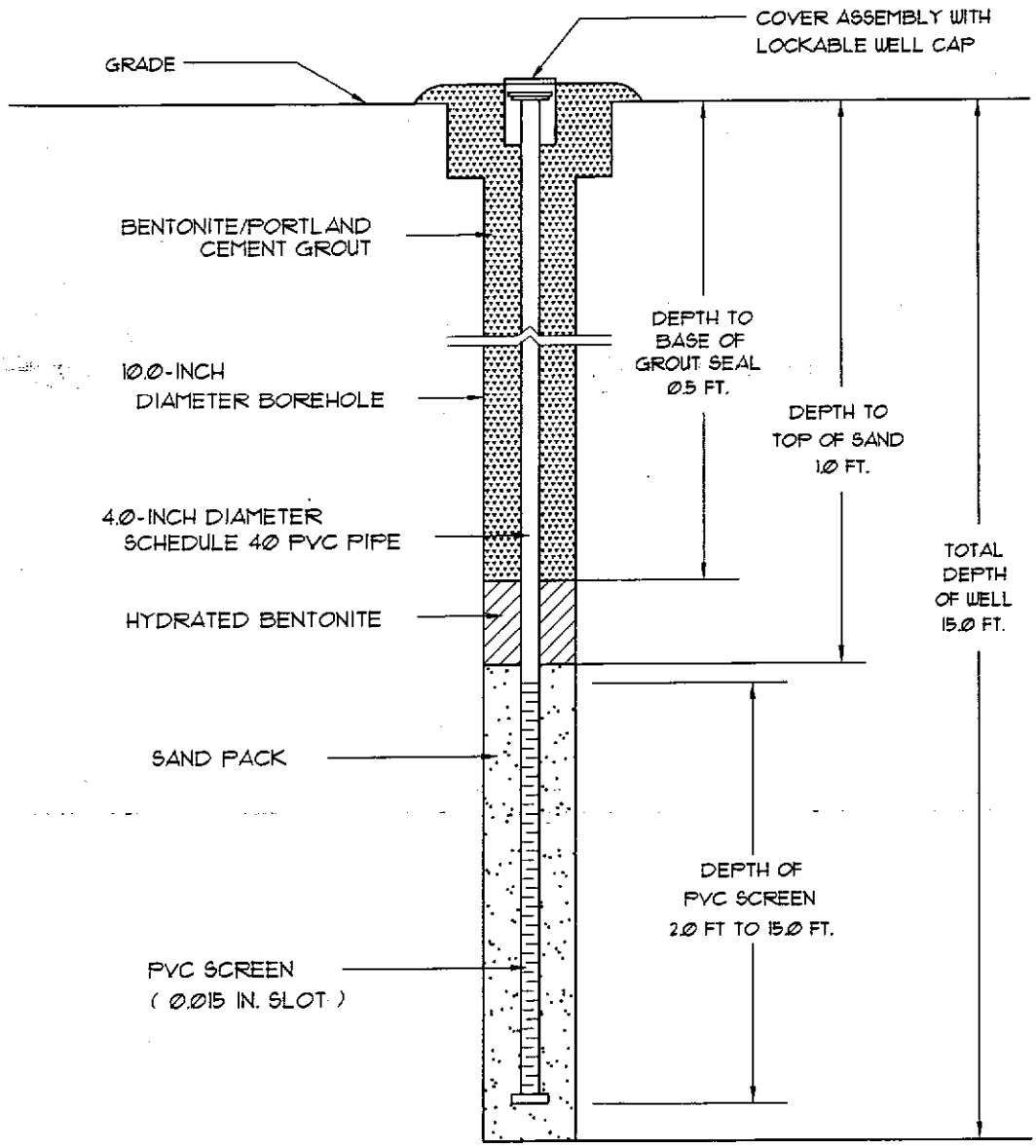
TEST BORING RECORD
Pantry 911
Hardeeville SC
SCDHEC Site ID# 10628
MECI Project Number 15-5189

Boring Number:	RW-4 (10628)
Date Drilled:	05/27/2015
Drilled By:	Environmental Drilling & Probing Services
Logged By:	W. Huss

Prepared By:
Midlands Environmental Consultants, Inc.
231 Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

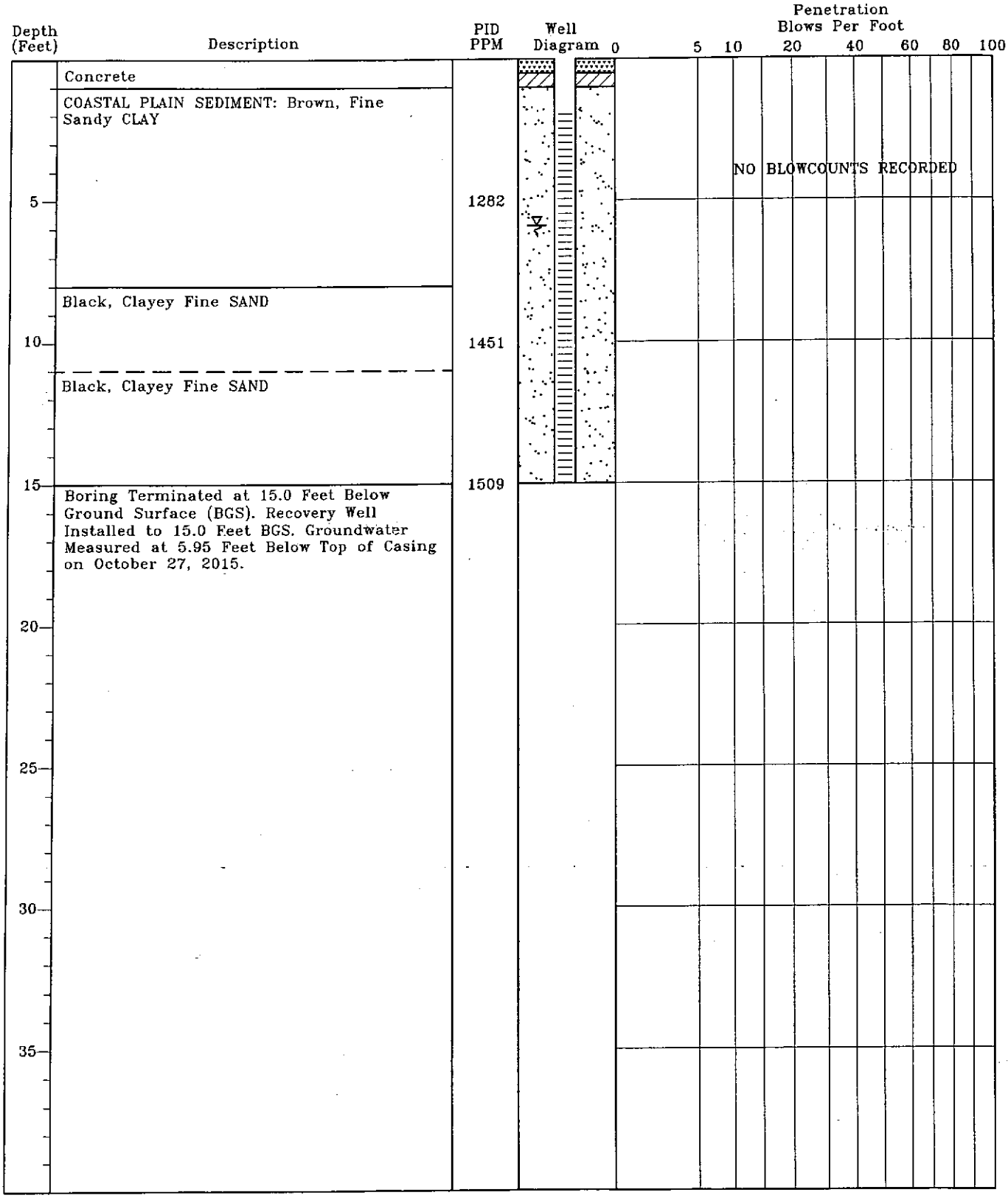
MONITORING WELL INSTALLATION RECORD

Panrty 911
Hardeeville South Carolina
SCDHEC Site ID# 10628
MECI Project Number 15-5189



Well Number:	RW-4 (10628)
Date Drilled:	05/27/2015
Drilled By:	Environmental Drilling & Poboing Services
Driller: D. Brown	S.C. I.D. #: B 02053
Logged By:	W. Huss

Prepared By:
Midlands Environmental Consultants, Inc.
231 Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



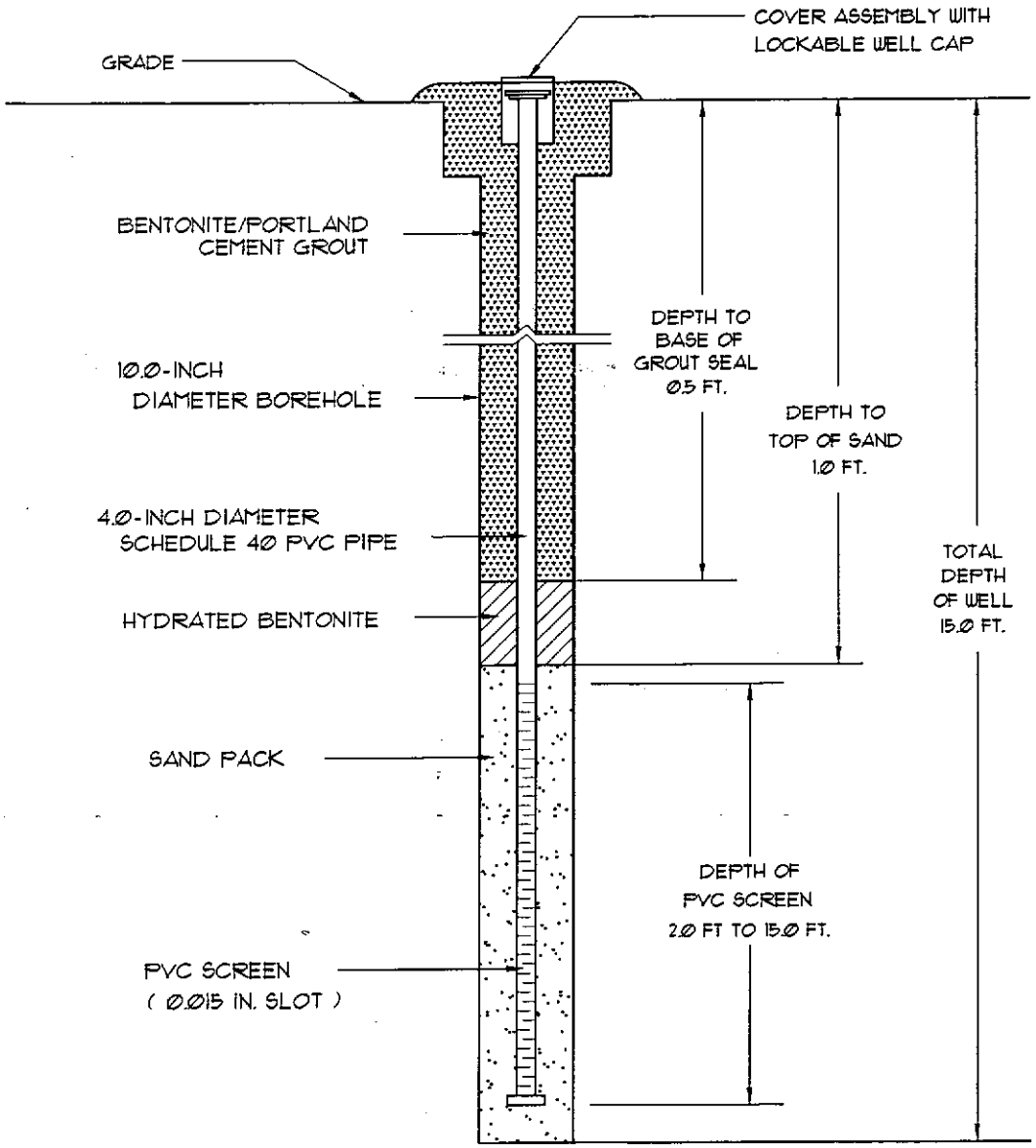
TEST BORING RECORD
Pantry 911
Hardeeville SC
SCDHEC Site ID# 10628
MECI Project Number 15-5189

Boring Number:	RW-5 (10628)
Date Drilled:	05/27/2015
Drilled By:	Environmental Drilling & Probing Services
Logged By:	W. Huss

Prepared By:
Midlands Environmental Consultants, Inc.
231 Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

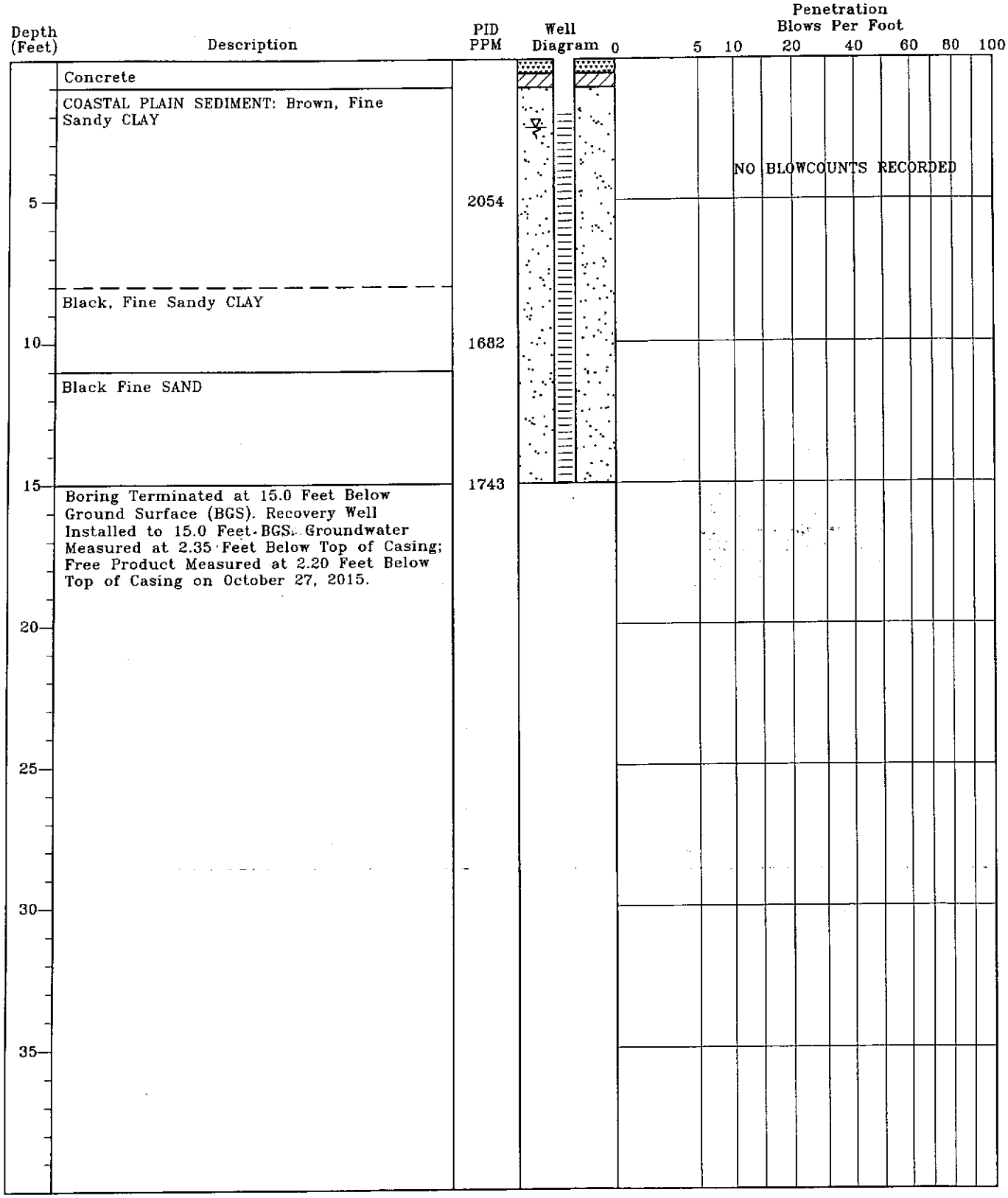
MONITORING WELL INSTALLATION RECORD

Panrty 911
Hardeeville South Carolina
SCDHEC Site ID# 10628
MECI Project Number 15-5189



Well Number:	RW-5 (10628)
Date Drilled:	05/27/2015
Drilled By:	Environmental Drilling & Poboing Services
Driller: D. Brown	S.C. I.D. #: B 02053
Logged By:	W. Huss

Prepared By:
Midlands Environmental Consultants, Inc.
231 Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048



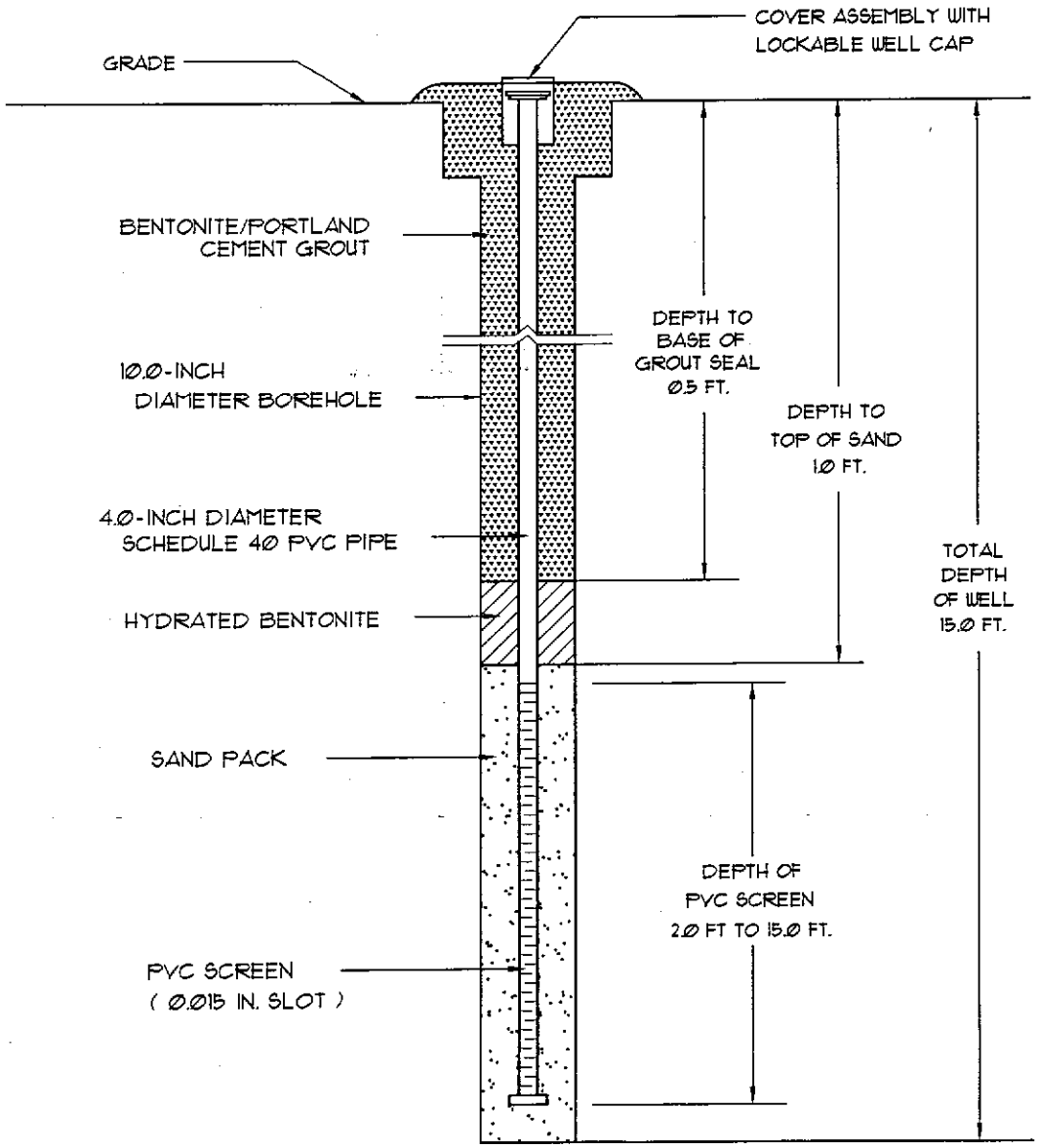
TEST BORING RECORD
Pantry 911
Hardeeville SC
SCDHEC Site ID# 10628
MECI Project Number 15-5189

Boring Number:	RW-6 (10628)
Date Drilled:	05/27/2015
Drilled By:	Environmental Drilling & Probing Services
Logged By:	W. Huss

Prepared By:
Midlands Environmental Consultants, Inc.
231 Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 fax: 808-2048

MONITORING WELL INSTALLATION RECORD

Panrty 911
Hardeeville South Carolina
SCDHEC Site ID# 10628
MECI Project Number 15-5189



Well Number:	RW-6 (10628)
Date Drilled:	05/27/2015
Drilled By:	Environmental Drilling & Poboing Services
Driller: D. Brown	S.C. I.D. #: B 02053
Logged By:	W. Huss

Prepared By:
Midlands Environmental Consultants, Inc.
231 Dooley Road
Lexington, South Carolina 29073
(803) 808-2043 Fax: 808-2048

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 S. Okatie Highway
City: Hardeeville Zip: 29927-8034
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** RW-4

4. ABANDONMENT: ☐ Yes ☑ No
Give Details Below
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Concrete	0.5	0.5
Black, Clayey, SAND	7.5	8.0
Tan, Clayey SAND	3.0	11.0
Blue/green, Clayey SAND	4.0	15.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
RW-4

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER:

8. USE:
☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/27/2015 Date Completed: 5/27/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: _____
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0.0 in. to 2.0 ft. depth
_____ in. to _____ ft. depth
Height: Above/Below Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: Schedule 40 PVC Diam.: 4 Inch
Slot/Gauge: 0.015 Length: 12.0 Feet
Set Between: 2.0 ft. and 15.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL 6.30 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 15.0 ft. to 1.0 ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other _____
Depth: From 0.5 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe _____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: David Brown **CERT. NO.:** 02053
Address: (Print) Level: A B C D (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: David Brown (Well Driller) Date: 5/31/2015

If D Level Driller, provide supervising driller's name:

DHEC 1903 (03/2004) COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 S. Okatie Highway
City: Hardeeville Zip: 29927-8034
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** RW-5

4. ABANDONMENT: ☐ Yes ☑ No
Give Details Below
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Concrete	0.5	0.5
Brown Sandy CLAY	7.5	8.0
Black Clayey SAND	7.0	15.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
RW-5

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER:

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 5/27/2015
15.0 ft. Date Completed: 5/27/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: _____
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0.0 in. to 2.0 ft. depth
_____ in. to _____ ft. depth
Height: Above/Below
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: Schedule 40 PVC Diam.: 4 Inch
Slot/Gauge: 0.015 Length: 12.0 Feet
Set Between: 2.0 ft. and 15.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL 5.95 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 15.0 ft. to 1.0 ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other _____
Depth: From 0.5 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe_____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: David Brown **CERT. NO.:** 02053
Address: (Print) Level: A B C D (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: David Brown (Well Driller) Date: 5/31//2015

If D Level Driller, provide supervising driller's name:

DHEC 1903 (03/2004) COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC (last) (first)
Address: 2600 Bull Street
City: Columbia State: SC Zip: 29201-1708
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Jasper
Name: Pantry 911
Street Address: 6195 S. Okatie Highway
City: Hardeeville Zip: 29927-8034
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: 10628 **PUBLIC SYSTEM NUMBER:** RW-6

4. ABANDONMENT: ☐ Yes ☑ No
Give Details Below
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Concrete	0.5	0.5
Brown Sandy CLAY	7.5	8.0
Black Sandy CLAY	3.0	11.0
Black Fine SAND	4.0	15.0
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
RW-6

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☑ Other

7. PERMIT NUMBER:

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.0 ft. Date Started: 5/27/2015 Date Completed: 5/27/2015

10. CASING: ☐ Threaded ☐ Welded
Diam.: _____
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0.0 in. to 2.0 ft. depth
_____ in. to _____ ft. depth
Height: Above/Below
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: Schedule 40 PVC Diam.: 4 Inch
Slot/Gauge: 0.015 Length: 12.0 Feet
Set Between: 2.0 ft. and 15.0 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

12. STATIC WATER LEVEL 2.35 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 15.0 ft. to 1.0 ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other _____
Depth: From 0.5 ft. to 0.0 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
Type _____
Well Disinfected ☐ Yes ☐ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☐
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe _____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: David Brown **CERT. NO.:** 02053
Address: (Print) Level: A B C D (circle one)
17538 Greenhill Road
Charlotte, North Carolina 28278
Telephone No.: 704-607-7529 Fax No.: 803-548-2233

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: David Brown (Well Driller) Date: 5/31/2015

If D Level Driller, provide supervising driller's name:

DHEC 1903 (03/2004)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

APPENDIX F:

AQUIFER EVALUATION SUMMARY FORMS, DATA, GRAPHS, EQUATIONS

(Not Applicable)

APPENDIX G:

DISPOSAL MANIFEST

Midlands
Environmental
Consultants, Inc.

November 10, 2015

Re: Treatment of Purge Water
Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID Number 10628
MECI Project Number 15-5189

To Whom It May Concern;

Midlands Environmental Consultants, Inc. is providing the following letter as certification that treatment of the referenced purge water complied with the conditions of "Proposed Conditions for Use of Portable Activated Carbon Units for the Treatment of Small Volumes of Petroleum Hydrocarbon Contaminated Groundwater", as described in the following:

Applicability:

Groundwater treated was obtained as a result development of wells and sampling.

Conditions:

1. The purge/bail water from all wells is mixed before usage of the Activated Carbon Unit.
2. No free-product was detected in any of the purge water drums.
3. Analytical results of from well sampling show average concentrations of petroleum hydrocarbon constituents less than 5000 parts per billion (ppb) Benzene and less than 20,000 ppb total BTEX.
4. The existing carbon pack will be replaced/reactivated every 5,000 gallons.
5. Record of usage is maintained by Contractor.
6. Any and all recommendations and conditions issued by the Manufacturer have been adhered to.
7. Any and all recommendations and conditions (even on a site by site basis) issued by the SCDHEC must be adhered to.

All purge waters were treated on-site using an up-flow treatment drum loaded with 80 pounds of activated carbon. Carbon will be loaded to a maximum of 3 pounds of total organic compounds or 5,000 gallons of development/purge water, whichever occurs first.

Post Office Box 854, Lexington SC 29071 • 231 Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

A total of 51.75 gallons were treated on October 27, 2015 during the sampling event at the referenced site.

Midlands Environmental also tracks cumulative organic compounds adsorbed on the activated carbon to ensure the capacity of carbon mass is not over-charged. This data is available upon request.

Should you have any questions or comments, please contact the undersigned.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff S. Coleman
Senior Scientist

WASTE MANAGEMENT

Richland County LF
1047 Highway Church Road
Elgin, SC, 29045
Ph: (803) 788-3054

Original
Ticket# 1385009

Customer Name	MIDLANDSENVIRON MIDLANDS ENVI	Carrier	MIDLANDSENVIRON MIDLANDS ENVIRONMENT
Ticket Date	06/05/2015	Vehicle#	1
Payment Type	Credit Account	Container	
Manual Ticket#		Driver	
Hauling Ticket#		Check#	
Route		Billing #	0000469
State Waste Code		Gen EPA ID	
Manifest	0		
Destination			
PO			
Profile	VA2718 (SOIL FROM UST ASSESSMENT)		
Generator	126-MIDLANDSENVIRONMENTAL MIDLANDS ENVIRONMENTAL		

	Time	Scale	ScaleMaster		
In	06/05/2015 10:29:06	Inbound#1	Dwayne	Gross	13180 lb
Out	06/05/2015 10:50:51	Outbound#1	Dwayne	Tare	9260 lb
				Net	3920 lb
				Tons	1.96

Comments

WASTE MANAGEMENT

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	SOIL-Cont. Soil -	100	1.96	Tons				32-LEXINGT
2	FUEL-Fuel Surcharg	100		%				32-LEXINGT
3	EVF-P-Standard Env	100		%				32-LEXINGT
4	RCR-P-Regulatory C	100		%				32-LEXINGT

Total Fees
Total Ticket

SIGNATURE

03WM

SPECIAL WASTE MANIFEST

WASTE ID NUMBER VA2718	*Richland Landfill* 1047 Highway Church Road Elgin, SC 29045
EXPIRATION DATE December 11, 2016	Special Waste Phone: 803-744-3345 Fax: 866-904-7194

Prepared by: Sandra Reeves

GENERATOR OF WASTE: MIDLANDS ENV. CONSULTANTS, INC. - VARIOUS

CUSTOMER: MIDLANDS ENV. CONSULTANTS, INC. ACCOUNT NUMBER: 820-469

LOCATION OF WASTE:

CITY: Lexington COUNTY: Lexington

PHONE NUMBER: 803-808-2043 CONTACT: LYNN SHANE

FAX NUMBER: 803-808-2048

GENERATOR'S SIGNATURE [signature] DATE: 6-5-15

TRANSPORTER OF WASTE: Todd Elder

DATE: 6-5-15 TRUCK NUMBER: 1

DRIVER'S SIGNATURE [signature]

**** TO BE COMPLETED BY RICHLAND LANDFILL******

DISPOSAL SITE: RICHLAND LANDFILL ELGIN, SC

DESCRIPTION OF WASTE: SOIL FROM UST ASSESSMENT Waste Class: SOIL

TICKET NUMBER: 1385010 TONNAGE: 1.96

RECEIVED BY: DCM

Pantry 911 25% = 0.49 tons
Ma-Shakit 50% = 0.98 tons
M&E Grocery 25% = 0.49 tons

APPENDIX H:

LOCAL ZONING REGULATIONS

(Not Applicable)

APPENDIX I:

FATE AND TRANSPORT MODELING

(Not Applicable)

APPENDIX J:

ACCESS AGREEMENTS

(Not Applicable)

APPENDIX K:

DATA VERIFICATION CHECKLIST

Contractor Checklist

Item#	Item	Yes	No	N/A
1	Are Facility Name, Permit #, and address provided?	X		
2	Is UST Owner/Operator name, address, & phone number provided?	X		
3	Is name, address, & phone number of current property owner provided?	X		
4	Is the DHEC Certified UST Site Rehabilitation Contractor's Name, Address, telephone number, and certification number provided?	X		
5	Is the name, address, telephone number, and certification number of the well driller that installed borings/monitoring wells provided?	X		
6	Is the name, address, telephone number, and certification number of the certified laboratory(ies) performing analytical analyses provided?	X		
7	Has the facility history been summarized?	X		
8	Has the regional geology and hydrogeology been described?	X		
9	Are the receptor survey results provided as required?			X
10	Has current use of the site and adjacent land been described?	X		
11	Has the site-specific geology and hydrogeology been described?	X		
12	Has the primary soil type been described?	X		
13	Have field screening results been described?			X
14	Has a description of the soil sample collection and preservation been detailed?			X
15	Has the field screening methodology and procedure been detailed?			X
16	Has the monitoring well installation and development dates been provided?	X		
17	Has the method of well development been detailed?	X		
18	Has justification been provided for the locations of the monitoring wells?	X		
19	Have the monitoring wells been labeled in accordance with the UST QAPP guidelines?	X		
20	Has the groundwater sampling methodology been detailed?	X		
21	Have the groundwater sampling dates and groundwater measurements been provided? (Table 2 & Figure 5)	X		
22	Has the purging methodology been detailed?	X		
23	Has the volume of water purged from each well been provided along with measurements to verify that purging is complete? (Appendix B)	X		
24	If free-product is present, has the thickness been provided?	X		
25	Does the report include a brief discussion of the assessment done and the results?	X		
26	Does the report include a brief discussion of the aquifer evaluation and results?			X
27	Does the report include a brief discussion of the fate & transport models used?			X

Item#	Item	Yes	No	N/A
28	Are the site-conceptual model tables included? (Tier 1 Risk Evaluation)			X
29	Have the exposure pathways been analyzed? (Tier 2 Risk Evaluation)			X
30	Have the SSTLs for each compound and pathway been calculated? (Tier 2 Risk Evaluation)			X
31	Have recommendations for further action been provided and explained?	X		
32	Has the soil analytical data for the site been provided in tabular format? (Table 1)			X
33	Has the potentiometric data for the site been provided in tabular format? (Table 2)	X		
34	Has the current and historical laboratory data been provided in tabular format? (Tables 3 & 3A)	X		
35	Have the aquifer characteristics been provided and summarized on the appropriate form? (Appendix F)			X
36	Have the Site conceptual model tables been included? (Tier 1 Risk Evaluation)			X
37	Has the topographic map been provided with all required elements? (Figure 1)	X		
38	Has the site base map been provided with all required elements? (Figure 2)	X		
39	Have the CoC site maps been provided? (Figures 4, 4A, 4B, 4C)	X		
40	Has the site potentiometric map been provided? (Figure 5)	X		
41	Have the geologic cross-sections been provided? (Figure 6)			X
42	Have maps showing the predicted migration of the CoCs through time been provided? (Tier 2 Risk Evaluation)			X
43	Has the site survey been provided and include all necessary elements? (Appendix A)			X
44	Have the sampling logs, chain of custody forms, and the analytical data package been included with all required elements? (Appendix B)	X		
45	Is the laboratory performing the analyses properly certified?	X		
46	Has the tax map been included with all necessary elements? (Appendix C)			X
47	Have the soil boring/field screening logs been provided? (Appendix E)			X
48	Have the well completion logs and SCDHEC Form 1903 been provided? (Appendix E)	X		
49	Have the aquifer evaluation forms, data, graphs, equations, etc. been provided? (Appendix F)			X
50	Have the disposal manifests been provided? (Appendix G)	X		
51	Has a copy of the local zoning regulations been provided? (Appendix H)			X
52	Has all fate and transport modeling been provided? (Appendix I)			X
53	Have copies of all access agreements obtained by the contractor been provided? (Appendix J)			X
54	Has a copy of this form been attached to the final report and are explanations for any missing or incomplete data been provided? (Appendix K)	X		

dhec

Healthy People.

MR DONNIE MALPHRUS
MALPHRUS ENTERPRISES
2788 NORTH OKATIE HIGHWAY
RIDGELAND SC 29936

JUL 28 2017

UST 47 DOCKETING

Re: **Site Specific Work Plan Request**
Pantry 911, 6195 South Okatie Highway, Hardeeville, SC 29927-8034
UST Permit #10628
Release Reported April 28, 1995
Monitoring Report Received December 11, 2015
Jasper County

Dear Mr. Malphrus:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (DHEC) has reviewed the referenced report. The report indicates the presence of chemicals of concern in the groundwater.

To determine what risk the referenced release may pose to the environment and public health, and in accordance with Section 280.65 of the South Carolina Underground Storage Tank Control Regulations, implementation of a groundwater sampling event as outlined in the UST Quality Assurance Program Plan (QAPP) Revision 3.1 is necessary. All monitoring wells and water supply wells associated with the release should be sampled for BTEX, naphthalene, MtBE, 1,2-DCA, 8-Oxygenates and EDB. The groundwater sampling event should be conducted in accordance with the UST QAPP and must be conducted in compliance with all applicable regulations. A copy of the QAPP for the Underground Storage Tank Division is available at http://www.dhec.sc.gov/Environment/LW/UST/ReleaseAssessmentClean-up/QualityAssurance/.

Please have your contractor complete and submit the Site Specific Work Plan and Cost Proposal within thirty (30) days of the date of this letter. The Site Specific Work Plan form can be found at http://www.dhec.sc.gov/Environment/LW/UST/ReleaseAssessmentClean-up/QualityAssurance/. Every component may not be necessary to complete the above scope of work. The State Underground Petroleum Environmental Response Bank (SUPERB) Account allowable cost for each component is included on the Assessment Component Cost Agreement Form. **Please note that technical and financial preapproval from the Agency must be issued before work begins.**

On all correspondence regarding this site, please reference UST Permit #10628. If you have questions or need additional information, feel free to call me at (803) 898-0606.

Sincerely,

John C. Bryant, Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

cc: Midlands Environmental Consultants, Inc., PO Box 854, Lexington, SC 29071
Technical File

Midlands
Environmental
Consultants, Inc.

July 19, 2017

Mr. John Bryant, Hydrogeologist
Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Site-Specific Work Plan
Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID Number 10628
MECI Project Number 17-6102
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Bryant,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Site-Specific Work Plan for the referenced site.

If you have any question or comments please feel free to contact us at 803-808-2043.

Sincerely,
Midlands Environmental Consultants, Inc.

Kyle V. Pudney
Project Biologist

Jeff L. Coleman
Senior Scientist

Post Office Box 854, Lexington SC 29071 • 231 Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

Site-Specific Work Plan for Approved ACQAP
Underground Storage Tank Management Division

To: Mr. John Bryant (SCDHEC Project Manager)
From: Jeff L. Coleman (Contractor Project Manager)
Contractor: Midlands Environmental Consultants, Inc. UST Contractor Certification Number: 009

Facility Name: Pantry 911 UST Permit #: 10628
Facility Address: 6195 South Okatie Highway, Hardeeville, SC 29927
Responsible Party: Malphrus Enterprises Phone: N/A
RP Address: 2788 North Okatie Highway, Ridgeland, SC 29936
Property Owner (if different): Shreejakshani LLC
Property Owner Address: 6194 South Okatie Highway, Hardeeville, SC 29927
Current Use of Property: Active Service Station

Scope of Work (Please check all that apply)

☐ IGWA ☐ Tier II ☑ Groundwater Sampling ☐ GAC
☐ Tier I ☐ Monitoring Well Installation ☐ Other _____

Analyses (Please check all that apply)

Groundwater/Surface Water:

☑ BTEXNMDCA (8260B) ☐ Lead ☐ BOD ☐ Methane
☑ Oxygenates (8260B) ☐ 8 RCRA Metals ☐ Nitrate ☐ Ethanol
☑ EDB (8011) ☐ TPH ☐ Sulfate ☐ Dissolved Iron
☐ PAH (8270D) ☐ pH ☐ Other _____

Drinking Water Supply Wells:

☐ BTEXNMDCA (524.2) ☐ Mecury (200.8 245.1 or 245.2) ☐ EDB (504.1)
☐ Oxygenates & Ethanol (8260B) ☐ RCRA Metals (200.8)

Soil:

☐ BTEXNM ☐ Lead ☐ RCRA Metals ☐ TPH-DRO (3550B/8015B) ☐ Grain Size
☐ PAH ☐ Oil & Grease (9071) ☐ TPH-GRO (5030B/8015B) ☐ TOC

Air:

☐ BTEXN

Sample Collection (Estimate the number of samples of each matrix that are expected to be collected.)

_____ Soil 1 Water Supply Wells _____ Air 2 Field Blank
21 Monitoring Wells _____ Surface Water 3 Duplicate 2 Trip Blank

Field Screening Methodology

Estimate number and total completed depth for each point, and include their proposed locations on the attached map.

# of shallow points proposed: _____ Estimated Footage: _____ feet per point
# of deep points proposed: _____ Estimated Footage: _____ feet per point
Field Screening Methodology: _____

Permanent Monitoring Wells

Estimate number and total completed depth for each well, and include their proposed locations on the attached map.

# of shallow wells: _____ Estimated Footage: _____ feet per point
# of deep wells: _____ Estimated Footage: _____ feet per point
# of recovery wells: _____ Estimated Footage: _____ feet per point
Comments, if warranted:

_____

_____

UST Permit #: 10628 Facility Name: Pantry 911

Implementation Schedule (Number of calendar days from approval)
Field Work Start-Up: 7/19/2017 Field Work Completion: 8/19/2017
Report Submittal: 9/19/2017 # of Copies Provided to Property Owners: 2

Aquifer Characterization
Pump Test: ☐ Slug Test: ☐ (Check one and provide explanation below for choice)

Investigation Derived Waste Disposal
Soil: _____ Tons Purge Water: 250.0 Gallons
Drilling Fluids: _____ Gallons Free-Phase Product: _____ Gallons

Additional Details For This Scope of Work
For example, list wells to be sampled, wells to be abandoned/repaired, well pads/bolts/caps to replace, details of AFVR event, etc.

-Historically, monitoring wells MW-10 and MW-17 have not been located. All other wells were sampled during the most recent sampling event in October 2015.
-Samples will be analyzed for BTEXNM, DCA, Oxy's and EDB.
-All will be purged prior to sample collection.
-Water supply well WSW-1 will be sampled for BTEXNM, DCA (524.2), Oxy's (8260B), and EDB (504.1).

Compliance With Annual Contractor Quality Assurance Plan (ACQAP)
Yes Laboratory as indicated in ACQAP? (Yes/No) If no, indicate laboratory information below.
Name of Laboratory: _____
SCDHEC Certification Number: _____
Name of Laboratory Director: _____

Yes Well Driller as indicated in ACQAP? (Yes/No) If no, indicate driller information below.
Name of Well Driller: _____
SCLLR Certification Number: _____

None Other variations from ACQAP. Please describe below.

Attachments
1. Attach a copy of the relevant portion of the USGS topographic map showing the site location.
2. Prepare a site base map. This map must be accurately scaled, but does not need to be surveyed. The map must include the following:
   - North Arrow
   - Location of property lines
   - Location of buildings
   - Previous soil sampling locations
   - Previous monitoring well locations
   - Proposed soil boring locations
   - Proposed monitoring well locations
   - Legend with facility name and address, UST permit number, and bar scale
   - Streets or highways (indicate names and numbers)
   - Location of all present and former ASTs and USTs
   - Location of all potential receptors
3. Assessment Component Cost Agreement, SCDHEC Form D-3664

dhec
Healthy People. Healthy Communities.

ASSESSMENT COMPONENT COST AGREEMENT
SOUTH CAROLINA
Department of Health and Environmental Control
Underground Storage Tank Management Division
State Underground Petroleum Environmental Response Bank Account
August 16, 2016

Facility Name: Pantry 911

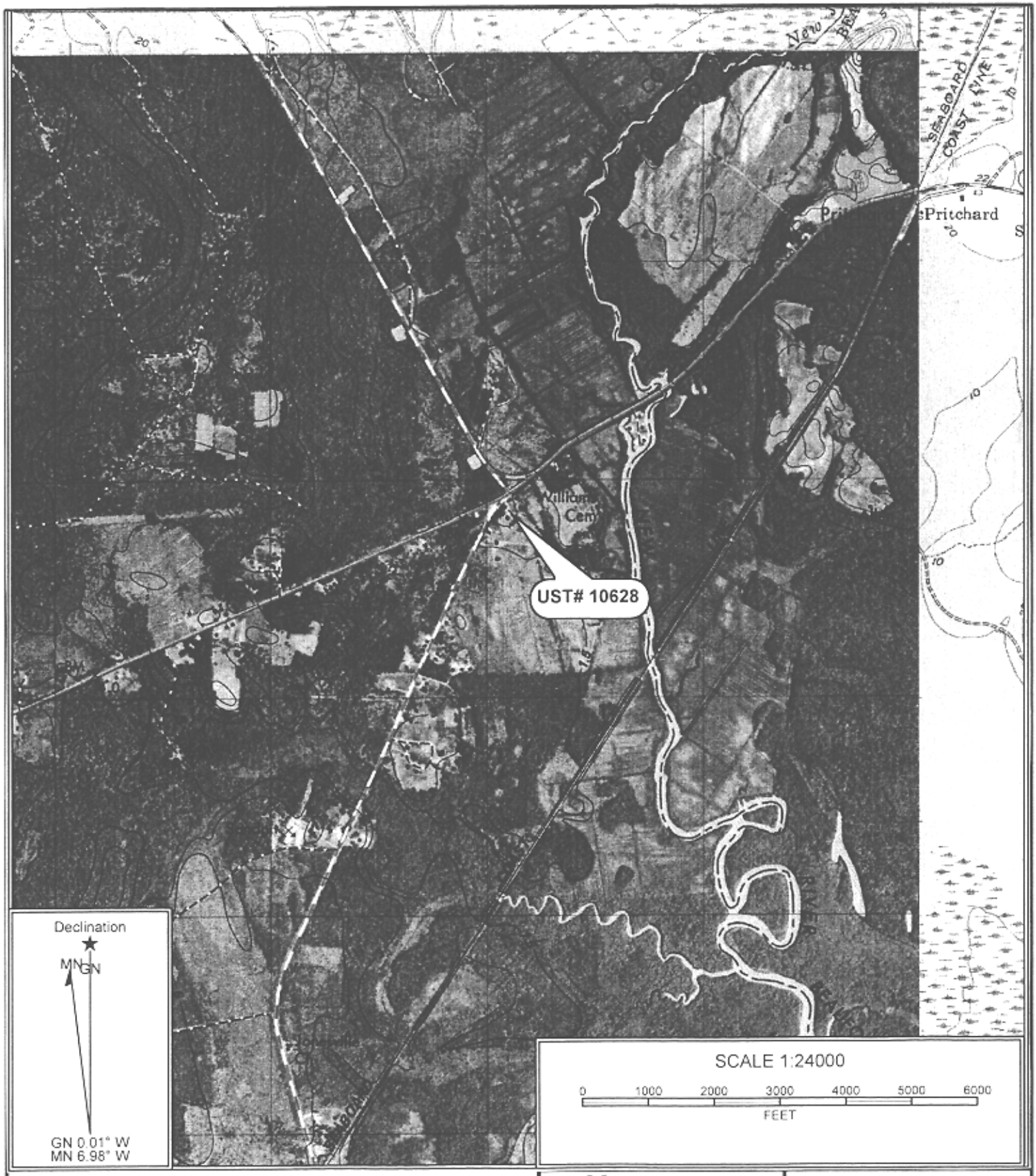
UST Permit #: 10628 **Cost Agreement #:** Proposal

ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
1. Plan Preparation				
A1. Site-specific Work Plan	1	each	$150.00	$150.00
B1. Tax Map		each	$70.00	$0.00
C1. Tier II or Comp. Plan /QAPP Appendix B		each	$250.00	$0.00
2. A1. **Receptor Survey** *		each	$551.00	$0.00
3. Survey (500 ft x 500 ft)				
A1. Comprehensive Survey		each	$1,040.00	$0.00
B. Subsurface Geophysical Survey				
1B. < 10 meters below grade		each	$1,300.00	$0.00
2B. > 10 meters below grade		each	$2,310.00	$0.00
C1. Geophysical UST or Drum Survey		each	$910.00	$0.00
4. Mob/Demob				
A1. Equipment		each	$1,020.00	$0.00
B1. Personnel	2	each	$423.00	$846.00
C1. Adverse Terrain Vehicle		each	$500.00	$0.00
5. A1. **Soil Borings (hand auger)***		foot	$5.00	$0.00
6. Soil Borings (requiring equipment, push technology, etc)* or Field Screening (including water ssample, soil sample, soil gas sample, etc.)*				
AA. Standard		per foot	$15.00	$0.00
C1. Fractured Rock		per foot	$20.20	$0.00
7. A1. **Soil Leachability Model**		each	$60.00	$0.00
8. Abandonment (per foot)*				
A1. 2" diameter or less		per foot	$3.10	$0.00
B1. Greater than 2" to 6" diameter		per foot	$4.50	$0.00
C1. Dug/Bored well (up to 6 feet diameter)		per foot	$15.00	$0.00
9. Well Installation (per foot)*				
A1. Water Table (hand augered)		per foot	$10.60	$0.00
B1. Water Table (drill rig)		per foot	$38.00	$0.00
CC. Telescoping		per foot	$50.00	$0.00
DD. Rock Drilling		per foot	$58.00	$0.00
E1. 2" Rock Coring		per foot	$30.90	$0.00
G1. Rock Multi-sampling ports/screens		per foot	$33.40	$0.00
HH. Recovery Well (4" diameter)		per foot	$45.00	$0.00
II. Pushed Pre-packed screen (1.25" dia)		per foot	$15.00	$0.00
J1. Rotosonic (2" diameter)		per foot	$44.00	$0.00
K. Re-develop Existing Well		per foot	$11.00	$0.00
10. Groundwater Sample Collection / Gauge Depth to Water or Product *				
A1. Groundwater Purge	21	per well/receptor	$60.00	$1,260.00
B1. Air or Vapors		per receptor	$12.00	$0.00
C1. Water Supply	1	per well/receptor	$22.00	$22.00
D1. Groundwater No Purge or Duplicate	3	per well/receptor	$28.00	$84.00
E1. Gauge Well only		per well	$7.00	$0.00
F1. Sample Below Product		per well	$12.00	$0.00
G1. Passive Diffusion Bag		each	$26.00	$0.00
H1. Field Blank	2	each	$24.60	$49.20

11. Laboratory Analyses-Groundwater				
A2. BTEXNM+Oxyg's+1,2 DCA+Eth(8260B)	25	per sample	$122.00	$3,050.00
AA1. Lead, Filtered		per sample	$13.80	$0.00
B2. Rush EPA Method 8260B (All of item A.)		per sample	$153.60	$0.00
C2. Trimethal, Butyl, and Isopropyl Benzenes		per sample	$36.40	$0.00
D1. PAH's		per sample	$60.60	$0.00
E1. Lead		per sample	$16.00	$0.00
F1. EDB by EPA 8011	24	per sample	$45.20	$1,084.80
FF1. EDB by EPA Method 8011 Rush		per sample	$68.20	$0.00
G1. 8 RCRA Metals		per sample	$63.40	$0.00
H1. TPH (9070)		per sample	$41.00	$0.00
II. pH		per sample	$5.20	$0.00
J1. BOD		per sample	$20.00	$0.00
PP. Ethanol		per sample	$14.80	$0.00
11. Analyses-Drinking Water				
L. BTEXNM+1,2 DCA (524.2)	4	per sample	$124.05	$496.20
M. 7-OXYGENATES & ETHANOL (8260B)	4	per sample	$91.75	$367.00
N. EDB (504.1)	3	per sample	$79.50	$238.50
O. RCRA METALS (200.8)		per sample	$100.00	$0.00
11. Analyses-Soil				
Q1. BTEX + Naphth.		per sample	$64.00	$0.00
R1. PAH's		per sample	$64.04	$0.00
S1. 8 RCRA Metals		per sample	$56.40	$0.00
U1. TPH-DRO (3550C/8015C)		per sample	$40.00	$0.00
V1. TPH- GRO (5030B/8015C)		per sample	$35.96	$0.00
W1. Grain size/hydrometer		per sample	$104.00	$0.00
X1. Total Organic Carbon		per sample	$30.60	$0.00
11. Analyses-Air				
Y1. BTEX + Naphthalene		per sample	$216.00	$0.00
11. Analyses-Free Phase Product				
Z1. Hydrocarbon Fuel Identification		per sample	$357.00	$0.00
12. Aquifer Characterization				
A1. Pumping Test*		per hour	$23.00	$0.00
B1. Slug Test*		per test	$191.00	$0.00
C1. Fractured Rock		per test	$100.00	$0.00
13. A1. Free Product Recovery Rate Test*		each	$38.00	$0.00
14. Fate/Transport Modeling				
A1. Mathematical Model		each	$100.00	$0.00
B1. Computer Model		each	$100.00	$0.00
15. Risk Evaluation				
A. Tier I Risk Evaluation		each	$300.00	$0.00
B1. Tier II Risk Evaluation		each	$100.00	$0.00
16. A1. Subsequent Survey*		each	$260.00	$0.00
17. Disposal (gallons or tons)*				
AA. Wastewater	250	gallon	$0.56	$140.00
BB. Free Product		gallon	$0.50	$0.00
C1. Soil Treatment/Disposal		ton	$60.00	$0.00
D1. Drilling fluids		gallon	$0.42	$0.00
18. Miscellaneous (attach receipts)				
		each	$0.00	$0.00
		each	$0.00	$0.00
		each	$0.00	$0.00
20. Tier I Assessment (Use DHEC 3665 form)		standard		$0.00
21. IGWA (Use DHEC 3666 form)		standard		$0.00
22. Corrective Action (Use DHEC 3667 form)		PFP Bid		$0.00

23. Aggressive Fluid & Vapor Recovery (AFVR)				
A1. 8-hour Event*		each	$1,375.00	$0.00
AA. 24-hour Event*		each	$3,825.00	$0.00
A3. 48-hour Event*		each	$6,265.00	$0.00
A4. 96-hour Event*		each	$12,567.50	$0.00
C1. Off-gas Treatment 8 hour		per event	$122.50	$0.00
C2. Off-gas Treatment 24 hour		per event	$241.50	$0.00
C3. Off-gas Treatment 48 hour		per event	$327.00	$0.00
C4. Off-gas Treatment 96 hour		per event	$780.00	$0.00
D. Site Reconnaissance		each	$203.25	$0.00
E1. Additional Hook-ups		each	$25.75	$0.00
F1. Effluent Disposal		gallon	$0.44	$0.00
G. AFVR Mobilization/Demobilization		each	$391.50	$0.00
24. Granulated Activated Carbon (GAC) filter system installation & service:				
A1. New GAC System Installation*		each	$1,900.00	$0.00
BB. Refurbished GAC Sys. Install*		each	$900.00	$0.00
C1. Filter replacement/removal*		each	$350.00	$0.00
DD. GAC System removal, cleaning, & refurbishment*		each	$275.00	$0.00
E1. GAC System housing*		each	$250.00	$0.00
F. In-line particulate filter		each	$150.00	$0.00
G1. Additional piping & fittings		foot	$1.50	$0.00
25. Well Repair				
A1. Additional Copies of the Report Delivered		each	$50.00	$0.00
B1. Repair 2x2 MW pad*		each	$50.00	$0.00
C1. Repair 4x4 MW pad*		each	$88.00	$0.00
D1. Repair well vault*		each	$118.00	$0.00
F1. Replace well cover bolts		each	$2.60	$0.00
G. Replace locking well cap & lock		each	$15.00	$0.00
H1. Replace/Repair stick-up*		each	$134.00	$0.00
II. Convert Flush-mount to Stick-up*		each	$150.00	$0.00
J1. Convert Stick-up to Flush-mount*		each	$130.00	$0.00
K1. Replace missing/illegible well ID plate		each	$12.00	$0.00
Report Prep & Project Management	12%	percent	$7,787.70	$934.52
TOTAL				$8,722.22

*The appropriate mobilization cost can be added to complete these tasks, as necessary



Reference: Limehouse and Hardeeville, South Carolina
Jasper and Pritchardville, South Carolina
USGS 7.5 Min. Quad
Contour Interval=1.5 Meters

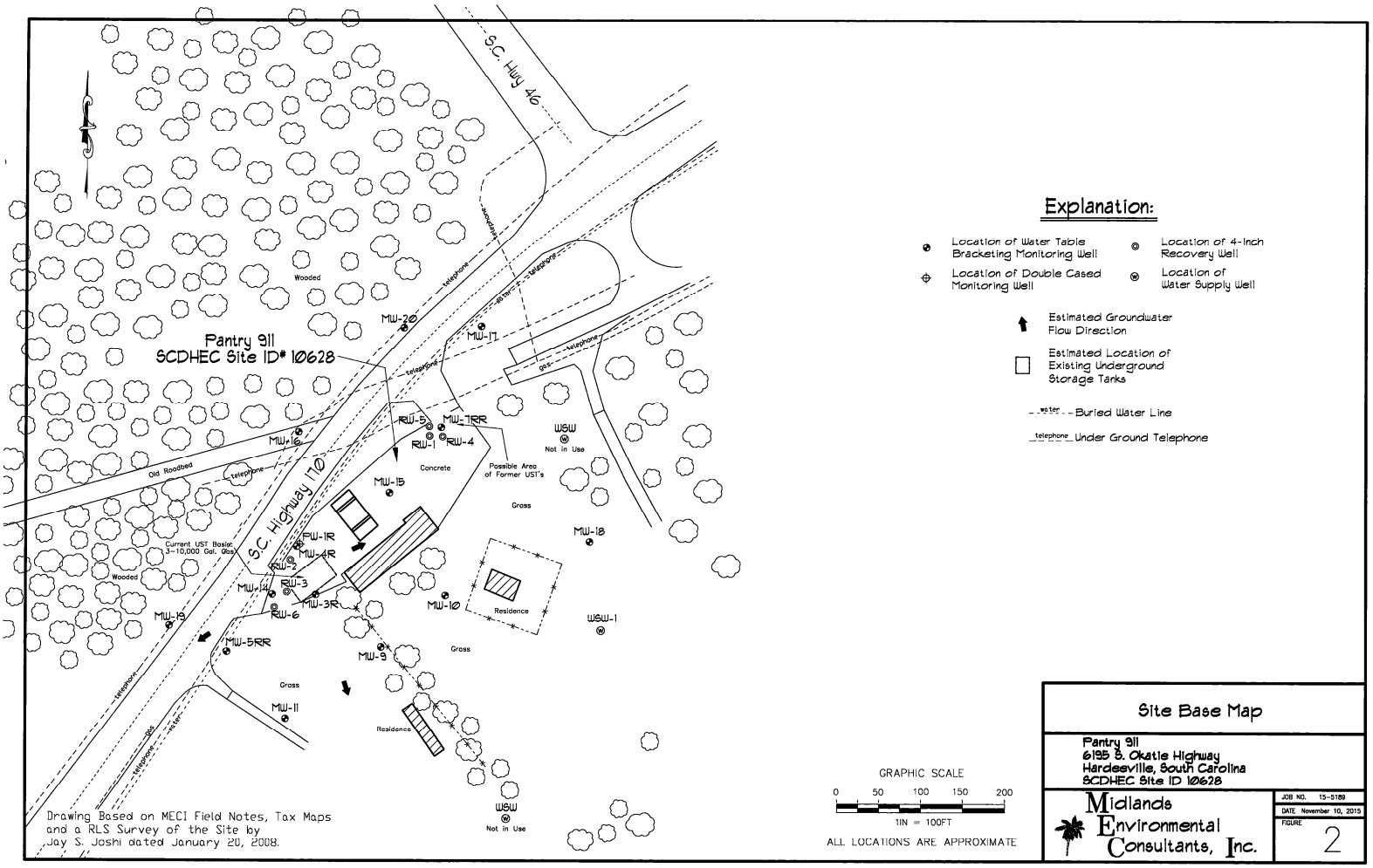
Midlands Environmental Consultants, Inc.

Site Location

Pantry 911
6195 South Okatie Highway, Hardeeville, SC
SCDHEC Site ID# 10628

Figure 1

MECI 17-6102



Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of 4-Inch Recovery Well
- Location of Double Cased Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Existing Underground Storage Tanks
- water — Buried Water Line
- telephone — Under Ground Telephone

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

ALL LOCATIONS ARE APPROXIMATE

Site Base Map

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 15-5189
DATE November 10, 2015
FIGURE 2

dhec

Healthy People

MR DONNIE MALPHRUS
MALPHRUS ENTERPRISES
2788 NORTH OKATIE HIGHWAY
RIDGELAND SC 29936

AUG 0 1 2017

Re: **Groundwater Sampling Directive**
Shreejakshani LLC DBA Okatie Mart, Pantry 911, 6195 South Okatie Highway, Hardeeville, SC
UST Permit #10628; CA# 55216
Release Reported April 28, 1995
Site-Specific Work Plan received July 19, 2017
Jasper County

Dear Mr. Malphrus:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (DHEC) has reviewed the referenced Site Specific Work Plan submitted on your behalf by Midlands Environmental Consultants, Inc. The next appropriate scope of work at the site is a comprehensive groundwater sampling event. All work should be conducted in accordance with the UST Quality Assurance Program Plan (QAPP) Revision 3.1, the contractors Annual Quality Assurance Plan and must be conducted in compliance with all applicable regulations. A copy of the Agency QAPP Revision 3.1, for the UST Management Division is available at http://www.dhec.sc.gov/Environment/LW/UST/ReleaseAssessmentClean-up/QualityAssurance/.

Groundwater sampling activities at the site should begin immediately upon receipt of this letter. Cost agreement # 55216 has been approved for the amount shown on the enclosed cost agreement form for sampling all monitoring wells associated with the referenced release. Groundwater samples should be collected and analyzed for BTEX, naphthalene, MtBE, 8 oxygenates, 1,2 DCA and EDB. Analyses should be in accordance with Appendix F of the QAPP to include duplicate samples, field and trip blanks.

In accordance with the QAPP, a weekly status report of the project should be provided via e-mail. If any quality assurance problems arise, you must contact me within 24 hours via phone or e-mail. In addition, a discussion of the problem(s) encountered, including quality assurance problems, the actions taken, and the results must be included in the final report submitted to the UST Management Division.

The Monitoring Report, contractor checklist (QAPP Appendix K), and invoice are due within 60 days from the date of this letter. The report submitted at the completion of these activities should include the required information outlined in the QAPP. Please note that all applicable South Carolina certification requirements apply to the services and report preparation. All site rehabilitation activities must be performed and submitted by a South Carolina Certified Underground Storage Tank Site Rehabilitation Contractor.

Midlands Environmental Consultants, Inc. can submit an invoice for direct payment from State Underground Petroleum Environmental Response Bank (SUPERB) Account for pre-approved costs. By law, the SUPERB Account cannot compensate any costs that are not pre-approved. Please note that applicable South Carolina certification requirements regarding laboratory services and report preparation must be satisfied. If the invoice is not submitted within 120 days from the date of this letter, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available.

Please note that Sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that no costs will be allowed unless prior approval from DHEC is obtained. If for any reason additional tasks will be completed, these additional tasks and the associated cost must be pre-approved by DHEC for the cost to be paid. DHEC reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria. Further, DHEC reserves the right to question and/or reject costs if deemed unreasonable and the right to audit project records at any time during the project or after completion of work.

Please note, if unnecessary dilutions are completed resulting in reporting limits of individual chemical of concern (CoC) in excess of Risk-Based Screening Levels (RBSLs), the data cannot be used. In those cases, the Division may deny payment for any non-detect analysis where the reporting limit exceeds the RBSL. The UST Management Division encourages the use of 'J' values as necessary so the appropriate action can be determined for a release.

DHEC grants pre-approval for transportation of virgin petroleum impacted soil and groundwater from the referenced site to a permitted treatment facility. The transport and disposal must be conducted in accordance with the QAPP. If the CoC concentrations based on laboratory analysis are below RBSLs, please contact the project manager for approval to dispose of soil and/or groundwater on site. The SUPERB Account will not reimburse for transportation or treatment of soil and/or groundwater with concentrations below RBSLs.

On all correspondence regarding this site, please reference UST Permit # 10628. If you have any questions regarding this correspondence, please contact me by telephone at (803) 898-0606, by fax at (803) 898-0673, or by e-mail at bryantjc@dhec.sc.gov.

Sincerely,

John C. Bryant, Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

enc: Approved Cost Agreement

cc: Midlands Environmental Consultants, Inc., PO Box 854, Lexington, SC 29071 (with enc.)
Technical File (with enc.)

Approved Cost Agreement 55216

Facility: 10628 SHREEJAKSHANI LLC DBA OKATIE MART
BRYANTJC
PO Number:

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
01 PLAN					
		A1 SITE SPECIFIC WORK PLAN	1.0000	$150.000	150.00
04 MOB/DEMOB					
		B1 PERSONNEL	2.0000	$423.000	846.00
10 SAMPLE COLLECTION					
		A1 GROUNDWATER (PURGE)	21.0000	$60.000	1,260.00
		C1 WATER SUPPLY	1.0000	$22.000	22.00
		D1 GROUNDWATER NO PURGE/DUPLICATE	3.0000	$28.000	84.00
		H1 FIELD BLANK	2.0000	$24.600	49.20
11 ANALYSES					
	GW GROUNDWATER	A2 BTEXNM+OXYGS+1,2-DCA+ETH-8260B	25.0000	$122.000	3,050.00
		F1 EDB BY 8011	24.0000	$45.200	1,084.80
	WATER DRINKING WATER	L BTEXNM+1,2 DCA (524.2)	4.0000	$124.050	496.20
		M 7-OXYGENATES & ETHANOL (8260B)	4.0000	$91.750	367.00
		N EDB (504.1)	3.0000	$79.500	238.50
17 DISPOSAL					
		AA WASTEWATER	300.0000	$0.560	168.00
19 RPT/PROJECT MNGT & COORDINATIO					
		PRT REPORT PREPARATION	0.1200	$7,815.700	937.88
				Total Amount	8,753.58

Document Receipt Information

☒ **Hard Copy** ☒ **CD** ☐ **Email**

Date Received 10-10-17

Permit Number 10628

Project Manager Vacant (jb) Debra

Name of Contractor MECE

UST Certification Number _____

Docket Number 50tech

Scanned _____

GWS / Chemical Analyses

REPORT OF GROUNDWATER SAMPLING AND CHEMICAL ANALYSES

Pantry 911
6195 South Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628
CA # 55216

Prepared By:

Midlands
Environmental
Consultants, Inc.
231 Dooley Road, Lexington, SC 29073
(803) 808-2043 fax: 808-2048

September 27, 2017

MECI Project No. 17-6102

Midlands Environmental Consultants, Inc.

September 27, 2017

Mr. John Bryant, Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Report of Groundwater Sampling and Chemical Analysis
Pantry 911
6195 South Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID# 10628, CA# 55216
MECI Project Number 17-6102
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Bryant,

On behalf of Mr. Donnie Malphrus of Malphrus Industries, Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Report of Groundwater Sampling and Chemical Analysis for the referenced site. This report describes assessment activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines, including adherence to the UST Division Programmatic Quality Assurance Program Plan (QAPP).

Midlands Environmental appreciates the opportunity to offer our professional environmental services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Kyle V. Pudney
Project Biologist

Bryan T. Shane, P.G.
Principal Geologist

Post Office Box 854, Lexington SC 29071 • 231 Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

TABLE OF CONTENTS

TABLE OF CONTENTS (cont.)

NOTE: ITEMS LISTED WITH AN ** BESIDE IT WERE NOT NEEDED AS A PART OF THIS SCOPE OF WORK

1.0 INTRODUCTION

A. **Owner/Operator Information**

Facility Name:	Malphrus Enterprises UST Permit #: 10628
Facility Address:	6195 South Okatie Highway, Hardeeville, SC 29927
Name:	Mr. Donnie Malphrus
Address:	2789 North Okatie Highway, Ridgeland, SC 29936
Telephone #:	(843) 263-3050

B. **Property Owner Information**

Name	Malphrus Enterprises
Address	2789 North Okatie Highway, Ridgeland, SC 29936
Telephone #	(843) 263-3050
Telephone #	(803) 874-3811

C. **Contractor Information**

Name:	Midlands Environmental Consultants, Inc.
Certification #:	9
Address:	P.O. Box 854, Lexington, SC 29071
Telephone #:	(803) 808-2043

D. **SCDHEC Certified Well Driller**

Name:	N/A
Driller:	N/A
Certification #:	N/A
Address:	N/A
Telephone #:	N/A

E. **SCDHEC Certified Laboratory**

Name:	Pace Analytical Services, LLC
Certification #:	99006001
Address:	9800 Kincey Ave, Suite 100, Huntersville, NC 28078
Telephone #:	(704) 875-9092

1.1 PROJECT INFORMATION

The subject site (Pantry 911) is located at 6195 South Okatie Highway, Hardeeville, Jasper County, South Carolina. The subject site maintains one 10,000 gallon regular unleaded gasoline underground storage tank (UST), one 10,000 gallon premium gasoline, and one 10,000 gallon diesel UST. These UST's were given a compliance date of March 7, 2012. The South Carolina Department of Health and Environmental Control (SCDHEC) reported a release of petroleum product from these UST's in April of 1995 and confirmed the release in March of 1996. The subject site is currently rated a Class 2BB.

In May of 2015, MECI implemented corrective action efforts at the site to reduce dissolved CoC concentrations and to remove free phase petroleum product. MECI's rehabilitative approach was

composed of injection of Pulverized Activated Carbon (PAC) based product, followed by extended Aggressive Fluid Vapor Recovery (AFVR) events to aid in the removal of free phase petroleum product and elevated CoC's.

The above information is based on reports and correspondence obtained from SCDHEC files and MECI field notes.

2.0 SURROUNDING PROPERTY USAGE

The site is located outside the town limits of Hardeeville, South Carolina. The property is currently operating as an active gasoline service station (Pantry 911). South Okatie Highway (S.C. Highway 46) forms the western and northern borders of the subject property, beyond which are wooded and undeveloped properties. South and east of the subject property are residential properties and wooded areas.

The following table identifies water supply wells and the physical address of their locations:

Water Supply Well Number	Well Owner	Dorchester County Tax Map Number:	Notes:	Well Status
WSW-1	Stella Crosby Jeffers	039-00-10-029	274 New River Road	Active

This water supply well (WSW-1) is located approximately 350 feet east of the current UST basin.

3.0 AREA GEOLOGY AND HYDROGEOLOGY

The project site is located in the Atlantic Coastal Plain Physiographic Province. The mean elevation of the property as depicted on the local USGS quadrangle (Limehouse, SC) appears to be approximately 1 meter above sea level. The soils in this province are generally interbedded silts, sands and clays that have been deposited during successive advances and retreats of the ocean over the past several million years. This interbedding can cause perched water and makes hydrogeological interpretation difficult.

In this geologic setting, the uppermost aquifer is the surficial aquifer of sands with lenses and layers of clays and silts. Water occupies the interstices between the formation particles and is in hydrostatic balance with the atmosphere at the water table surface.

Local precipitation is the source of freshwater recharge to the Coastal Plain formations. Groundwater recharge varies considerably over the region and is attributed to the differences in precipitation and to the variability in the infiltration rates.

Coastal Plain formations generally dip toward the Atlantic Ocean. Consequently, regional groundwater movement is to the southeast. On a regional scale, hydraulic gradients are relatively low.

Locally, in the surficial aquifer, groundwater discharges into streams, lakes or springs where the groundwater table intersects lows occupied by these water bodies. Current groundwater elevation data reveals a semi radial flow pattern to the east and west.

3.1 LOCAL SUBSURFACE CONDITIONS

Coastal plain sediments were encountered during previous drilling activities conducted at the site. The soils encountered during previous assessment activities generally consisted sandy clays and silts.

On September 7, 2017, stabilized groundwater levels were measured in the monitoring wells. Depth to groundwater ranged from 0.97 to 5.90 feet below top of casing in the wells measured. The groundwater measurements are summarized in tabular form in Table 2 and on Figure 5. Groundwater levels may fluctuate several feet with seasonal and rainfall variations and with change in the water level of adjacent drainage features. Normally, the highest groundwater levels occur in late winter and spring. The lowest levels occur in late summer and fall.

4.0 FIELD EXPLORATION

Field exploration conducted at the site included:

- sampling of groundwater monitoring wells and one (1) water supply well; and,
- chemical analyses of water samples.

4.1 SAMPLING AND CHEMICAL ANALYSES

On September 7, 2017, MECI personnel collected groundwater samples from fourteen (14) monitoring wells and one (1) water supply well at the subject site. Monitoring wells MW-3R, MW-7RR, RW-1, RW-3, and RW-6 were gauged and determined to contain free phase petroleum product. Monitoring wells MW-11 and MW-17 were not located during sampling activities. As directed by SCDHEC, all monitoring wells were to be purged prior to sample collection. Fourteen (14) monitoring wells were purged prior to sampling.

Purging was completed by bailing at least five well volumes of water from the well, until pH, conductivity, dissolved oxygen stabilized, or all water was evacuated from the well, whichever occurred first. Sampling/purging was completed utilizing a prepackaged, clear, disposable polyethylene bailer and nylon rope. A new set of nitrile gloves were worn at each monitoring well, and at all time samples were handled. Field measurements of pH, conductivity, dissolved oxygen, water temperature, and turbidity were obtained before well sampling process. MECI utilized YSI PRO20 meter for DO (mg/L) and temperature readings (^{o}C), YSI PRO1030 meters for pH and conductivity (uS) readings and a MicroTPI/TPW turbidimeter for turbidity readings (NTU). The attached Field Data Information Sheets presents the results of the field measurements obtained. The wells were sampled in accordance with SCDHEC's most recent Quality Assurance Program Plan for the Underground Storage Tank Management Division and MECI's most recent Standard Operating Procedures.

Groundwater samples obtained were sent to Pace Environmental Services, LLC, of Huntersville, NC (SCDHEC Laboratory Certification #99006001) for analysis.

The following sampling matrix contains well development and requested analyses for each well:

Sample ID	Purge	No Purge	Gauge Only	Low-Flow Sampling	Not Sampled	Not Located	BTEX, Naphthalene, MTBE (EPA Method 8260-B)	EDB (EPA Method 8011)	1,2 DCA (EPA Method 8260-B)	8 Oxygenates (EPA Method 8260-B)	Total Lead (EPA Method 6010)	BTEX, Naphthalene, MTBE, 1,2 DCA (EPA Method 524.2)	EDB (EPA Method 504.1)
							Analyte Sampled						
MW-3R			X										
MW-4R	X						X	X	X	X			
MW-5RR	X						X	X	X	X			
MW-7RR			X										
MW-9	X						X	X	X	X			
MW-10	X						X	X	X	X			
MW-11						X							
MW-14	X						X	X	X	X			
MW-15	X						X	X	X	X			
MW-16	X						X	X	X	X			
MW-17						X							
MW-18	X						X	X	X	X			
MW-19	X						X	X	X	X			
MW-20	X						X	X	X	X			
PW-1R	X						X	X	X	X			
RW-1			X										
RW-2	X						X	X	X	X			
RW-3			X										
RW-4	X						X	X	X	X			
RW-5	X						X	X	X	X			
RW-6			X										
DUP-1 (RW-2)							X	X	X	X			
Field Blank							X	X	X	X			
Trip Blank							X		X	X			
WSW-1										X		X	X
WSW DUP (WSW-1)										X		X	X
WSW Field Blank										X		X	X
WSW Trip Blank										X		X	

Notes: BTEX = Benzene, Toluene, Ethylbenzene, & Total Xylenes
MTBE=Methyl tertiary butyl ether
1,2 DCA = 1,2 Dicloroethane
EDB = Ethylene Dibromide

The results of the laboratory analyses are summarized in Table 3 & 3A and presented in Appendix B.

Purge water produced by the purging process was treated on-site utilizing a granular activated carbon unit. A total of 90.0 gallons of purge water was disposed of in this manner. A disposal manifest for the referenced purge water is presented in Appendix G.

5.0 TEST RESULTS AND EVALUATION

The following sections discuss groundwater test results for the subject site.

5.1 ANALYTICAL RESULTS

As discussed in Section 3.1, groundwater samples obtained from the monitoring wells during the September 7, 2017 groundwater sampling event were analyzed for dissolved phase petroleum constituents. During sampling activities, monitoring wells MW-11 and MW-17 were unable to be located. Monitoring wells MW-3RR, MW-7RR, RW-1, RW-3, and RW-6 were gauged and determined to contain measurable free phase petroleum product. The analytical results indicate petroleum impact to the surficial aquifer ("Shallow Zone") with the highest dissolved concentrations being detected in the areas of RW-4 & RW-5. Of the fourteen monitoring wells and one water supply well sampled, five monitoring wells (MW-4R, MW-14, RW-2, RW-4, & RW-5) detected petroleum constituents above Risked Based Screening Levels (RBSL's). Petroleum constituents detected above the established RBSL include:

Compound	*RBSL/SCAL (ug/l)*	*Wells Above RBSL*
Product	>0.01 Foot	MW-3R, MW-7RR, RW-1, RW-3, & RW-6
Benzene	5	MW-4R, MW-14, RW-2, RW-4 & RW-5
Toluene	1,000	RW-4 & RW-5
Ethylbenzene	700	RW-4 & RW-5
Total Xylenes	10,000	None
Naphthalene	25	MW-4R, RW-4 & RW-5
MTBE	40	MW-4R
1,2 DCA	5	RW-4 & RW-5
TAA	240	MW-4R, RW-4 & RW-5
TAME	128	None
3,3-Dimethyl-1-butanol	NE	RBSL Not Established
TBA	1,400	MW-4R
TBF	NE	RBSL Not Established
DIPE	150	RW-4 & RW-5
Ethanol	10,000	None
ETBE	47	None

In addition, the analytical results also detected petroleum constituents above the laboratory method detection limit and/or "J" values in monitoring wells MW-9, MW-10, and MW-20; however the concentrations detected did not exceed the RBSL.

As discussed in section 4.1, water samples were obtained from WSW-1 during the September 7, 2017 groundwater sampling event. The samples obtained from the above mentioned water supply well were analyzed for petroleum constituents. The laboratory results from the samples obtained did not indicate petroleum impact and all petroleum compounds were below detection limits.

The results of the analysis for the groundwater samples and specific parameters are listed on Table 3, Table 3A, and provided in the laboratory reports (Appendix B).

6.0 ASSESSMENT SUMMARY & RECOMMENDATIONS

Based on the results of our assessment activities, it appears that impact to the surficial aquifer has occurred due to a release of petroleum hydrocarbons. The highest concentrations of dissolved phase contaminants appear to be located near the former dispenser islands and former tank basin. During sampling activities, monitoring wells MW-11 and MW-17 were unable to be located. Monitoring wells MW-3RR, MW-7RR, RW-1, RW-3, and RW-6 were gauged and determined to contain measurable free phase petroleum product.

The contaminants appear to be gasoline range constituents. Groundwater elevation data for the September 7, 2017 gauging event was plotted, and points of equal elevation were interpolated between the monitoring wells. A groundwater contour map of the surficial aquifer was thus prepared and is presented on Figure 5. Current groundwater elevation data reveals a semi-radial flow pattern to the west and the east.

The analytical results indicate petroleum impact to the surficial aquifer ("Shallow Zone") with the highest dissolved concentrations being detected in the areas of RW-4 & RW-5. Of the fourteen monitoring wells and one water supply well sampled, five monitoring wells (MW-4R, MW-14, RW-2, RW-4, & RW-5) detected petroleum constituents above Risked Based Screening Levels (RBSL's). Petroleum constituents detected above the established RBSL include:

Compound	*RBSL/SCAL (ug/l)*	*Wells Above RBSL*
Product	>0.01 Foot	MW-3R, MW-7RR, RW-1, RW-3, & RW-6
Benzene	5	MW-4R, MW-14, RW-2, RW-4 & RW-5
Toluene	1,000	RW-4 & RW-5
Ethylbenzene	700	RW-4 & RW-5
Total Xylenes	10,000	None
Naphthalene	25	MW-4R, RW-4 & RW-5
MTBE	40	MW-4R
1,2 DCA	5	RW-4 & RW-5
TAA	240	MW-4R, RW-4 & RW-5
TAME	128	None
3,3-Dimethyl-1-butanol	NE	RBSL Not Established
TBA	1,400	MW-4R
TBF	NE	RBSL Not Established
DIPE	150	RW-4 & RW-5
Ethanol	10,000	None
ETBE	47	None

In addition, the analytical results also detected petroleum constituents above the laboratory method detection limit and/or "J" values in monitoring wells MW-9, MW-10, and MW-20; however the concentrations detected did not exceed the RBSL.

As discussed in section 4.1, water samples were obtained from WSW-1 during the September 7, 2017 groundwater sampling event. The samples obtained from the above mentioned water supply well were analyzed for petroleum constituents. The laboratory results from the samples obtained did not indicate petroleum impact and all petroleum compounds were below detection limits.

The results of the analysis for the groundwater samples and specific parameters are listed on Table 3, Table 3A, and provided in the laboratory reports (Appendix B).

Figure 4 depicts graphically the concentrations of Total BTEX dissolved in the surficial aquifer at the site. Figure 4A depicts graphically the concentrations of Naphthalene dissolved in the surficial aquifer at the site. Figure 4B depicts graphically the concentrations of MTBE dissolved in the surficial aquifer at the site. Figure 4C presents the analytical results for the eight Oxygenates.

As discussed above, free phase petroleum still remains at the site in monitoring well MW-3R at a thickness of 0.41 feet, monitoring well MW-7RR at a thickness of 0.06 feet, recovery well RW-1 at a thickness of 0.02 feet, recovery well RW-3 at a thickness of 0.52, and in recovery well RW-6 at a thickness of 4.25 feet. Since the October 2015 groundwater sampling event, the prescence of free

phase petroleum product at the site has significantly increased. Dissolved CoC concentrations have decreased in monitoring wells MW-4R and MW-14. The dissolved CoC concentrations have generally remained constant in the remainder of the monitoring wells. Furthermore, the contaminant plume emanating from the subject site appears to be mostly defined in the shallow zone. MECI personnel were unable to locate monitoring well MW-11 during sampling activities. In order to completely define the contamination plume south of MW-3R, RW-3, and RW-6, it may be advantageous to replace the monitoring well. Historically, monitoring well MW-11 has not contained dissolved CoC concentrations above RBSL's.

Based on these results, MECI feels that several extended Aggressive Fluid Vapor Recovery (AFVR) events are necessary to remove free phase petroleum product from wells MW-3R, MW-7RR, RW-1, RW-3, & RW-6 and to reduce elevated dissolved CoC concentrations. It may be beneficial to conduct a surfactant injection event prior to the extended AFVR events to bring hydrocarbons into an oil-in-water microemulsion which will increase the effective solubility of the petroleum hydrocarbons in water and will aid in reducing the inter-facial tension between the hydrocarbon and water molecules. This increased effective solubility and reduced inter-facial tension will promote a formation of an aqueous solution between the free product and the groundwater, augmenting hydrocarbon recovery via the recovery well network.

7.0 QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assessment are consistent with those normally employed in hydrogeological assessment and waste management projects of this type. Our evaluation of site conditions has been based on our understanding of the site, project information provided to us, and data obtained in our exploration. The general subsurface conditions utilized in our evaluation have been based on interpretation of subsurface data between borings. Contents of this report are intended for the sole use of Mr. Donnie Malphrus of Malphrus Enterprises, SCDHEC and MECI under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

-oOo-

TABLES

TABLE 2
PAGE 1 OF 2
POTENTIOMETRIC DATA
SEPTEMBER 7, 2017 SAMPLING EVENT
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 17-6102
SCDHEC SITE ID NUMBER 10628

Well Number	Sample Date	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Well-head Elevation	Groundwater Elevation
MW-3R	1/8/2009	2-12	***	3.02	***	94.56	91.54
	7/25/2012	-	***	2.91	***	94.56	91.65
	6/27/2013	-	***	3.16	***	94.56	91.40
	7/10/2014	-	***	3.26	***	94.56	91.30
	10/27/2015	-	***	3.34	***	94.56	91.22
	9/7/2017*	-	2.45	2.86	0.41	94.56	92.05
MW-4R	1/8/2009	5-15	***	4.29	***	93.75	89.46
	7/25/2012	-	***	7.61	***	93.75	86.14
	6/27/2013	-	***	3.99	***	93.75	89.76
	7/10/2014	-	***	3.40	***	93.75	90.35
	10/27/2015	-	***	2.80	***	93.75	90.95
	9/7/2017	-	***	2.59	***	93.75	91.16
MW-5R	1/8/2009	5-15	***	3.00	***	91.70	88.70
	7/25/2012	-	***	7.35	***	91.70	84.35
MW-5RR	6/27/2013	2-12	***	3.20	***	92.18	88.98
	7/10/2014	-	***	4.86	***	92.18	87.32
	10/27/2015	-	***	2.85	***	92.18	89.33
	9/7/2017	-	***	2.24	***	92.18	89.94
MW-7RR	1/8/2009	2-12	***	6.38	***	95.80	89.42
	7/25/2012*	-	10.61	10.72	0.11	95.80	85.17
	6/27/2013*	-	6.32	6.34	0.02	95.80	89.48
	7/10/2014*	-	8.65	8.78	0.13	95.80	87.13
	10/27/2015	-	***	9.10	***	95.80	86.70
	9/7/2017*	-	5.34	5.40	0.06	95.80	90.45
MW-9	1/8/2009	8-18	***	6.09	***	96.73	90.64
	7/25/2012	-	***	NL	***	96.73	NL
	6/27/2013	-	***	5.05	***	96.73	91.68
	7/10/2014	-	***	7.53	***	96.73	89.20
	10/27/2015	-	***	6.13	***	96.73	90.60
	9/7/2017	-	***	4.85	***	96.73	91.88
MW-10	1/8/2009	2-12	***	4.36	***	93.29	88.93
	7/25/2012	-	***	NL	***	93.29	NL
	6/27/2013	-	***	3.81	***	93.29	89.48
	7/10/2014	-	***	6.49	***	93.29	86.80
	10/27/2015	-	***	NL	***	93.29	NL
	9/7/2017	-	***	2.42	***	93.29	90.87
MW-11	1/8/2009	2-12	***	1.45	***	91.62	90.17
	7/25/2012	-	***	3.90	***	91.62	87.72
	6/27/2013	-	***	0.41	***	91.62	91.21
	7/10/2014	-	***	3.63	***	91.62	87.99
	10/27/2015	-	***	1.72	***	91.62	89.90
	9/7/2017	-	***	NL	***	91.62	NL
MW-14	1/8/2009	3.05-13.05	***	2.23	***	93.23	91.00
	7/25/2012	-	***	2.29	***	93.23	90.94
	6/27/2013	-	***	1.30	***	93.23	91.93
	7/10/2014	-	***	1.81	***	93.23	91.42
	10/27/2015	-	***	1.76	***	93.23	91.47
	9/7/2017	-	***	1.17	***	93.23	92.06
MW-15	1/8/2009	2-12	***	4.50	***	96.12	91.62
	7/25/2012	-	***	4.80	***	96.12	91.32
	6/27/2013	-	***	3.52	***	96.12	92.60
	7/10/2014	-	***	3.97	***	96.12	92.15
	10/27/2015	-	***	6.93	***	96.12	89.19
	9/7/2017	-	***	3.01	***	96.12	93.11

Notes:

1. Elevations are referenced to an assumed site datum .
2. Groundwater depths were measured from the top of the PVC riser pipe.
3. Groundwater levels measured 10/27/2015.
4. NL = Not Located.
5. * = Groundwater elevation corrected for the presence of free phase petroleum product using a specific gravity for fuel of 0.85

TABLE 2
PAGE 2 OF 2
POTENTIOMETRIC DATA
SEPTEMBER 7, 2017 SAMPLING EVENT
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 17-6102
SCDHEC SITE ID NUMBER 10628

Well Number	Sample Date	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Well-head Elevation	Groundwater Elevation
MW-16	1/8/2009	7-17	***	8.11	***	97.02	88.91
	7/25/2012	-	***	12.83	***	97.02	84.19
	6/27/2013	-	***	8.41	***	97.02	88.61
	7/10/2014	-	***	10.30	***	97.02	86.72
	10/27/2015	-	***	5.89	***	97.02	91.13
	9/7/2017	-	***	5.38	***	97.02	91.64
MW-17	1/8/2009	3-13	***	5.88	***	94.96	89.08
	7/25/2012	-	***	9.49	***	94.96	85.47
	6/27/2013	-	***	5.35	***	94.96	89.61
	7/10/2014	-	***	NL	***	94.96	NL
	10/27/2015	-	***	NL	***	94.96	NL
	9/7/2017	-	***	NL	***	94.96	NL
MW-18	1/8/2009	2-12	***	2.48	***	91.34	88.86
	7/25/2012	-	***	NL	***	91.34	NL
	6/27/2013	-	***	2.87	***	91.34	88.47
	7/10/2014	-	***	3.87	***	91.34	87.47
	10/27/2015	-	***	1.85	***	91.34	89.49
	9/7/2017	-	***	1.17	***	91.34	90.17
MW-19	6/27/2013	2-12	***	4.14	***	93.01	88.87
	7/10/2014	-	***	6.69	***	93.01	86.32
	10/27/2015	-	***	4.20	***	93.01	88.81
	9/7/2017	-	***	4.12	***	93.01	88.89
MW-20	6/27/2013	4-14	***	9.14	***	98.84	89.70
	7/10/2014	-	***	11.17	***	98.84	87.67
	10/27/2015	-	***	8.55	***	98.84	90.29
	9/7/2017	-	***	5.90	***	98.84	92.94
PW-1R	1/8/2009	30-35	***	4.57	***	93.47	88.90
	7/25/2012	-	***	9.59	***	93.47	83.88
	6/27/2013	-	***	4.80	***	93.47	88.67
	7/10/2014	-	***	6.29	***	93.47	87.18
	10/27/2015	-	***	4.15	***	93.47	89.32
	9/7/2017	-	***	3.49	***	93.47	89.98
RW-1	7/25/2012	2-12	***	10.53	***	96.15	85.62
	6/27/2013	-	***	6.47	***	96.15	89.68
	7/10/2014*	-	8.77	8.92	0.15	96.15	87.36
	10/27/2015*	-	6.20	6.22	0.02	96.15	89.95
	9/7/2017*	-	5.42	5.44	0.02	96.15	90.73
RW-2	7/25/2012	2-12	***	2.59	***	93.56	90.97
	6/27/2013	-	***	2.19	***	93.56	91.37
	7/10/2014	-	***	2.04	***	93.56	91.52
	10/27/2015	-	***	1.42	***	93.56	92.14
	9/7/2017	-	***	0.97	***	93.56	92.59
RW-3	7/25/2012*	2-12	2.56	2.61	0.05	93.22	90.65
	6/27/2013*	-	1.32	1.44	0.12	93.22	91.88
	7/10/2014	-	***	1.74	***	93.22	91.48
	10/27/2015	-	***	1.82	***	93.22	91.40
	9/7/2017*	-	0.58	1.10	0.52	93.22	92.56
RW-4	10/27/2015	2-15	***	6.30	***	96.05	89.75
	9/7/2017	-	***	5.51	***	96.05	90.54
RW-5	10/27/2015	2-15	***	5.95	***	95.60	89.65
	9/7/2017	-	***	5.13	***	95.60	90.47
RW-6	10/27/2015*	2-15	2.20	2.35	0.15	93.07	90.85
	9/7/2017*	-	0.65	4.90	4.25	93.07	91.78

Notes:

1. Elevations are referenced to an assumed site datum .
2. Groundwater depths were measured from the top of the PVC riser pipe.
3. Groundwater levels measured 10/27/2015.
4. NL = Not Located.
5. * = Groundwater elevation corrected for the presence of free phase petroleum product using a specific gravity for fuel of 0.85

TABLE 3
PAGE 1 OF 2
GROUNDWATER COC CONCENTRATION DATA
SEPTEMBER 7, 2017 SAMPLING EVENT
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 17-6102
SCDHEC ID NUMBER 10628

Well Number	Sample Date	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	Naphthalene (µg/l)	MTBE (µg/l)	1,2 DCA (µg/l)	EDB (µg/l)	Total Lead (µg/l)
MW-3R	1/8/2009	2,700	9,080	1,410	11,000	24,190	748	2,580	<250	<0.19	<5.0
	7/25/2012	1,600	2,500	740	4,000	8,840	180	970	<10	<0.019	NT
	6/27/2013	1,000	4,500E	1,100	7,600	14,200E	350	200	<100	<0.020	NT
	7/10/2014	1,500	3,900	940	7,500	13,840	240	620	<100	0.27	NT
	10/27/2015	2,870	7,130	1,290	12,100	23,390	548	531	<500	<0.021	NT
	9/7/2017	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-4R	1/8/2009	4,640	5,070	1,360	3,990	15,060	<1,000	21,000	<1,000	<0.020	<5.0
	7/25/2012	2,220	2,500	470	1,600	6,790	260	4,200	62	<0.020	NT
	6/27/2013	4,900	8,800	1,700	5,900	21,300	<500	5,600	<500	<0.021	NT
	7/10/2014	2,600	3,800	970	3,700	11,070	100	1,200	<100	<0.020	NT
	10/27/2015	1,320	584	206	673	2,783	<62.5	471	<62.5	<0.021	NT
	9/7/2017	587	42.3	221	987	1,837.3	37.1	95.4	<20.0	<0.020	NT
MW-5R	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	2.3J	<5.0	<0.020	<5.0
	7/25/2012	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	8.9	<5.0	<0.020	NT
MW-5RR	6/27/2013	<500	<500	<500	<500	BDL	<500	<500	<500	<0.026	NT
	6/27/2013	<5.0H	<5.0H	<5.0H	<5.0H	BDL	<5.0H	<5.0H	<5.0H	NT	NT
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	10/27/2015	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	3.5J	<5.0	<0.020	NT
	9/7/2017	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
MW-7RR	1/8/2009	17,500	22,700	1,850	10,900	52,950	<1,000	<1,000	731J	1.5	157
	7/25/2012	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
	6/27/2013	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
	7/10/2014	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
	10/27/2015	8,910	14,900	1,810	13,700	39,320	1,790	<625	232J	0.72	NT
	9/7/2017	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-9	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.019	<5.0
	7/25/2012	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
	6/27/2013	<500	<500	<500	<500	BDL	<500	<500	<500	<0.020	NT
	6/27/2013	<5.0H	<5.0H	<5.0H	<5.0H	BDL	<5.0H	<5.0H	<5.0H	NT	NT
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	2.4J	<5.0	<0.020	NT
	10/27/2015	<5.0	5.3	<5.0	<10.0	5.3	<5.0	<5.0	<5.0	<0.020	NT
	9/7/2017	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
MW-10	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	3.8J	<5.0	<0.019	11.6
	7/25/2012	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	2.3J	<5.0	<0.020	NT
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	3.9J	<5.0	<0.020	NT
	10/27/2015	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
	9/7/2017	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
MW-11	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.019	<5.0
	7/25/2012	<5.0	22	<5.0	<5.0	22	<5.0	<5.0	<5.0	<0.019	NT
	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	10/27/2015	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	9/7/2017	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW-14	1/8/2009	11,800	13,700	2,420	11,000	38,920	<500	4,020	<500	<0.020	<5.0
	7/25/2012	9,200	15,000	3,300	14,000	41,500	540	1,600	<500	<0.020	NT
	6/27/2013	6,000	4,500	1,800	6,800	19,100	240J	900	<250	<0.020	NT
	7/10/2014	9,800	31,000	3,700	19,000	63,500	560J	1,400	<1,000	<0.020	NT
	10/27/2015	2,460	2,840	791	2,910	9,001	<125	473	<125	<0.021	NT
	9/7/2017	48.1	4.2J	30.8	6.2	89.3J	3.2J	1.8J	<5.0	<0.020	NT
MW-15	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	2.8J	<5.0	<0.019	<5.0
	7/25/2012	1.1J	2.0J	<5.0	2.1J	5.2J	<5.0	1.2J	<5.0	<0.019	NT
	6/27/2013	0.51J	<5.0	<5.0	<5.0	0.51J	<5.0	0.70J	<5.0	<0.020	NT
	7/10/2014	0.66J	<5.0	<5.0	<5.0	0.66J	<5.0	0.67J	<5.0	<0.020	NT
	10/27/2015	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.019	NT
	9/7/2017	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
MW-16	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.021	<5.0
	7/25/2012	0.30J	<5.0	<5.0	<5.0	0.30J	<5.0	<5.0	<5.0	<0.019	NT
	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	10/27/2015	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	9/7/2017	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
MW-17	1/8/2009	39.1	<5.0	<5.0	<10.0	39.1	<5.0	<5.0	<5.0	<0.023	<5.0
	7/25/2012	0.23J	<5.0	<5.0	<5.0	0.23J	<5.0	<5.0	<5.0	<0.020	NT
	6/27/2013	250	<25	45	66	361	<25	<25	10J	<0.020	NT
	7/10/2014	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
	10/27/2015	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
	9/7/2017	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL

Notes:

1. BDL = Below Practical Quantitative Limits
2. ug/l = micrograms per liter
3. MTBE = Methyl-Tertiary-Butyl Ether
4. 1,2 DCA = 1,2-Dichloroethane
5. EDB = 1,2 - Dibromoethane
6. NL = Not Located
7. NT = Not Tested
8. H = Out of Hold Time
9. PROD = Free Phase Petroleum Product
10. "J" Values Included in Total BTEX Calculations.
11. "J" values report concentrations above the method detection limits (MDL) and below actual reporting limit (RL).

TABLE 3
PAGE 2 OF 2
GROUNDWATER COC CONCENTRATION DATA
SEPTEMBER 7, 2017 SAMPLING EVENT
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 17-6102
SCDHEC ID NUMBER 10628

Well Number	Sample Date	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Total BTEX (µg/l)	Naphthalene (µg/l)	MTBE (µg/l)	1,2 DCA (µg/l)	EDB (µg/l)	Total Lead (µg/l)
MW-18	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.023	<5.0
	7/25/2012	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	10/27/2015	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	9/7/2017	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
MW-19	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	1.5J	<5.0	<0.029	NT
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	10/27/2015	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	9/7/2017	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
MW-20	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.022	NT
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019	NT
	10/27/2015	<5.0	<5.0	<5.0	<10.0	BDL	2.8J	<5.0	<5.0	<0.020	NT
	9/7/2017	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
PW-1R	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.019	<5.0
	7/25/2012	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	10/27/2015	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	9/7/2017	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019	NT
RW-1	7/25/2012	31,000	32,000	2,800	13,000	78,800	510J	<1,000	1,500	1.2	NT
	6/27/2013	27,000	31,000	2,600	11,000	71,600	610J	<1,000	<1,000	0.59P	NT
	7/10/2014	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
	10/27/2015	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
	9/7/2017	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-2	7/25/2012	160	3.6J	67	69	299.6J	8.7	13	<5.0	<0.020	NT
	6/27/2013	1,800	110	870	870	3,650	190	140	<50	<0.020	NT
	7/10/2014	2,100	2,500	820	2,100	7,520	210	470	<100	<0.020	NT
	10/27/2015	2.6J	<5.0	<5.0	<10.0	2.6J	<5.0	3.8J	<5.0	<0.020	NT
	9/7/2017	29.0	<5.0	21.5	<5.0	50.5	6.9	5.3	<5.0	<0.020	NT
RW-3	7/25/2012	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
	6/27/2013	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
	7/10/2014	10,000	39,000	3,800	22,000	74,800	920J	1,800	240J	<0.020	NT
	10/27/2015	12,400	10,200	524	1,680	24,804	<500	1,420	<500	<0.020	NT
	9/7/2017	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-4	10/27/2015	19,000	18,500	1,580	8,850	47,930	1,390	<1,250	473J	1.5	NT
	9/7/2017	18,200	18,000	1,380	8,390	45,970	1,480	<625	398J	0.77	NT
RW-5	10/27/2015	16,200	16,300	1,520	7,400	41,420	925J	<1,000	667J	0.50	NT
	9/7/2017	21,700	23,700	1,730	8,890	56,020	1,220	<1,000	616J	0.63	NT
RW-6	10/27/2015	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
	9/7/2017	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
WSW-1	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.019	NT
	7/25/2012	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019	NT
	6/27/2013	<1.0	<1.0	<1.0	<1.0	BDL	<1.0	<1.0	<1.0	<0.020	NT
	7/10/2014	<1.0	<1.0	<1.0	<1.0	BDL	<1.0	<1.0	<1.0	<0.020	NT
	10/27/2015	<1.0	<1.0	<1.0	<2.0	BDL	<1.0	<1.0	<1.0	<0.020	NT
	9/7/2017	<0.50	<0.50	<0.50	<0.50	BDL	<0.50	<0.50	<0.50	<0.020	NT
MW-3R Dup.	7/10/2014	1,600	3,900	1,000	7,000	13,500	220	590	<100	0.28	NT
RW-1 Dup.	7/25/2012	30,000	30,000	2,700	12,000	74,700	500	53J	1,500	0.86	NT
RW-2 Dup.	6/27/2013	1,900	100	880	880	3,760	190	140	<50	<0.020	NT
RW-5 Dup.	10/27/2015	19,200	18,600	1,990	8,950	48,740	967J	<1,000	701J	0.44	NT
DUP-1 (RW-2)	9/7/2017	31.2	<5.0	21.4	<5.0	52.6	5.3	5.4	<5.0	<0.020	NT
WSW DUP(WSW-1)	9/7/2017	<0.50	<0.50	<0.50	<0.50	BDL	<0.50	<0.50	<0.50	<0.020	NT
Field Blank	7/25/2012	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.021	NT
	10/27/2015	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
	9/7/2017	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT
WSW	9/7/2017	<0.50	<0.50	<0.50	<0.50	BDL	<0.50	<0.50	<0.50	<0.020	NT
Trip Blank	7/25/2012	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	NT	NT
	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	NT	NT
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	NT	NT
	10/27/2015	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	NT	NT
	9/7/2017	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	NT	NT
WSW	9/7/2017	<0.50	<0.50	<0.50	<0.50	BDL	<0.50	<0.50	<0.50	NT	NT

Notes:

1. BDL = Below Practical Quantitative Limits
2. ug/l = micrograms per liter
3. MTBE = Methyl-Tertiary-Butyl Ether
4. 1,2 DCA = 1,2-Dichloroethane
5. EDB = 1,2 - Dibromoethane
6. NL = Not Located
7. NT = Not Tested
8. H = Out of Hold Time
9. PROD = Free Phase Petroleum Product
10. "J" Values included in Total BTEX Calculations.
11. "J" values report concentrations above the method detection limits (MDL) and below actual reporting limit (RL).

TABLE 3A
PAGE 1 OF 2
GROUNDWATER COC CONCENTRATION DATA (OXYGENATES)
SEPTEMBER 7, 2017 SAMPLING EVENT
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 17-6102
SCDHEC SITE ID NUMBER 10628

Well Number	Sample Date	TAA (µg/l)	TAME (µg/l)	TBF (µg/l)	DIPE (µg/l)	3,3-Dimethyl-1-butanol (µg/l)	Ethanol (µg/l)	ETBE (µg/l)	TBA (µg/l)
MW-3R	07/25/12	2,500	150	<200	1.7J	<200	<2,000	42J	4,300
	06/27/13	540J	45J	<2,000	<200	<2,000	<20,000	9.5J	250J
	07/10/14	2,600	130J	<2,000	<200	<2,000	<20,000	68J	3,100
	10/27/15	<10,000	<1,000	<5,000	<500	<10,000	<20,000	<1,000	<10,000
	09/07/17	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-4R	07/25/12	4,000	390	<100	6.2J	<100	<1,000	170	23,000
	05/27/13	5,200J	250J	<10,000	<1,000	<10,000	<100,000	99J	28,000
	07/10/14	4,200	110J	<2,000	<200	<2,000	<20,000	91J	11,000
	10/27/15	2,690	<125	<625	<62.5	<1,250	<2,500	48.8J	8,190
	09/07/17	1,580	<40.0	<200	<20.0	<400	<800	30.6J	3,740
MW-5R	07/25/12	64J	<10	<100	4.2J	<100	<1,000	<100	43J
MW-5RR	06/27/13	<10,000	<1,000	<10,000	<1,000	<10,000	<100,000	<10,000	<10,000
	06/27/13	<100H	<10H	<100H	<10H	<100H	<1,000H	<100H	<100H
	07/10/14	<100	<10	<100	<10	<100	<1,000	<100	<100
	10/27/15	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
	09/07/17	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-7RR	07/25/12	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
	06/27/13	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
	07/10/14	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
	10/27/15	25,600	<1,250	<6,250	4,560	<12,500	<25,000	<1,250	<12,500
	09/07/17	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-9	07/25/12	NL	NL	NL	NL	NL	NL	NL	NL
	06/27/13	<10,000	<1,000	<10,000S	<1,000	<10,000	<100,000	<10,000	<10,000
	06/27/13	<100H	<10H	<100H	<10H	<100H	<1,000H	<100H	<100H
	07/10/14	<100	<10	<100	<10	<100	<1,000	<100	<100
	10/27/15	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
	09/07/17	<100	<10.0	<50.0	<5.0	<100	1,000	<10.0	<100
MW-10	07/25/12	NL	NL	NL	NL	NL	NL	NL	NL
	06/27/13	<100	<10	<100	<10	<100	<1,000	<100	<100
	07/10/14	<100	<10	<100	<10	<100	<1,000	<100	<100
	10/27/15	NL	NL	NL	NL	NL	NL	NL	NL
	09/07/17	<100	<10.0	<50.0	<5.0	<100	784	<10.0	<100
MW-11	07/25/12	<100	<10	<100	<10	<100	<1,000	<100	<100
	06/27/13	<100	<10	<100	<10	<100	<1,000	<100	<100
	07/10/14	<100	<10	<100	<10	<100	<1,000	<100	<100
	10/27/15	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
	09/07/17	NL	NL	NL	NL	NL	NL	NL	NL
MW-14	07/25/12	9,900J	460J	<10,000	<1,000	<10,000	<100,000	69J	3,200J
	06/27/13	6,000	310J	<5,000	<500	<5,000	<50,000	68J	2,400J
	07/10/14	7,500J	630J	<20,000	<2,000	<20,000	<200,000	170J	3,600J
	10/27/15	3,490	140J	<1,250	<125	<2,500	<5,000	<250	4,460
	09/07/17	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-15	07/25/12	13J	<10	<100	0.65J	<100	<1,000	<100	27J
	06/27/13	<100	<10	<100	<10	<100	<1,000	<100	<100
	07/10/14	12J	<10	<100	0.65J	<100	<1,000	<100	26J
	10/27/15	113	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
	09/07/17	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-16	07/25/12	<100	<10	<100	<10	<100	<1,000	<100	<100
	06/27/13	<100	<10	<100	<10	<100	<1,000	<100	<100
	07/10/14	<100	<10	<100	<10	<100	<1,000	<100	<100
	10/27/15	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
	09/07/17	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-17	07/25/12	<100	<10	<100	3.6J	<100	<1,000	<100	<100
	06/27/13	230J	5.9J	<500	180	<500	<5,000	18J	<500
	07/10/14	NL	NL	NL	NL	NL	NL	NL	NL
	10/27/15	NL	NL	NL	NL	NL	NL	NL	NL
	09/07/17	NL	NL	NL	NL	NL	NL	NL	NL

Notes:

1. ug/l = micrograms per liter
2. DIPE = Diisopropyl Ether
3. ETBE = Ethyl ter-butyl Ether
4. TAA = tert-Amyl Alcohol
5. TAME = tert-Amyl Methyl Ether
6. TBA = ter-Butyl Alcohol
7. TBF = tert-Butyl Formate
8. NL = Not Located
9. H = Out of Holding Time
10. PROD = Free Phase Petroleum Product
11. "J" values report concentrations above the method detection limits (MDL) and below actual reporting limit (RL).

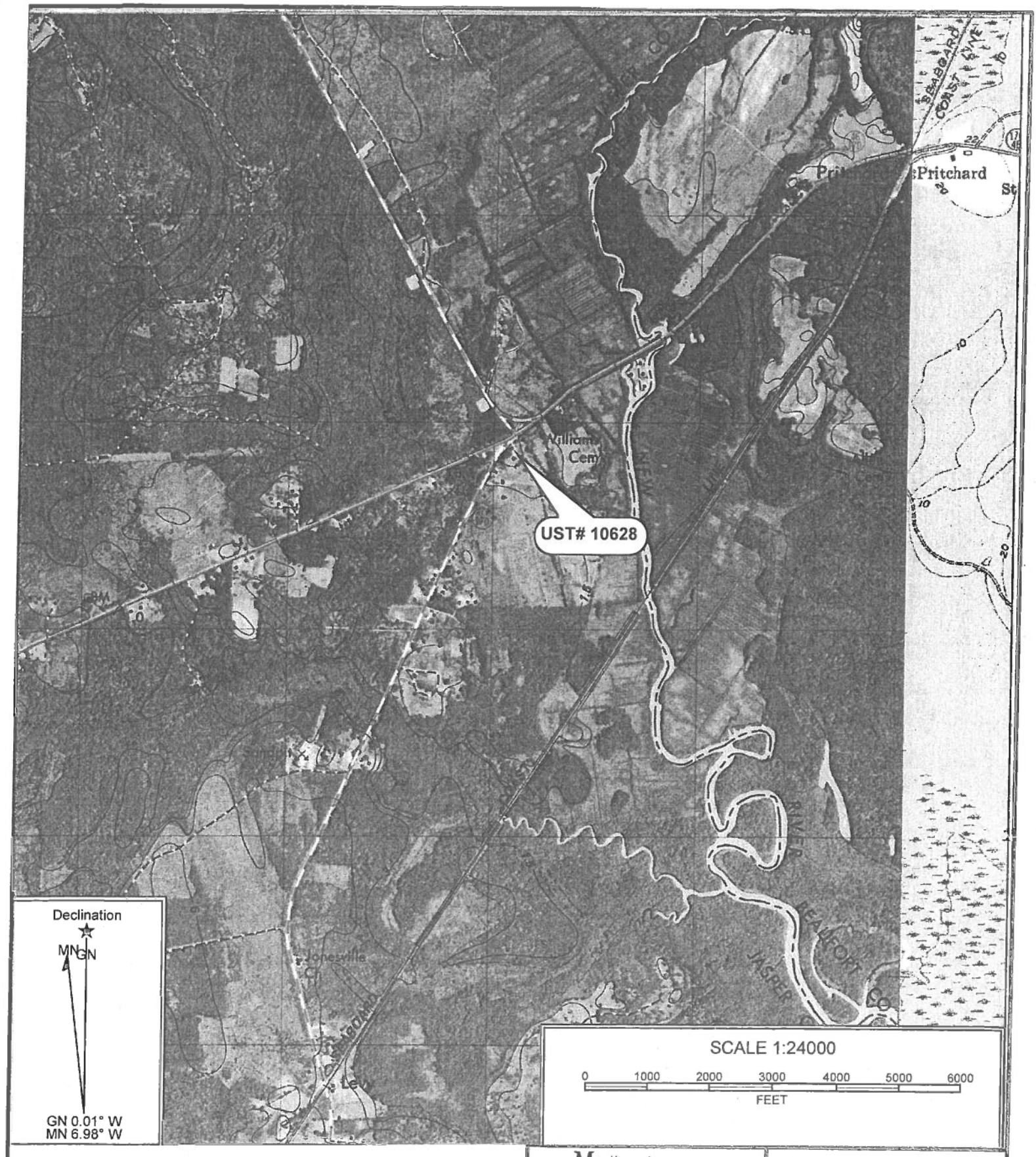
TABLE 3A
PAGE 1 OF 2
GROUNDWATER COC CONCENTRATION DATA (OXYGENATES)
SEPTEMBER 7, 2017 SAMPLING EVENT
PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 17-6102
SCDHEC SITE ID NUMBER 10628

Well Number	Sample Date	TAA (µg/l)	TAME (µg/l)	TBF (µg/l)	DIPE (µg/l)	3,3-Dimethyl-1-butanol (µg/l)	Ethanol (µg/l)	ETBE (µg/l)	TBA (µg/l)
MW-3R	07/25/12	**2,500**	**150**	<200	**1.7J**	<200	<2,000	**42J**	**4,300**
	06/27/13	**540J**	**45J**	<2,000	<200	<2,000	<20,000	**9.5J**	**250J**
	07/10/14	**2,600**	**130J**	<2,000	<200	<2,000	<20,000	**68J**	**3,100**
	10/27/15	<10,000	<1,000	<5,000	<500	<10,000	<20,000	<1,000	<10,000
	09/07/17	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**
MW-4R	07/25/12	**4,000**	**390**	<100	**6.2J**	<100	<1,000	**170**	**23,000**
	05/27/13	**5,200J**	**250J**	<10,000	<1,000	<10,000	<100,000	**99J**	**28,000**
	07/10/14	**4,200**	**110J**	<2,000	<200	<2,000	<20,000	**91J**	**11,000**
	10/27/15	**2,690**	<125	<625	<62.5	<1,250	<2,500	**48.8J**	**8,190**
	09/07/17	**1,580**	<40.0	<200	<20.0	<400	<800	**30.6J**	**3,740**
MW-5R MW-5RR	07/25/12	**64J**	<10	<100	**4.2J**	<100	<1,000	<100	**43J**
	06/27/13	<10,000	<1,000	<10,000	<1,000	<10,000	<100,000	<10,000	<10,000
	06/27/13	<100H	<10H	<100H	<10H	<100H	<1,000H	<100H	<100H
	07/10/14	<100	<10	<100	<10	<100	<1,000	<100	<100
	10/27/15	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
	09/07/17	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-7RR	07/25/12	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**
	06/27/13	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**
	07/10/14	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**
	10/27/15	**25,600**	<1,250	<6,250	**4,560**	<12,500	<25,000	<1,250	<12,500
	09/07/17	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**	**PROD**
MW-9	07/25/12	NL	NL	NL	NL	NL	NL	NL	NL
	06/27/13	<10,000	<1,000	<10,000S	<1,000	<10,000	<100,000	<10,000	<10,000
	06/27/13	<100H	<10H	<100H	<10H	<100H	<1,000H	<100H	<100H
	07/10/14	<100	<10	<100	<10	<100	<1,000	<100	<100
	10/27/15	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
	09/07/17	<100	<10.0	<50.0	<5.0	<100	**1,000**	<10.0	<100
MW-10	07/25/12	NL	NL	NL	NL	NL	NL	NL	NL
	06/27/13	<100	<10	<100	<10	<100	<1,000	<100	<100
	07/10/14	<100	<10	<100	<10	<100	<1,000	<100	<100
	10/27/15	NL	NL	NL	NL	NL	NL	NL	NL
	09/07/17	<100	<10.0	<50.0	<5.0	<100	**784**	<10.0	<100
MW-11	07/25/12	<100	<10	<100	<10	<100	<1,000	<100	<100
	06/27/13	<100	<10	<100	<10	<100	<1,000	<100	<100
	07/10/14	<100	<10	<100	<10	<100	<1,000	<100	<100
	10/27/15	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
	09/07/17	NL	NL	NL	NL	NL	NL	NL	NL
MW-14	07/25/12	**9,900J**	**460J**	<10,000	<1,000	<10,000	<100,000	**69J**	**3,200J**
	06/27/13	**6,000**	**310J**	<5,000	<500	<5,000	<50,000	**68J**	**2,400J**
	07/10/14	**7,500J**	**630J**	<20,000	<2,000	<20,000	<200,000	**170J**	**3,600J**
	10/27/15	**3,490**	**140J**	<1,250	<125	<2,500	<5,000	<250	**4,460**
	09/07/17	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-15	07/25/12	**13J**	<10	<100	**0.65J**	<100	<1,000	<100	**27J**
	06/27/13	<100	<10	<100	<10	<100	<1,000	<100	<100
	07/10/14	**12J**	<10	<100	**0.65J**	<100	<1,000	<100	**26J**
	10/27/15	**113**	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
	09/07/17	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-16	07/25/12	<100	<10	<100	<10	<100	<1,000	<100	<100
	06/27/13	<100	<10	<100	<10	<100	<1,000	<100	<100
	07/10/14	<100	<10	<100	<10	<100	<1,000	<100	<100
	10/27/15	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
	09/07/17	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-17	07/25/12	<100	<10	<100	**3.6J**	<100	<1,000	<100	<100
	06/27/13	**230J**	**5.9J**	<500	**180**	<500	<5,000	**18J**	<500
	07/10/14	NL	NL	NL	NL	NL	NL	NL	NL
	10/27/15	NL	NL	NL	NL	NL	NL	NL	NL
	09/07/17	NL	NL	NL	NL	NL	NL	NL	NL

Notes:

1. ug/l = micrograms per liter
2. DIPE = Diisopropyl Ether
3. ETBE = Ethyl ter-butyl Ether
4. TAA = tert-Amyl Alcohol
5. TAME = tert-Amyl Methyl Ether
6. TBA = ter-Butyl Alcohol
7. TBF = tert-Butyl Formate
8. NL = Not Located
9. H = Out of Holding Time
10. PROD = Free Phase Petroleum Product
11. "J" values report concentrations above the method detection limits (MDL) and below actual reporting limit (RL).

FIGURES



Reference: Limehouse and Hardeeville, South Carolina
Jasper and Pritchardville, South Carolina
USGS 7.5 Min. Quad
Contour Interval–1.5 Meters

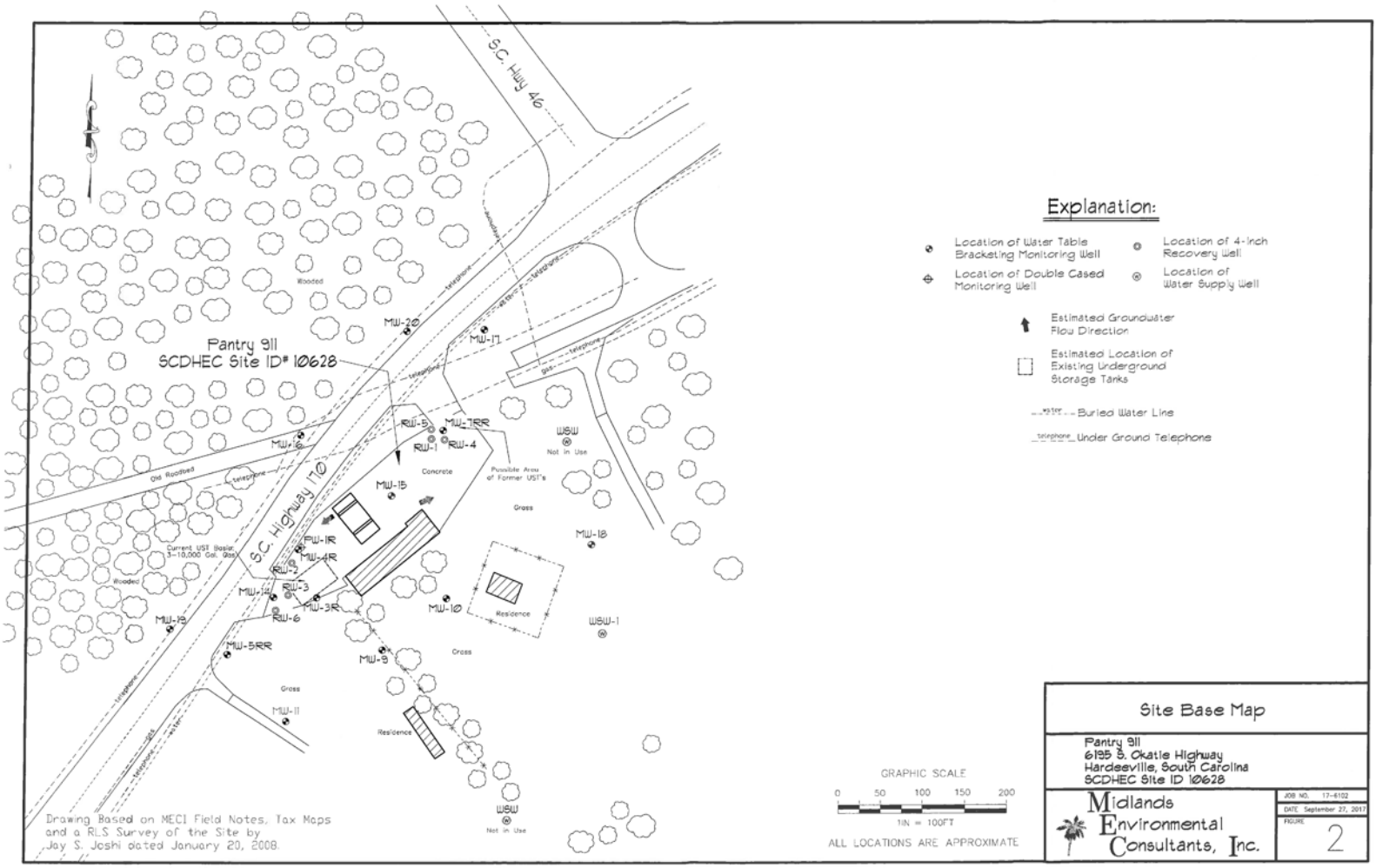
Midlands Environmental Consultants, Inc.

Site Location

Pantry 911
6195 South Okatie Highway, Hardeeville, SC
SCDHEC Site ID# 10628

Figure 1

MECI 17-6102



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of 4-inch Recovery Well
- Location of Double Cased Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Existing Underground Storage Tanks
- water — Buried Water Line
- telephone — Under Ground Telephone

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

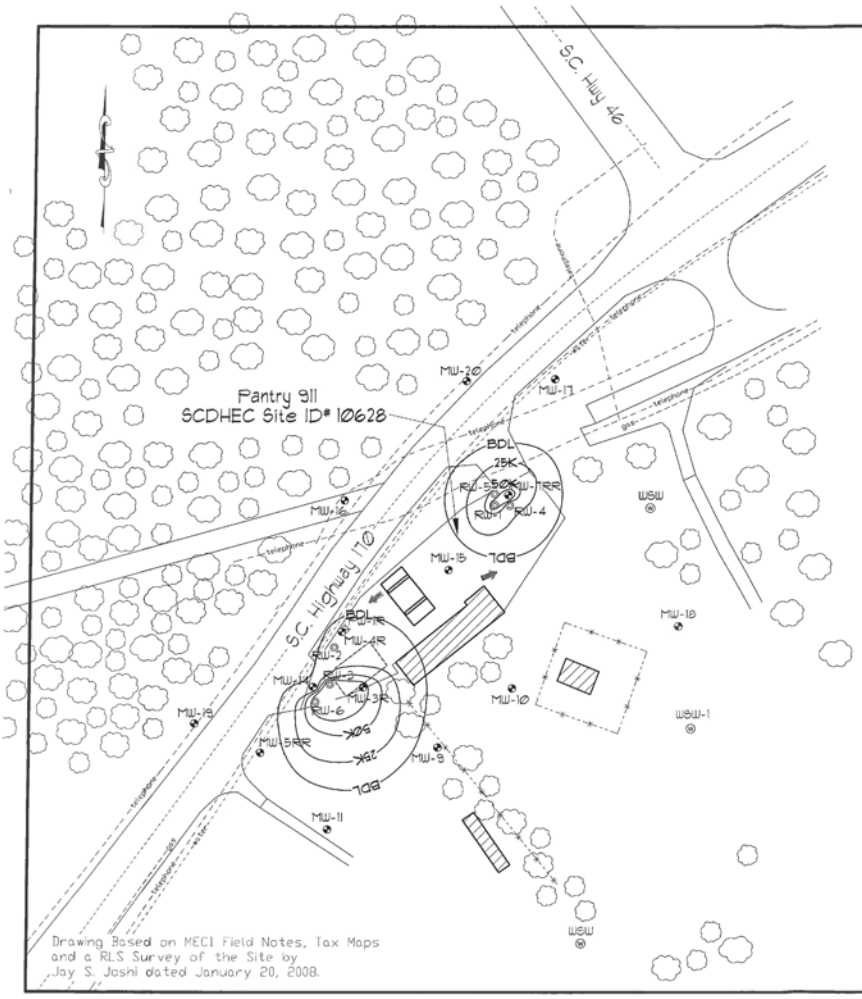
ALL LOCATIONS ARE APPROXIMATE

Site Base Map

Pantry 911
6135 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 17-6102
DATE September 27, 2017
FIGURE 2



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Double Cased "Deep" Monitoring Well
- Location of 4-inch Recovery Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Total BTEX Concentration Isopleth (ug/l)

Groundwater COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	Naphthalene (ug/l)	MTBE (ug/l)	1,2 DCA (ug/l)	EDB (ug/l)
MW-3R	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-4R	587	42.3	221	987	1,837.3	37.1	95.4	<20.0	<0.020
MW-5RR	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-7RR	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-9	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-10	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-11	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW-14	48.1	4.2J	30.8	6.2	89.3J	3.2J	1.8J	<5.0	<0.020
MW-15	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-16	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-17	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW-18	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-19	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-20	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
PW-1R	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
RW-1	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-2	29.0	<5.0	21.5	<5.0	50.5	6.9	5.3	<5.0	<0.020
RW-3	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-4	18,200	18,000	1,380	8,390	45,970	1,480	<625	398J	0.77
RW-5	21,700	23,700	1,730	8,890	56,020	1,220	<1,000	616J	0.63
RW-6	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
WSW-1	<0.50	<0.50	<0.50	<0.50	BDL	<0.50	<0.50	<0.50	<0.020
DUP-1(RW-2)	31.2	<5.0	21.4	<5.0	52.6	5.3	5.4	<5.0	<0.020
WSW DUP(WSW-1)	<0.50	<0.50	<0.50	<0.50	BDL	<0.50	<0.50	<0.50	<0.020
Field Blank	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020
Trip Blank	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	NT
WSW Field Blank	<0.50	<0.50	<0.50	<0.50	BDL	<0.50	<0.50	<0.50	<0.020
WSW Trip Blank	<0.50	<0.50	<0.50	<0.50	BDL	<0.50	<0.50	<0.50	NT

Notes:
- Groundwater samples collected on September 7, 2017.
- Isopleth Interval = 25,000 ug/l
- BDL = Below Detection Limits
- Monitoring well PW-1R not used in Isopleth data.
- NL = Not Located
- NT = Not Tested
- PROD = Free Phase Petroleum Detected
- Isopleths Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE
0 50 100 150 200
1IN = 100FT

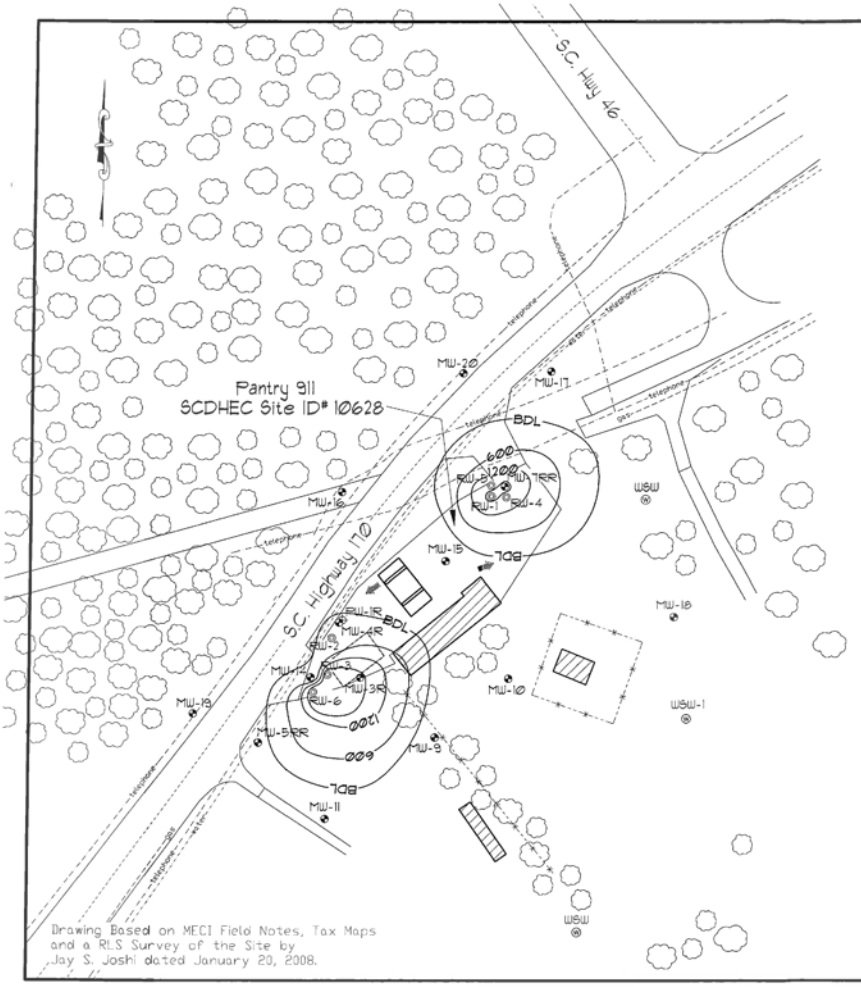
ALL LOCATIONS ARE APPROXIMATE

Groundwater CoC Site Map
(Total BTEX Isopleth)

Pantry 911
6135 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 17-6102
DATE September 27, 2017
FIGURE 4



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Water Supply Well
- Location of Double Cased "Deep" Monitoring Well
- Estimated Groundwater Flow Direction
- Location of 4-inch Recovery Well
- Estimated Location of Removed Underground Storage Tanks
- Naphthalene Concentration Isopleth (ug/l)

Groundwater COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	Naphthalene (ug/l)	MTBE (ug/l)	1,2 DCA (ug/l)	EDB (ug/l)
MW-3R	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-4R	587	42.3	221	987	1,837.3	37.1	95.4	<20.0	<0.020
MW-5RR	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-7RR	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-9	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-10	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-11	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW-14	46.1	4.2J	30.8	6.2	89.3J	3.2J	1.8J	<5.0	<0.020
MW-15	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-16	<5.0	<5.0	<5.0	<5.0	BDL	<2.0	<2.0	<5.0	<0.020
MW-17	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW-18	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-19	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-20	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
PW-1R	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
RW-1	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-2	29.0	<5.0	21.5	<5.0	50.5	6.9	5.3	<5.0	<0.020
RW-3	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-4	18,200	18,000	1,380	8,390	45,970	1,480	<625	398J	0.77
RW-5	21,700	23,700	1,730	8,890	56,020	1,220	<1,000	616J	0.63
RW-6	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
WSW-1	<0.50	<0.50	<0.50	<0.50	BDL	<0.50	<0.50	<0.50	<0.020
DUP-1(RW-2)	31.2	<5.0	21.4	<5.0	52.6	5.3	5.4	<5.0	<0.020
WSW DUP(WSW-1)	<0.50	<0.50	<0.50	<0.50	BDL	<0.50	<0.50	<0.50	<0.020
Field Blank	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020
Trip Blank	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	NT
WSW Field Blank	<0.50	<0.50	<0.50	<0.50	BDL	<0.50	<0.50	<0.50	<0.020
WSW Trip Blank	<0.50	<0.50	<0.50	<0.50	BDL	<0.50	<0.50	<0.50	NT

Notes:
- Groundwater samples collected on September 7, 2017.
- Isopleth Interval = 600 ug/l
- BDL = Below Detection Limits
- Monitoring well PW-1R not used in Isopleth data.
- NL = Not Located
- NT = Not Tested
- PROD = Free Phase Petroleum Detected
- Isopleths Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE
0 50 100 150 200
1IN = 100FT

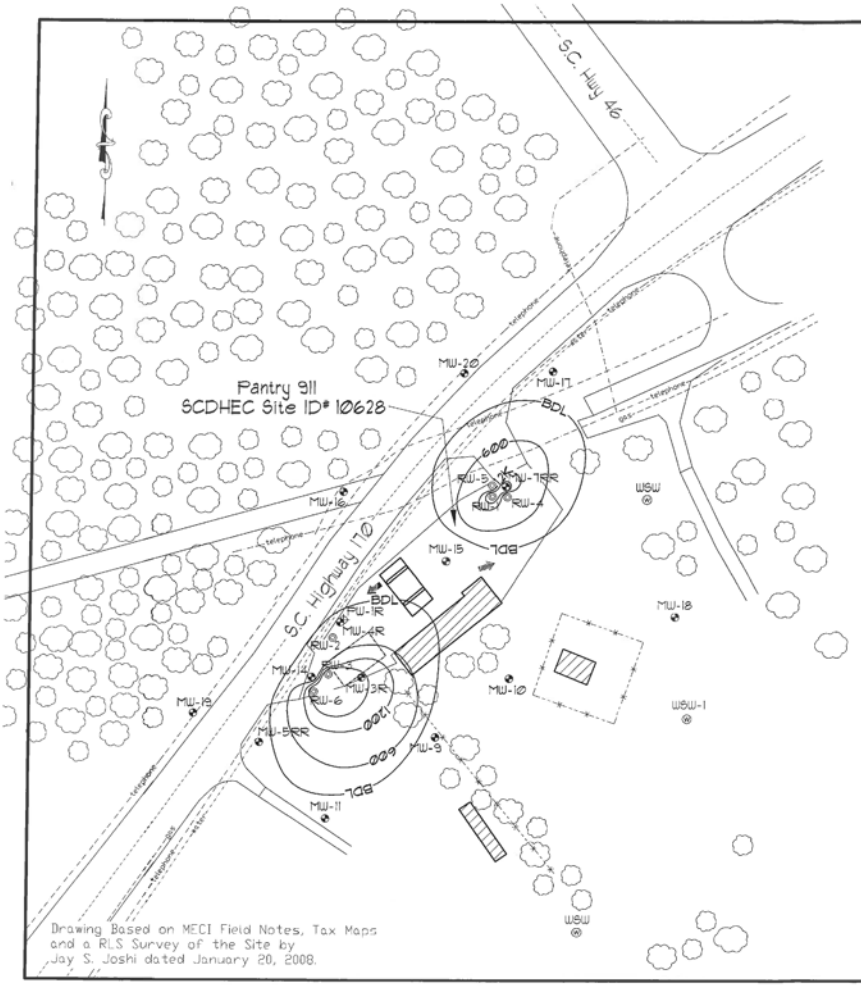
ALL LOCATIONS ARE APPROXIMATE

Groundwater CoC Site Map
(Naphthalene Isopleth)

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 17-6102
DATE September 27, 2017
FIGURE 4A



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Double Cased "Deep" Monitoring Well
- Location of 4-inch Recovery Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- MTBE Concentration Isopleth (ug/l)

Groundwater COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	Naphthalene (ug/l)	MTBE (ug/l)	1,2 DCA (ug/l)	EDB (ug/l)
MW-3R	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-4R	587	42.3	221	987	1,837.3	37.1	95.4	<20.0	<0.020
MW-5RR	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-7RR	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-9	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-10	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-11	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW-14	48.1	4.2J	30.8	6.2	89.3J	3.2J	1.8J	<5.0	<0.020
MW-15	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-16	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-17	NL	NL	NL	NL	NL	NL	NL	NL	NL
MW-18	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-19	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-20	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
PW-1R	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
RW-1	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-2	29.0	<5.0	21.5	<5.0	50.5	5.8	5.3	<5.0	<0.020
RW-3	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-4	18,200	18,000	1,380	8,390	45,970	1,480	<625	398J	0.77
RW-5	21,700	23,700	1,730	8,890	56,020	1,220	<1,000	616J	0.63
RW-6	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
WSW-1	<0.50	<0.50	<0.50	<0.50	BDL	<0.50	<0.50	<0.50	<0.020
DUP-1(RW-2)	31.2	<5.0	21.4	<5.0	52.6	5.3	5.4	<5.0	<0.020
WSW DUP(WSW-1)	<0.50	<0.50	<0.50	<0.50	BDL	<0.50	<0.50	<0.50	<0.020
Field Blank	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020
Trip Blank	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	NT
WSW Field Blank	<0.50	<0.50	<0.50	<0.50	BDL	<0.50	<0.50	<0.50	<0.020
WSW Trip Blank	<0.50	<0.50	<0.50	<0.50	BDL	<0.50	<0.50	<0.50	NT

Notes:
- Groundwater samples collected on September 7, 2017.
- Isopleth Interval = 600 ug/l
- BDL = Below Detection Limits
- Monitoring well PW-1R not used in Isopleth data.
- NL = Not Located
- NT = Not Tested
- PROD = Free Phase Petroleum Detected
- Isopleths Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE
0 50 100 150 200
1IN = 100FT

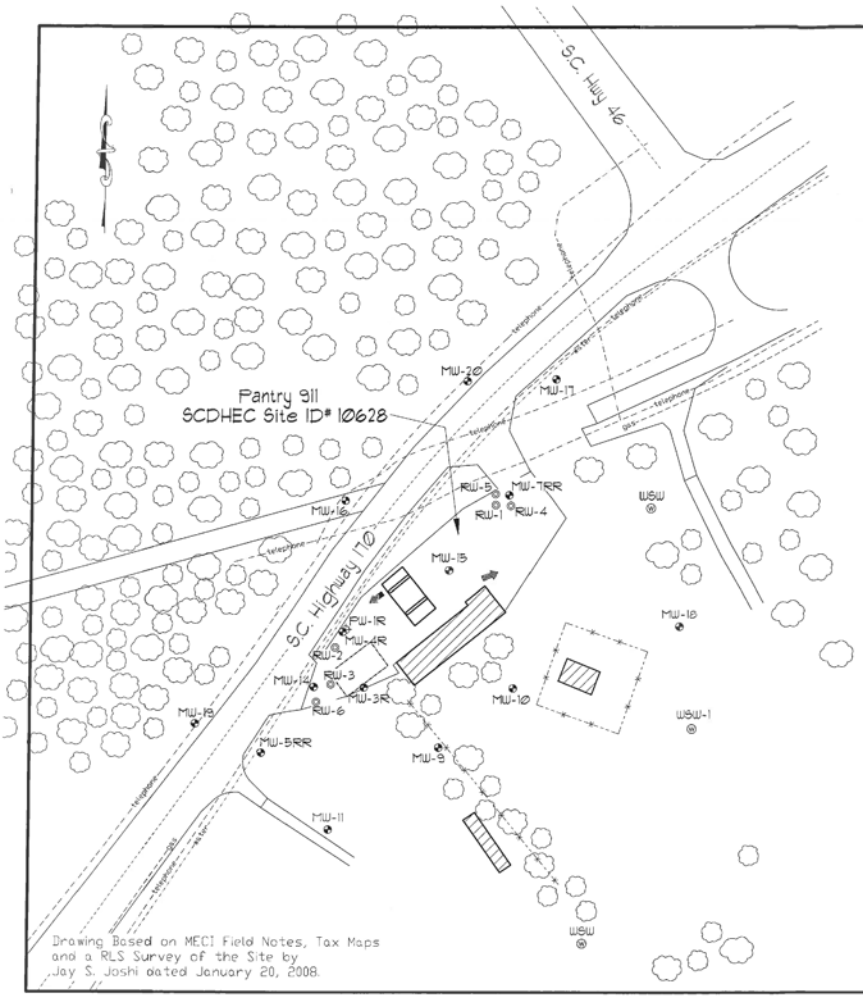
ALL LOCATIONS ARE APPROXIMATE

Groundwater CoC Site Map
(MTBE Isopleth)

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 17-6102
DATE September 27, 2017
FIGURE 4B



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Double Cased "Deep" Monitoring Well
- Location of 4-inch Recovery Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks

Groundwater COC Concentration Data - Oxygenates

Sample #	TAA (ug/l)	TAME (ug/l)	TBF (ug/l)	DIPE (ug/l)	3,3-Dimethyl-1-butanol (ug/l)	Ethanol (ug/l)	ETBE (ug/l)	TBA (ug/l)
MW-3R	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-4R	1,580	<40.0	<200	<20.0	<400	<800	30.6J	3,740
MW-5RR	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-7RR	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-9	<100	<10.0	<50.0	<5.0	<100	1,000	<10.0	<100
MW-10	<100	<10.0	<50.0	<5.0	<100	784	<10.0	<100
MW-11	NL	NL	NL	NL	NL	NL	NL	NL
MW-14	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-15	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-16	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-17	NL	NL	NL	NL	NL	NL	NL	NL
MW-18	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-19	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-20	<100	<10.0	<50.0	19.3	<100	<200	<10.0	<100
PW-1R	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
RW-1	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-2	158	<10.0	<50.0	<5.0	<100	<200	<10.0	220
RW-3	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-4	32,900	<1,250	<6,250	4,640	<12,500	<25,000	<1,250	<12,500
RW-5	39,600	<2,000	<10,000	8,140	<20,000	<40,000	<2,000	<20,000
RW-6	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
WSW-1	<100	<10.0	<50.0	<1.0	<100	<200	<10.0	<100
DUP-1(RW-2)	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	187
WSW DUP(WSW-1)	<100	<10.0	<50.0	<1.0	<100	<200	<10.0	<100
Field Blank	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
Trip Blank	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
WSW Field Blank	<100	<10.0	<50.0	<1.0	<100	<200	<10.0	<100
WSW Trip Blank	<100	<10.0	<50.0	<1.0	<100	<200	<10.0	<100

Notes: Groundwater samples collected on September 7, 2017.

DIPE = Diisopropyl Ether
ETBE = Ethyl tert-butyl Ether
TAA = tert-Amyl Alcohol
TAME = tert-Amy Methyl Ether
TBA = tert-Butyl Alcohol
TBF = tert-Butyl Formate

GRAPHIC SCALE
0 50 100 150 200
1IN = 100FT

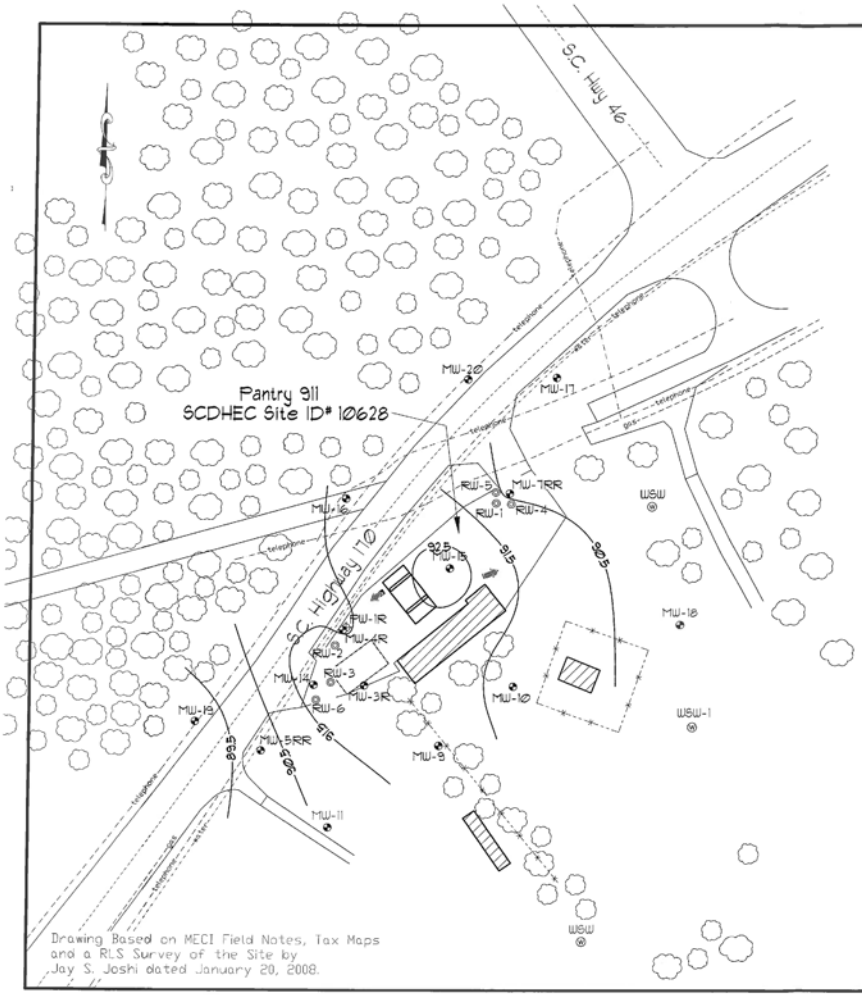
ALL LOCATIONS ARE APPROXIMATE

Groundwater CoC Site Map
(Oxygenates)

Pantry 911
6135 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 17-6102
DATE September 27, 2017
FIGURE 4C



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Water Supply Well
- Location of Double Cased "Deep" Monitoring Well
- Estimated Groundwater Flow Direction
- Location of 4-Inch Recovery Well
- Estimated Location of Removed Underground Storage Tanks
- Groundwater Elevation Contour (Feet)

Potentiometric Data

Well #	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Well Head Elevation	Groundwater Elevation
MW-3R	2-12	2.45	2.86	0.41	94.56	92.05
MW-4R	5-15	---	2.59	---	93.75	91.16
MW-5RR	2-12	---	2.24	---	92.18	89.94
MW-7RR	2-12	5.34	5.40	0.06	95.80	90.45
MW-9	8-18	---	4.85	---	96.73	91.88
MW-10	2-12	---	2.42	---	93.29	90.87
MW-11	2-12	---	NL	---	91.62	NL
MW-14	3.05-13.05	---	1.17	---	93.23	92.06
MW-15	2-12	---	3.01	---	96.12	93.11
MW-16	7-17	---	5.38	---	97.02	91.64
MW-17	3-13	---	NL	---	94.96	NL
MW-18	2-12	---	1.17	---	91.34	90.17
MW-19	2-12	---	4.12	---	93.01	88.89
MW-20	4-14	---	5.90	---	98.84	92.94
PW-1R	30-35	---	3.49	---	93.47	89.98
RW-1	2-12	5.42	5.44	0.02	96.15	90.73
RW-2	2-12	---	0.97	---	93.56	92.59
RW-3	2-12	0.58	1.10	0.52	93.22	92.56
RW-4	2-15	---	5.51	---	96.05	90.54
RW-5	2-15	---	5.13	---	95.60	90.47
RW-6	2-15	0.65	4.90	4.25	93.07	91.78

Notes: Depth to groundwater measured on September 7, 2017.

Site Datum Based on Assumed Spot Elevation.

Contour Interval = 0.50 Feet

Monitoring well MW-20 was not used in contouring.

Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

ALL LOCATIONS ARE APPROXIMATE

Potentiometric Data Site Map
(Groundwater Contour)

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 17-6102
DATE September 27, 2017
FIGURE 5

APPENDIX A:

SITE SURVEY

(Not Applicable)

APPENDIX B:

SAMPLING LOGS, LABORATORY DATA SHEETS, & CHAIN-OF-CUSTODY FORMS

Midlands Environmental Consultants, Inc.

Monitoring Well Purge And Sampling Data

Field Personnel: CC, JP, PW

Sampling Date(s): 9/7/17

Sampling Case#: 2

Job Name: Pantry 911

Job Number: 17-6102

Calibration Data for :

Calibration Successful? Yes or No (Please Circle)

pH: (Yes) No

Conductivity: (Yes) No

Dissolved Oxygen: (Yes) No

Turbidity: Conductivity Calibrated Every 3 Months by QA Manager

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet): product	Depth to (feet): Initial H_2O	Depth to (feet): final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	Gallons Purged actual	Notes
MW-3R	Initial	12:25						0.00	2.86		2 - 12	9.14	1.49	—	N/S
	1st		Free petroleum product -					2.45							0.41'
	2nd		0.41' thick										7.45		product
	3rd														
	4th														
	5th														
	Sampling														
MW-4R	Initial	11:50	5.15	179.0	27.8	0.98	26.15		2.59		5 - 15	12.41	2.02	Dry @ 3.5	Organic odor
	1st	11:53	4.89	173.4	27.2	0.84	47.06								
	2nd												10.11		
	3rd														
	4th														
	5th														
	Sampling	12:00	4.93	168.2	26.9	0.79	65.14								
MW-5RR	Initial	10:45	6.61	354.7	25.5	2.00	42.56		2.24		5 - 15	12.76	2.08	Dry @ 2.5	No odor
	1st	10:48	6.48	348.2	25.0	1.84	101.3								
	2nd												10.39		
	3rd														
	4th														
	5th														
	Sampling	10:55	6.42	344.3	24.7	1.79	92.87								
MW-7RR	Initial	10:50						5.34	5.40		2 - 12			—	N/S
	1st														
	2nd		Free petroleum product -												product
	3rd														0.06'
	4th		0.06' thick												
	5th														
	Sampling														

*= (Depth of Well) - (Depth to Water = **Water Height**

One Well Volume =x.047 for 1" wells * x **.163 for 2" wells**, or * x **.66 for 4" wells**, 1.469 for 6" wells

= One Well Volume x 5 = **Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	PH/Conductance SN	DO SN	Turbidity
Case #1	15H101448	12G102878	201301183
Case #2	15E101481	14H103098	201301174
Case #3	10K 101895	08B101407	201510251

Midlands Environmental Consultants, Inc.

Monitoring Well Purge And Sampling Data

Field Personnel: CC, JP, PW

Sampling Date(s): 9/7/17

Sampling Case#: 2

Job Name: Pantry all

Job Number: 17-6102

Calibration Data for :

Calibration Successful? Yes or No (Please Circle)

pH: (Yes) No

Conductivity: (Yes) No

Dissolved Oxygen: (Yes) No

Turbidity: Conductivity Calibrated Every 3 Months by QA Manager

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet): product	Depth to (feet): initial H_2O	Depth to (feet): final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	Gallons Purged actual	Notes
MW-9	Initial	13:30	5.70	701	24.1	2.09	19.04		4.85		8 - 18	15.95	2.59	Dry @ 11.0	Sulfur odor
	1st	13:34	5.73	706	23.6	2.03	27.35		SM						
	2nd	13:38	5.64	700	23.2	1.97	41.70		2.80						
	3rd	13:42	5.57	696	22.9	1.94	55.91								
	4th	13:46	5.52	693	22.7	1.91	68.26								
	5th														
	Sampling	13:50	5.53	690	22.6	1.88	63.48		2.05				12.99		
MW-10	Initial	13:30	4.01	394.5	24.3	1.02	14.31		2.42		2 - 12	9.58	1.56	Dry @ 4.0	Strong, organic odor
	1st	13:32	4.13	399.2	24.0	0.95	26.85								
	2nd	13:34	4.08	392.6	23.8	0.90	42.17								
	3rd														
	4th														
	5th														
	Sampling	13:40	4.10	391.3	23.7	0.86	49.26						7.81		
MW-11	Initial										2 - 12				N/S
	1st	N/D - buried or destroyed -													
	2nd														
	3rd	no lid in 2015; badly overgrown													
	4th														
	5th														
	Sampling	car parts strewn across property													
MW-14	Initial	12:40	7.01	412.6	28.3	1.35	41.67		1.17		3.05 - 13.05	11.88	1.94	Dry @ 6.5	Slight organic odor
	1st	12:43	6.84	405.1	27.7	.38	75.80								
	2nd	12:46	6.72	400.3	27.3	1.30	103.1								
	3rd	12:49	6.67	397.2	27.0	1.24	120.4								
	4th														
	5th														
	Sampling	13:00	6.55	398.5	26.9	1.22	114.2						9.68		

*= (Depth of Well) - (Depth to Water = Water Height

One Well Volume =x.047 for 1" wells * x .163 for 2" wells, or * x .66 for 4" wells, 1.469 for 6" wells

**= One Well Volume x 5 = Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	12G102878	201301183
Case #2	15E101481	14H103098	201301174
Case #3	10K 101895	08B101407	201510251

Midlands Environmental Consultants, Inc.

Monitoring Well Purge And Sampling Data

Field Personnel: CC, JP, PW

Sampling Date(s): 9/7/17

Sampling Case#: 2

Job Name: Pantry 911

Job Number: 17-6102

Calibration Data for :

Calibration Successful? Yes or No (Please Circle)

pH: Yes No

Conductivity: Yes No

Dissolved Oxygen: Yes No

Turbidity: Conductivity Calibrated Every 3 Months by QA Manager

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet): product	Depth to (feet): initial H_2O	Depth to (feet): final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	Gallons Purged actual	Notes
MW-15	Initial	11:30	6.13	349.9	30.3	0.77	26.93		3.01		2-12	8.99	1.47	Dry@ 3.5	Organic odor
	1st	11:32	6.02	354.0	29.8	0.64	48.61								
	2nd	11:34	5.91	356.2	29.6	0.58	70.78						7.33		
	3rd														
	4th														
	5th														
	Sampling	11:40	5.87	355.8	29.5	0.54	64.52								
MW-16	Initial	10:30	6.25	315.4	26.7	0.73	28.15		5.38		7-17	11.62	1.89	Dry@ 2.5	No odor
	1st	10:33	6.33	348.1	26.2	0.86	62.03								
	2nd												9.47		
	3rd														
	4th														
	5th														
	Sampling	10:38	6.31	371.0	26.0	0.91	79.24								
MW-17	Initial	~~10:50~~	N/L - historically not located								3-13				
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
MW-18	Initial	13:20	7.16	104.6	24.7	1.78	33.41		1.17		2-12	10.83	1.77	Dry@ 1	No odor Obstruction @2.46'
	1st														
	2nd												8.83		
	3rd														
	4th														
	5th														
	Sampling	13:45	Insufficient water for cups												

*= (Depth of Well) - (Depth to Water = Water Height

One Well Volume =x.047 for 1" wells * x .163 for 2" wells, or * x .66 for 4" wells, 1.469 for 6" wells

**= One Well Volume x 5 = Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	12G102878	201301183
Case #2	15E101481	14H103098	201301174
Case #3	10K 101895	08B101407	201510251

Midlands Environmental Consultants, Inc.

Monitoring Well Purge And Sampling Data

Field Personnel: CC, JP, PW

Sampling Date(s): 9/7/17

Sampling Case#: 2

Job Name: Pantry 911

Job Number: 17-6107

Calibration Data for :

Calibration Successful? Yes or No (Please Circle)

pH: (Yes) No

Conductivity: (Yes) No

Dissolved Oxygen: (Yes) No

Turbidity: (Yes) No — Conductivity Calibrated Every 3 Months by QA Manager

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet): product	Depth to (feet): Initial H_2O	Depth to (feet): final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	Gallons Purged actual	Notes
MW-19	Initial	10:40	6.50	348.1	26.3	1.85	39.20		4.12		2-12	7.88	1.28	Dry@ 1.5	Slight sulfur odor
	1st	10:42	6.43	341.9	25.8	1.93	14.7								
	2nd														
	3rd														
	4th														
	5th														
	Sampling	10:45	6.49	337.0	25.6	1.95	126.9						6.42		
MW-20	Initial	10:30	6.11	427.6	24.5	2.33	20.86		5.90		4-14	8.10	1.32	Dry@ 1.5	Sulfur odor
	1st	10:32	6.03	430.2	24.0	2.18	72.35								
	2nd														
	3rd														
	4th														
	5th														
	Sampling	10:35	5.98	432.6	24.1	2.22	104.7						6.60		
PW-1R	Initial	4:50	6.90	248.6	27.2	1.83	36.87		3.49		30-35	31.51	5.14	Dry@ 13.0	No odor Film on sample
	1st	11:56	6.78	245.3	26.8	1.71	58.91								
	2nd	12:02	6.71	242.7	26.6	1.64	73.45								
	3rd														
	4th														
	5th														
	Sampling	12:15	6.67	244.0	26.5	1.67	80.23						25.68		
RW-1	Initial	11:25						0.02	5.44		2-12	6.56	~~0.02~~ 4.28	—	N/S 0.02' product
	1st							5.42							
	2nd		Free petroleum product-												
	3rd		0.02' thick												
	4th														
	5th														
	Sampling												21.42		

*= (Depth of Well) - (Depth to Water = Water Height

One Well Volume =x.047 for 1" wells * x .163 for 2" wells, or * x .66 for 4" wells, 1.469 for 6" wells

**= One Well Volume x 5 = Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	PH/Conductance SN	DO SN	Turbidity
Case #1	15H101448	12G102878	201301183
Case #2	15E101481	14H103098	201301174
Case #3	10K 101895	08B101407	201510251

Midlands Environmental Consultants, Inc.

Monitoring Well Purge And Sampling Data

Field Personnel: CC, JP, PW

Sampling Date(s): 9/7/17

Sampling Case#: 2

Job Name: pantry all

Job Number: 17-6102

Calibration Data for :

Calibration Successful? Yes or No (Please Circle)

pH: (Yes) No

Conductivity: (Yes) No

Dissolved Oxygen: (Yes) No

Turbidity: **Conductivity Calibrated Every 3 Months by QA Manager**

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet): product	Depth to (feet): initial H_2O	Depth to (feet): final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	Gallons Purged actual	Notes
RW-2	Initial	12:10	6.86	178.8	29.7	0.62	13.95		0.97		2-12	11.03	7.20	Dry @ 18.0	Slight odor
	1st	12:12	6.74	174.7	29.3	0.59	30.62								
	2nd	12:14	6.63	171.5	29.1	0.63	43.18								
	3rd														
	4th														
	5th														
	Sampling	12:20	6.57	168.1	29.1	0.67	39.07						36.01		Dup 1
RW-3	Initial	12:20	Free petroleum product - 0.52' thick					0.58	1.10		2-12	10.90	1.78	—	N/S product 0.52'
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling												8.88		
RW-4	Initial	11:05	5.82	360.3	28.1	1.59	13.26		5.51		2-15	9.49	6.19	Dry @ 10.5	Strong odor Sheen
	1st	11:12	Sheen												
	2nd														
	3rd														
	4th														
	5th														
	Sampling	11:20	Sheen										30.98		
RW-5	Initial	11:00	Sheen						5.13		2-15	9.87	6.45	Dry @ 11.0	Heavy sheen Strong odor
	1st	11:07	Sheen												
	2nd														
	3rd														
	4th														
	5th														
	Sampling	11:20	Sheen										32.22		

*= (Depth of Well) - (Depth to Water = **Water Height**

One Well Volume =x.047 for 1" wells * x **.163 for 2" wells**, or * x **.66 for 4" wells**, 1.469 for 6" wells

= One Well Volume x 5 = **Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	PH/Conductance SN	DO SN	Turbidity
Case #1	15H101448	12G102878	201301183
Case #2	15E101481	14H103098	201301174
Case #3	10K 101895	08B101407	201510251

Midlands Environmental Consultants, Inc.

Monitoring Well Purge And Sampling Data

Field Personnel: CC, JP, PW

Sampling Date(s): 9/7/17

Sampling Case#: 2

Job Name: Pantry 911

Job Number: 17-6102

Calibration Data for :

Calibration Successful? Yes or No (Please Circle)

pH: Yes No

Conductivity: Yes No

Dissolved Oxygen: Yes No

Turbidity: **Conductivity Calibrated Every 3 Months by QA Manager**

Well No.	Purge Volume	Sample Time	pH(l)	cond(l)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet): product	Depth to (feet): initial H_2O	Depth to (feet): final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	Gallons Purged actual	Notes
RW-6	Initial	12:30						0.65	4.90		2-				N/S @ 4.25' product
	1st														
	2nd		Free petroleum product												
	3rd		4.25' thick												
	4th														
	5th										15				
	Sampling														
DUP	Initial	1 12:20	RW-2 Slight odor												
	1st	2													
FB	2nd														
	3rd	14:00													
TB	4th														
	5th	14:02													
	Sampling														
WSW	Initial	X													
	1st														
	2nd														
	3rd														
WSW-1	4th	13:05	Spigot in yard (suggested by property owner)												
	5th														
	Sampling		Dup'd												
WSW DUP	Initial														
	1st	13:05	WSW-1												
WSW FB	2nd														
	3rd	13:10													
	4th														
WSW TB	5th	13:12													
	Sampling														

*= (Depth of Well) - (Depth to Water = **Water Height**

One Well Volume =x.047 for 1" wells * x .163 for 2" wells, or * x .66 for 4" wells, 1.469 for 6" wells

= One Well Volume x 5 = **Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	12G102878	201301183
Case #2	15E101481	14H103098	201301174
Case #3	10K 101895	08B101407	201510251

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

September 15, 2017

Mr. Bryan Shane
Midlands Environmental
PO Box 854
Lexington, SC 29071

RE: Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

Dear Mr. Shane:
Enclosed are the analytical results for sample(s) received by the laboratory on September 08, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Trey Carter
trey.carter@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Mr. Jeff Coleman, Midlands Environmental
Mr. Kyle Pudney, Midlands Environmental

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

Charlotte Certification IDs
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92354528001	MW-4R	Water	09/07/17 12:00	09/08/17 08:15
92354528002	MW-5RR	Water	09/07/17 10:55	09/08/17 08:15
92354528003	MW-9	Water	09/07/17 13:50	09/08/17 08:15
92354528004	MW-10	Water	09/07/17 13:40	09/08/17 08:15
92354528005	MW-14	Water	09/07/17 13:00	09/08/17 08:15
92354528006	MW-15	Water	09/07/17 11:40	09/08/17 08:15
92354528007	MW-16	Water	09/07/17 10:38	09/08/17 08:15
92354528008	MW-18	Water	09/07/17 13:45	09/08/17 08:15
92354528009	MW-19	Water	09/07/17 10:45	09/08/17 08:15
92354528010	MW-20	Water	09/07/17 10:35	09/08/17 08:15
92354528011	PW-1R	Water	09/07/17 12:15	09/08/17 08:15
92354528012	RW-2	Water	09/07/17 12:20	09/08/17 08:15
92354528013	RW-4	Water	09/07/17 11:20	09/08/17 08:15
92354528014	RW-5	Water	09/07/17 11:20	09/08/17 08:15
92354528015	DUP	Water	09/07/17 12:20	09/08/17 08:15
92354528016	FB	Water	09/07/17 14:00	09/08/17 08:15
92354528017	TB	Water	09/07/17 14:02	09/08/17 08:15

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92354528001	MW-4R	EPA 8011	RES	2	PASI-C
		EPA 8260	SWB	20	PASI-C
92354528002	MW-5RR	EPA 8011	RES	2	PASI-C
		EPA 8260	CAH	20	PASI-C
92354528003	MW-9	EPA 8011	RES	2	PASI-C
		EPA 8260	SWB	20	PASI-C
92354528004	MW-10	EPA 8011	RES	2	PASI-C
		EPA 8260	CAH	20	PASI-C
92354528005	MW-14	EPA 8011	RES	2	PASI-C
		EPA 8260	SWB	20	PASI-C
92354528006	MW-15	EPA 8011	RES	2	PASI-C
		EPA 8260	CAH	20	PASI-C
92354528007	MW-16	EPA 8011	KPS	2	PASI-C
		EPA 8260	SWB	20	PASI-C
92354528008	MW-18	EPA 8011	RES	2	PASI-C
		EPA 8260	CAH	20	PASI-C
92354528009	MW-19	EPA 8011	KPS	2	PASI-C
		EPA 8260	CAH	20	PASI-C
92354528010	MW-20	EPA 8011	RES	2	PASI-C
		EPA 8260	CAH	20	PASI-C
92354528011	PW-1R	EPA 8011	RES	2	PASI-C
		EPA 8260	CAH	20	PASI-C
92354528012	RW-2	EPA 8011	RES	2	PASI-C
		EPA 8260	GAW	20	PASI-C
92354528013	RW-4	EPA 8011	RES	2	PASI-C
		EPA 8260	SWB	20	PASI-C
92354528014	RW-5	EPA 8011	RES	2	PASI-C
		EPA 8260	CAH	20	PASI-C
92354528015	DUP	EPA 8011	RES	2	PASI-C
		EPA 8260	SWB	20	PASI-C
92354528016	FB	EPA 8011	RES	2	PASI-C
		EPA 8260	CAH	20	PASI-C
92354528017	TB	EPA 8260	SWB	20	PASI-C

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

Sample: MW-4R **Lab ID: 92354528001** Collected: 09/07/17 12:00 Received: 09/08/17 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	09/11/17 14:22	09/11/17 19:33	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	123	%	60-140		1	09/11/17 14:22	09/11/17 19:33	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	**1580**	ug/L	400	307	4		09/12/17 04:48	75-85-4	
tert-Amylmethyl ether	ND	ug/L	40.0	13.6	4		09/12/17 04:48	994-05-8	
Benzene	**587**	ug/L	20.0	6.8	4		09/12/17 04:48	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	400	128	4		09/12/17 04:48	624-95-3	
tert-Butyl Alcohol	**3740**	ug/L	400	231	4		09/12/17 04:48	75-65-0	
tert-Butyl Formate	ND	ug/L	200	29.2	4		09/12/17 04:48	762-75-4	
1,2-Dichloroethane	ND	ug/L	20.0	7.2	4		09/12/17 04:48	107-06-2	
Diisopropyl ether	ND	ug/L	20.0	6.8	4		09/12/17 04:48	108-20-3	
Ethanol	ND	ug/L	800	524	4		09/12/17 04:48	64-17-5	
Ethylbenzene	**221**	ug/L	20.0	6.4	4		09/12/17 04:48	100-41-4	
Ethyl-tert-butyl ether	**30.6J**	ug/L	40.0	14.4	4		09/12/17 04:48	637-92-3	
Methyl-tert-butyl ether	**95.4**	ug/L	20.0	6.8	4		09/12/17 04:48	1634-04-4	
Naphthalene	**37.1**	ug/L	20.0	8.0	4		09/12/17 04:48	91-20-3	
Toluene	**42.3**	ug/L	20.0	6.4	4		09/12/17 04:48	108-88-3	
Xylene (Total)	**987**	ug/L	20.0	20.0	4		09/12/17 04:48	1330-20-7	
m&p-Xylene	**646**	ug/L	40.0	12.4	4		09/12/17 04:48	179601-23-1	
o-Xylene	**341**	ug/L	20.0	6.4	4		09/12/17 04:48	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	96	%	70-130		4		09/12/17 04:48	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-130		4		09/12/17 04:48	17060-07-0	
Toluene-d8 (S)	99	%	70-130		4		09/12/17 04:48	2037-26-5	

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

Sample: MW-5RR **Lab ID: 92354528002** Collected: 09/07/17 10:55 Received: 09/08/17 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	09/11/17 14:22	09/11/17 20:13	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	64	%	60-140		1	09/11/17 14:22	09/11/17 20:13	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		09/09/17 05:32	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		09/09/17 05:32	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		09/09/17 05:32	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		09/09/17 05:32	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		09/09/17 05:32	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		09/09/17 05:32	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		09/09/17 05:32	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		09/09/17 05:32	108-20-3	
Ethanol	ND	ug/L	200	131	1		09/09/17 05:32	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		09/09/17 05:32	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		09/09/17 05:32	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		09/09/17 05:32	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		09/09/17 05:32	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		09/09/17 05:32	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		09/09/17 05:32	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		09/09/17 05:32	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		09/09/17 05:32	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	94	%	70-130		1		09/09/17 05:32	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130		1		09/09/17 05:32	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		09/09/17 05:32	2037-26-5	

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

Sample: MW-9 **Lab ID: 92354528003** Collected: 09/07/17 13:50 Received: 09/08/17 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	09/11/17 14:22	09/11/17 20:34	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	137	%	60-140		1	09/11/17 14:22	09/11/17 20:34	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		09/09/17 19:08	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		09/09/17 19:08	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		09/09/17 19:08	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		09/09/17 19:08	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		09/09/17 19:08	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		09/09/17 19:08	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		09/09/17 19:08	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		09/09/17 19:08	108-20-3	
Ethanol	**1000**	ug/L	200	131	1		09/09/17 19:08	64-17-5	L1
Ethylbenzene	ND	ug/L	5.0	1.6	1		09/09/17 19:08	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		09/09/17 19:08	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		09/09/17 19:08	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		09/09/17 19:08	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		09/09/17 19:08	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		09/09/17 19:08	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		09/09/17 19:08	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		09/09/17 19:08	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		09/09/17 19:08	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-130		1		09/09/17 19:08	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		09/09/17 19:08	2037-26-5	

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

Sample: MW-10 Lab ID: **92354528004** Collected: 09/07/17 13:40 Received: 09/08/17 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	09/11/17 14:22	09/11/17 20:54	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	102	%	60-140		1	09/11/17 14:22	09/11/17 20:54	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		09/09/17 06:58	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		09/09/17 06:58	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		09/09/17 06:58	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		09/09/17 06:58	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		09/09/17 06:58	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		09/09/17 06:58	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		09/09/17 06:58	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		09/09/17 06:58	108-20-3	
Ethanol	784	ug/L	200	131	1		09/09/17 06:58	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		09/09/17 06:58	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		09/09/17 06:58	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		09/09/17 06:58	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		09/09/17 06:58	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		09/09/17 06:58	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		09/09/17 06:58	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		09/09/17 06:58	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		09/09/17 06:58	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	94	%	70-130		1		09/09/17 06:58	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-130		1		09/09/17 06:58	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		09/09/17 06:58	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

Sample: MW-14 **Lab ID: 92354528005** Collected: 09/07/17 13:00 Received: 09/08/17 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	09/11/17 14:22	09/12/17 11:51	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	89	%	60-140		1	09/11/17 14:22	09/12/17 11:51	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		09/11/17 16:05	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		09/11/17 16:05	994-05-8	
Benzene	**48.1**	ug/L	5.0	1.7	1		09/11/17 16:05	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		09/11/17 16:05	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		09/11/17 16:05	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		09/11/17 16:05	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		09/11/17 16:05	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		09/11/17 16:05	108-20-3	
Ethanol	ND	ug/L	200	131	1		09/11/17 16:05	64-17-5	L1
Ethylbenzene	**30.8**	ug/L	5.0	1.6	1		09/11/17 16:05	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		09/11/17 16:05	637-92-3	
Methyl-tert-butyl ether	**1.8J**	ug/L	5.0	1.7	1		09/11/17 16:05	1634-04-4	
Naphthalene	**3.2J**	ug/L	5.0	2.0	1		09/11/17 16:05	91-20-3	
Toluene	**4.2J**	ug/L	5.0	1.6	1		09/11/17 16:05	108-88-3	
Xylene (Total)	**6.2**	ug/L	5.0	5.0	1		09/11/17 16:05	1330-20-7	
m&p-Xylene	**9.9J**	ug/L	10.0	3.1	1		09/11/17 16:05	179601-23-1	
o-Xylene	**6.2**	ug/L	5.0	1.6	1		09/11/17 16:05	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	116	%	70-130		1		09/11/17 16:05	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	70-130		1		09/11/17 16:05	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		09/11/17 16:05	2037-26-5	

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

Sample: MW-15 **Lab ID: 92354528006** Collected: 09/07/17 11:40 Received: 09/08/17 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	09/11/17 14:22	09/12/17 12:11	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	103	%	60-140		1	09/11/17 14:22	09/12/17 12:11	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		09/09/17 05:49	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		09/09/17 05:49	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		09/09/17 05:49	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		09/09/17 05:49	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		09/09/17 05:49	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		09/09/17 05:49	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		09/09/17 05:49	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		09/09/17 05:49	108-20-3	
Ethanol	ND	ug/L	200	131	1		09/09/17 05:49	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		09/09/17 05:49	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		09/09/17 05:49	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		09/09/17 05:49	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		09/09/17 05:49	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		09/09/17 05:49	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		09/09/17 05:49	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		09/09/17 05:49	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		09/09/17 05:49	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	93	%	70-130		1		09/09/17 05:49	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		1		09/09/17 05:49	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		09/09/17 05:49	2037-26-5	

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

Sample: MW-16 Lab ID: **92354528007** Collected: 09/07/17 10:38 Received: 09/08/17 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	09/12/17 14:55	09/12/17 18:39	106-93-4	L1
Surrogates									
1-Chloro-2-bromopropane (S)	125	%	60-140		1	09/12/17 14:55	09/12/17 18:39	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		09/09/17 19:26	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		09/09/17 19:26	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		09/09/17 19:26	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		09/09/17 19:26	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		09/09/17 19:26	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		09/09/17 19:26	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		09/09/17 19:26	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		09/09/17 19:26	108-20-3	
Ethanol	ND	ug/L	200	131	1		09/09/17 19:26	64-17-5	L1
Ethylbenzene	ND	ug/L	5.0	1.6	1		09/09/17 19:26	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		09/09/17 19:26	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		09/09/17 19:26	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		09/09/17 19:26	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		09/09/17 19:26	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		09/09/17 19:26	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		09/09/17 19:26	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		09/09/17 19:26	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	94	%	70-130		1		09/09/17 19:26	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-130		1		09/09/17 19:26	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		09/09/17 19:26	2037-26-5	

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

Sample: MW-18 **Lab ID: 92354528008** Collected: 09/07/17 13:45 Received: 09/08/17 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	09/11/17 14:23	09/12/17 12:32	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	105	%	60-140		1	09/11/17 14:23	09/12/17 12:32	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		09/09/17 06:06	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		09/09/17 06:06	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		09/09/17 06:06	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		09/09/17 06:06	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		09/09/17 06:06	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		09/09/17 06:06	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		09/09/17 06:06	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		09/09/17 06:06	108-20-3	
Ethanol	ND	ug/L	200	131	1		09/09/17 06:06	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		09/09/17 06:06	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		09/09/17 06:06	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		09/09/17 06:06	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		09/09/17 06:06	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		09/09/17 06:06	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		09/09/17 06:06	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		09/09/17 06:06	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		09/09/17 06:06	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		09/09/17 06:06	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-130		1		09/09/17 06:06	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		09/09/17 06:06	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

Sample: MW-19 **Lab ID: 92354528009** Collected: 09/07/17 10:45 Received: 09/08/17 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	09/13/17 16:10	09/13/17 19:29	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	87	%	60-140		1	09/13/17 16:10	09/13/17 19:29	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		09/09/17 06:23	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		09/09/17 06:23	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		09/09/17 06:23	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		09/09/17 06:23	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		09/09/17 06:23	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		09/09/17 06:23	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		09/09/17 06:23	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		09/09/17 06:23	108-20-3	
Ethanol	ND	ug/L	200	131	1		09/09/17 06:23	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		09/09/17 06:23	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		09/09/17 06:23	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		09/09/17 06:23	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		09/09/17 06:23	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		09/09/17 06:23	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		09/09/17 06:23	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		09/09/17 06:23	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		09/09/17 06:23	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		09/09/17 06:23	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-130		1		09/09/17 06:23	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		09/09/17 06:23	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical
www.pacelabs.com

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

Sample: MW-20 **Lab ID: 92354528010** Collected: 09/07/17 10:35 Received: 09/08/17 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	09/11/17 14:23	09/11/17 22:35	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	100	%	60-140		1	09/11/17 14:23	09/11/17 22:35	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		09/09/17 06:41	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		09/09/17 06:41	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		09/09/17 06:41	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		09/09/17 06:41	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		09/09/17 06:41	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		09/09/17 06:41	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		09/09/17 06:41	107-06-2	
Diisopropyl ether	**19.3**	ug/L	5.0	1.7	1		09/09/17 06:41	108-20-3	
Ethanol	ND	ug/L	200	131	1		09/09/17 06:41	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		09/09/17 06:41	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		09/09/17 06:41	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		09/09/17 06:41	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		09/09/17 06:41	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		09/09/17 06:41	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		09/09/17 06:41	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		09/09/17 06:41	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		09/09/17 06:41	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		09/09/17 06:41	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130		1		09/09/17 06:41	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		09/09/17 06:41	2037-26-5	

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

Sample: PW-1R **Lab ID: 92354528011** Collected: 09/07/17 12:15 Received: 09/08/17 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.019	1	09/11/17 14:23	09/11/17 22:55	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	105	%	60-140		1	09/11/17 14:23	09/11/17 22:55	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		09/09/17 07:15	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		09/09/17 07:15	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		09/09/17 07:15	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		09/09/17 07:15	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		09/09/17 07:15	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		09/09/17 07:15	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		09/09/17 07:15	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		09/09/17 07:15	108-20-3	
Ethanol	ND	ug/L	200	131	1		09/09/17 07:15	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		09/09/17 07:15	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		09/09/17 07:15	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		09/09/17 07:15	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		09/09/17 07:15	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		09/09/17 07:15	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		09/09/17 07:15	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		09/09/17 07:15	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		09/09/17 07:15	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		09/09/17 07:15	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130		1		09/09/17 07:15	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		09/09/17 07:15	2037-26-5	

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

Sample: RW-2 **Lab ID: 92354528012** Collected: 09/07/17 12:20 Received: 09/08/17 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	09/11/17 14:23	09/11/17 23:15	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	105	%	60-140		1	09/11/17 14:23	09/11/17 23:15	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	**158**	ug/L	100	76.8	1		09/13/17 18:45	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		09/13/17 18:45	994-05-8	
Benzene	**29.0**	ug/L	5.0	1.7	1		09/13/17 18:45	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		09/13/17 18:45	624-95-3	
tert-Butyl Alcohol	**220**	ug/L	100	57.7	1		09/13/17 18:45	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		09/13/17 18:45	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		09/13/17 18:45	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		09/13/17 18:45	108-20-3	
Ethanol	ND	ug/L	200	131	1		09/13/17 18:45	64-17-5	
Ethylbenzene	**21.5**	ug/L	5.0	1.6	1		09/13/17 18:45	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		09/13/17 18:45	637-92-3	
Methyl-tert-butyl ether	**5.3**	ug/L	5.0	1.7	1		09/13/17 18:45	1634-04-4	
Naphthalene	**6.9**	ug/L	5.0	2.0	1		09/13/17 18:45	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		09/13/17 18:45	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		09/13/17 18:45	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		09/13/17 18:45	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		09/13/17 18:45	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		1		09/13/17 18:45	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130		1		09/13/17 18:45	17060-07-0	
Toluene-d8 (S)	103	%	70-130		1		09/13/17 18:45	2037-26-5	

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

Sample: RW-4 **Lab ID: 92354528013** Collected: 09/07/17 11:20 Received: 09/08/17 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**0.77**	ug/L	0.020	0.020	1	09/11/17 14:23	09/11/17 23:35	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	131	%	60-140		1	09/11/17 14:23	09/11/17 23:35	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	**32900**	ug/L	12500	9600	125		09/09/17 23:08	75-85-4	
tert-Amylmethyl ether	ND	ug/L	1250	425	125		09/09/17 23:08	994-05-8	
Benzene	**18200**	ug/L	625	212	125		09/09/17 23:08	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	12500	4010	125		09/09/17 23:08	624-95-3	
tert-Butyl Alcohol	ND	ug/L	12500	7210	125		09/09/17 23:08	75-65-0	
tert-Butyl Formate	ND	ug/L	6250	912	125		09/09/17 23:08	762-75-4	
1,2-Dichloroethane	**398J**	ug/L	625	225	125		09/09/17 23:08	107-06-2	
Diisopropyl ether	**4640**	ug/L	625	212	125		09/09/17 23:08	108-20-3	
Ethanol	ND	ug/L	25000	16400	125		09/09/17 23:08	64-17-5	L1
Ethylbenzene	**1380**	ug/L	625	200	125		09/09/17 23:08	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	1250	450	125		09/09/17 23:08	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	625	212	125		09/09/17 23:08	1634-04-4	
Naphthalene	**1480**	ug/L	625	250	125		09/09/17 23:08	91-20-3	
Toluene	**18000**	ug/L	625	200	125		09/09/17 23:08	108-88-3	
Xylene (Total)	**8390**	ug/L	625	625	125		09/09/17 23:08	1330-20-7	
m&p-Xylene	**5140**	ug/L	1250	388	125		09/09/17 23:08	179601-23-1	
o-Xylene	**3240**	ug/L	625	200	125		09/09/17 23:08	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		125		09/09/17 23:08	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130		125		09/09/17 23:08	17060-07-0	
Toluene-d8 (S)	99	%	70-130		125		09/09/17 23:08	2037-26-5	

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

Sample: RW-5 **Lab ID: 92354528014** Collected: 09/07/17 11:20 Received: 09/08/17 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	**0.63**	ug/L	0.020	0.020	1	09/11/17 14:23	09/11/17 23:55	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	100	%	60-140		1	09/11/17 14:23	09/11/17 23:55	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	**39600**	ug/L	20000	15400	200		09/09/17 07:50	75-85-4	M1
tert-Amylmethyl ether	ND	ug/L	2000	680	200		09/09/17 07:50	994-05-8	
Benzene	**21700**	ug/L	1000	340	200		09/09/17 07:50	71-43-2	M1
3,3-Dimethyl-1-Butanol	ND	ug/L	20000	6420	200		09/09/17 07:50	624-95-3	
tert-Butyl Alcohol	ND	ug/L	20000	11500	200		09/09/17 07:50	75-65-0	
tert-Butyl Formate	ND	ug/L	10000	1460	200		09/09/17 07:50	762-75-4	
1,2-Dichloroethane	**616J**	ug/L	1000	360	200		09/09/17 07:50	107-06-2	M1
Diisopropyl ether	**8140**	ug/L	1000	340	200		09/09/17 07:50	108-20-3	M1
Ethanol	ND	ug/L	40000	26200	200		09/09/17 07:50	64-17-5	M1
Ethylbenzene	**1730**	ug/L	1000	320	200		09/09/17 07:50	100-41-4	M1
Ethyl-tert-butyl ether	ND	ug/L	2000	720	200		09/09/17 07:50	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1000	340	200		09/09/17 07:50	1634-04-4	
Naphthalene	**1220**	ug/L	1000	400	200		09/09/17 07:50	91-20-3	M1
Toluene	**23700**	ug/L	1000	320	200		09/09/17 07:50	108-88-3	M1
Xylene (Total)	**8890**	ug/L	1000	1000	200		09/09/17 07:50	1330-20-7	MS
m&p-Xylene	**6010**	ug/L	2000	620	200		09/09/17 07:50	179601-23-1	M1
o-Xylene	**2870**	ug/L	1000	320	200		09/09/17 07:50	95-47-6	M1
Surrogates									
4-Bromofluorobenzene (S)	96	%	70-130		200		09/09/17 07:50	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-130		200		09/09/17 07:50	17060-07-0	
Toluene-d8 (S)	100	%	70-130		200		09/09/17 07:50	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

Sample: DUP **Lab ID: 92354528015** Collected: 09/07/17 12:20 Received: 09/08/17 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	09/11/17 14:23	09/12/17 00:15	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	106	%	60-140		1	09/11/17 14:23	09/12/17 00:15	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		09/11/17 19:25	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		09/11/17 19:25	994-05-8	
Benzene	**31.2**	ug/L	5.0	1.7	1		09/11/17 19:25	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		09/11/17 19:25	624-95-3	
tert-Butyl Alcohol	**187**	ug/L	100	57.7	1		09/11/17 19:25	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		09/11/17 19:25	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		09/11/17 19:25	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		09/11/17 19:25	108-20-3	
Ethanol	ND	ug/L	200	131	1		09/11/17 19:25	64-17-5	L1
Ethylbenzene	**21.4**	ug/L	5.0	1.6	1		09/11/17 19:25	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		09/11/17 19:25	637-92-3	
Methyl-tert-butyl ether	**5.4**	ug/L	5.0	1.7	1		09/11/17 19:25	1634-04-4	
Naphthalene	**5.3**	ug/L	5.0	2.0	1		09/11/17 19:25	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		09/11/17 19:25	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		09/11/17 19:25	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		09/11/17 19:25	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		09/11/17 19:25	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	111	%	70-130		1		09/11/17 19:25	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130		1		09/11/17 19:25	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		09/11/17 19:25	2037-26-5	

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

Sample: FB **Lab ID: 92354528016** Collected: 09/07/17 14:00 Received: 09/08/17 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8011 GCS EDB and DBCP	Analytical Method: EPA 8011 Preparation Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	09/11/17 14:27	09/12/17 01:55	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	104	%	60-140		1	09/11/17 14:27	09/12/17 01:55	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		09/09/17 00:22	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		09/09/17 00:22	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		09/09/17 00:22	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		09/09/17 00:22	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		09/09/17 00:22	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		09/09/17 00:22	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		09/09/17 00:22	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		09/09/17 00:22	108-20-3	
Ethanol	ND	ug/L	200	131	1		09/09/17 00:22	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		09/09/17 00:22	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		09/09/17 00:22	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		09/09/17 00:22	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		09/09/17 00:22	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		09/09/17 00:22	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		09/09/17 00:22	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		09/09/17 00:22	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		09/09/17 00:22	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		09/09/17 00:22	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130		1		09/09/17 00:22	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		09/09/17 00:22	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

Sample: TB **Lab ID: 92354528017** Collected: 09/07/17 14:02 Received: 09/08/17 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		09/09/17 18:17	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		09/09/17 18:17	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		09/09/17 18:17	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		09/09/17 18:17	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		09/09/17 18:17	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		09/09/17 18:17	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		09/09/17 18:17	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		09/09/17 18:17	108-20-3	
Ethanol	ND	ug/L	200	131	1		09/09/17 18:17	64-17-5	L1
Ethylbenzene	ND	ug/L	5.0	1.6	1		09/09/17 18:17	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		09/09/17 18:17	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		09/09/17 18:17	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		09/09/17 18:17	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		09/09/17 18:17	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		09/09/17 18:17	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		09/09/17 18:17	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		09/09/17 18:17	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	93	%	70-130		1		09/09/17 18:17	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130		1		09/09/17 18:17	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		09/09/17 18:17	2037-26-5	

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

QC Batch: 376965
QC Batch Method: EPA 8260
Associated Lab Samples: 92354528016

Analysis Method: EPA 8260
Analysis Description: 8260 MSV SC

METHOD BLANK: 2088428
Associated Lab Samples: 92354528016

Matrix: Water

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	1.8	09/08/17 23:13	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	32.1	09/08/17 23:13	
Benzene	ug/L	ND	5.0	1.7	09/08/17 23:13	
Diisopropyl ether	ug/L	ND	5.0	1.7	09/08/17 23:13	
Ethanol	ug/L	ND	200	131	09/08/17 23:13	
Ethyl-tert-butyl ether	ug/L	ND	10.0	3.6	09/08/17 23:13	
Ethylbenzene	ug/L	ND	5.0	1.6	09/08/17 23:13	
m&p-Xylene	ug/L	ND	10.0	3.1	09/08/17 23:13	
Methyl-tert-butyl ether	ug/L	ND	5.0	1.7	09/08/17 23:13	
Naphthalene	ug/L	ND	5.0	2.0	09/08/17 23:13	
o-Xylene	ug/L	ND	5.0	1.6	09/08/17 23:13	
tert-Amyl Alcohol	ug/L	ND	100	76.8	09/08/17 23:13	
tert-Amylmethyl ether	ug/L	ND	10.0	3.4	09/08/17 23:13	
tert-Butyl Alcohol	ug/L	ND	100	57.7	09/08/17 23:13	
tert-Butyl Formate	ug/L	ND	50.0	7.3	09/08/17 23:13	
Toluene	ug/L	ND	5.0	1.6	09/08/17 23:13	
Xylene (Total)	ug/L	ND	5.0	5.0	09/08/17 23:13	
1,2-Dichloroethane-d4 (S)	%	98	70-130		09/08/17 23:13	
4-Bromofluorobenzene (S)	%	95	70-130		09/08/17 23:13	
Toluene-d8 (S)	%	101	70-130		09/08/17 23:13	

LABORATORY CONTROL SAMPLE: 2088429

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	46.5	93	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	1140	114	70-130	
Benzene	ug/L	50	49.7	99	70-130	
Diisopropyl ether	ug/L	50	52.2	104	70-130	
Ethanol	ug/L	2000	2600	130	70-130	
Ethyl-tert-butyl ether	ug/L	100	107	107	70-130	
Ethylbenzene	ug/L	50	50.9	102	70-130	
m&p-Xylene	ug/L	100	103	103	70-130	
Methyl-tert-butyl ether	ug/L	50	52.9	106	70-130	
Naphthalene	ug/L	50	56.0	112	70-130	
o-Xylene	ug/L	50	51.1	102	70-130	
tert-Amyl Alcohol	ug/L	1000	1110	111	70-130	
tert-Amylmethyl ether	ug/L	100	104	104	70-130	
tert-Butyl Alcohol	ug/L	500	537	107	70-130	
tert-Butyl Formate	ug/L	400	433	108	70-130	
Toluene	ug/L	50	51.2	102	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

LABORATORY CONTROL SAMPLE: 2088429

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Xylene (Total)	ug/L	150	154	102	70-130	
1,2-Dichloroethane-d4 (S)	%			99	70-130	
4-Bromofluorobenzene (S)	%			101	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2088430 2088431

Parameter	Units	92354377004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dichloroethane	ug/L	ND	20	20	21.2	20.5	106	103	70-130	3	30	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	400	384	385	96	96	70-130	0	30	
Benzene	ug/L	ND	20	20	21.2	21.3	106	106	70-130	0	30	
Diisopropyl ether	ug/L	ND	20	20	23.7	23.0	118	115	70-130	3	30	
Ethanol	ug/L	ND	800	800	869	939	109	117	70-130	8	30	
Ethyl-tert-butyl ether	ug/L	ND	40	40	44.9	43.8	112	110	70-130	2	30	
Ethylbenzene	ug/L	ND	20	20	21.5	21.8	108	109	70-130	2	30	
m&p-Xylene	ug/L	ND	40	40	43.0	43.2	107	108	70-130	1	30	
Methyl-tert-butyl ether	ug/L	ND	20	20	22.2	21.4	109	106	70-130	4	30	
Naphthalene	ug/L	ND	20	20	22.6	22.1	113	110	70-130	2	30	
o-Xylene	ug/L	ND	20	20	21.0	21.5	105	107	70-130	2	30	
tert-Amyl Alcohol	ug/L	ND	400	400	409	396	102	99	70-130	3	30	
tert-Amylmethyl ether	ug/L	ND	40	40	41.4	41.0	104	102	70-130	1	30	
tert-Butyl Alcohol	ug/L	ND	200	200	300	285	150	142	70-130	5	30	M1
tert-Butyl Formate	ug/L	ND	160	160	ND	ND	0	0	70-130		30	M1,P5
Toluene	ug/L	ND	20	20	21.7	22.0	109	110	70-130	1	30	
1,2-Dichloroethane-d4 (S)	%						103	100	70-130			
4-Bromofluorobenzene (S)	%						97	98	70-130			
Toluene-d8 (S)	%						98	97	70-130			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

QC Batch: 376967 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV SC
Associated Lab Samples: 92354528002, 92354528004, 92354528006, 92354528008, 92354528009, 92354528010, 92354528011, 92354528014

METHOD BLANK: 2088444 Matrix: Water
Associated Lab Samples: 92354528002, 92354528004, 92354528006, 92354528008, 92354528009, 92354528010, 92354528011, 92354528014

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	1.8	09/08/17 23:31	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	32.1	09/08/17 23:31	
Benzene	ug/L	ND	5.0	1.7	09/08/17 23:31	
Diisopropyl ether	ug/L	ND	5.0	1.7	09/08/17 23:31	
Ethanol	ug/L	ND	200	131	09/08/17 23:31	
Ethyl-tert-butyl ether	ug/L	ND	10.0	3.6	09/08/17 23:31	
Ethylbenzene	ug/L	ND	5.0	1.6	09/08/17 23:31	
m&p-Xylene	ug/L	ND	10.0	3.1	09/08/17 23:31	
Methyl-tert-butyl ether	ug/L	ND	5.0	1.7	09/08/17 23:31	
Naphthalene	ug/L	ND	5.0	2.0	09/08/17 23:31	
o-Xylene	ug/L	ND	5.0	1.6	09/08/17 23:31	
tert-Amyl Alcohol	ug/L	ND	100	76.8	09/08/17 23:31	
tert-Amylmethyl ether	ug/L	ND	10.0	3.4	09/08/17 23:31	
tert-Butyl Alcohol	ug/L	ND	100	57.7	09/08/17 23:31	
tert-Butyl Formate	ug/L	ND	50.0	7.3	09/08/17 23:31	
Toluene	ug/L	ND	5.0	1.6	09/08/17 23:31	
Xylene (Total)	ug/L	ND	5.0	5.0	09/08/17 23:31	
1,2-Dichloroethane-d4 (S)	%	97	70-130		09/08/17 23:31	
4-Bromofluorobenzene (S)	%	95	70-130		09/08/17 23:31	
Toluene-d8 (S)	%	101	70-130		09/08/17 23:31	

LABORATORY CONTROL SAMPLE: 2088445

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	45.0	90	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	1080	108	70-130	
Benzene	ug/L	50	48.2	96	70-130	
Diisopropyl ether	ug/L	50	51.0	102	70-130	
Ethanol	ug/L	2000	2370	119	70-130	
Ethyl-tert-butyl ether	ug/L	100	105	105	70-130	
Ethylbenzene	ug/L	50	50.6	101	70-130	
m&p-Xylene	ug/L	100	102	102	70-130	
Methyl-tert-butyl ether	ug/L	50	51.6	103	70-130	
Naphthalene	ug/L	50	56.3	113	70-130	
o-Xylene	ug/L	50	50.3	101	70-130	
tert-Amyl Alcohol	ug/L	1000	1030	103	70-130	
tert-Amylmethyl ether	ug/L	100	103	103	70-130	
tert-Butyl Alcohol	ug/L	500	502	100	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

LABORATORY CONTROL SAMPLE: 2088445

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
tert-Butyl Formate	ug/L	400	423	106	70-130	
Toluene	ug/L	50	49.8	100	70-130	
Xylene (Total)	ug/L	150	152	101	70-130	
1,2-Dichloroethane-d4 (S)	%			97	70-130	
4-Bromofluorobenzene (S)	%			101	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE SAMPLE: 2088446

Parameter	Units	92354528014 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	616J	20	23.4	-2960	70-130	M1
3,3-Dimethyl-1-Butanol	ug/L	ND	400	425	106	70-130	
Benzene	ug/L	21700	20	125	-108000	70-130	M1
Diisopropyl ether	ug/L	8140	20	62.9	-40400	70-130	M1
Ethanol	ug/L	ND	800	1090	136	70-130	M1
Ethyl-tert-butyl ether	ug/L	ND	40	44.6	112	70-130	
Ethylbenzene	ug/L	1730	20	30.0	-8510	70-130	M1
m&p-Xylene	ug/L	6010	40	71.7	-14900	70-130	M1
Methyl-tert-butyl ether	ug/L	ND	20	21.4	107	70-130	
Naphthalene	ug/L	1220	20	28.8	-5960	70-130	M1
o-Xylene	ug/L	2870	20	35.8	-14200	70-130	M1
tert-Amyl Alcohol	ug/L	39600	400	670	-9740	70-130	M1
tert-Amylmethyl ether	ug/L	ND	40	42.4	106	70-130	
tert-Butyl Alcohol	ug/L	ND	200	231	115	70-130	
tert-Butyl Formate	ug/L	ND	160	174	109	70-130	
Toluene	ug/L	23700	20	136	-118000	70-130	M1
1,2-Dichloroethane-d4 (S)	%				102	70-130	
4-Bromofluorobenzene (S)	%				99	70-130	
Toluene-d8 (S)	%				99	70-130	

SAMPLE DUPLICATE: 2090539

Parameter	Units	92354528002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		30	
3,3-Dimethyl-1-Butanol	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethanol	ug/L	ND	ND		30	
Ethyl-tert-butyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

SAMPLE DUPLICATE: 2090539

Parameter	Units	92354528002 Result	Dup Result	RPD	Max RPD	Qualifiers
tert-Amyl Alcohol	ug/L	ND	ND		30	
tert-Amylmethyl ether	ug/L	ND	ND		30	
tert-Butyl Alcohol	ug/L	ND	ND		30	
tert-Butyl Formate	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	102	109	6		
4-Bromofluorobenzene (S)	%	94	107	13		
Toluene-d8 (S)	%	101	105	4		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

QC Batch: 377029 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV SC
Associated Lab Samples: 92354528003, 92354528007, 92354528013, 92354528017

METHOD BLANK: 2088855 Matrix: Water
Associated Lab Samples: 92354528003, 92354528007, 92354528013, 92354528017

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	1.8	09/09/17 17:43	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	32.1	09/09/17 17:43	
Benzene	ug/L	ND	5.0	1.7	09/09/17 17:43	
Diisopropyl ether	ug/L	ND	5.0	1.7	09/09/17 17:43	
Ethanol	ug/L	ND	200	131	09/09/17 17:43	
Ethyl-tert-butyl ether	ug/L	ND	10.0	3.6	09/09/17 17:43	
Ethylbenzene	ug/L	ND	5.0	1.6	09/09/17 17:43	
m&p-Xylene	ug/L	ND	10.0	3.1	09/09/17 17:43	
Methyl-tert-butyl ether	ug/L	ND	5.0	1.7	09/09/17 17:43	
Naphthalene	ug/L	ND	5.0	2.0	09/09/17 17:43	
o-Xylene	ug/L	ND	5.0	1.6	09/09/17 17:43	
tert-Amyl Alcohol	ug/L	ND	100	76.8	09/09/17 17:43	
tert-Amylmethyl ether	ug/L	ND	10.0	3.4	09/09/17 17:43	
tert-Butyl Alcohol	ug/L	ND	100	57.7	09/09/17 17:43	
tert-Butyl Formate	ug/L	ND	50.0	7.3	09/09/17 17:43	
Toluene	ug/L	ND	5.0	1.6	09/09/17 17:43	
Xylene (Total)	ug/L	ND	5.0	5.0	09/09/17 17:43	
1,2-Dichloroethane-d4 (S)	%	99	70-130		09/09/17 17:43	
4-Bromofluorobenzene (S)	%	95	70-130		09/09/17 17:43	
Toluene-d8 (S)	%	101	70-130		09/09/17 17:43	

LABORATORY CONTROL SAMPLE: 2088856

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	45.8	92	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	1030	103	70-130	
Benzene	ug/L	50	46.5	93	70-130	
Diisopropyl ether	ug/L	50	53.2	106	70-130	
Ethanol	ug/L	2000	2650	133	70-130	L1
Ethyl-tert-butyl ether	ug/L	100	101	101	70-130	
Ethylbenzene	ug/L	50	48.0	96	70-130	
m&p-Xylene	ug/L	100	95.3	95	70-130	
Methyl-tert-butyl ether	ug/L	50	48.6	97	70-130	
Naphthalene	ug/L	50	52.5	105	70-130	
o-Xylene	ug/L	50	47.8	96	70-130	
tert-Amyl Alcohol	ug/L	1000	1060	106	70-130	
tert-Amylmethyl ether	ug/L	100	96.7	97	70-130	
tert-Butyl Alcohol	ug/L	500	519	104	70-130	
tert-Butyl Formate	ug/L	400	423	106	70-130	
Toluene	ug/L	50	48.0	96	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

LABORATORY CONTROL SAMPLE: 2088856

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Xylene (Total)	ug/L	150	143	95	70-130	
1,2-Dichloroethane-d4 (S)	%			101	70-130	
4-Bromofluorobenzene (S)	%			98	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE SAMPLE: 2088857

Parameter	Units	92354534007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	21.2	105	70-130	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	407	102	70-130	
Benzene	ug/L	ND	20	21.1	106	70-130	
Diisopropyl ether	ug/L	ND	20	22.9	115	70-130	
Ethanol	ug/L	ND	800	675	84	70-130	
Ethyl-tert-butyl ether	ug/L	ND	40	44.2	110	70-130	
Ethylbenzene	ug/L	ND	20	21.6	108	70-130	
m&p-Xylene	ug/L	ND	40	42.9	107	70-130	
Methyl-tert-butyl ether	ug/L	2.8J	20	24.2	107	70-130	
Naphthalene	ug/L	ND	20	22.4	112	70-130	
o-Xylene	ug/L	ND	20	21.1	106	70-130	
tert-Amyl Alcohol	ug/L	ND	400	518	112	70-130	
tert-Amylmethyl ether	ug/L	ND	40	42.6	107	70-130	
tert-Butyl Alcohol	ug/L	ND	200	306	153	70-130	M1
tert-Butyl Formate	ug/L	ND	160	ND	0	70-130	M1,P5
Toluene	ug/L	ND	20	22.2	111	70-130	
1,2-Dichloroethane-d4 (S)	%				103	70-130	
4-Bromofluorobenzene (S)	%				99	70-130	
Toluene-d8 (S)	%				100	70-130	

SAMPLE DUPLICATE: 2088858

Parameter	Units	92354534008 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		30	
3,3-Dimethyl-1-Butanol	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethanol	ug/L	ND	ND		30	
Ethyl-tert-butyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
tert-Amyl Alcohol	ug/L	ND	ND		30	
tert-Amylmethyl ether	ug/L	ND	ND		30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

SAMPLE DUPLICATE: 2088858

Parameter	Units	92354534008 Result	Dup Result	RPD	Max RPD	Qualifiers
tert-Butyl Alcohol	ug/L	ND	ND		30	
tert-Butyl Formate	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	104	103	1		
4-Bromofluorobenzene (S)	%	93	94	1		
Toluene-d8 (S)	%	100	102	2		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

QC Batch: 377161
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV SC
Associated Lab Samples: 92354528005, 92354528015

METHOD BLANK: 2089740
Matrix: Water
Associated Lab Samples: 92354528005, 92354528015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	1.8	09/11/17 13:35	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	32.1	09/11/17 13:35	
Benzene	ug/L	ND	5.0	1.7	09/11/17 13:35	
Diisopropyl ether	ug/L	ND	5.0	1.7	09/11/17 13:35	
Ethanol	ug/L	ND	200	131	09/11/17 13:35	
Ethyl-tert-butyl ether	ug/L	ND	10.0	3.6	09/11/17 13:35	
Ethylbenzene	ug/L	ND	5.0	1.6	09/11/17 13:35	
m&p-Xylene	ug/L	ND	10.0	3.1	09/11/17 13:35	
Methyl-tert-butyl ether	ug/L	ND	5.0	1.7	09/11/17 13:35	
Naphthalene	ug/L	ND	5.0	2.0	09/11/17 13:35	
o-Xylene	ug/L	ND	5.0	1.6	09/11/17 13:35	
tert-Amyl Alcohol	ug/L	ND	100	76.8	09/11/17 13:35	
tert-Amylmethyl ether	ug/L	ND	10.0	3.4	09/11/17 13:35	
tert-Butyl Alcohol	ug/L	ND	100	57.7	09/11/17 13:35	
tert-Butyl Formate	ug/L	ND	50.0	7.3	09/11/17 13:35	
Toluene	ug/L	ND	5.0	1.6	09/11/17 13:35	
Xylene (Total)	ug/L	ND	5.0	5.0	09/11/17 13:35	
1,2-Dichloroethane-d4 (S)	%	115	70-130		09/11/17 13:35	
4-Bromofluorobenzene (S)	%	110	70-130		09/11/17 13:35	
Toluene-d8 (S)	%	106	70-130		09/11/17 13:35	

LABORATORY CONTROL SAMPLE: 2089741

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	55.6	111	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	1120	112	70-130	
Benzene	ug/L	50	51.0	102	70-130	
Diisopropyl ether	ug/L	50	62.4	125	70-130	
Ethanol	ug/L	2000	2940	147	70-130	L1
Ethyl-tert-butyl ether	ug/L	100	116	116	70-130	
Ethylbenzene	ug/L	50	49.9	100	70-130	
m&p-Xylene	ug/L	100	99.4	99	70-130	
Methyl-tert-butyl ether	ug/L	50	57.6	115	70-130	
Naphthalene	ug/L	50	46.8	94	70-130	
o-Xylene	ug/L	50	49.8	100	70-130	
tert-Amyl Alcohol	ug/L	1000	1090	109	70-130	
tert-Amylmethyl ether	ug/L	100	112	112	70-130	
tert-Butyl Alcohol	ug/L	500	575	115	70-130	
tert-Butyl Formate	ug/L	400	463	116	70-130	
Toluene	ug/L	50	50.7	101	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

LABORATORY CONTROL SAMPLE: 2089741

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Xylene (Total)	ug/L	150	149	100	70-130	
1,2-Dichloroethane-d4 (S)	%			109	70-130	
4-Bromofluorobenzene (S)	%			101	70-130	
Toluene-d8 (S)	%			95	70-130	

MATRIX SPIKE SAMPLE: 2089742

Parameter	Units	92353930008 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	23.4	117	70-130	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	447	112	70-130	
Benzene	ug/L	4.2J	20	29.5	126	70-130	
Diisopropyl ether	ug/L	ND	20	24.7	124	70-130	
Ethanol	ug/L	ND	800	974	122	70-130	
Ethyl-tert-butyl ether	ug/L	ND	40	45.6	114	70-130	
Ethylbenzene	ug/L	15.3	20	37.9	113	70-130	
m&p-Xylene	ug/L	ND	40	46.1	113	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	24.2	116	70-130	
Naphthalene	ug/L	8.1	20	24.5	82	70-130	
o-Xylene	ug/L	ND	20	22.1	109	70-130	
tert-Amyl Alcohol	ug/L	ND	400	439	110	70-130	
tert-Amylmethyl ether	ug/L	ND	40	45.7	114	70-130	
tert-Butyl Alcohol	ug/L	ND	200	315	157	70-130	M1
tert-Butyl Formate	ug/L	ND	160	ND	0	70-130	M1,P5
Toluene	ug/L	ND	20	23.2	115	70-130	
1,2-Dichloroethane-d4 (S)	%				103	70-130	
4-Bromofluorobenzene (S)	%				109	70-130	
Toluene-d8 (S)	%				96	70-130	

SAMPLE DUPLICATE: 2089743

Parameter	Units	92353930012 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		30	
3,3-Dimethyl-1-Butanol	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethanol	ug/L	ND	ND		30	
Ethyl-tert-butyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	14.1	11.8	18	30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	
Naphthalene	ug/L	17.4	15.5	12	30	
o-Xylene	ug/L	ND	ND		30	
tert-Amyl Alcohol	ug/L	ND	ND		30	
tert-Amylmethyl ether	ug/L	ND	ND		30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

SAMPLE DUPLICATE: 2089743

Parameter	Units	92353930012 Result	Dup Result	RPD	Max RPD	Qualifiers
tert-Butyl Alcohol	ug/L	ND	ND		30	
tert-Butyl Formate	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	109	108	0		
4-Bromofluorobenzene (S)	%	108	107	2		
Toluene-d8 (S)	%	98	98	0		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

QC Batch: 377215
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV SC
Associated Lab Samples: 92354528001

METHOD BLANK: 2090087
Matrix: Water
Associated Lab Samples: 92354528001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	1.8	09/12/17 02:13	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	32.1	09/12/17 02:13	
Benzene	ug/L	ND	5.0	1.7	09/12/17 02:13	
Diisopropyl ether	ug/L	ND	5.0	1.7	09/12/17 02:13	
Ethanol	ug/L	ND	200	131	09/12/17 02:13	
Ethyl-tert-butyl ether	ug/L	ND	10.0	3.6	09/12/17 02:13	
Ethylbenzene	ug/L	ND	5.0	1.6	09/12/17 02:13	
m&p-Xylene	ug/L	ND	10.0	3.1	09/12/17 02:13	
Methyl-tert-butyl ether	ug/L	ND	5.0	1.7	09/12/17 02:13	
Naphthalene	ug/L	ND	5.0	2.0	09/12/17 02:13	
o-Xylene	ug/L	ND	5.0	1.6	09/12/17 02:13	
tert-Amyl Alcohol	ug/L	ND	100	76.8	09/12/17 02:13	
tert-Amylmethyl ether	ug/L	ND	10.0	3.4	09/12/17 02:13	
tert-Butyl Alcohol	ug/L	ND	100	57.7	09/12/17 02:13	
tert-Butyl Formate	ug/L	ND	50.0	7.3	09/12/17 02:13	
Toluene	ug/L	ND	5.0	1.6	09/12/17 02:13	
Xylene (Total)	ug/L	ND	5.0	5.0	09/12/17 02:13	
1,2-Dichloroethane-d4 (S)	%	99	70-130		09/12/17 02:13	
4-Bromofluorobenzene (S)	%	96	70-130		09/12/17 02:13	
Toluene-d8 (S)	%	101	70-130		09/12/17 02:13	

LABORATORY CONTROL SAMPLE: 2090088

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	44.6	89	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	1100	110	70-130	
Benzene	ug/L	50	45.4	91	70-130	
Diisopropyl ether	ug/L	50	51.3	103	70-130	
Ethanol	ug/L	2000	2440	122	70-130	
Ethyl-tert-butyl ether	ug/L	100	103	103	70-130	
Ethylbenzene	ug/L	50	48.0	96	70-130	
m&p-Xylene	ug/L	100	95.2	95	70-130	
Methyl-tert-butyl ether	ug/L	50	50.6	101	70-130	
Naphthalene	ug/L	50	54.6	109	70-130	
o-Xylene	ug/L	50	48.1	96	70-130	
tert-Amyl Alcohol	ug/L	1000	1080	108	70-130	
tert-Amylmethyl ether	ug/L	100	97.6	98	70-130	
tert-Butyl Alcohol	ug/L	500	543	109	70-130	
tert-Butyl Formate	ug/L	400	412	103	70-130	
Toluene	ug/L	50	47.4	95	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

LABORATORY CONTROL SAMPLE: 2090088

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Xylene (Total)	ug/L	150	143	96	70-130	
1,2-Dichloroethane-d4 (S)	%			100	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			97	70-130	

MATRIX SPIKE SAMPLE: 2090800

Parameter	Units	92354652015 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	27.5	137	70-130	M1
3,3-Dimethyl-1-Butanol	ug/L	ND	400	454	114	70-130	
Benzene	ug/L	ND	20	27.1	136	70-130	M1
Diisopropyl ether	ug/L	ND	20	28.3	141	70-130	M1
Ethanol	ug/L	ND	800	1290	162	70-130	M1
Ethyl-tert-butyl ether	ug/L	ND	40	51.6	129	70-130	
Ethylbenzene	ug/L	ND	20	24.4	122	70-130	
m&p-Xylene	ug/L	ND	40	48.5	121	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	27.2	134	70-130	M1
Naphthalene	ug/L	ND	20	17.9	90	70-130	
o-Xylene	ug/L	ND	20	23.8	119	70-130	
tert-Amyl Alcohol	ug/L	ND	400	438	110	70-130	
tert-Amylmethyl ether	ug/L	ND	40	49.8	124	70-130	
tert-Butyl Alcohol	ug/L	ND	200	331	165	70-130	M1
tert-Butyl Formate	ug/L	ND	160	ND	0	70-130	M1,P5
Toluene	ug/L	ND	20	25.8	129	70-130	
1,2-Dichloroethane-d4 (S)	%				112	70-130	
4-Bromofluorobenzene (S)	%				111	70-130	
Toluene-d8 (S)	%				99	70-130	

SAMPLE DUPLICATE: 2090090

Parameter	Units	92354534016 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloroethane	ug/L	ND	ND		30	
3,3-Dimethyl-1-Butanol	ug/L	ND	ND		30	
Benzene	ug/L	1120	1110	1	30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethanol	ug/L	ND	ND		30	
Ethyl-tert-butyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	186	192	3	30	
m&p-Xylene	ug/L	200	203	1	30	
Methyl-tert-butyl ether	ug/L	31.7J	32.3J		30	
Naphthalene	ug/L	308	319	3	30	
o-Xylene	ug/L	22.8J	23.2J		30	
tert-Amyl Alcohol	ug/L	10700	11100	4	30	
tert-Amylmethyl ether	ug/L	ND	ND		30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

SAMPLE DUPLICATE: 2090090

Parameter	Units	92354534016 Result	Dup Result	RPD	Max RPD	Qualifiers
tert-Butyl Alcohol	ug/L	ND	ND		30	
tert-Butyl Formate	ug/L	ND	ND		30	
Toluene	ug/L	43.9J	44.7J		30	
Xylene (Total)	ug/L	200	203	1	30	
1,2-Dichloroethane-d4 (S)	%	101	101	0		
4-Bromofluorobenzene (S)	%	96	97	0		
Toluene-d8 (S)	%	101	99	2		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

QC Batch: 377570
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV SC
Associated Lab Samples: 92354528012

METHOD BLANK: 2092126
Matrix: Water
Associated Lab Samples: 92354528012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	1.8	09/13/17 15:49	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	32.1	09/13/17 15:49	
Benzene	ug/L	ND	5.0	1.7	09/13/17 15:49	
Diisopropyl ether	ug/L	ND	5.0	1.7	09/13/17 15:49	
Ethanol	ug/L	ND	200	131	09/13/17 15:49	
Ethyl-tert-butyl ether	ug/L	ND	10.0	3.6	09/13/17 15:49	
Ethylbenzene	ug/L	ND	5.0	1.6	09/13/17 15:49	
m&p-Xylene	ug/L	ND	10.0	3.1	09/13/17 15:49	
Methyl-tert-butyl ether	ug/L	ND	5.0	1.7	09/13/17 15:49	
Naphthalene	ug/L	ND	5.0	2.0	09/13/17 15:49	
o-Xylene	ug/L	ND	5.0	1.6	09/13/17 15:49	
tert-Amyl Alcohol	ug/L	ND	100	76.8	09/13/17 15:49	
tert-Amylmethyl ether	ug/L	ND	10.0	3.4	09/13/17 15:49	
tert-Butyl Alcohol	ug/L	ND	100	57.7	09/13/17 15:49	
tert-Butyl Formate	ug/L	ND	50.0	7.3	09/13/17 15:49	
Toluene	ug/L	ND	5.0	1.6	09/13/17 15:49	
Xylene (Total)	ug/L	ND	5.0	5.0	09/13/17 15:49	
1,2-Dichloroethane-d4 (S)	%	93	70-130		09/13/17 15:49	
4-Bromofluorobenzene (S)	%	103	70-130		09/13/17 15:49	
Toluene-d8 (S)	%	107	70-130		09/13/17 15:49	

LABORATORY CONTROL SAMPLE: 2092127

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	47.2	94	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	936	94	70-130	
Benzene	ug/L	50	52.0	104	70-130	
Diisopropyl ether	ug/L	50	58.8	118	70-130	
Ethanol	ug/L	2000	2150	108	70-130	
Ethyl-tert-butyl ether	ug/L	100	114	114	70-130	
Ethylbenzene	ug/L	50	49.0	98	70-130	
m&p-Xylene	ug/L	100	99.6	100	70-130	
Methyl-tert-butyl ether	ug/L	50	56.3	113	70-130	
Naphthalene	ug/L	50	46.9	94	70-130	
o-Xylene	ug/L	50	50.0	100	70-130	
tert-Amyl Alcohol	ug/L	1000	896	90	70-130	
tert-Amylmethyl ether	ug/L	100	104	104	70-130	
tert-Butyl Alcohol	ug/L	500	444	89	70-130	
tert-Butyl Formate	ug/L	400	468	117	70-130	
Toluene	ug/L	50	47.5	95	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

LABORATORY CONTROL SAMPLE: 2092127

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Xylene (Total)	ug/L	150	150	100	70-130	
1,2-Dichloroethane-d4 (S)	%			99	70-130	
4-Bromofluorobenzene (S)	%			103	70-130	
Toluene-d8 (S)	%			97	70-130	

MATRIX SPIKE SAMPLE: 2092128

Parameter	Units	92354658008 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	2.3J	20	23.0	103	70-130	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	419	105	70-130	
Benzene	ug/L	96.3	20	137	201	70-130	M1
Diisopropyl ether	ug/L	ND	20	26.6	127	70-130	
Ethanol	ug/L	ND	800	1370	171	70-130	M1
Ethyl-tert-butyl ether	ug/L	ND	40	48.4	121	70-130	
Ethylbenzene	ug/L	40.0	20	69.1	145	70-130	M1
m&p-Xylene	ug/L	ND	40	46.2	113	70-130	
Methyl-tert-butyl ether	ug/L	28.8	20	56.7	140	70-130	M1
Naphthalene	ug/L	25.6	20	47.9	112	70-130	
o-Xylene	ug/L	1.8J	20	25.1	117	70-130	
tert-Amyl Alcohol	ug/L	822	400	1150	82	70-130	
tert-Amylmethyl ether	ug/L	4.0J	40	48.9	112	70-130	
tert-Butyl Alcohol	ug/L	112	200	349	118	70-130	
tert-Butyl Formate	ug/L	ND	160	ND	0	70-130	P5
Toluene	ug/L	ND	20	24.9	117	70-130	
1,2-Dichloroethane-d4 (S)	%				94	70-130	
4-Bromofluorobenzene (S)	%				102	70-130	
Toluene-d8 (S)	%				99	70-130	

SAMPLE DUPLICATE: 2092129

Parameter	Units	92354658010 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dichloroethane	ug/L	5.2	4.8J		30	
3,3-Dimethyl-1-Butanol	ug/L	ND	ND		30	
Benzene	ug/L	310	178	54	30	D6
Diisopropyl ether	ug/L	ND	ND		30	
Ethanol	ug/L	ND	ND		30	
Ethyl-tert-butyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	45.0	27.2	49	30	D6
m&p-Xylene	ug/L	36.6	22.5	48	30	D6
Methyl-tert-butyl ether	ug/L	29.5	18.2	48	30	D6
Naphthalene	ug/L	16.4	10.3	46	30	D6
o-Xylene	ug/L	5.3	3.2J		30	
tert-Amyl Alcohol	ug/L	945	844	11	30	
tert-Amylmethyl ether	ug/L	ND	ND		30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

SAMPLE DUPLICATE: 2092129

Parameter	Units	92354658010 Result	Dup Result	RPD	Max RPD	Qualifiers
tert-Butyl Alcohol	ug/L	101	ND		30	
tert-Butyl Formate	ug/L	ND	ND		30	
Toluene	ug/L	17.7	10.7	49	30	D6
Xylene (Total)	ug/L	42.0	22.5	60	30	
1,2-Dichloroethane-d4 (S)	%	98	93	5		
4-Bromofluorobenzene (S)	%	103	102	2		
Toluene-d8 (S)	%	103	100	3		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

QC Batch: 377129 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 92354528001, 92354528002, 92354528003, 92354528004, 92354528005, 92354528006, 92354528008, 92354528010, 92354528011, 92354528012, 92354528013, 92354528014, 92354528015

METHOD BLANK: 2089282 Matrix: Water
Associated Lab Samples: 92354528001, 92354528002, 92354528003, 92354528004, 92354528005, 92354528006, 92354528008, 92354528010, 92354528011, 92354528012, 92354528013, 92354528014, 92354528015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.019	0.019	09/11/17 16:13	
1-Chloro-2-bromopropane (S)	%	102	60-140		09/11/17 16:13	

LABORATORY CONTROL SAMPLE & LCSD: 2089283 2089284

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.24	0.27	0.26	110	105	60-140	4	20	
1-Chloro-2-bromopropane (S)	%				102	96	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2089285 2089286

Parameter	Units	92354527001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	.25	.25	0.26	0.27	103	110	60-140	6	20	
1-Chloro-2-bromopropane (S)	%						101	106	60-140			

SAMPLE DUPLICATE: 2089287

Parameter	Units	92354528001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%	123	114	7		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

QC Batch: 377130
QC Batch Method: EPA 8011
Analysis Method: EPA 8011
Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 92354528016

METHOD BLANK: 2089291
Matrix: Water
Associated Lab Samples: 92354528016

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	0.020	09/12/17 00:55	
1-Chloro-2-bromopropane (S)	%	103	60-140		09/12/17 00:55	

LABORATORY CONTROL SAMPLE & LCSD: 2089292 2089293

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.25	0.29	0.28	117	112	60-140	3	20	
1-Chloro-2-bromopropane (S)	%				111	104	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2089294 2089295

Parameter	Units	92354534001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	.27	.27	0.32	0.31	119	117	60-140	2	20	
1-Chloro-2-bromopropane (S)	%						110	111	60-140			

SAMPLE DUPLICATE: 2089296

Parameter	Units	92354534005 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%	98	100	4		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

QC Batch: 377296
QC Batch Method: EPA 8011
Analysis Method: EPA 8011
Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 92354528007

METHOD BLANK: 2090367 Matrix: Water
Associated Lab Samples: 92354528007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.019	0.019	09/12/17 17:25	
1-Chloro-2-bromopropane (S)	%	125	60-140		09/12/17 17:25	

LABORATORY CONTROL SAMPLE & LCSD: 2090368 2090371

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.27	0.40	0.37	146	134	60-140	7	20	L1
1-Chloro-2-bromopropane (S)	%				124	116	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2090372 2090373

Parameter	Units	92354542006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	.28	.28	0.39	0.40	138	140	60-140	1	20	
1-Chloro-2-bromopropane (S)	%						110	112	60-140			

SAMPLE DUPLICATE: 2090374

Parameter	Units	92354542009 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%	98	106	7		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

QC Batch: 377558
QC Batch Method: EPA 8011
Analysis Method: EPA 8011
Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 92354528009

METHOD BLANK: 2091963 Matrix: Water
Associated Lab Samples: 92354528009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	0.020	09/13/17 18:07	
1-Chloro-2-bromopropane (S)	%	100	60-140		09/13/17 18:07	

LABORATORY CONTROL SAMPLE & LCSD: 2091964 2091965

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.25	0.25	0.25	98	101	60-140	1	20	
1-Chloro-2-bromopropane (S)	%				100	98	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2091966 2091967

Parameter	Units	92354627005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	.25	.25	0.26	0.26	107	107	60-140	0	20	
1-Chloro-2-bromopropane (S)	%						101	103	60-140			

SAMPLE DUPLICATE: 2091968

Parameter	Units	92354627007 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%	98	100	4		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical
www.pacelabs.com

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-C Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
MS	Analyte recovery in the matrix spike was outside QC limits for one or more of the constituent analytes used in the calculated result.
P5	The EPA or method required sample preservation degrades this compound, therefore acceptable recoveries may not be achieved in sample matrix spikes.

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PANTRY 911 10628/55216
Pace Project No.: 92354528

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92354528001	MW-4R	EPA 8011	377129	EPA 8011	377180
92354528002	MW-5RR	EPA 8011	377129	EPA 8011	377180
92354528003	MW-9	EPA 8011	377129	EPA 8011	377180
92354528004	MW-10	EPA 8011	377129	EPA 8011	377180
92354528005	MW-14	EPA 8011	377129	EPA 8011	377180
92354528006	MW-15	EPA 8011	377129	EPA 8011	377180
92354528007	MW-16	EPA 8011	377296	EPA 8011	377381
92354528008	MW-18	EPA 8011	377129	EPA 8011	377180
92354528009	MW-19	EPA 8011	377558	EPA 8011	377581
92354528010	MW-20	EPA 8011	377129	EPA 8011	377180
92354528011	PW-1R	EPA 8011	377129	EPA 8011	377180
92354528012	RW-2	EPA 8011	377129	EPA 8011	377180
92354528013	RW-4	EPA 8011	377129	EPA 8011	377180
92354528014	RW-5	EPA 8011	377129	EPA 8011	377180
92354528015	DUP	EPA 8011	377129	EPA 8011	377180
92354528016	FB	EPA 8011	377130	EPA 8011	377185
92354528001	MW-4R	EPA 8260	377215		
92354528002	MW-5RR	EPA 8260	376967		
92354528003	MW-9	EPA 8260	377029		
92354528004	MW-10	EPA 8260	376967		
92354528005	MW-14	EPA 8260	377161		
92354528006	MW-15	EPA 8260	376967		
92354528007	MW-16	EPA 8260	377029		
92354528008	MW-18	EPA 8260	376967		
92354528009	MW-19	EPA 8260	376967		
92354528010	MW-20	EPA 8260	376967		
92354528011	PW-1R	EPA 8260	376967		
92354528012	RW-2	EPA 8260	377570		
92354528013	RW-4	EPA 8260	377029		
92354528014	RW-5	EPA 8260	376967		
92354528015	DUP	EPA 8260	377161		
92354528016	FB	EPA 8260	376965		
92354528017	TB	EPA 8260	377029		

Pace Analytical	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: August 4, 2017 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.04	Issuing Authority: Pace Quality Office

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☑ Raleigh ☐ Mechanicsville ☐

WO# : 92354528

Sample Condition Upon Receipt

Client Name: MECI

Project

92354528

Courier: ☐ Commercial ☐ Fed Ex ☑ Pace ☐ UPS ☐ USPS ☐ Other: ☐ Client

Custody Seal Present? ☐ Yes ☑ No Seals Intact? ☐ Yes ☑ No

Date/Initials Person Examining Contents: NC 9-8-17

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other

Thermometer: ☐ IR Gun ID: 1701

Type of Ice: ☑ Wet ☐ Blue ☐ None

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Correction Factor: Cooler Temp Corrected (°C): 2.7

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil (☑ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☑ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☑ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☑ No	☐ N/A	8.
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: WT				
Headspace in VOA Vials (>5-6mm)?	☑ Yes	☐ No	☐ N/A	10.
Trip Blank Present?	☑ Yes	☐ No	☐ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☑ No	☐ N/A	

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? ☐ Yes ☐ No

Person Contacted: _____ Date/Time: _____

Comments/Sample Discrepancy: _____

Lot ID of split containers: _____

Project Manager SCURF Review: TC Date: 9/8/17

Project Manager SRF Review: TC Date: 9/8/17

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers)

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

**Bottom half of box is to list number of bottles

Pg. 1

Project # WO#: 92354528

PM: RWC Due Date: 09/15/17

CLIENT: 92-MIDLAND

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	Cubitainer	VSGU-20 mL Scintillation vials (N/A)	GN
1																												
2																6												
3																6												
4																												
5																6												
6																6												
7																												
8																6												
9																6												
10																6												
11																												
12																6												

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Pace Analytical	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: August 4, 2017 Page 2 of 2
	Document No.: F-CAR-CS-033-Rev.04	Issuing Authority: Pace Quality Office

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

**Bottom half of box is to list number of bottles

Pg. 2

Project # WO#: 92354528

PM: RWC Due Date: 09/15/17

CLIENT: 92-MIDLAND

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	Cubitainer	VSGU-20 mL Scintillation vials (N/A)	GN
1																6												
2																6												
3																6												
4																												
5																6												
6																												
7																6												
8																6												
9																												
10																6												
11																6												
12																2												

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 2

2190380

Section A Required Client Information:
Company: MECI
Address: 231 Dooley Rd
Lexington SC 29073
Email To: jc@meci.net
Phone: 803-808-2043 Fax:
Requested Due Date/TAT:

Section B Required Project Information:
Report To: B. Shane
Copy To:
Purchase Order No.: 422513
Project Name:
Project Number:

Section C Invoice Information:
Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: T. carter
Pace Profile #:

REGULATORY AGENCY
☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☒ UST ☐ RCRA ☐ OTHER
Site Location STATE: SC Hardeeville

UST # 10620 / Pace CA # 55216

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE (9/7/17)	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: BTEX NMS 8260B	1,2 DCA 8260B	8 oxy's 8260B	EDB 8011	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-3R																						
2	MW-4R	WT	G		12:00				6				X					X	X	X	X		DNS
3	MW-5R	WT	G		10:55				6				X					X	X	X	X		organic odor 001
4	MW-6R																						No odor 002
5	MW-9	WT	G				13:50		6				X					X	X	X	X		DNS
6	MW-10	WT	G				13:40		6				X					X	X	X	X		sulfur odor 003
7	MW-11																						strong org. odor 004
8	MW-14	WT	G				13:00		6				X					X	X	X	X		DNS
9	MW-15	WT	G				11:40		6				X					X	X	X	X		slight org. odor 005
10	MW-16	WT	G				10:38		6				X					X	X	X	X		organic odor 006
11	MW-17																						No odor 007
12	MW-18	WT	G				13:45		6				X					X	X	X	X		DNS
																							No odor 008

ADDITIONAL COMMENTS

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	9/8/17	8:15		9.8.17	8815
	9.8.17	1140		9-8-17	1140

SAMPLE CONDITIONS

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
2.7	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: J. Chartier
SIGNATURE of SAMPLER: Jesse Chartier
DATE Signed (MM/DD/YY): 9/7/17

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 2 of 2

2190379

Section A Required Client Information:
Company: MECI
Address: 231 Dooley Rd
Lexington SC 29073
Email To: JC@meci.net
Phone: 803-808-2043 Fax:
Requested Due Date/TAT:

Section B Required Project Information:
Report To: B. Shane
Copy To:
Purchase Order No.: 4600422513
Project Name: pantry 911
Project Number: UST #10628/Pace CA #55216

Section C Invoice Information:
Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: T. Carter
Pace Profile #:

REGULATORY AGENCY
NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER
Site Location STATE: SC Hardeeville

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ITEM #	SAMPLE ID (A-Z, 0-9 / , -) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: BTEX NM 8260B	1,2DCA 8260B	Oxys 8260B	EDB 8011	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-1A					9/7/17	10:45		6				X					X	X	X	X		Slight sulfur odor
2	MW-2C						10:35		6				X					X	X	X	X		Sulfur odor GW
3	RW-1E						12:15		6				X					X	X	X	X		No odor SOIL
4	RW-1																						
5	RW-2																						
6	RW-3						12:20		6				X					X	X	X	X		Slight odor SOIL
7	RW-4																						
8	RW-5						11:20		6				X					X	X	X	X		Strong odor GW
9	RW-6						11:20		6				X					X	X	X	X		Strong odor GW
10	DUP																						
11	FB						12:20						X					X	X	Y	X		Slight odor SOIL
12	TB						14:00						X					X	X	X	X		PB GW
							14:02						X					X	X	X	X		TB GW

ADDITIONAL COMMENTS

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[illegible]	9/8/17	8:15	[illegible]	9.8.17	0815
[illegible]	9.8.17	1140	[illegible]	9-8-17	1140

SAMPLE CONDITIONS

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
2.7	Y	N	Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Chris Cartier
SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 9/7/17

ORIGINAL

*Important Note:
By signing you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

September 18, 2017

Mr. Bryan Shane
Midlands Environmental
PO Box 854
Lexington, SC 29071

RE: Project: PANTRY 911 10628/55216
Pace Project No.: 92354530

Dear Mr. Shane:
Enclosed are the analytical results for sample(s) received by the laboratory on September 08, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Trey Carter
trey.carter@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Mr. Jeff Coleman, Midlands Environmental
Mr. Kyle Pudney, Midlands Environmental

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: PANTRY 911 10628/55216
Pace Project No.: 92354530

Ormond Beach Certification IDs
8 East Tower Circle, Ormond Beach, FL 32174
Alabama Certification #: 41320
Connecticut Certification #: PH-0216
Delaware Certification: FL NELAC Reciprocity
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maryland Certification: #346
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Missouri Certification #: 236
Montana Certification #: Cert 0074
Nebraska Certification: NE-OS-28-14
Nevada Certification: FL NELAC Reciprocity
New Jersey Certification #: FL022
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
Oklahoma Certification #: D9947
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
US Virgin Islands Certification: FL NELAC Reciprocity
Virginia Environmental Certification #: 460165
Wyoming Certification: FL NELAC Reciprocity
West Virginia Certification #: 9962C
Wisconsin Certification #: 399079670
Wyoming (EPA Region 8): FL NELAC Reciprocity

Charlotte Certification IDs
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: PANTRY 911 10628/55216
Pace Project No.: 92354530

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92354530001	WSW-1	Water	09/07/17 13:05	09/08/17 08:15
92354530002	WSW DUP	Water	09/07/17 13:05	09/08/17 08:15
92354530003	WSW FB	Water	09/07/17 13:10	09/08/17 08:15
92354530004	WSW TB	Water	09/07/17 13:12	09/08/17 08:15

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: PANTRY 911 10628/55216
Pace Project No.: 92354530

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92354530001	WSW-1	EPA 504.1	KPS	2	PASI-C
		EPA 524.2	JLR	10	PASI-O
		EPA 8260	GAW	11	PASI-C
92354530002	WSW DUP	EPA 504.1	KPS	2	PASI-C
		EPA 524.2	JLR	10	PASI-O
		EPA 8260	GAW	11	PASI-C
92354530003	WSW FB	EPA 504.1	KPS	2	PASI-C
		EPA 524.2	JLR	10	PASI-O
		EPA 8260	GAW	11	PASI-C
92354530004	WSW TB	EPA 524.2	JLR	10	PASI-O
		EPA 8260	GAW	11	PASI-C

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 10628/55216
Pace Project No.: 92354530

Sample: WSW-1 **Lab ID: 92354530001** Collected: 09/07/17 13:05 Received: 09/08/17 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
504 GCS EDB and DBCP	Analytical Method: EPA 504.1 Preparation Method: EPA 504.1								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	09/12/17 14:44	09/12/17 20:54	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	94	%	70-130		1	09/12/17 14:44	09/12/17 20:54	301-79-56	
524.2 MSV	Analytical Method: EPA 524.2								
Benzene	ND	ug/L	0.50	0.25	1		09/16/17 00:23	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	0.25	1		09/16/17 00:23	107-06-2	
Ethylbenzene	ND	ug/L	0.50	0.25	1		09/16/17 00:23	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	0.25	1		09/16/17 00:23	1634-04-4	
Naphthalene	ND	ug/L	0.50	0.25	1		09/16/17 00:23	91-20-3	
Toluene	ND	ug/L	0.50	0.25	1		09/16/17 00:23	108-88-3	
Xylene (Total)	ND	ug/L	0.50	0.25	1		09/16/17 00:23	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	88	%	70-130		1		09/16/17 00:23	460-00-4	
Toluene-d8 (S)	96	%	70-130		1		09/16/17 00:23	2037-26-5	
1,2-Dichloroethane-d4 (S)	112	%	70-130		1		09/16/17 00:23	17060-07-0	
8260 MSV Low Level SC	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	50.0	1		09/10/17 11:26	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	0.10	1		09/10/17 11:26	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	50.0	1		09/10/17 11:26	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	3.6	1		09/10/17 11:26	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1.9	1		09/10/17 11:26	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	0.12	1		09/10/17 11:26	108-20-3	
Ethanol	ND	ug/L	200	131	1		09/10/17 11:26	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	0.070	1		09/10/17 11:26	637-92-3	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		1		09/10/17 11:26	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130		1		09/10/17 11:26	17060-07-0	
Toluene-d8 (S)	108	%	70-130		1		09/10/17 11:26	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 10628/55216
Pace Project No.: 92354530

Sample: WSW DUP **Lab ID: 92354530002** Collected: 09/07/17 13:05 Received: 09/08/17 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
504 GCS EDB and DBCP	Analytical Method: EPA 504.1 Preparation Method: EPA 504.1								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	09/12/17 14:44	09/12/17 21:15	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	99	%	70-130		1	09/12/17 14:44	09/12/17 21:15	301-79-56	
524.2 MSV	Analytical Method: EPA 524.2								
Benzene	ND	ug/L	0.50	0.25	1		09/16/17 00:48	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	0.25	1		09/16/17 00:48	107-06-2	
Ethylbenzene	ND	ug/L	0.50	0.25	1		09/16/17 00:48	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	0.25	1		09/16/17 00:48	1634-04-4	
Naphthalene	ND	ug/L	0.50	0.25	1		09/16/17 00:48	91-20-3	
Toluene	ND	ug/L	0.50	0.25	1		09/16/17 00:48	108-88-3	
Xylene (Total)	ND	ug/L	0.50	0.25	1		09/16/17 00:48	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	88	%	70-130		1		09/16/17 00:48	460-00-4	
Toluene-d8 (S)	96	%	70-130		1		09/16/17 00:48	2037-26-5	
1,2-Dichloroethane-d4 (S)	112	%	70-130		1		09/16/17 00:48	17060-07-0	
8260 MSV Low Level SC	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	50.0	1		09/10/17 12:01	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	0.10	1		09/10/17 12:01	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	50.0	1		09/10/17 12:01	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	3.6	1		09/10/17 12:01	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1.9	1		09/10/17 12:01	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	0.12	1		09/10/17 12:01	108-20-3	
Ethanol	ND	ug/L	200	131	1		09/10/17 12:01	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	0.070	1		09/10/17 12:01	637-92-3	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		1		09/10/17 12:01	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130		1		09/10/17 12:01	17060-07-0	
Toluene-d8 (S)	108	%	70-130		1		09/10/17 12:01	2037-26-5	

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 10628/55216
Pace Project No.: 92354530

Sample: WSW FB **Lab ID: 92354530003** Collected: 09/07/17 13:10 Received: 09/08/17 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
504 GCS EDB and DBCP	Analytical Method: EPA 504.1 Preparation Method: EPA 504.1								
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.020	1	09/12/17 14:45	09/12/17 21:35	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	91	%	70-130		1	09/12/17 14:45	09/12/17 21:35	301-79-56	
524.2 MSV	Analytical Method: EPA 524.2								
Benzene	ND	ug/L	0.50	0.25	1		09/16/17 01:13	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	0.25	1		09/16/17 01:13	107-06-2	
Ethylbenzene	ND	ug/L	0.50	0.25	1		09/16/17 01:13	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	0.25	1		09/16/17 01:13	1634-04-4	
Naphthalene	ND	ug/L	0.50	0.25	1		09/16/17 01:13	91-20-3	
Toluene	ND	ug/L	0.50	0.25	1		09/16/17 01:13	108-88-3	
Xylene (Total)	ND	ug/L	0.50	0.25	1		09/16/17 01:13	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	89	%	70-130		1		09/16/17 01:13	460-00-4	
Toluene-d8 (S)	95	%	70-130		1		09/16/17 01:13	2037-26-5	
1,2-Dichloroethane-d4 (S)	112	%	70-130		1		09/16/17 01:13	17060-07-0	
8260 MSV Low Level SC	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	50.0	1		09/10/17 09:22	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	0.10	1		09/10/17 09:22	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	50.0	1		09/10/17 09:22	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	3.6	1		09/10/17 09:22	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1.9	1		09/10/17 09:22	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	0.12	1		09/10/17 09:22	108-20-3	
Ethanol	ND	ug/L	200	131	1		09/10/17 09:22	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	0.070	1		09/10/17 09:22	637-92-3	
Surrogates									
4-Bromofluorobenzene (S)	103	%	70-130		1		09/10/17 09:22	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	70-130		1		09/10/17 09:22	17060-07-0	
Toluene-d8 (S)	110	%	70-130		1		09/10/17 09:22	2037-26-5	

Pace Analytical
www.pacelabs.com

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: PANTRY 911 10628/55216
Pace Project No.: 92354530

Sample: WSW TB **Lab ID: 92354530004** Collected: 09/07/17 13:12 Received: 09/08/17 08:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
524.2 MSV	Analytical Method: EPA 524.2								
Benzene	ND	ug/L	0.50	0.25	1		09/16/17 01:38	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	0.25	1		09/16/17 01:38	107-06-2	
Ethylbenzene	ND	ug/L	0.50	0.25	1		09/16/17 01:38	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	0.25	1		09/16/17 01:38	1634-04-4	
Naphthalene	ND	ug/L	0.50	0.25	1		09/16/17 01:38	91-20-3	
Toluene	ND	ug/L	0.50	0.25	1		09/16/17 01:38	108-88-3	
Xylene (Total)	ND	ug/L	0.50	0.25	1		09/16/17 01:38	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	89	%	70-130		1		09/16/17 01:38	460-00-4	
Toluene-d8 (S)	96	%	70-130		1		09/16/17 01:38	2037-26-5	
1,2-Dichloroethane-d4 (S)	112	%	70-130		1		09/16/17 01:38	17060-07-0	
8260 MSV Low Level SC	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	50.0	1		09/10/17 09:40	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	0.10	1		09/10/17 09:40	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	50.0	1		09/10/17 09:40	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	3.6	1		09/10/17 09:40	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	1.9	1		09/10/17 09:40	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	0.12	1		09/10/17 09:40	108-20-3	
Ethanol	ND	ug/L	200	131	1		09/10/17 09:40	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	0.070	1		09/10/17 09:40	637-92-3	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		09/10/17 09:40	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130		1		09/10/17 09:40	17060-07-0	
Toluene-d8 (S)	104	%	70-130		1		09/10/17 09:40	2037-26-5	

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 10628/55216
Pace Project No.: 92354530

QC Batch: 393114 Analysis Method: EPA 524.2
QC Batch Method: EPA 524.2 Analysis Description: 524.2 MSV
Associated Lab Samples: 92354530001, 92354530002, 92354530003, 92354530004

METHOD BLANK: 2140250 Matrix: Water
Associated Lab Samples: 92354530001, 92354530002, 92354530003, 92354530004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	0.50	0.25	09/15/17 23:58	
Benzene	ug/L	ND	0.50	0.25	09/15/17 23:58	
Ethylbenzene	ug/L	ND	0.50	0.25	09/15/17 23:58	
Methyl-tert-butyl ether	ug/L	ND	0.50	0.25	09/15/17 23:58	
Naphthalene	ug/L	ND	0.50	0.25	09/15/17 23:58	
Toluene	ug/L	ND	0.50	0.25	09/15/17 23:58	
Xylene (Total)	ug/L	ND	0.50	0.25	09/15/17 23:58	
1,2-Dichloroethane-d4 (S)	%	111	70-130		09/15/17 23:58	
4-Bromofluorobenzene (S)	%	90	70-130		09/15/17 23:58	
Toluene-d8 (S)	%	96	70-130		09/15/17 23:58	

LABORATORY CONTROL SAMPLE & LCSD: 2140251 2140252

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dichloroethane	ug/L	40	41.2	39.4	103	98	70-130	4	40	
Benzene	ug/L	40	39.1	40.2	98	100	70-130	3	40	
Ethylbenzene	ug/L	40	39.9	40.6	100	102	70-130	2	40	
Methyl-tert-butyl ether	ug/L	40	45.6	45.2	114	113	70-130	1	40	
Naphthalene	ug/L	40	38.7	38.4	97	96	70-130	1	40	
Toluene	ug/L	40	37.6	38.7	94	97	70-130	3	40	
Xylene (Total)	ug/L	120	124	126	104	105	70-130	1	40	
1,2-Dichloroethane-d4 (S)	%				102	100	70-130			
4-Bromofluorobenzene (S)	%				97	98	70-130			
Toluene-d8 (S)	%				102	98	70-130			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 10628/55216
Pace Project No.: 92354530

QC Batch: 377041 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level SC
Associated Lab Samples: 92354530001, 92354530002, 92354530003, 92354530004

METHOD BLANK: 2088901 Matrix: Water
Associated Lab Samples: 92354530001, 92354530002, 92354530003, 92354530004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
3,3-Dimethyl-1-Butanol	ug/L	ND	100	50.0	09/10/17 07:36	
Diisopropyl ether	ug/L	ND	1.0	0.12	09/10/17 07:36	
Ethanol	ug/L	212	200	131	09/10/17 07:36	
Ethyl-tert-butyl ether	ug/L	ND	10.0	0.070	09/10/17 07:36	
tert-Amyl Alcohol	ug/L	ND	100	50.0	09/10/17 07:36	
tert-Amylmethyl ether	ug/L	ND	10.0	0.10	09/10/17 07:36	
tert-Butyl Alcohol	ug/L	ND	100	3.6	09/10/17 07:36	
tert-Butyl Formate	ug/L	ND	50.0	1.9	09/10/17 07:36	
1,2-Dichloroethane-d4 (S)	%	90	70-130		09/10/17 07:36	
4-Bromofluorobenzene (S)	%	105	70-130		09/10/17 07:36	
Toluene-d8 (S)	%	110	70-130		09/10/17 07:36	

LABORATORY CONTROL SAMPLE: 2088902

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
3,3-Dimethyl-1-Butanol	ug/L	1000	919	92	70-130	
Diisopropyl ether	ug/L	50	54.8	110	70-130	
Ethanol	ug/L	2000	2550	127	70-130	
Ethyl-tert-butyl ether	ug/L	100	110	110	70-130	
tert-Amyl Alcohol	ug/L	1000	887	89	70-130	
tert-Amylmethyl ether	ug/L	100	98.1	98	70-130	
tert-Butyl Alcohol	ug/L	500	460	92	70-130	
tert-Butyl Formate	ug/L	400	458	114	70-130	
1,2-Dichloroethane-d4 (S)	%			106	70-130	
4-Bromofluorobenzene (S)	%			103	70-130	
Toluene-d8 (S)	%			96	70-130	

MATRIX SPIKE SAMPLE: 2088903

Parameter	Units	92354593001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
3,3-Dimethyl-1-Butanol	ug/L			413			
Diisopropyl ether	ug/L			22.3			
Ethanol	ug/L			1130			M1
Ethyl-tert-butyl ether	ug/L			43.5			
tert-Amyl Alcohol	ug/L			418			
tert-Amylmethyl ether	ug/L			40.7			
tert-Butyl Alcohol	ug/L			287			M1
tert-Butyl Formate	ug/L			ND			M1,P5

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 10628/55216
Pace Project No.: 92354530

MATRIX SPIKE SAMPLE: 2088903

Parameter	Units	92354593001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane-d4 (S)	%				106	70-130	
4-Bromofluorobenzene (S)	%				106	70-130	
Toluene-d8 (S)	%				98	70-130	

SAMPLE DUPLICATE: 2088904

Parameter	Units	92354530001 Result	Dup Result	RPD	Max RPD	Qualifiers
3,3-Dimethyl-1-Butanol	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethanol	ug/L	ND	ND		30	
Ethyl-tert-butyl ether	ug/L	ND	ND		30	
tert-Amyl Alcohol	ug/L	ND	ND		30	
tert-Amylmethyl ether	ug/L	ND	ND		30	
tert-Butyl Alcohol	ug/L	ND	ND		30	
tert-Butyl Formate	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	95	96	1		
4-Bromofluorobenzene (S)	%	102	106	4		
Toluene-d8 (S)	%	108	109	1		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: PANTRY 911 10628/55216
Pace Project No.: 92354530

QC Batch: 377295 Analysis Method: EPA 504.1
QC Batch Method: EPA 504.1 Analysis Description: GCS 504 EDB DBCP
Associated Lab Samples: 92354530001, 92354530002, 92354530003

METHOD BLANK: 2090361 Matrix: Water
Associated Lab Samples: 92354530001, 92354530002, 92354530003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.019	0.019	09/12/17 16:50	
1-Chloro-2-bromopropane (S)	%	99	70-130		09/12/17 16:50	

LABORATORY CONTROL SAMPLE & LCSD: 2090362 2090363

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	.28	0.30	0.30	110	108	70-130	3	20	
1-Chloro-2-bromopropane (S)	%				102	100	70-130			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2090364 2090365

Parameter	Units	92354562002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	.28	.28	0.30	0.31	108	110	65-135	2	20	
1-Chloro-2-bromopropane (S)	%						100	99	70-130			

SAMPLE DUPLICATE: 2090366

Parameter	Units	92354593001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L		ND		20	
1-Chloro-2-bromopropane (S)	%		99	0		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: PANTRY 911 10628/55216
Pace Project No.: 92354530

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-C	Pace Analytical Services - Charlotte
PASI-O	Pace Analytical Services - Ormond Beach

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
P5	The EPA or method required sample preservation degrades this compound, therefore acceptable recoveries may not be achieved in sample matrix spikes.

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PANTRY 911 10628/55216
Pace Project No.: 92354530

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92354530001	WSW-1	EPA 504.1	377295	EPA 504.1	377378
92354530002	WSW DUP	EPA 504.1	377295	EPA 504.1	377378
92354530003	WSW FB	EPA 504.1	377295	EPA 504.1	377378
92354530001	WSW-1	EPA 524.2	393114		
92354530002	WSW DUP	EPA 524.2	393114		
92354530003	WSW FB	EPA 524.2	393114		
92354530004	WSW TB	EPA 524.2	393114		
92354530001	WSW-1	EPA 8260	377041		
92354530002	WSW DUP	EPA 8260	377041		
92354530003	WSW FB	EPA 8260	377041		
92354530004	WSW TB	EPA 8260	377041		

Pace Analytical™	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: August 4, 2017 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.04	Issuing Authority: Pace Quality Office

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☑ Raleigh ☐ Mechanicsville ☐

Sample Condition Upon Receipt

Client Name: MECI

Project # WO#: 92354530

92354530

Courier: ☐ Commercial ☑ Fed Ex ☑ Pace ☐ UPS ☐ USPS ☐ Other:____ ☐ Client

Custody Seal Present? ☐ Yes ☑ No Seals Intact? ☐ Yes ☑ No

Date/Initials Person Examining Contents: NC 9-8-17

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☐ IR Gun ID: 1701

Type of Ice: ☐ Wet ☐ Blue ☐ None

Correction Factor: Cooler Temp Corrected (°C): 2.7

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil (☑ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☑ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☑ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☑ No	☐ N/A	8.
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: WT				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☑ No	☐ N/A	10.
Trip Blank Present?	☑ Yes	☐ No	☐ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☑ No	☐ N/A	

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? ☐ Yes ☐ No

Person Contacted: _____ Date/Time: _____

Comments/Sample Discrepancy: _____

Lot ID of split containers: _____

Project Manager SCURF Review: TC Date: 9/12/17

Project Manager SRF Review: TC Date: 9/12/17

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers)

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

**Bottom half of box is to list number of bottles

Proje WO#: 92354530

PM: RWC Due Date: 09/19/17

CLIENT: 92-MIDLAND

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	Cubitainer	V5GU-20 mL Scintillation vials (N/A)	GN
1																6	3												
2																6	3												
3																6	3												
4																6													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

2190356

Section A Required Client Information:

Company:	MECI
Address:	231 Dooley Rd
	Lexington SC 29073
Email To:	jlc@meci.net
Phone:	803-808-2043
Fax:	
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	B. Shane
Copy To:	
Purchase Order No.:	4600422513
Project Name:	Pantry 911
Project Number:	[redacted] #10628 / Pace CA# 55216

Section C Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	T. Carter
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☒ UST ☐ RCRA ☐ OTHER

Site Location STATE: SC — Hardeeville

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	Composite Start DATE	Composite Start TIME	Composite End/Grab DATE	Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test	BTEX 524.2	1,2-DCA 524.2	LL Oxys 8260	EDB 504.1	Residual Chlorine (Y/N)	Pace Project No./Lab I.D.
1	WSW-1	DW	G			9/7/17	13:05		9			6			3				X	X	X	X		LDL5 001
2	WSW Dup	↓	↓			↓	13:05		9			6			3				X	X	X	X		LDL5 002
3	WSW FB	↓	↓			↓	13:10		9			6			3				X	X	X	X		FB 003
4	WSW TB	↓	↓			↓	13:12		6			6							X	X	X			TB 004
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								

0255 4530

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	[signature]	9/8/17	8:15	[signature] PACE	9.8.17	0815	
	[signature]	9.8.17	1140				

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Chris Chartier

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 9/7/2017

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

APPENDIX C:

TAX MAP

(Not Applicable)

APPENDIX D:

SOIL BORING/FIELD SCREENING LOGS & 1903 FORMS

(Not Applicable)

APPENDIX E:

WELL COMPLETION LOGS & 1903 FORMS

(Not Applicable)

APPENDIX F:

AQUIFER EVALUATION SUMMARY FORMS, DATA, GRAPHS, EQUATIONS

(Not Applicable)

APPENDIX G:

DISPOSAL MANIFEST

Midlands
Environmental
Consultants, Inc.

September 27, 2017

Re: Treatment of Purge Water
Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID Number 10628
MECI Project Number 17-6102

To Whom It May Concern;

Midlands Environmental Consultants, Inc. is providing the following letter as certification that treatment of the referenced purge water complied with the conditions of "Proposed Conditions for Use of Portable Activated Carbon Units for the Treatment of Small Volumes of Petroleum Hydrocarbon Contaminated Groundwater", as described in the following:

Applicability:

Groundwater treated was obtained as a result development of wells and sampling.

Conditions:

1. The purge/bail water from all wells is mixed before usage of the Activated Carbon Unit.
2. No free-product was detected in any of the purge water drums.
3. Analytical results of from well sampling show average concentrations of petroleum hydrocarbon constituents less than 5000 parts per billion (ppb) Benzene and less than 20,000 ppb total BTEX.
4. The existing carbon pack will be replaced/reactivated every 5,000 gallons.
5. Record of usage is maintained by Contractor.
6. Any and all recommendations and conditions issued by the Manufacturer have been adhered to.
7. Any and all recommendations and conditions (even on a site by site basis) issued by the SCDHEC must be adhered to.

All purge waters were treated on-site using an up-flow treatment drum loaded with 80 pounds of activated carbon. Carbon will be loaded to a maximum of 3 pounds of total organic compounds or 5,000 gallons of development/purge water, whichever occurs first.

Post Office Box 854, Lexington SC 29071 • 231 Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

A total of 90.0 gallons were treated on September 7, 2017 during the sampling event at the referenced site.

Midlands Environmental also tracks cumulative organic compounds adsorbed on the activated carbon to ensure the capacity of carbon mass is not over-charged. This data is available upon request.

Should you have any questions or comments, please contact the undersigned.

Sincerely,
Midlands Environmental Consultants, Inc.

Kyle V. Pudney
Project Biologist

APPENDIX H:

LOCAL ZONING REGULATIONS

(Not Applicable)

APPENDIX I:

FATE AND TRANSPORT MODELING

(Not Applicable)

APPENDIX J:

ACCESS AGREEMENTS

(Not Applicable)

APPENDIX K:

DATA VERIFICATION CHECKLIST

Contractor Checklist

Item#	Item	Yes	No	N/A
1	Are Facility Name, Permit #, and address provided?	X		
2	Is UST Owner/Operator name, address, & phone number provided?	X		
3	Is name, address, & phone number of current property owner provided?	X		
4	Is the DHEC Certified UST Site Rehabilitation Contractor's Name, Address, telephone number, and certification number provided?	X		
5	Is the name, address, telephone number, and certification number of the well driller that installed borings/monitoring wells provided?			X
6	Is the name, address, telephone number, and certification number of the certified laboratory(ies) performing analytical analyses provided?	X		
7	Has the facility history been summarized?	X		
8	Has the regional geology and hydrogeology been described?	X		
9	Are the receptor survey results provided as required?			X
10	Has current use of the site and adjacent land been described?	X		
11	Has the site-specific geology and hydrogeology been described?	X		
12	Has the primary soil type been described?	X		
13	Have field screening results been described?			X
14	Has a description of the soil sample collection and preservation been detailed?			X
15	Has the field screening methodology and procedure been detailed?			X
16	Has the monitoring well installation and development dates been provided?			X
17	Has the method of well development been detailed?			X
18	Has justification been provided for the locations of the monitoring wells?			X
19	Have the monitoring wells been labeled in accordance with the UST QAPP guidelines?			X
20	Has the groundwater sampling methodology been detailed?	X		
21	Have the groundwater sampling dates and groundwater measurements been provided? (Table 2 & Figure 5)	X		
22	Has the purging methodology been detailed?	X		
23	Has the volume of water purged from each well been provided along with measurements to verify that purging is complete? (Appendix B)	X		
24	If free-product is present, has the thickness been provided?			X
25	Does the report include a brief discussion of the assessment done and the results?	X		
26	Does the report include a brief discussion of the aquifer evaluation and results?			X
27	Does the report include a brief discussion of the fate & transport models used?			X

Item#	Item	Yes	No	N/A
28	Are the site-conceptual model tables included? (Tier 1 Risk Evaluation)			X
29	Have the exposure pathways been analyzed? (Tier 2 Risk Evaluation)			X
30	Have the SSTLs for each compound and pathway been calculated? (Tier 2 Risk Evaluation)			X
31	Have recommendations for further action been provided and explained?	X		
32	Has the soil analytical data for the site been provided in tabular format? (Table 1)			X
33	Has the potentiometric data for the site been provided in tabular format? (Table 2)	X		
34	Has the current and historical laboratory data been provided in tabular format? (Tables 3 & 3A)	X		
35	Have the aquifer characteristics been provided and summarized on the appropriate form? (Appendix F)			X
36	Have the Site conceptual model tables been included? (Tier 1 Risk Evaluation)			X
37	Has the topographic map been provided with all required elements? (Figure 1)	X		
38	Has the site base map been provided with all required elements? (Figure 2)	X		
39	Have the CoC site maps been provided? (Figures 4, 4A, 4B,)	X		
40	Has the site potentiometric map been provided? (Figure 5)	X		
41	Have the geologic cross-sections been provided? (Figure 6)			X
42	Have maps showing the predicted migration of the CoCs through time been provided? (Tier 2 Risk Evaluation)			X
43	Has the site survey been provided and include all necessary elements? (Appendix A)			X
44	Have the sampling logs, chain of custody forms, and the analytical data package been included with all required elements? (Appendix B)	X		
45	Is the laboratory performing the analyses properly certified?	X		
46	Has the tax map been included with all necessary elements? (Appendix C)			X
47	Have the soil boring/field screening logs been provided? (Appendix E)			X
48	Have the well completion logs and SCDHEC Form 1903 been provided? (Appendix E)			X
49	Have the aquifer evaluation forms, data, graphs, equations, etc. been provided? (Appendix F)			X
50	Have the disposal manifests been provided? (Appendix G)	X		
51	Has a copy of the local zoning regulations been provided? (Appendix H)			X
52	Has all fate and transport modeling been provided? (Appendix I)			X
53	Have copies of all access agreements obtained by the contractor been provided? (Appendix J)			X
54	Has a copy of this form been attached to the final report and are explanations for any missing or incomplete data been provided? (Appendix K)	X		

dhec
Healthy People. Healthy Communities.

MR DONNIE MALPHRUS
MALPHRUS ENTERPRISES
2788 NORTH OKATIE HWY
RIDGELAND SC 29936

NOV 2 8 2017

Re: **Aggressive Fluid Vapor Recovery Directive**
Shreejakshani, 6195 Okatie Highway, Hardeeville, SC 29649
UST Permit # 10628; CA# 55863
Release reported April 28, 1995
Groundwater Sampling Report received October 27, 2017
Jasper County

Mr. Malphrus:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (DHEC) recognizes your commitment to continue work at this site using Midlands Environmental Consultants, Inc. as your contractor. The next appropriate scope of work at the site is to continue aggressive fluid and vapor recovery (AFVR) to remove residual free-phase product and reduce concentrations of chemicals of concern (CoC). The AFVR event must be conducted in accordance with the current revision of the UST Quality Assurance Program Plan (QAPP). A copy of the current revision of the QAPP is available at https://www.scdhec.gov/environment/lw/ust/ReleaseAssessmentClean-up/QualityAssurance/.

Cost Agreement #55863 has been approved in the amount shown on the enclosed cost agreement form for two 96-hour AFVR events. During the AFVR events, stingers shall be lowered at six inch intervals starting at the water table interface to the estimated historical low water table elevation for each well within the first 8 hours of the event. Thereafter, stingers should be adjusted to maximize FP and/or vapor recovery while maintaining dewatering of the smear zone. AFVR activities may proceed immediately upon receipt of this letter. Both actions must be performed by a South Carolina-Certified Underground Storage Tank Site Rehabilitation Contractor. All applicable South Carolina certification requirements apply to preparation of an AFVR report.

An AFVR report and invoice must be submitted to the Division within 90 days from the date of this letter. Your contractor may directly bill the State Underground Petroleum Environmental Response Bank (SUPERB) Account. Interim invoices may not be submitted for this scope of work. If the invoice is not submitted within 120 days from the date of this letter, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available.

Please note that Sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that no costs will be allowed unless prior approval from the DHEC is obtained. If for any reason additional tasks will be completed, these additional tasks and the associated cost must be pre-approved by the DHEC for the cost to be paid. The DHEC reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with

established criteria. Further, the DHEC reserves the right to question and/or reject costs if deemed unreasonable and the right to audit project records at any time during the project or after completion of work.

The DHEC grants pre-approval for transportation of up to 20,000 gallons of free-phase product and petroleum-contaminated groundwater from the referenced facility to a permitted treatment facility for disposal. The transport and disposal must be conducted in accordance with the QAPP.

On all correspondence concerning this facility, please reference **UST Permit #10628**. If there are any questions concerning this project, feel free to contact me by telephone at (803) 898-7705 or by e-mail at johnsoal@dhec.sc.gov.

Sincerely,

Austin Johnson, Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

enc: Approved cost agreement form

cc: Midlands Environmental Consultants, Inc., PO Box 854, Lexington, SC 29071 (w/enc)
Technical File (w/ enc)

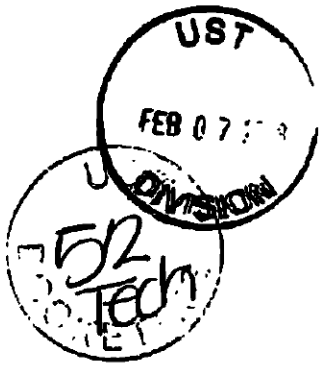
Approved Cost Agreement 55863

Facility: 10628 SHREEJAKSHANI LLC DBA OKATIE MART
BRYANTJC
PO Number:

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
19 RPT/PROJECT MNGT & COORDINATIO					
		PRT REPORT PREPARATION	0.1200	$45,281.250	5,433.75
23 EFR					
		A4 96 HOUR EVENT	2.0000	$12,567.500	25,135.00
		C4 OFF GAS TREATMENT 96 HOUR	2.0000	$780.000	1,560.00
		D SITE RECONNAISSANCE	1.0000	$203.250	203.25
		F1 EFFLUENT DISPOSAL	40,000.0000	$0.440	17,600.00
		G AFVR EQUIPMENT MOB	2.0000	$391.500	783.00
			Total Amount		50,715.00

Midlands
Environmental
Consultants, Inc.

February 1, 2018



Mr. Austin Johnson, Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Aggressive Fluid Vapor Recovery Report
Shrejakshani (Former Pantry 911)
6195 Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID # 10628; CA # 55863
MECI Project Number 17-6236
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Johnson,

On behalf of Mr. Donnie Malphrus of Malphrus Industries, Midlands Environmental Consultants, Inc. (MECI) is pleased to submit the attached Aggressive Fluid Vapor Recovery Report for the referenced site. This describes the aggressive fluid vapor recovery activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines set forth in the UST Quality Assurance Program Plan (QAPP).

FIRST AGGRESSIVE FLUID VAPOR RECOVERY EVENT

A site visit was conducted at Shrejakshani (Former Pantry 911) on December 19, 2017 to locate/gauge monitoring wells and to evaluate current site conditions. MECI personnel commenced the first 96-Hour Aggressive Fluid Vapor Recovery (AFVR) event at Shrejakshani (Former Pantry 911) on January 8, 2018 and completed the event on January 12, 2018. Based on email correspondence with SCDHEC Project Manager Mr. Austin Johnson, the event was conducted on monitoring/recovery wells MW-4R, MW-14, and RW-2 to reduce elevated dissolved CoC concentrations and on recovery wells RW-3 & RW-6 to remove free phase petroleum product at the referenced site. Prior to the AFVR event, free phase petroleum product/water levels were gauged utilizing an Heron H.Oil Oil/Water Interface Meter. The following table presents depth to product, depth to water, and product thickness measurements obtained prior to the commencement of the 96-Hour:

First 96-Hour Pre-AFVR Well Data			
Well ID#	***Depth to Product (ft.)***	***Depth to Water (ft.)***	***Product Thickness (ft.)***
MW-4R	Not Detected	2.34	Not Detected
MW-14	Not Detected	1.89	Not Detected
RW-2	Not Detected	2.04	Not Detected

Post Office Box 854, Lexington SC 29071 • 231 Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

First 96-Hour Pre-AFVR Well Data			
Well ID#	***Depth to Product (ft.)***	***Depth to Water (ft.)***	***Product Thickness (ft.)***
RW-3	6.50	6.61	0.11
RW-6	1.43	4.70	3.27

The event was continuously conducted for ninety-six hours (96) hours by MECI personnel utilizing a vacuum extraction unit. Following the extended AFVR event, free product and groundwater levels were measured and recorded.

The following table presents the post-AFVR free product and groundwater measurements obtained after completion of the AFVR event:

First 96-Hour Post-AFVR Well Data			
Well ID#	***Depth to Product (ft.)***	***Depth to Water (ft.)***	***Product Thickness (ft.)***
MW-4R	Not Detected	6.30	Not Detected
MW-14	Not Detected	7.70	Not Detected
RW-2	Not Detected	6.67	Not Detected
RW-3	8.46	8.50	0.04
RW-6	Not Detected	5.32	Not Detected

MECI treated the off gas produced during the AFVR event using an activated carbon filter system, which achieved an average calculated reduction rate of 96.40% throughout the duration of the referenced event. Calculated total petroleum hydrocarbons removed during the event were 51.73 pounds or approximately 8.94 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 0.54 pounds per hour. Concentrations of off gas (Pre-Treatment) produced during the event were recorded from 888.4 parts per million by volume (PPM) to 1,124 PPM. Vacuum readings were recorded at a range of 19.0 to 24.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1A.

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2A. Monitoring well locations are depicted on attached Figure 2.

SECOND AGGRESSIVE FLUID VAPOR RECOVERY EVENT

MECI personnel commenced the second 96-Hour Aggressive Fluid Vapor Recovery (AFVR) event at Shreejakshani (Former Pantry 911) on January 15, 2018 and completed the event on January 19, 2018. The event was conducted on monitoring well MW-7RR to remove free phase petroleum product and on recovery wells RW-1, RW-4, and RW-5 to reduce elevated dissolved CoC concentrations at the referenced site. Prior to the AFVR event, free phase petroleum product/water levels were gauged utilizing an Heron H.Oil Oil/Water Interface Meter. The following table presents depth to product, depth to water, and product thickness measurements obtained prior to the commencement of the 96-Hour:

Second 96-Hr. Pre-AFVR Well Data			
Well ID#	***Depth to Product (ft.)***	***Depth to Water (ft.)***	***Product Thickness (ft.)***
MW-7RR	5.56	5.71	0.15
RW-1	Not Detected	5.95	Not Detected

Second 96-Hr. Pre-AFVR Well Data			
Well ID#	***Depth to Product (ft.)***	***Depth to Water (ft.)***	***Product Thickness (ft.)***
RW-4	Not Detected	5.89	Not Detected
RW-5	Not Detected	5.60	Not Detected

The event was continuously conducted for ninety-six hours (96) hours by MECI personnel utilizing a vacuum extraction unit. Following the extended AFVR event, free product and groundwater levels were measured and recorded. The following table presents the post-AFVR free product and groundwater measurements obtained after completion of the AFVR event:

Post-AFVR Well Data			
Well ID#	***Depth to Product (ft.)***	***Depth to Water (ft.)***	***Product Thickness (ft.)***
MW-7RR	Not Detected	10.88	Not Detected
RW-1	Not Detected	11.11	Not Detected
RW-4	Not Detected	8.80	Not Detected
RW-5	Not Detected	9.23	Not Detected

MECI treated the off gas produced during the AFVR event using an activated carbon filter system, which achieved an average calculated reduction rate of 95.21% throughout the duration of the referenced event. Calculated total petroleum hydrocarbons removed during the event were 30.71 pounds or approximately 5.30 equivalent gallons. The average rate of removal for the hydrocarbons was calculated to be 0.32 pounds per hour. Concentrations of off gas (Pre-Treatment) produced during the event were recorded from 411.3 parts per million by volume (PPM) to 733.5 PPM. Vacuum readings were recorded at a range of 23.0 to 26.0 inches of mercury during the event. A complete compilation of measurements recorded is presented in attached Table 1B.

Differential pressures and groundwater levels were measured and recorded for selected site monitoring wells at regular intervals. This data is summarized in the attached Table 2B. Monitoring well locations are depicted on attached Figure 2.

DISPOSAL

A total of 9,902 gallons of liquid was removed from the site during the first 96-hour event. A total of 6,500 gallons of liquid were removed during the second 96-Hour event. A total of 16,402 gallons of liquid were removed during both events. Free Phase Petroleum product was not observed in the holding tanks at the end of the event. The fluids produced were transported to Regulatory Solutions, Inc. in Gaston, South Carolina for disposal. A disposal manifest for these fluids is attached at the end of this report.

QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assignment are consistent with those normally employed in enhanced fluid recovery events and waste management projects of this type. Contents of this report are intended for the use by MECI, Mr. Donnie Malphrus of Malphrus Industries, and the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental related services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Kyle V. Pudney
Project Biologist

Jeff L. Coleman
Senior Scientist

TABLE 1A
AFVR MONITORING DATA
SHREEJAKSHANI (FORMERLY PANTRY 911)
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 17-6236
SCDHEC SITE ID NUMBER 10628

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (In. Hg)	Off Gas Measurements: Pre-Treatment Concentration (PPM)	Post-Treatment Concentration (PPM)	Treatment Reduction Rate (%)	Offgas Velocity (ft/min)	Flow Rate (CFM)	Removal Rate (Lbs/Hr)	Interval Removal (Lbs)
MW-4R	01/08/18	9:00	0.50	19.0	988.6	0.0	100.00%	710	63.90	0.76	0.38
MW-14	01/08/18	9:30	0.50	19.0	1,023	0.0	100.00%	710	63.90	0.78	0.39
RW-1	01/08/18	10:00	0.50	20.0	946.3	0.0	100.00%	710	63.90	0.73	0.36
RW-2	01/08/18	10:30	0.50	21.0	928.9	0.0	100.00%	710	63.90	0.71	0.36
RW-3	01/08/18	11:00	0.50	21.0	919.0	0.0	100.00%	710	63.90	0.70	0.35
	01/08/18	11:30	0.50	21.0	940.6	0.0	100.00%	710	63.90	0.72	0.36
▼	01/08/18	12:00	0.50	21.0	938.7	0.0	100.00%	710	63.90	0.72	0.36
▼	01/08/18	12:30	0.50	21.0	917.6	1.2	99.87%	710	63.90	0.70	0.35
▼	01/08/18	13:00	0.50	21.0	937.2	1.3	99.86%	710	63.90	0.72	0.36
▼	01/08/18	13:30	0.50	22.0	888.4	1.4	99.84%	720	64.80	0.69	0.35
▼	01/08/18	14:00	0.50	22.0	903.0	1.4	99.84%	720	64.80	0.70	0.35
▼	01/08/18	14:30	0.50	22.0	911.2	2.0	99.78%	720	64.80	0.71	0.35
▼	01/08/18	15:00	0.50	22.0	927.6	2.1	99.77%	710	63.90	0.71	0.36
▼	01/08/18	15:30	0.50	22.0	918.6	2.1	99.77%	710	63.90	0.70	0.35
▼	01/08/18	16:00	0.50	22.0	975.4	2.5	99.74%	710	63.90	0.75	0.37
▼	01/08/18	16:30	0.50	22.0	960.4	2.5	99.74%	720	64.80	0.75	0.37
▼	01/08/18	17:00	0.50	21.0	963.3	2.7	99.72%	720	64.80	0.75	0.37
	01/08/18	18:00	1.00	22.0	997.1	2.7	99.73%	710	63.90	0.76	0.76
	01/08/18	19:00	1.00	22.0	927.4	2.8	99.70%	710	63.90	0.71	0.71
	01/08/18	20:00	1.00	22.0	966.8	4.1	99.58%	710	63.90	0.74	0.74
	01/08/18	21:00	1.00	22.0	960.1	4.3	99.55%	710	63.90	0.74	0.74
	01/08/18	22:00	1.00	23.5	951.8	3.9	99.59%	700	63.00	0.72	0.72
	01/08/18	23:00	1.00	23.5	945.9	6.2	99.34%	700	63.00	0.72	0.72
	01/09/18	0:00	1.00	23.5	933.6	7.8	99.16%	710	63.90	0.72	0.72
	01/09/18	8:00	2.00	22.5	982.5	21.3	97.83%	710	63.90	0.75	1.51
	01/09/18	10:00	2.00	23.0	947.2	21.4	97.74%	710	63.90	0.73	1.45
Stinger Change	01/09/18	12:00	2.00	22.5	981.5	23.8	97.58%	700	63.00	0.74	1.48
MW-4R to 9 Ft	01/09/18	14:00	2.00	22.5	1,004	57.6	94.26%	710	63.90	0.77	1.54
MW-14 to 5 Ft	01/09/18	16:00	2.00	22.0	1,001	63.8	93.63%	710	63.90	0.77	1.54
RW-2 to 5 Ft	01/09/18	18:00	2.00	23.5	1,013	71.7	92.92%	700	63.00	0.77	1.53
RW-3 to 8 Ft	01/09/18	20:00	2.00	24.0	1,010	77.0	92.38%	700	63.00	0.76	1.53
RW-6 to 6 Ft	01/09/18	22:00	2.00	24.0	1,007	84.6	91.60%	710	63.90	0.77	1.54
	01/10/18	0:00	2.00	24.0	1,063	121.1	88.61%	720	64.80	0.83	1.65
	01/10/18	8:00	2.00	24.0	1,073	198.9	81.46%	690	62.10	0.80	1.60
**	01/10/18	10:00	2.00	24.0	985.6	0.7	99.93%	720	64.80	0.77	1.53
Stinger Change	01/10/18	12:00	2.00	24.0	1,027	2.3	99.78%	690	62.10	0.77	1.53
MW-4R to 7 Ft	01/10/18	14:00	2.00	23.5	964.2	3.9	99.60%	700	63.00	0.73	1.46
MW-14 to 7 Ft	01/10/18	16:00	2.00	23.0	1,078	7.7	99.29%	640	57.60	0.75	1.49
RW-2 to 7 Ft	01/10/18	18:00	2.00	23.5	1,121	10.3	99.08%	670	60.30	0.81	1.62
RW-3 to 7 Ft	01/10/18	20:00	2.00	24.0	1,084	11.6	98.93%	720	64.80	0.84	1.69
RW-6 to 7 Ft	01/10/18	22:00	2.00	24.0	1,066	15.9	98.51%	720	64.80	0.83	1.66
	01/11/18	0:00	2.00	24.0	1,124	19.7	98.25%	700	63.00	0.85	1.70
	01/11/18	8:00	2.00	24.0	1,097	53.4	95.13%	710	63.90	0.84	1.68
Stinger Change	01/11/18	10:00	2.00	23.5	993.4	68.2	93.13%	690	62.10	0.74	1.48
MW-4R to 8 Ft	01/11/18	12:00	2.00	23.5	1,007	72.7	92.78%	720	64.80	0.78	1.57
MW-14 to 6 Ft	01/11/18	14:00	2.00	24.0	1,058	79.9	92.45%	710	63.90	0.81	1.62
RW-2 to 6 Ft	01/11/18	16:00	2.00	24.0	964.2	84.6	91.23%	680	61.20	0.71	1.42
RW-3 to 6 Ft	01/11/18	18:00	2.00	23.0	927.9	97.6	89.48%	640	57.60	0.64	1.28
RW-6 to 6 Ft	01/11/18	20:00	2.00	22.5	1,002	103.6	89.66%	620	55.80	0.67	1.34
	01/11/18	22:00	2.00	23.0	1,036	121.8	88.24%	610	54.90	0.68	1.37
	01/12/18	0:00	2.00	23.0	1,022	127.3	87.54%	630	56.70	0.70	1.39
	01/12/18	8:00	2.00	24.0	1,057	134.2	87.30%	650	58.50	0.74	1.48
	01/12/18	9:00	2.00	24.0	1,040	142.8	86.27%	660	59.40	0.74	1.48

Well Data: Well No.	Diameter (in)	Screened Interval (ft)	Pre AFVR Event: Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Post AFVR Event: Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Corrected Depth to Water Change (ft)
MW-4R	2"	5-15	***	2.34	***	***	6.30	***	3.96
MW-14	2"	3.05-13.05	***	1.89	***	***	7.70	***	5.81
RW-2	4"	2-12	***	2.04	***	***	6.67	***	4.63
RW-3	4"	2-12	6.50	6.61	0.11	***	8.50	***	1.98
RW-6	4"	2-15	1.43	4.70	3.27	***	5.32	***	3.40

Vacuum Truck Information		Well ID	Initial Stinger Depth (ft)
Contractor:	MECI	MW-4R	2.50
Truck Operator:	C. Phillips	MW-14	2.00
	C. Chartier	RW-2	2.50
	J. Phillips	RW-3	7.00
	J. Coolman	RW-6	5.00
Stack I.D. (feet)	0.33 feet		

Recovery / Disposal Information		
Hydrocarbons Removed (vapor):	51.73	Pounds
Hydrocarbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	8.94	Equivilant Gallons
Molecular Weight Utilized:	75	g / mole
Total Liquids Removed	9,902	Gallons
Disposal Facility	Regulatory Solutions, Inc.	
Average Treatment System Reduction Rate:	96.40%	

Notes:	Well ID	Approximate Historical Low (ft)
	MW-4R	8.00
▼ = Stinger Depth Lowered 0.50 Feet	MW-14	2.50
Stingers were adjusted to Approximate	RW-2	3.00
Historical Low during first 8 hours	RW-3	3.00
** = Changed Carbon for 80% Reduction Rate	RW-6	5.00

TABLE 1B
AFVR MONITORING DATA
SHREEJAKSHANI (FORMERLY PANTRY 911)
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 17-6236
SCDHEC SITE ID NUMBER 10628

Extraction Well	Date	Time (hh:mm)	Differential Time (hr)	Extraction Well Head Vacuum (in. Hg)	Off Gas Measurements: Pre-Treatment Concentration (PPM)	Post-Treatment Concentration (PPM)	Treatment Reduction Rate (%)	Offgas Velocity (ft/min)	Flow Rate (CFM)	Removal Rate (Lbs/Hr)	Interval Removal (Lbs)
MW-7RR	01/15/18	11:15	0.50	25.0	411.3	0.0	100.00%	700	63.00	0.31	0.16
RW-1	01/15/18	11:45	0.50	25.0	424.7	0.0	100.00%	710	63.90	0.33	0.16
RW-4	01/15/18	12:15	0.50	25.0	449.2	0.0	100.00%	710	63.90	0.34	0.17
RW-5	01/15/18	12:45	0.50	25.0	440.5	0.0	100.00%	700	63.00	0.33	0.17
	01/15/18	13:15	0.50	25.5	481.1	0.0	100.00%	710	63.90	0.37	0.18
▼	01/15/18	13:45	0.50	25.5	492.3	0.0	100.00%	710	63.90	0.38	0.19
▼	01/15/18	14:15	0.50	25.5	447.2	0.0	100.00%	700	63.00	0.34	0.17
▼	01/15/18	14:45	0.50	25.0	499.6	0.0	100.00%	710	63.90	0.38	0.19
▼	01/15/18	15:15	0.50	25.0	592.2	0.0	100.00%	710	63.90	0.45	0.23
▼	01/15/18	15:45	0.50	25.0	561.4	0.0	100.00%	710	63.90	0.43	0.22
▼	01/15/18	16:15	0.50	25.0	483.9	0.0	100.00%	720	64.80	0.38	0.19
▼	01/15/18	16:45	0.50	25.0	521.7	0.0	100.00%	720	64.80	0.41	0.20
▼	01/15/18	17:15	0.50	25.0	565.0	0.0	100.00%	710	63.90	0.43	0.22
▼	01/15/18	17:45	0.50	25.0	571.3	0.0	100.00%	720	64.80	0.44	0.22
▼	01/15/18	18:15	0.50	24.5	549.9	0.0	100.00%	710	63.90	0.42	0.21
	01/15/18	18:45	0.50	25.0	556.1	0.0	100.00%	710	63.90	0.43	0.21
	01/15/18	19:15	0.50	25.0	569.5	0.0	100.00%	720	64.80	0.44	0.22
	01/15/18	20:15	1.00	25.0	607.1	0.0	100.00%	710	63.90	0.47	0.47
	01/15/18	21:15	1.00	25.0	640.9	0.0	100.00%	720	64.80	0.50	0.50
	01/15/18	22:15	1.00	25.0	573.2	0.0	100.00%	720	64.80	0.45	0.45
	01/15/18	23:15	1.00	25.0	491.7	0.0	100.00%	730	65.70	0.39	0.39
	01/16/18	0:15	1.00	25.0	511.3	0.0	100.00%	720	64.80	0.40	0.40
	01/16/18	8:00	2.00	25.0	486.4	6.7	98.62%	690	62.10	0.36	0.72
	01/16/18	10:00	2.00	25.0	503.9	7.2	98.57%	700	63.00	0.38	0.76
Stinger Change	01/16/18	12:00	2.00	25.0	671.3	0.0	100.00%	720	64.80	0.52	1.04
MW-7R to 9 Ft	01/16/18	14:00	2.00	26.0	681.2	1.7	99.75%	730	65.70	0.54	1.07
RW-1 to 9 Ft	01/16/18	16:00	2.00	24.5	733.4	13.3	98.19%	710	63.90	0.56	1.12
RW-4 to 8 Ft	01/16/18	18:00	2.00	25.0	695.8	9.1	98.69%	710	63.90	0.53	1.07
RW-5 to 8 Ft	01/16/18	20:00	2.00	25.0	660.9	17.2	97.40%	710	63.90	0.51	1.01
	01/16/18	22:00	2.00	25.0	711.5	29.4	95.87%	720	64.80	0.55	1.11
	01/17/18	0:00	2.00	24.5	694.2	31.2	95.51%	700	63.00	0.52	1.05
Stinger Change	01/17/18	8:00	2.00	24.0	723.6	49.9	93.10%	690	62.10	0.54	1.08
MW-7R to 10 Ft	01/17/18	10:00	2.00	24.0	702.8	51.6	92.66%	730	65.70	0.55	1.11
RW-1 to 10 Ft	01/17/18	12:00	2.00	24.0	632.8	67.3	89.36%	710	63.90	0.49	0.97
RW-4 to 9 Ft	01/17/18	14:00	2.00	24.0	574.3	97.9	82.95%	640	57.60	0.40	0.79
RW-5 to 9 Ft	01/17/18	16:00	2.00	23.5	684.6	123.7	81.93%	620	55.80	0.46	0.92
**	01/17/18	18:00	2.00	23.5	552.7	107.5	80.55%	600	54.00	0.36	0.72
	01/17/18	20:00	2.00	23.0	601.0	0.0	100.00%	610	54.90	0.40	0.79
	01/17/18	22:00	2.00	23.5	622.4	4.1	99.34%	620	55.80	0.42	0.83
	01/18/18	0:00	2.00	23.0	506.3	11.1	97.81%	620	55.80	0.34	0.68
	01/18/18	8:00	2.00	23.0	588.1	17.3	97.06%	610	54.90	0.39	0.77
Stinger Change	01/18/18	10:00	2.00	24.0	602.6	18.0	97.01%	620	55.80	0.40	0.81
MW-7R to 11 Ft	01/18/18	12:00	2.00	24.0	675.3	20.3	96.99%	630	56.70	0.46	0.92
RW-1 to 11 Ft	01/18/18	14:00	2.00	24.0	615.8	23.4	96.20%	600	54.00	0.40	0.80
RW-4 to 7 Ft	01/18/18	16:00	2.00	23.5	583.9	25.2	95.68%	610	54.90	0.38	0.77
RW-5 to 6 Ft	01/18/18	18:00	2.00	23.0	697.8	27.9	96.00%	640	57.60	0.48	0.96
	01/18/18	20:00	2.00	24.0	704.5	29.6	95.80%	620	55.80	0.47	0.94
	01/18/18	22:00	2.00	24.0	657.4	35.8	94.55%	650	58.50	0.46	0.92
	01/19/18	0:00	2.00	24.0	688.8	36.0	94.77%	640	57.60	0.48	0.95
	01/19/18	8:00	2.00	24.0	697.1	38.8	94.43%	630	56.70	0.47	0.95
	01/19/18	10:00	2.00	24.0	673.4	41.6	93.82%	630	56.70	0.46	0.92
	01/19/18	11:15	2.00	24.0	670.2	42.3	93.69%	630	56.70	0.46	0.91

Well Data: Well No.	Diameter (in)	Screened Interval (ft)	Pre AFVR Event: Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Post AFVR Event: Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Corrected Depth to Water Change (ft)
MW-7RR	2"	5-15	5.56	5.71	0.15	***	10.88	***	5.30
RW-1	4"	2-12	***	5.95	***	***	11.11	***	5.16
RW-4	4"	2-15	***	5.89	***	***	8.80	***	2.91
RW-5	4"	2-15	***	5.60	***	***	9.23	***	3.63

Vacuum Truck Information		Well ID	Initial Stinger Depth (ft)
Contractor:	MECI	MW-7RR	6.00
Truck Operator:	C. Phillips	RW-1	6.00
	C. Chartier	RW-4	6.00
	J. Phillips	RW-5	6.00
	J. Coolman		
Stack I.D. (feet)	0.33 feet		

Notes:	Well ID	Approximate Historical Low (ft)
	MW-7RR	11.00
▼ = Stinger Depth Lowered 0.50 Feet	RW-1	11.00
Stingers were adjusted to Approximate	RW-4	7.00
Historical Low during first 8 hours	RW-5	6.00
** = Changed Carbon for 80% Reduction Rate		

Recovery / Disposal Information		
Hydrocarbons Removed (vapor):	30.71	Pounds
Hydrocarbons Removed (liquid):	0	Gallons
Total Hydrocarbons Removed:	5.30	Equivilant Gallons
Molecular Weight Utilized:	75	g / mole
Total Liquids Removed	6,500	Gallons
Disposal Facility	Regulatory Solutions, Inc.	
Average Treatment System Reduction Rate:	95.21%	

TABLE 2A
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
SHREEJAKSHANI (FORMER PANTRY 911)
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 17-6236
SCDHEC SITE ID NUMBER 10628

DIFFERENTIAL PRESSURE DATA

		MW-3R	MW-5RR
Nearest Extraction Well:		RW-3	RW-6
Approximate Distance:		35 ft	77 ft
Time	**Elapsed Time**		
Prior to AFVR		**0.0**	**0.0**
9:00	0.0	0.0	0.0
9:30	0.5	0.0	0.0
10:00	1.0	0.0	0.0
10:30	1.5	0.0	0.0
11:00	2.0	0.0	0.0
11:30	2.5	0.0	0.0
12:00	3.0	0.0	0.0
12:30	3.5	0.0	0.0
13:00	4.0	0.0	0.0
13:30	4.5	0.0	0.0
14:00	5.0	0.0	0.0
14:30	5.5	0.0	0.0
15:00	6.0	0.0	0.0
15:30	6.5	0.0	0.0
16:00	7.0	0.0	0.0
16:30	7.5	0.0	0.0
17:00	8.0	0.0	0.0
18:00	9.0	0.0	0.0
19:00	10.0	0.0	0.0
20:00	11.0	0.0	0.0
21:00	12.0	0.0	0.0
22:00	13.0	0.0	0.0
23:00	14.0	0.0	0.0
0:00	15.0	0.0	0.0
8:00	23.0	0.0	0.0
10:00	25.0	0.0	0.0
12:00	27.0	0.0	0.0
14:00	29.0	0.0	0.0
16:00	31.0	0.0	0.0
18:00	33.0	0.0	0.0
20:00	35.0	0.0	0.0
22:00	37.0	0.0	0.0
0:00	39.0	0.0	0.0
8:00	47.0	0.0	0.0
10:00	49.0	0.0	0.0
12:00	51.0	0.0	0.0
14:00	53.0	0.0	0.0
16:00	55.0	0.0	0.0
18:00	57.0	0.0	0.0
20:00	59.0	0.0	0.0
22:00	61.0	0.0	0.0
0:00	63.0	0.0	0.0
8:00	71.0	0.0	0.0
10:00	73.0	0.0	0.0
12:00	75.0	0.0	0.0
14:00	77.0	0.0	0.0
16:00	79.0	0.0	0.0
18:00	81.0	0.0	0.0
20:00	83.0	0.0	0.0
22:00	85.0	0.0	0.0
0:00	87.0	0.0	0.0
8:00	95.0	0.0	0.0
9:00	96.0	0.0	0.0
Maximum Change:		**0.0**	**0.0**

GROUNDWATER DRAWDOWN DATA

		MW-3R	MW-5RR
Nearest Extraction Well:		RW-3	RW-6
Approximate Distance:		35 ft	77 ft
Time	**Elapsed Time**		
Prior to AFVR		2.43	2.40
13:00	4 hours	2.45	2.42
17:00	8 hours	2.48	2.44
21:00	12 hours	2.51	2.47
1:00	16 hours	***	***
5:00	20 hours	***	***
9:00	24 hours	2.54	2.51
13:00	28 hours	2.57	2.52
17:00	32 hours	2.60	2.53
21:00	36 hours	2.64	2.54
1:00	40 hours	***	***
5:00	44 hours	***	***
9:00	48 hours	2.66	2.56
13:00	52 hours	2.67	2.57
17:00	56 hours	2.70	2.59
21:00	60 hours	2.73	2.63
1:00	64 hours	***	***
5:00	68 hours	***	***
9:00	72 hours	2.77	2.68
13:00	76 hours	2.79	2.70
17:00	80 hours	2.81	2.74
21:00	84 hours	2.84	2.79
1:00	88 hours	***	***
5:00	92 hours	***	***
9:00	96 hours	2.99	2.85
Maximum Change:		-0.56	-0.45

*** = Readings Not Required Between 12AM & 8AM per QAPP

TABLE 2B
DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
SHREEJAKSHANI (FORMER PANTRY 911)
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 17-6236
SCDHEC SITE ID NUMBER 10628

DIFFERENTIAL PRESSURE DATA

		MW-4R	MW-15
Nearest Extraction Well:		RW-1	RW-1
Approximate Distance:		82 ft	205 ft
Time	**Elapsed Time**		
Prior to AFVR		**0.0**	**0.0**
11:15	0.0	0.0	0.0
11:45	0.5	0.0	0.0
12:15	1.0	0.0	0.0
12:45	1.5	0.0	0.0
13:15	2.0	0.0	0.0
13:45	2.5	0.0	0.0
14:15	3.0	0.0	0.0
14:45	3.5	0.0	0.0
15:15	4.0	0.0	0.0
15:45	4.5	0.0	0.0
16:15	5.0	0.0	0.0
16:45	5.5	0.0	0.0
17:15	6.0	0.0	0.0
17:45	6.5	0.0	0.0
18:15	7.0	0.0	0.0
18:45	7.5	0.0	0.0
19:15	8.0	0.0	0.0
20:15	9.0	0.0	0.0
21:15	10.0	0.0	0.0
22:15	11.0	0.0	0.0
23:15	12.0	0.0	0.0
0:15	13.0	0.0	0.0
8:00	20.75	0.0	0.0
10:00	22.75	0.0	0.0
12:00	24.75	0.0	0.0
14:00	26.75	0.0	0.0
16:00	28.75	0.0	0.0
18:00	30.75	0.0	0.0
20:00	32.75	0.0	0.0
22:00	34.75	0.0	0.0
0:00	36.75	0.0	0.0
8:00	44.75	0.0	0.0
10:00	46.75	0.0	0.0
12:00	48.75	0.0	0.0
14:00	50.75	0.0	0.0
16:00	52.75	0.0	0.0
18:00	54.75	0.0	0.0
20:00	56.75	0.0	0.0
22:00	58.75	0.0	0.0
0:00	60.75	0.0	0.0
8:00	68.75	0.0	0.0
10:00	70.75	0.0	0.0
12:00	72.75	0.0	0.0
14:00	74.75	0.0	0.0
16:00	76.75	0.0	0.0
18:00	78.75	0.0	0.0
20:00	80.75	0.0	0.0
22:00	82.75	0.0	0.0
0:00	84.75	0.0	0.0
8:00	92.75	0.0	0.0
10:00	94.75	0.0	0.0
11:15	96.00	0.0	0.0
Maximum Change:		**0.0**	**0.0**

GROUNDWATER DRAWDOWN DATA

		MW-4R	MW-15
Nearest Extraction Well:		RW-1	RW-1
Approximate Distance:		82 ft	205 ft
Time	**Elapsed Time**		
Prior to AFVR		2.40	4.03
15:15	4 hours	2.48	4.06
19:15	8 hours	2.52	4.08
23:15	12 hours	2.56	4.10
3:15	16 hours	***	***
7:15	20 hours	***	***
11:15	24 hours	2.73	4.18
15:15	28 hours	2.63	4.10
19:15	32 hours	2.52	4.06
23:15	36 hours	2.46	4.09
3:15	40 hours	***	***
7:15	44 hours	***	***
11:15	48 hours	2.52	4.15
15:15	52 hours	2.55	4.17
19:15	56 hours	2.56	4.20
23:15	60 hours	2.61	4.25
3:15	64 hours	***	***
7:15	68 hours	***	***
11:15	72 hours	2.66	4.31
15:15	76 hours	2.68	4.33
19:15	80 hours	2.70	4.36
23:15	84 hours	2.74	4.38
3:15	88 hours	***	***
7:15	92 hours	***	***
11:15	96 hours	2.75	4.39
Maximum Change:		-0.35	-0.36

*** = Readings Not Required Between 12AM & 8AM per QAPP

AFVR CALIBRATION LOG

Site Name Sheejakshani (Former Pantry 911)
MECI # 17-6232
Date 1/8/2018-1/12/2018
Field Personnel C.C., J.P., C.P., J.C.
Serial # 592-902491

Hours	Time	Zero Cal.	Span Cal.
0	9:00	0.0	100.2
8	17:00	0.0	100.1
16	1:00	0.0	100.7
24	9:00	0.0	99.9
32	17:00	0.0	100.2
40	1:00	0.0	100.1
48	9:00	0.0	100.0
56	17:00	0.0	100.2
64	1:00	0.0	100.1
72	9:00	0.0	100.0
80	17:00	0.0	100.1
88	1:00	0.0	100.2
96	9:00	0.0	100.2

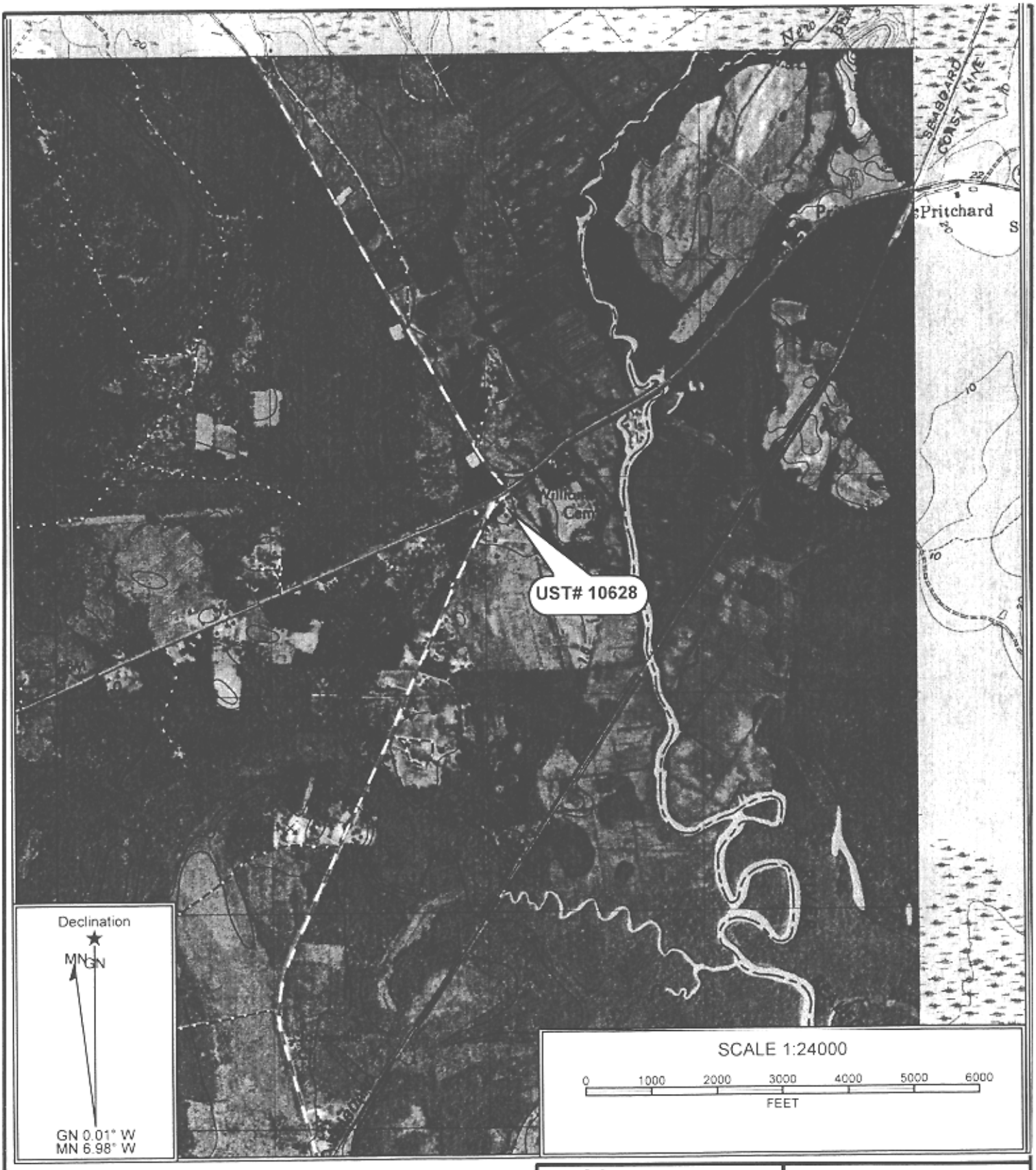
Additional Notes: Isobutylene used as Calibration Gas with a Concentration of 100 ppm.

AFVR CALIBRATION LOG

Site Name Sheejakshani (Former Pantry 911)
MECI # 17-6232
Date 1/15/2018-1/19/2018
Field Personnel C.C., J.P., C.P., J.C.
Serial # 592-902491

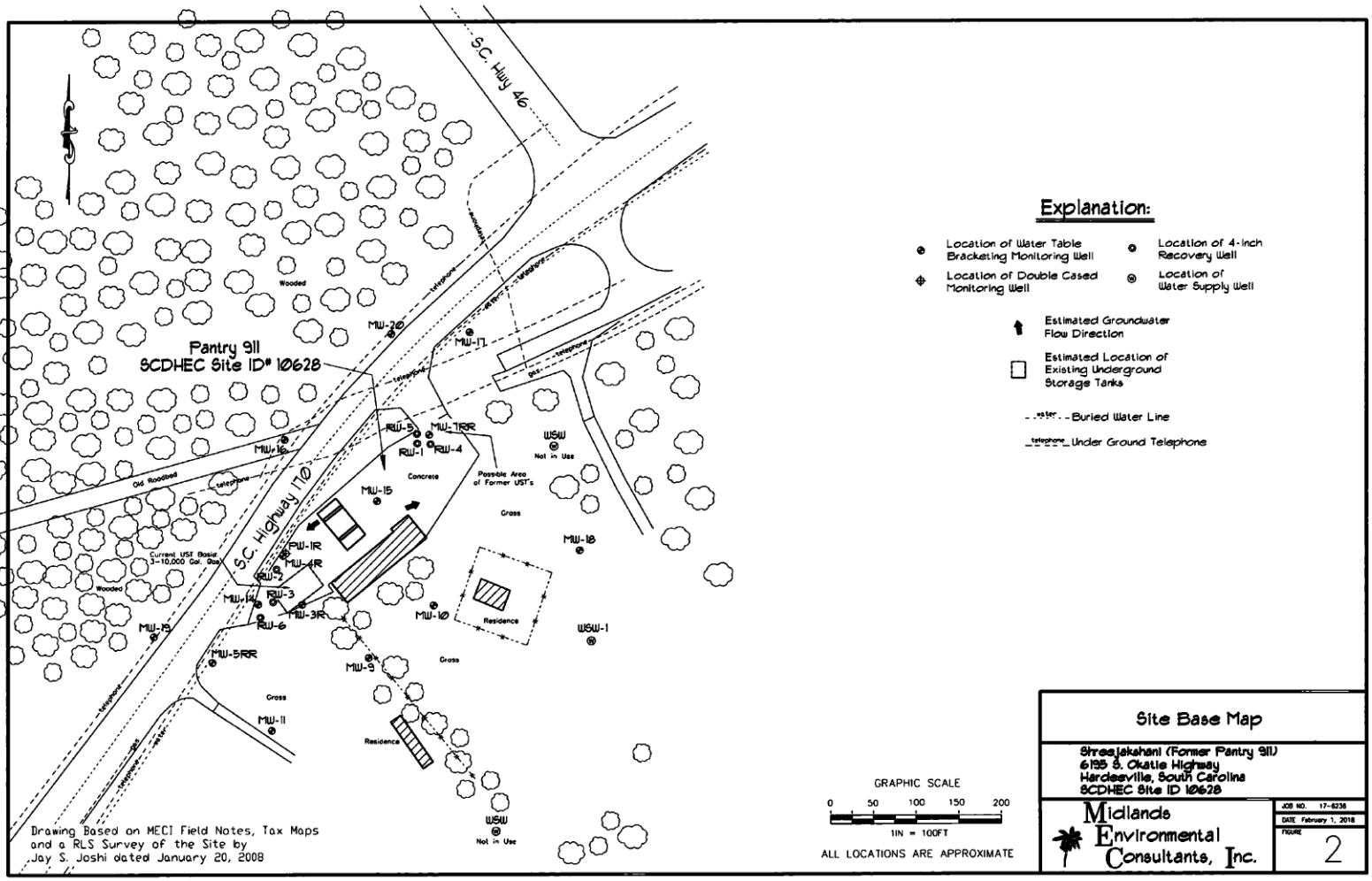
Hours	Time	Zero Cal.	Span Cal.
0	11:15	0.0	100.2
8	19:15	0.0	100.1
16	3:15	***	***
24	11:15	0.0	99.9
32	19:15	0.0	100.2
40	3:15	***	***
48	11:15	0.0	100.0
56	19:15	0.0	100.2
64	3:15	***	***
72	11:15	0.0	100.0
80	19:15	0.0	100.1
88	3:15	***	***
96	11:15	0.0	100.2

Additional Notes: Isobutylene used as Calibration Gas with a Concentration of 100 ppm.
*** = Readings Not Required Between 12am & 8am per QAPP.



Reference: Limehouse and Hardeeville, South Carolina
Jasper and Pritchardville, South Carolina
USGS 7.5 Min. Quad
Contour Interval = 1.5 Meters

Midlands Environmental Consultants, Inc.	Site Location
Pantry 911 6195 South Okatie Highway, Hardeeville, SC SCDHEC Site ID# 10628	
Figure 1	MEC 17-6236



Explanation:

- Location of Water Table Bracketing Monitoring Well
- Location of 4-Inch Recovery Well
- Location of Double Cased Monitoring Well
- Location of Water Supply Well
- Estimated Groundwater Flow Direction
- Estimated Location of Existing Underground Storage Tanks
- Buried Water Line
- Under Ground Telephone

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

ALL LOCATIONS ARE APPROXIMATE

Site Base Map

Shreejakshani (Former Pantry 911)
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 17-6236
DATE February 1, 2018
FIGURE 2

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of 1	3. Emergency Response Phone 803-926-0089	4. Waste Tracking Number 26225

GENERATOR

5. Generator's Name and Mailing Address
Midlands Environmental Consultant
P.O. Box 854
Lexington, SC 29071-
Generator's Phone: 803-808-2043

Generator's Site Address (if different than mailing address)
Midlands Environmental Consultants, Inc.
295 Dooley Road,
Lexington, SC 29073

6. Transporter 1 Company Name: Regulatory Solutions, Inc — U.S. EPA ID Number:

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Regulatory Solutions, Inc.
40 Pascon Court
Gaston, SC 29053-
Facility's Phone: 803-926-0089
U.S. EPA ID Number:

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	NON-RCRA, NOT DOT REGULATED MATERIAL 10662 - 1045	01	TT	582	G	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
citgo/kangaroo express 6194 Okatie Hwy Hardeeville SC 1st event 1st pull

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.
Generator's/Offeror's Printed/Typed Name: William Phillips — Signature — Month 1 Day 10 Year 18

INTL

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Joseph Tribble — Signature — Month 1 Day 10 Year 18
Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: Chris Richard — Signature — Month 1 Day 10 Year 18

01:37 PM Jan/10/2018
TRUCK ID:9933
GROSS 75520 LB
TARE LB
NET LB

02:54 PM Jan/10/2018
TRUCK ID:9933
GROSS 75520 LB
TARE 27040 LB
NET 48480 LB

regulatory solutions, inc.

CUSTOMER NAME: Midlands

GENERATOR: Hardeeville AFVR 1st Event

TRUCK/CONTAINER #: TI-01 / TK-04

MANIFEST#: 26225

WEIGHER (INITIALS): JT

9933

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number

2. Page 1 of 1

3. Emergency Response Phone: 803-926-0089

4. Waste Tracking Number: 26234

5. Generator's Name and Mailing Address
Midlands Environmental Consultant
P.O. Box 854
Lexington, SC 29071-
Generator's Phone: 803-808-2043

Generator's Site Address (if different than mailing address)
Midlands Environmental Consultants, Inc.
235 Dooley Road,
Lexington, SC 29073

6. Transporter 1 Company Name: Regulatory Solutions, Inc
U.S. EPA ID Number:

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Regulatory Solutions, Inc.
40 Pascon Court
Gaston, SC 29053-
Facility's Phone: 803-926-0089
U.S. EPA ID Number:

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	NON-RCRA, NOT DOT REGULATED MATERIAL 10662 - 1045	1	TT	4,100	g	
2.						
3.						
4.						

GENERATOR

13. Special Handling Instructions and Additional Information
citgo/kangaroo express 6194 Okatie Hwy Hardeeville SC 1st event 2nd pull

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Kyle V. Pudwy
Signature: Kyle V. Pudwy
Month: 1 Day: 12 Year: 18

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Joseph Tibbie
Signature:
Month: 1 Day: 12 Year: 18

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in item 17a

Printed/Typed Name: Chris Richard
Signature:
Month: 1 Day: 12 Year: 18

03:10 PM Jan/12/2018
TRUCK ID:9937
GROSS 62620 LB
TARE LB
NET LB

04:38 PM Jan/12/2018
TRUCK ID:9937
GROSS 62620 LB
TARE 28200 LB
NET 34420 LB

regulatory solutions, inc.

CUSTOMER NAME: Midlands

GENERATOR: Hardeeville AFVR 1st Event

TRUCK/CONTAINER #: TI-01 / TK-01

MANIFEST#: 26234

WEIGHER (INITIALS): JT

9937

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number:

2. Page 1 of: 1

3. Emergency Response Phone: 803-926-0089

4. Waste Tracking Number: 26288

GENERATOR

5. Generator's Name and Mailing Address:
Midlands Environmental Consultant
P.O. Box 854
Lexington, SC 29071-
Generator's Phone: 803-808-2043

Generator's Site Address (if different than mailing address):
Midlands Environmental Consultants, Inc.
235 Dooley Road,
Lexington, SC 29073

6. Transporter 1 Company Name: Regulatory Solutions, Inc
U.S. EPA ID Number:

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address:
Regulatory Solutions, Inc.
40 Pascon Court
Gaston, SC 29053-
U.S. EPA ID Number:
Facility's Phone: 803-926-0089

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	NON-RCRA, NOT DOT REGULATED MATERIAL 10662 - 1045	1	TT	6500	g	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
Hardeeville Final Pull

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.
Generator's/Offeror's Printed/Typed Name: Kyle V. Pudney
Signature: K. V. P.
Month: 1 Day: 22 Year: 18

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Troy Backman
Signature: T. Backman
Month: 01 Day: 22 Year: 18
Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:
17c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: Justin Conley
Signature:
Month: 01 Day: 22 Year: 18

169-BLC-O 5 11977 (Rev. 9/09)

DESIGNATED FACILITY TO GENERATOR

10:19 AM Jan/22/2018
TRUCK ID:9964
GROSS 82020 LB
TARE LB
NET LB

03:27 PM Jan/22/2018
TRUCK ID:9964
GROSS 82020 LB
TARE 27680 LB
NET 54340 LB

regulatory solutions, inc.

CUSTOMER NAME: Midlands

GENERATOR: Hardeeville AFVR 2nd Event

TRUCK/CONTAINER #: TI-01 / TK-04

MANIFEST#: 26288

WEIGHER (INITIALS): JMK

9964

dhec
Healthy People. Healthy Communities.

UST 53 DOCKETING

MAY 15 2018

MR DONNIE MALPHRUS
MALPHRUS ENTERPRISES
2788 NORTH OKATIE HIGHWAY
RIDGELAND SC 29936-8235

Re: Site-Specific Work Plan (SSWP) Request for Groundwater Sampling
Shreejakshani LLC DBA Okatie Mart, 6195 South OKatie Highway, Hardeeville, SC
UST Permit #10628
Release reported April 28, 1995
Groundwater Sampling Report received October 10, 2017
Jasper County

Dear Malphrus:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (DHEC) has reviewed the referenced report submitted by your contractor. The report documents petroleum chemicals in the soil and groundwater above Risk-Based Screening Levels (RBSLs).

To determine what risk the referenced release may pose to human health and the environment, and in accordance with Section 280.65 of the South Carolina Underground Storage Tank Control Regulations, implementation of groundwater sampling is necessary. The groundwater sampling must be conducted in accordance with the most recent revision of the UST Quality Assurance Program Plan (QAPP), your contractor's Annual Contractor Quality Assurance Plan (ACQAP), and in compliance with all applicable regulations. A copy of the UST QAPP is available at http://www.scdhec.gov/Environment/LW/UST/ReleaseAssessmentClean-up/QualityAssurance/.

Groundwater samples should be collected from all monitoring wells, water supply wells, and surface waters within a 1,000 foot radius of the site and analyzed for BTEX, Naphthalene, MtBE, 1,2-DCA, the 8 oxygenates, and EDB. **Your contractor must complete the SSWP and submit it within 30 days from the date of this letter.** Every component may not be necessary to complete the above scope of work. The State Underground Petroleum Environmental Response Bank (SUPERB) Account allowable cost for each component is included on the Assessment Component Cost Agreement Form. **Please note that approval from DHEC must be issued before work begins.**

On all correspondence regarding this site, please reference UST Permit number referenced above. Should you have any questions regarding this correspondence, please feel free to contact me by phone at (803) 898-0606 or by e-mail at butlerkh@dhec.sc.gov.

Sincerely,

Kathryn H. Butler, Hydrogeologist
Corrective Action and Field Support Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

cc: Midlands Environmental Consultants, Inc., PO BOX 854, Lexington, SC 29071
Technical file

Midlands
Environmental
Consultants, Inc.

June 4, 2018

Ms. Katherine Butler, Hydrogeologist
Corrective Action & Field Support Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Site-Specific Work Plan
Pantry 911
Hardeeville, South Carolina
SCDHEC Site ID Number ~~12982~~ 10628
MECI Project Number 18-6460
Certified Site Rehabilitation Contractor UCC-0009

Dear Ms. Butler,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Site-Specific Work Plan for the referenced site.

On May 31, 2018 MECI personnel performed a site visit to the subject site to evaluate site conditions, locate monitoring wells and identify potential problems for future sampling activities.

If you have any question or comments please feel free to contact us at 803-808-2043.

Sincerely,
Midlands Environmental Consultants, Inc.

Kyle V. Pudney
Project Biologist

Jeff L. Coleman
Senior Scientist

Post Office Box 854, Lexington SC 29071 • 231 Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

Site-Specific Work Plan for Approved ACQAP
Underground Storage Tank Management Division

To: Ms. Kathryn Butler (SCDHEC Project Manager)
From: Jeff L. Coleman (Contractor Project Manager)
Contractor: Midlands Environmental Consultants, Inc. UST Contractor Certification Number: 009

Facility Name: Shreejakshani LLC DBA Okatie Mart UST Permit #: 10628
Facility Address: 6195 South Okatie Highway, Hardeeville, SC 29927
Responsible Party: Malphrus Enterprises Phone: N/A
RP Address: 2788 North Okatie Highway, Ridgeland, SC 29936
Property Owner (if different): Shreejakshani LLC
Property Owner Address: 6195 South Okatie Highway, Hardeeville, SC 29927
Current Use of Property: Active Service Station

Scope of Work (Please check all that apply)

- ☐ IGWA
- ☐ Tier I
- ☐ Tier II
- ☐ Monitoring Well Installation
- ☑ Groundwater Sampling
- ☐ Other
- ☐ GAC

Analyses (Please check all that apply)

Groundwater/Surface Water:

- ☑ BTEXNMDCA (8260B)
- ☑ Oxygenates (8260B)
- ☑ EDB (8011)
- ☐ PAH (8270D)
- ☐ Lead
- ☐ 8 RCRA Metals
- ☐ TPH
- ☐ pH
- ☐ BOD
- ☐ Nitrate
- ☐ Sulfate
- ☐ Other
- ☐ Methane
- ☐ Ethanol
- ☐ Dissolved Iron

Drinking Water Supply Wells:

- ☐ BTEXNMDCA (524.2)
- ☐ Oxygenates & Ethanol (8260B)
- ☐ Mecury (200.8 245.1 or 245.2)
- ☐ RCRA Metals (200.8)
- ☐ EDB (504.1)

Soil:

- ☐ BTEXNM
- ☐ Lead
- ☐ RCRA Metals
- ☐ PAH
- ☐ Oil & Grease (9071)
- ☐ TPH-DRO (3550B/8015B)
- ☐ TPH-GRO (5030B/8015B)
- ☐ Grain Size
- ☐ TOC

Air:

- ☐ BTEXN

Sample Collection (Estimate the number of samples of each matrix that are expected to be collected.)

____ Soil	1 Water Supply Wells	____ Air	2 Field Blank
21 Monitoring Wells	____ Surface Water	3 Duplicate	2 Trip Blank

Field Screening Methodology

Estimate number and total completed depth for each point, and include their proposed locations on the attached map.

# of shallow points proposed: _____ Estimated Footage: _____ feet per point
# of deep points proposed: _____ Estimated Footage: _____ feet per point
Field Screening Methodology: _____

Permanent Monitoring Wells

Estimate number and total completed depth for each well, and include their proposed locations on the attached map.

# of shallow wells: _____ Estimated Footage: _____ feet per point
# of deep wells: _____ Estimated Footage: _____ feet per point
# of recovery wells: _____ Estimated Footage: _____ feet per point
Comments, if warranted:

UST Permit #: 10628 Facility Name: Shreejakshani LLC DBA Okatie Mart

Implementation Schedule (Number of calendar days from approval)

Field Work Start-Up: 6/4/2018 Field Work Completion: 7/4/2018

Report Submittal: 8/4/2018 # of Copies Provided to Property Owners: 2

Aquifer Characterization

Pump Test: ☐ Slug Test: ☐ (Check one and provide explanation below for choice)

Investigation Derived Waste Disposal

Soil: _____ Tons Purge Water: 200.0 Gallons

Drilling Fluids: _____ Gallons Free-Phase Product: _____ Gallons

Additional Details For This Scope of Work

For example, list wells to be sampled, wells to be abandoned/repaired, well pads/bolts/caps to replace, details of AFVR event, etc.

-During the initial site visit, monitoring wells MW-9, MW-10, MW-11, MW-16, and MW-17 were unable to be located. Historically, MW-11 and MW-17 have not been located MECI will contact SCDHEC during the sampling event if any of these wells are not located during sampling activities.

-Monitoring well samples will be analyzed for BTEXNM, DCA, Oxy's (8260B) and EDB (8011).

-Water supply well samples will be analyzed for BTEXNM, DCA (524.2), Oxy's (8260B) and EDB (504.1).

-Unless otherwise specified by SCDHEC, all monitoring wells will be purged prior to sample collection.

Compliance With Annual Contractor Quality Assurance Plan (ACQAP)

Yes Laboratory as indicated in ACQAP? (Yes/No) If no, indicate laboratory information below.

Name of Laboratory: _____

SCDHEC Certification Number: _____

Name of Laboratory Director: _____

Yes Well Driller as indicated in ACQAP? (Yes/No) If no, indicate driller information below.

Name of Well Driller: _____

SCLLR Certification Number: _____

None Other variations from ACQAP. Please describe below.

Attachments

1. Attach a copy of the relevant portion of the USGS topographic map showing the site location.
2. Prepare a site base map. This map must be accurately scaled, but does not need to be surveyed. The map must include the following:
   - North Arrow
   - Location of property lines
   - Location of buildings
   - Previous soil sampling locations
   - Previous monitoring well locations
   - Proposed soil boring locations
   - Proposed monitoring well locations
   - Legend with facility name and address, UST permit number, and bar scale
   - Streets or highways (indicate names and numbers)
   - Location of all present and former ASTs and USTs
   - Location of all potential receptors
3. Assessment Component Cost Agreement, SCDHEC Form D-3664

dhec
Healthy People. Healthy Communities.

ASSESSMENT COMPONENT COST AGREEMENT
SOUTH CAROLINA
Department of Health and Environmental Control
Underground Storage Tank Management Division
State Underground Petroleum Environmental Response Bank Account
June 15, 2017

Facility Name: Shreejakshani LLC DBA Okatie Mart

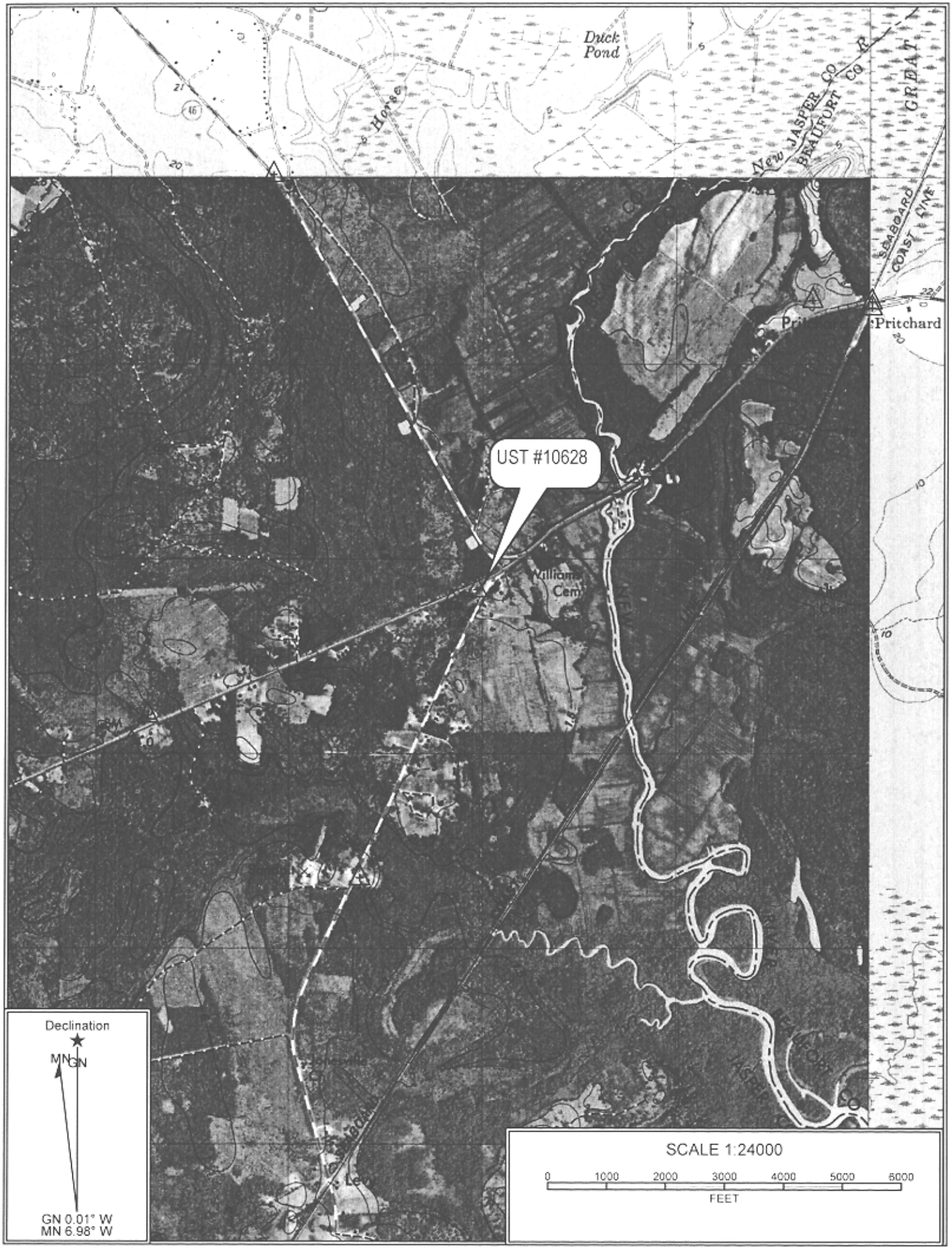
UST Permit #: 10628 **Cost Agreement #:** Proposal

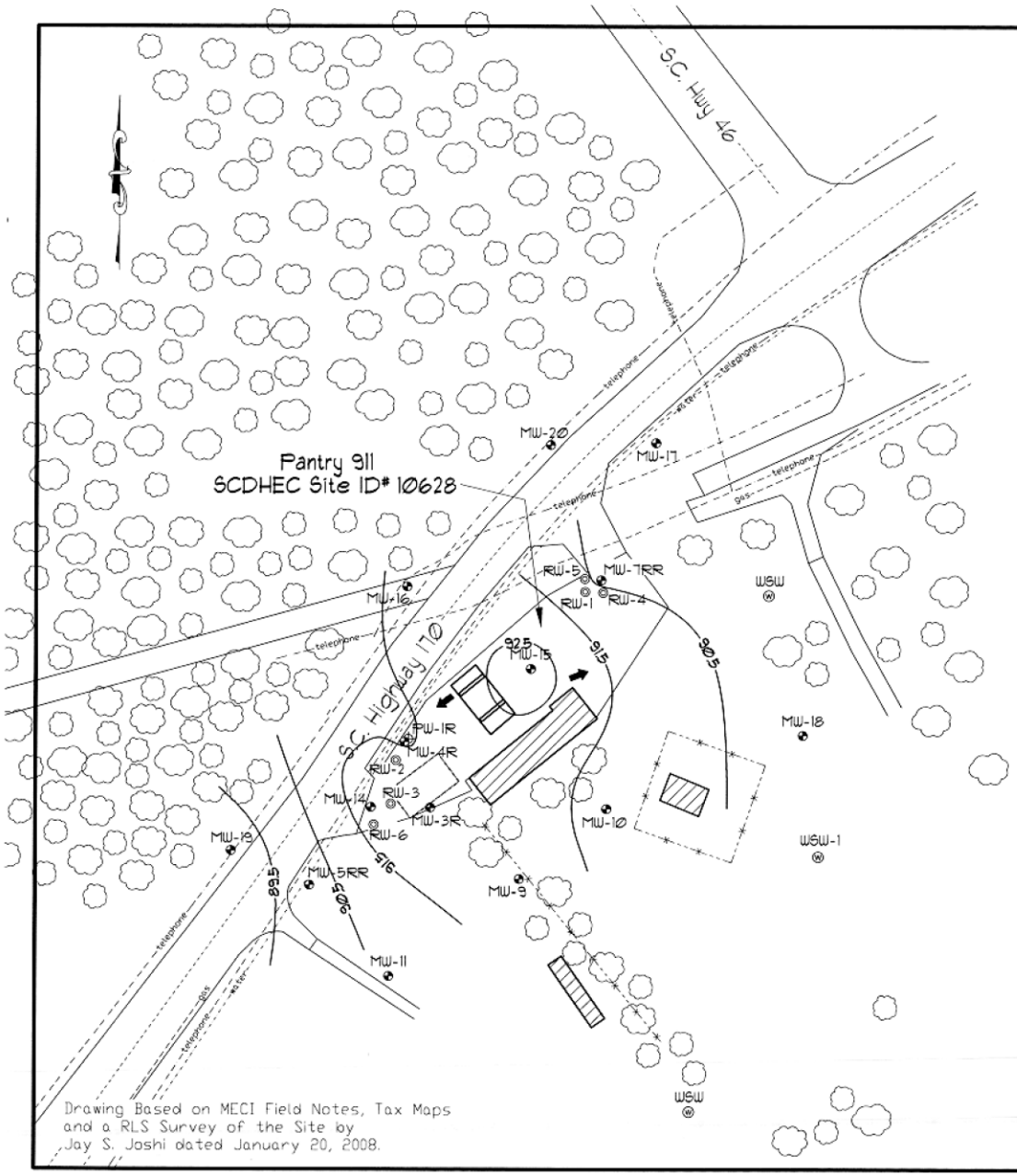
ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
1. Plan Preparation				
A1. Site-specific Work Plan	1	each	$150.00	$150.00
B1. Tax Map		each	$70.00	$0.00
C1. Tier II or Comp. Plan /QAPP Appendix B		each	$250.00	$0.00
2. A1. **Receptor Survey ***		each	$551.00	$0.00
3. Survey (500 ft x 500 ft)				
A1. Comprehensive Survey		each	$1,040.00	$0.00
B. Subsurface Geophysical Survey				
1B. < 10 meters below grade		each	$1,300.00	$0.00
2B. > 10 meters below grade		each	$2,310.00	$0.00
C1. Geophysical UST or Drum Survey		each	$910.00	$0.00
4. Mob/Demob				
A1. Equipment		each	$1,020.00	$0.00
B1. Personnel	3	each	$423.00	$1,269.00
C1. Adverse Terrain Vehicle		each	$500.00	$0.00
5. A1. **Soil Borings (hand auger)***		foot	$5.00	$0.00
6. Soil Borings (requiring equipment, push technology, etc)* or Field Screening (including water ssample, soil sample, soil gas sample, etc.)*				
AA. Standard		per foot	$15.00	$0.00
C1. Fractured Rock		per foot	$20.20	$0.00
7. A1. **Soil Leachability Model**		each	$60.00	$0.00
8. Abandonment (per foot)*				
A1. 2" diameter or less		per foot	$3.10	$0.00
B1. Greater than 2" to 6" diameter		per foot	$4.50	$0.00
C1. Dug/Bored well (up to 6 feet diameter)		per foot	$15.00	$0.00
9. Well Installation (per foot)*				
A1. Water Table (hand augered)		per foot	$10.60	$0.00
B1. Water Table (drill rig)		per foot	$38.00	$0.00
CC. Telescoping		per foot	$50.00	$0.00
DD. Rock Drilling		per foot	$58.00	$0.00
E1. 2" Rock Coring		per foot	$30.90	$0.00
G1. Rock Multi-sampling ports/screens		per foot	$33.40	$0.00
HH. Recovery Well (4" diameter)		per foot	$45.00	$0.00
II. Pushed Pre-packed screen (1.25" dia)		per foot	$15.00	$0.00
J1. Rotosonic (2" diameter)		per foot	$44.00	$0.00
K. Re-develop Existing Well		per foot	$11.00	$0.00
10. Groundwater Sample Collection / Gauge Depth to Water or Product *				
A1. Groundwater Purge	21	per well/receptor	$60.00	$1,260.00
B1. Air or Vapors		per receptor	$12.00	$0.00
C1. Water Supply	1	per well/receptor	$22.00	$22.00
D1. Groundwater No Purge or Duplicate	3	per well/receptor	$28.00	$84.00
E1. Gauge Well only		per well	$7.00	$0.00
F1. Sample Below Product		per well	$12.00	$0.00
G1. Passive Diffusion Bag		each	$26.00	$0.00
H1. Field Blank	2	each	$24.60	$49.20
I. Groundwater (low flow purge)		per well/receptor	$91.00	$0.00

11. Laboratory Analyses-Groundwater					
A2. BTEXNM+Oxyg's+1,2 DCA+Eth(8260B)	25	per sample	$122.00		$3,050.00
AA1. Lead, Filtered		per sample	$13.80		$0.00
B2. Rush EPA Method 8260B (All of item A.)		per sample	$153.60		$0.00
C2. Trimethal, Butyl, and Isopropyl Benzenes		per sample	$36.40		$0.00
D1. PAH's		per sample	$60.60		$0.00
E1. Lead		per sample	$16.00		$0.00
F1. EDB by EPA 8011	24	per sample	$45.20		$1,084.80
FF1. EDB by EPA Method 8011 Rush		per sample	$68.20		$0.00
G1. 8 RCRA Metals		per sample	$63.40		$0.00
H1. TPH (9070)		per sample	$41.00		$0.00
II. pH		per sample	$5.20		$0.00
J1. BOD		per sample	$20.00		$0.00
PP. Ethanol		per sample	$14.80		$0.00
11. Analyses-Drinking Water					
L. BTEXNM+1,2 DCA (524.2)	4	per sample	$124.05		$496.20
M. 7-OXYGENATES & ETHANOL (8260B)	4	per sample	$91.75		$367.00
N. EDB (504.1)	3	per sample	$79.50		$238.50
O. RCRA METALS (200.8)		per sample	$100.00		$0.00
11. Analyses-Soil					
Q1. BTEX + Naphth.		per sample	$64.00		$0.00
R1. PAH's		per sample	$64.04		$0.00
S1. 8 RCRA Metals		per sample	$56.40		$0.00
U1. TPH-DRO (3550C/8015C)		per sample	$40.00		$0.00
V1. TPH- GRO (5030B/8015C)		per sample	$35.96		$0.00
W1. Grain size/hydrometer		per sample	$104.00		$0.00
X1. Total Organic Carbon		per sample	$30.60		$0.00
11. Analyses-Air					
Y1. BTEX + Naphthalene		per sample	$216.00		$0.00
11. Analyses-Free Phase Product					
Z1. Hydrocarbon Fuel Identification		per sample	$357.00		$0.00
12. Aquifer Characterization					
A1. Pumping Test*		per hour	$23.00		$0.00
B1. Slug Test*		per test	$191.00		$0.00
C1. Fractured Rock		per test	$100.00		$0.00
13. A1. Free Product Recovery Rate Test*		each	$38.00		$0.00
14. Fate/Transport Modeling					
A1. Mathematical Model		each	$100.00		$0.00
B1. Computer Model		each	$100.00		$0.00
15. Risk Evaluation					
A. Tier I Risk Evaluation		each	$300.00		$0.00
B1. Tier II Risk Evaluation		each	$100.00		$0.00
16. A1. Subsequent Survey*		each	$260.00		$0.00
17. Disposal (gallons or tons)*					
AA. Wastewater	200	gallon	$0.56		$112.00
BB. Free Product		gallon	$0.50		$0.00
C1. Soil Treatment/Disposal		ton	$60.00		$0.00
D1. Drilling fluids		gallon	$0.42		$0.00
18. Miscellaneous (attach receipts)					
		each	$0.00		$0.00
		each	$0.00		$0.00
		each	$0.00		$0.00
20. Tier I Assessment (Use DHEC 3665 form)		standard			$0.00
21. IGWA (Use DHEC 3666 form)		standard			$0.00
22. Corrective Action (Use DHEC 3667 form)		PFP Bid			$0.00

23. **Aggressive Fluid & Vapor Recovery (AFVR)**					
A1. 8-hour Event*		each	$1,375.00		$0.00
AA. 24-hour Event*		each	$3,825.00		$0.00
A3. 48-hour Event*		each	$6,265.00		$0.00
A4. 96-hour Event*		each	$12,567.50		$0.00
C1. Off-gas Treatment 8 hour		per event	$122.50		$0.00
C2. Off-gas Treatment 24 hour		per event	$241.50		$0.00
C3. Off-gas Treatment 48 hour		per event	$327.00		$0.00
C4. Off-gas Treatment 96 hour		per event	$780.00		$0.00
D. Site Reconnaissance		each	$203.25		$0.00
E1. Additional Hook-ups		each	$25.75		$0.00
F1. Effluent Disposal		gallon	$0.44		$0.00
G. AFVR Mobilization/Demobilization		each	$391.50		$0.00
24. **Granulated Activated Carbon (GAC) filter system installation & service:**					
A1. New GAC System Installation*		each	$1,900.00		$0.00
BB. Refurbished GAC Sys. Install*		each	$900.00		$0.00
C1. Filter replacement/removal*		each	$350.00		$0.00
DD. GAC System removal, cleaning, & refurbishment*		each	$275.00		$0.00
E1. GAC System housing*		each	$250.00		$0.00
F. In-line particulate filter		each	$150.00		$0.00
G1. Additional piping & fittings		foot	$1.50		$0.00
25. **Well Repair**					
A1. Additional Copies of the Report Delivered		each	$50.00		$0.00
B1. Repair 2x2 MW pad*		each	$50.00		$0.00
C1. Repair 4x4 MW pad*		each	$88.00		$0.00
D1. Repair well vault*		each	$118.00		$0.00
F1. Replace well cover bolts		each	$2.60		$0.00
G. Replace locking well cap & lock		each	$15.00		$0.00
H1. Replace/Repair stick-up*		each	$134.00		$0.00
I1. Convert Flush-mount to Stick-up*		each	$150.00		$0.00
J1. Convert Stick-up to Flush-mount*		each	$130.00		$0.00
K1. Replace missing/illegible well ID plate		each	$12.00		$0.00
Report Prep & Project Management	12%	percent	$8,182.70		$981.92
TOTAL					$9,164.62

DHEC 2495 6-2017 *The appropriate mobilization cost can be added to complete these tasks, as necessary


Duck Pond
Horse
New JASPER CO
BEAUFORT CO
SEABOARD COAST LINE
GREAT
Pritchard
UST #10628
William Cem
Declination
MN
GN
GN 0.01° W
MN 6.98° W
SCALE 1:24000
0 1000 2000 3000 4000 5000 6000
FEET



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Water Supply Well
- Location of Double Cased "Deep" Monitoring Well
- Estimated Groundwater Flow Direction
- Location of 4-Inch Recovery Well
- Estimated Location of Removed Underground Storage Tanks

——— Groundwater Elevation Contour (feet)

Potentiometric Data

Well #	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Well Head Elevation	Groundwater Elevation
MW-3R	2-12	2.45	2.86	0.41	94.56	92.05
MW-4R	5-15	---	2.59	---	93.75	91.16
MW-5RR	2-12	---	2.24	---	92.18	89.94
MW-7RR	2-12	5.34	5.40	0.06	95.80	90.45
MW-9	8-18	---	4.85	---	96.73	91.88
MW-10	2-12	---	2.42	---	93.29	90.87
MW-11	2-12	---	NL	---	91.62	NL
MW-14	3.05-13.05	---	1.17	---	93.23	92.06
MW-15	2-12	---	3.01	---	96.12	93.11
MW-16	7-17	---	5.38	---	97.02	91.64
MW-17	3-13	---	NL	---	94.96	NL
MW-18	2-12	---	1.17	---	91.34	90.17
MW-19	2-12	---	4.12	---	93.01	88.89
MW-20	4-14	---	5.90	---	98.84	92.94
PW-1R	30-35	---	3.49	---	93.47	89.98
RW-1	2-12	5.42	5.44	0.02	96.15	90.73
RW-2	2-12	---	0.97	---	93.56	92.59
RW-3	2-12	0.58	1.10	0.52	93.22	92.56
RW-4	2-15	---	5.51	---	96.05	90.54
RW-5	2-15	---	5.13	---	95.60	90.47
RW-6	2-15	0.65	4.90	4.25	93.07	91.78

Notes: Depth to groundwater measured on September 7, 2017.

Site Datum Based on Assumed Spot Elevation.

Contour Interval = 0.50 Feet

Monitoring well MW-20 was not used in contouring.

Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

ALL LOCATIONS ARE APPROXIMATE

Potentiometric Data Site Map
(Groundwater Contour)

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 17-6102
DATE September 27, 2017
FIGURE 5

dhec
Healthy People. Healthy Communities.

JUL 13 2018

MALPHRUS ENTERPRISES
2788 NORTH OKATIE HIGHWAY
RIDGELAND SC 29936

Re: **Groundwater Sampling Directive**
Shreejakshani Llc Dba Okatie Mart, 6195 South Okatie Highway, Hardeeville, SC
UST Permit # 10628; CA # 57501
Release Reported April 28, 1995
Site-Specific Work Plan and cost proposal received June 12, 2018
Jasper County

To Whom it May Concern:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (DHEC) has reviewed and approved the referenced Site-Specific Work Plan (SSWP) submitted by Midlands Environmental Consultants, Inc. All work should be conducted in accordance with the most recent revision of the UST Quality Assurance Program Plan (QAPP), Midlands Environmental Consultants approved SSWP and Annual Contractor Quality Assurance Plan (ACQAP), and in compliance with all applicable regulations. A copy of the current revision of the UST QAPP is available at http://www.scdhec.gov/Environment/LW/UST/ReleaseAssessmentClean-up/QualityAssurance/

The groundwater sampling event should begin immediately upon receipt of this letter. Cost agreement # 57501 has been approved for the amount shown on the enclosed cost agreement form.

The Contractor must provide the UST Project Manager with a Project Status Report on a weekly basis via e-mail or notify the UST Project Manager via email 4 days prior to initiation of any site rehabilitation activities. If there are any changes or conflicts with the date(s) of site activities, the UST Project Manager must be contacted within 24 hours of those changes.

The Monitoring report, contractor checklist (QAPP Appendix K), and invoice should be submitted to the Division within sixty (60) days of the date of this correspondence. The report submitted at the completion of these activities should include the required information outlined in the UST QAPP.

Midlands Environmental Consultants, Inc., can submit an invoice for direct payment from the State Underground Petroleum Environmental Response Bank (SUPERB) Account for pre-approved costs. By law, the SUPERB Account cannot compensate any costs that are not pre-approved. If the invoice is not submitted within 120 days from the date of this letter, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available.

Please note that Sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that no costs will be allowed unless prior approval from the Division is obtained. If for any reason additional tasks will be completed, these additional tasks and the associated cost must be pre-approved by the Division for the cost to be paid. The Division reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria. Further, the Division reserves the right to question and/or reject costs if deemed unreasonable and the right to audit project records at any time during the project or after completion of work.

Please note that applicable South Carolina certification requirements regarding laboratory services, well installation, and report preparation must be satisfied. Any site rehabilitation activity associated with the UST release must be performed by an DHEC-certified site rehabilitation contractor as required by R.61-98.

The Division grants pre-approval for transportation of virgin petroleum impacted soil and groundwater from the referenced site to a permitted treatment facility. There can be no spillage or leakage in transport. All investigation-derived waste (IDW) must be properly contained and labeled prior to disposal. IDW should not be stored on-site longer than ninety (90) days. A copy of the disposal manifest and/or acceptance letter from the receiving facility that clearly designates the quantity received must be included as an appendix to the report. If the Chemical of Concern (CoC) concentrations based on laboratory analysis is below Risk-Based Screening Levels (RBSLs), please contact the project manager for approval to dispose of soil and/or groundwater on-site. The SUPERB Account will not reimburse for transportation or treatment of soil and/or groundwater with concentrations below RBSLs.

On all correspondence regarding this site, please reference UST Permit #10628. Should you have any questions regarding this correspondence, please feel free to contact me at (803) 898-0606 or e-mail me at butlerkh@dhec.sc.gov.

Sincerely,

Kathryn H. Butler

Kathryn H. Butler, Hydrogeologist
Corrective Action and Field Support Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

enc: Approved Cost Agreement (ACA)

cc: Midlands Environmental Consultants, Inc., PO BOX 854, Lexington, SC 29071 (w/enc.)
Technical file (w/enc.)

Approved Cost Agreement 57501

Facility: 10628 SHREEJAKSHANI LLC DBA OKATIE MART
BUTLERKH

PO Number:

Task / Description	Categories	Item Description	Qty / Pct	Unit Price	Amount
01 PLAN					
		A1 SITE SPECIFIC WORK PLAN	1.0000	$150.000	150.00
04 MOB/DEMOB					
		B1 PERSONNEL	3.0000	$423.000	1,269.00
10 SAMPLE COLLECTION					
		A1 GROUNDWATER (PURGE)	21.0000	$60.000	1,260.00
		C1 WATER SUPPLY	1.0000	$22.000	22.00
		D1 GROUNDWATER NO PURGE/DUPLICATE	3.0000	$28.000	84.00
		H1 FIELD BLANK	2.0000	$24.600	49.20
11 ANALYSES					
	GW GROUNDWATER	A2 BTEXNM+OXYGS+1,2-DCA+ETH-8260B	25.0000	$122.000	3,050.00
		F1 EDB BY 8011	24.0000	$45.200	1,084.80
	WATER DRINKING WATER	L BTEXNM+1,2 DCA (524.2)	4.0000	$124.050	496.20
		M 7-OXYGENATES & ETHANOL (8260B)	4.0000	$91.750	367.00
		N EDB (504.1)	3.0000	$79.500	238.50
17 DISPOSAL					
		AA WASTEWATER	200.0000	$0.560	112.00
19 RPT/PROJECT MNGT & COORDINATIO					
		PRT REPORT PREPARATION	0.1200	$8,182.700	981.92
			Total Amount		9,164.62

Document Receipt Information

☒ **Hard Copy** ☒ **CD** ☐ **Email**

Date Received 10-8-18

Permit Number 10628

Project Manager Kathleen Butler

Name of Contractor MECL

UST Certification Number _____

Docket Number 5640

Scanned _____

GWS / Chemical Analyses

REPORT OF GROUNDWATER SAMPLING AND CHEMICAL ANALYSES

Shreejakshani / Pantry 911
6195 South Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628
CA # 57501

Prepared By:

Midlands
Environmental
Consultants, Inc.
231 Dooley Road, Lexington, SC 29073
(803) 808-2043 fax: 808-2048

September 19, 2018

MECI Project No. 18-6460

Midlands Environmental Consultants, Inc.

September 19, 2018

Ms. Kathryn Butler, Hydrogeologist
Corrective Action & Field Support Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Report of Groundwater Sampling and Chemical Analysis
Shreejakshani / Pantry 911
6195 South Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID# 10628, CA# 57501
MECI Project Number 18-6460
Certified Site Rehabilitation Contractor UCC-0009

Dear Ms. Butler,

On behalf of Mr. Donnie Malphrus of Malphrus Industries, Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Report of Groundwater Sampling and Chemical Analysis for the referenced site. This report describes assessment activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines, including adherence to the UST Division Programmatic Quality Assurance Program Plan (QAPP).

Midlands Environmental appreciates the opportunity to offer our professional environmental services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Kyle V. Pudney
Project Biologist

Bryan T. Shane, P.G.
Principal Geologist

Post Office Box 854, Lexington SC 29071 • 231 Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

TABLE OF CONTENTS

TABLE OF CONTENTS (cont.)

NOTE: ITEMS LISTED WITH AN ** BESIDE IT WERE NOT NEEDED AS A PART OF THIS SCOPE OF WORK

1.0 INTRODUCTION

A. **Owner/Operator Information**

Facility Name:	Malphrus Enterprises UST Permit #: 10628
Facility Address:	6195 South Okatie Highway, Hardeeville, SC 29927
Name:	Mr. Donnie Malphrus
Address:	2789 North Okatie Highway, Ridgeland, SC 29936
Telephone #:	(843) 263-3050

B. **Property Owner Information**

Name	Malphrus Enterprises
Address	2789 North Okatie Highway, Ridgeland, SC 29936
Telephone #	(843) 263-3050
Telephone #	(803) 874-3811

C. **Contractor Information**

Name:	Midlands Environmental Consultants, Inc.
Certification #:	9
Address:	P.O. Box 854, Lexington, SC 29071
Telephone #:	(803) 808-2043

D. **SCDHEC Certified Well Driller**

Name:	N/A
Driller:	N/A
Certification #:	N/A
Address:	N/A
Telephone #:	N/A

E. **SCDHEC Certified Laboratory**

Name:	Pace Analytical Services, LLC
Certification #:	99006001
Address:	9800 Kincey Ave, Suite 100, Huntersville, NC 28078
Telephone #:	(704) 875-9092

1.1 PROJECT INFORMATION

The subject site (Pantry 911) is located at 6195 South Okatie Highway, Hardeeville, Jasper County, South Carolina. The subject site maintains one 10,000 gallon regular unleaded gasoline underground storage tank (UST), one 10,000 gallon premium gasoline, and one 10,000 gallon diesel UST. These UST's were given a compliance date of March 7, 2012. The South Carolina Department of Health and Environmental Control (SCDHEC) reported a release of petroleum product from these UST's in April of 1995 and confirmed the release in March of 1996. The subject site is currently rated a Class 2BB.

In May of 2015, MECI implemented corrective action efforts at the site to reduce dissolved CoC concentrations and to remove free phase petroleum product. MECI's rehabilitative approach was

composed of injection of Pulverized Activated Carbon (PAC) based product, followed by extended Aggressive Fluid Vapor Recovery (AFVR) events to aid in the removal of free phase petroleum product and elevated CoC's.

The above information is based on reports and correspondence obtained from SCDHEC files and MECI field notes.

2.0 SURROUNDING PROPERTY USAGE

The site is located outside the town limits of Hardeeville, South Carolina. The property is currently operating as an active gasoline service station (Shreejakshani / Pantry 911). South Okatie Highway (S.C. Highway 46) forms the western and northern borders of the subject property, beyond which are wooded and undeveloped properties. South and east of the subject property are residential properties and wooded areas.

The following table identifies water supply wells and the physical address of their locations:

Water Supply Well Number	Well Owner	Jasper County Tax Map Number:	Notes:	Well Status
WSW-1	Stella Crosby Jeffers	039-00-10-029	274 New River Road	Active

This water supply well (WSW-1) is located approximately 350 feet east of the current UST basin.

3.0 AREA GEOLOGY AND HYDROGEOLOGY

The project site is located in the Atlantic Coastal Plain Physiographic Province. The mean elevation of the property as depicted on the local USGS quadrangle (Limehouse, SC) appears to be approximately 1 meter above sea level. The soils in this province are generally interbedded silts, sands and clays that have been deposited during successive advances and retreats of the ocean over the past several million years. This interbedding can cause perched water and makes hydrogeological interpretation difficult.

In this geologic setting, the uppermost aquifer is the surficial aquifer of sands with lenses and layers of clays and silts. Water occupies the interstices between the formation particles and is in hydrostatic balance with the atmosphere at the water table surface.

Local precipitation is the source of freshwater recharge to the Coastal Plain formations. Groundwater recharge varies considerably over the region and is attributed to the differences in precipitation and to the variability in the infiltration rates.

Coastal Plain formations generally dip toward the Atlantic Ocean. Consequently, regional groundwater movement is to the southeast. On a regional scale, hydraulic gradients are relatively low.

Locally, in the surficial aquifer, groundwater discharges into streams, lakes or springs where the groundwater table intersects lows occupied by these water bodies. Current groundwater elevation data reveals a radial flow pattern to the north, south, and west.

3.1 LOCAL SUBSURFACE CONDITIONS

Coastal plain sediments were encountered during previous drilling activities conducted at the site. The soils encountered during previous assessment activities generally consisted sandy clays and silts.

On August 27, 2018, stabilized groundwater levels were measured in the monitoring wells. Depth to groundwater ranged from 0.59 to 7.98 feet below top of casing in the wells measured. The groundwater measurements are summarized in tabular form in Table 2 and on Figure 5. Groundwater levels may fluctuate several feet with seasonal and rainfall variations and with change in the water level of adjacent drainage features. Normally, the highest groundwater levels occur in late winter and spring. The lowest levels occur in late summer and fall.

4.0 FIELD EXPLORATION

Field exploration conducted at the site included:

- sampling of groundwater monitoring wells and one (1) water supply well; and,
- chemical analyses of water samples.

4.1 SAMPLING AND CHEMICAL ANALYSES

On August 27, 2018, MECI personnel collected groundwater samples from fifteen (15) monitoring wells and one (1) water supply well at the subject site. Monitoring wells MW-3R, MW-7RR, RW-1, RW-3, RW-5, and RW-6 were gauged and determined to contain free phase petroleum product. As directed by SCDHEC, all monitoring wells were to be purged prior to sample collection. Fifteen (15) monitoring wells were purged prior to sampling.

Purging was completed by bailing at least five well volumes of water from the well, until pH, conductivity, dissolved oxygen stabilized, or all water was evacuated from the well, whichever occurred first. Sampling/purging was completed utilizing a prepackaged, clear, disposable polyethylene bailer and nylon rope. A new set of nitrile gloves were worn at each monitoring well, and at all time samples were handled. Field measurements of pH, conductivity, dissolved oxygen, water temperature, and turbidity were obtained before well sampling process. MECI utilized YSI PRO20 meter for DO (mg/L) and temperature readings (°C), YSI PRO1030 meters for pH and conductivity (uS) readings and a MicroTPI/TPW turbidimeter for turbidity readings (NTU). The attached Field Data Information Sheets presents the results of the field measurements obtained. The wells were sampled in accordance with SCDHEC's most recent Quality Assurance Program Plan for the Underground Storage Tank Management Division and MECI's most recent Standard Operating Procedures.

Groundwater samples obtained were sent to Pace Environmental Services, LLC, of Huntersville, NC (SCDHEC Laboratory Certification #99006001) for analysis.

The following sampling matrix contains well development and requested analyses for each well:

Sample ID	Purge	No Purge	Gauge Only	Low-Flow Sampling	Not Sampled	Not Located	BTEX, Naphthalene, MTBE (EPA Method 8260-B)	EDB (EPA Method 8011)	1,2 DCA (EPA Method 8260-B)	8 Oxygenates (EPA Method 8260-B)	Total Lead (EPA Method 6010)	BTEX, Naphthalene, MTBE, 1,2 DCA (EPA Method 524.2)	EDB (EPA Method 504.1)
							Analyte Sampled						
MW-3R			X										
MW-4R	X						X	X	X	X			
MW-5RR	X						X	X	X	X			
MW-7RR			X										
MW-9	X						X	X	X	X			
MW-10	X						X	X	X	X			
MW-11	X						X	X	X	X			
MW-14	X						X	X	X	X			
MW-15	X						X	X	X	X			
MW-16	X						X	X	X	X			
MW-17	X						X	X	X	X			
MW-18	X						X	X	X	X			
MW-19	X						X	X	X	X			
MW-20	X						X	X	X	X			
PW-1R	X						X	X	X	X			
RW-1			X										
RW-2	X						X	X	X	X			
RW-3			X										
RW-4	X						X	X	X	X			
RW-5			X										
RW-6			X										
DUP-1 (MW-18)							X	X	X	X			
Field Blank							X	X	X	X			
Trip Blank							X		X	X			
WSW-1										X		X	X
WSW DUP (WSW-1)										X		X	X
WSW Field Blank										X		X	X
WSW Trip Blank										X		X	

Notes: BTEX = Benzene, Toluene, Ethylbenzene, & Total Xylenes
MTBE=Methyl tertiary butyl ether
1,2 DCA = 1,2 Dicloroethane
EDB = Ethylene Dibromide

The results of the laboratory analyses are summarized in Table 3 and presented in Appendix B.

Purge water produced by the purging process was treated on-site utilizing a granular activated carbon unit. A total of 74.75 gallons of purge water was disposed of in this manner. A disposal manifest for the referenced purge water is presented in Appendix G.

5.0 TEST RESULTS AND EVALUATION

The following sections discuss groundwater test results for the subject site.

5.1 ANALYTICAL RESULTS

As discussed in Section 3.1, groundwater samples obtained from the monitoring wells during the August 27, 2018 groundwater sampling event were analyzed for dissolved phase petroleum constituents. Monitoring wells MW-3RR, MW-7RR, RW-1, RW-3, RW-5, and RW-6 were gauged and determined to contain measurable free phase petroleum product. The analytical results indicate petroleum impact to the surficial aquifer ("Shallow Zone") with the highest dissolved concentrations being detected in the area of RW-4. Of the fifteen monitoring wells and one water supply well sampled, four monitoring wells (MW-4R, MW-14, RW-2, & RW-4) detected petroleum constituents above Risked Based Screening Levels (RBSL's). Petroleum constituents detected above the established RBSL include:

Compound	RBSL/SCAL (ug/l)	Wells Above RBSL
Product	>0.01 Foot	MW-3R, MW-7RR, RW-1, RW-3, RW-5 & RW-6
Benzene	5	MW-4R, MW-14, RW-2, & RW-4
Toluene	1,000	RW-4
Ethylbenzene	700	RW-4
Total Xylenes	10,000	None
Naphthalene	25	MW-4R & RW-4
MTBE	40	None
1,2 DCA	5	None
TAA	240	MW-4R & RW-4
TAME	128	None
3,3-Dimethyl-1-butanol	NE	RBSL Not Established
TBA	1,400	MW-4R
TBF	NE	RBSL Not Established
DIPE	150	RW-4
Ethanol	10,000	None
ETBE	47	None

In addition, the analytical results also detected petroleum constituents above the laboratory method detection limit and/or "J" values in monitoring wells MW-5RR & MW-20; however the concentrations detected did not exceed the RBSL.

As discussed in section 4.1, water samples were obtained from WSW-1 during the August 27, 2018 groundwater sampling event. The samples obtained from the above mentioned water supply well were analyzed for petroleum constituents. The laboratory results from the samples obtained did not indicate petroleum impact and all petroleum compounds were below detection limits.

The results of the analysis for the groundwater samples and specific parameters are listed on Table 3 and provided in the laboratory reports (Appendix B).

6.0 ASSESSMENT SUMMARY & RECOMMENDATIONS

Based on the results of our assessment activities, it appears that impact to the surficial aquifer has occurred due to a release of petroleum hydrocarbons. The highest concentrations of dissolved phase contaminants appear to be located near the former dispenser islands and former tank basin. Monitoring wells MW-3RR, MW-7RR, RW-1, RW-3, RW-5, and RW-6 were gauged and determined to contain measurable free phase petroleum product.

The contaminants appear to be gasoline range constituents. Groundwater elevation data for the August 27, 2018 gauging event was plotted, and points of equal elevation were interpolated between

the monitoring wells. A groundwater contour map of the surficial aquifer was thus prepared and is presented on Figure 5. Current groundwater elevation data reveals a radial flow pattern to the north, south, and west.

The analytical results indicate petroleum impact to the surficial aquifer ("Shallow Zone") with the highest dissolved concentrations being detected in the area RW-4. Of the fifteen monitoring wells and one water supply well sampled, four monitoring wells (MW-4R, MW-14, RW-2, & RW-4) detected petroleum constituents above Risked Based Screening Levels (RBSL's). Petroleum constituents detected above the established RBSL include:

Compound	*RBSL/SCAL (ug/l)*	*Wells Above RBSL*
Product	>0.01 Foot	MW-3R, MW-7RR, RW-1, RW-3, RW-5 & RW-6
Benzene	5	MW-4R, MW-14, RW-2, & RW-4
Toluene	1,000	RW-4
Ethylbenzene	700	RW-4
Total Xylenes	10,000	None
Naphthalene	25	MW-4R & RW-4
MTBE	40	None
1,2 DCA	5	None
TAA	240	MW-4R & RW-4
TAME	128	None
3,3-Dimethyl-1-butanol	NE	RBSL Not Established
TBA	1,400	MW-4R
TBF	NE	RBSL Not Established
DIPE	150	RW-4
Ethanol	10,000	None
ETBE	47	None

In addition, the analytical results also detected petroleum constituents above the laboratory method detection limit and/or "J" values in monitoring wells MW-5RR and MW-20; however the concentrations detected did not exceed the RBSL.

As discussed in section 4.1, water samples were obtained from WSW-1 during the August 27, 2018 groundwater sampling event. The samples obtained from the above mentioned water supply well were analyzed for petroleum constituents. The laboratory results from the samples obtained did not indicate petroleum impact and all petroleum compounds were below detection limits.

The results of the analysis for the groundwater samples and specific parameters are listed on Table 3 and provided in the laboratory reports (Appendix B).

Figure 4 depicts graphically the concentrations of Total BTEX dissolved in the surficial aquifer at the site. Figure 4A depicts graphically the concentrations of Naphthalene dissolved in the surficial aquifer at the site. Figure 4B depicts graphically the concentrations of MTBE dissolved in the surficial aquifer at the site. Figure 4C presents the analytical results for the eight Oxygenates.

As discussed above, free phase petroleum still remains at the site in monitoring well MW-3R at a thickness of 0.04 feet, monitoring well MW-7RR at a thickness of 0.01 feet, recovery well RW-1 at a thickness of 0.05 feet, recovery well RW-3 at a thickness of 0.50, recovery well RW-5 at a thickness of 0.02 feet, and in recovery well RW-6 at a thickness of 3.50 feet. Since the September 2017 groundwater sampling event, the presence of free phase petroleum product at the site has decreased. Dissolved CoC concentrations have decreased in monitoring wells MW-4R and MW-14. The

dissolved CoC concentrations have generally remained constant in the remainder of the monitoring wells. Since the presence of free phase petroleum product has not significantly decreased following MECI's remedial efforts, MECI feels this site is a candidate for Active Corrective Action.

If SCDHEC feels this suggestion is untimely, MECI recommends that several extended Aggressive Fluid Vapor Recovery (AFVR) events be conducted to remove free phase petroleum product from wells MW-3R, MW-7RR, RW-1, RW-3, RW-5, & RW-6 and to reduce elevated dissolved CoC concentrations. It may be beneficial to conduct a surfactant injection event prior to the extended AFVR events to bring hydrocarbons into an oil-in-water microemulsion which will increase the effective solubility of the petroleum hydrocarbons in water and will aid in reducing the inter-facial tension between the hydrocarbon and water molecules. This increased effective solubility and reduced inter-facial tension will promote a formation of an aqueous solution between the free product and the groundwater, augmenting hydrocarbon recovery via the recovery well network.

7.0 QUALIFICATIONS OF REPORT

The activities and evaluative approaches used in this assessment are consistent with those normally employed in hydrogeological assessment and waste management projects of this type. Our evaluation of site conditions has been based on our understanding of the site, project information provided to us, and data obtained in our exploration. The general subsurface conditions utilized in our evaluation have been based on interpretation of subsurface data between borings. Contents of this report are intended for the sole use of Mr. Donnie Malphrus of Malphrus Enterprises, SCDHEC and MECI under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

-oOo-

TABLES

TABLE 2
POTENTIOMETRIC DATA
AUGUST 27, 2018 SAMPLING EVENT
SHREEJAKSHANI / PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 18-6460
SCDHEC SITE ID NUMBER 10628

Well Number	Sample Date	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Well-head Elevation	Groundwater Elevation
MW-3R	1/8/2009	2-12	-	3.02	-	94.56	91.54
	7/25/2012		-	2.91	-	94.56	91.65
	6/27/2013		-	3.16	-	94.56	91.40
	7/10/2014		-	3.26	-	94.56	91.30
	10/27/2015		-	3.34	-	94.56	91.22
	9/7/2017*		2.45	2.86	0.41	94.56	92.05
	8/27/2018		2.28	2.32	0.04	94.56	92.27
MW-4R	1/8/2009	5-15	-	4.29	-	93.75	89.46
	7/25/2012		-	7.61	-	93.75	86.14
	6/27/2013		-	3.99	-	93.75	89.76
	7/10/2014		-	3.40	-	93.75	90.35
	10/27/2015		-	2.80	-	93.75	90.95
	9/7/2017		-	2.59	-	93.75	91.16
	8/27/2018		-	2.18	-	93.75	91.57
MW-5R	1/8/2009	5-15	-	3.00	-	91.70	88.70
	7/25/2012		-	7.35	-	91.70	84.35
MW-5RR	6/27/2013	2-12	-	3.20	-	92.18	88.98
	7/10/2014		-	4.86	-	92.18	87.32
	10/27/2015		-	2.85	-	92.18	89.33
	9/7/2017		-	2.24	-	92.18	89.94
	8/27/2018		-	1.41	-	92.18	90.77
MW-7RR	1/8/2009	2-12	-	6.38	-	95.80	89.42
	7/25/2012*		10.61	10.72	0.11	95.80	85.17
	6/27/2013*		6.32	9.34	0.02	95.80	89.48
	7/10/2014*		8.65	8.78	0.13	95.80	87.13
	10/27/2015		-	9.10	-	95.80	86.70
	9/7/2017*		5.34	5.40	0.06	95.80	90.45
	8/27/2018		4.87	4.88	0.01	95.80	90.93
MW-9	1/8/2009	8-18	-	6.09	-	96.73	90.64
	7/25/2012		-	NL	-	96.73	NL
	6/27/2013		-	5.05	-	96.73	91.68
	7/10/2014		-	7.53	-	96.73	89.20
	10/27/2015		-	6.13	-	96.73	90.60
	9/7/2017		-	4.85	-	96.73	91.88
	8/27/2018		-	4.50	-	96.73	92.23
MW-10	1/8/2009	2-12	-	4.36	-	93.29	88.93
	7/25/2012		-	NL	-	93.29	NL
	6/27/2013		-	3.81	-	93.29	89.48
	7/10/2014		-	6.49	-	93.29	86.80
	10/27/2015		-	NL	-	93.29	NL
	9/7/2017		-	2.42	-	93.29	90.87
	8/27/2018		-	1.95	-	93.29	91.34
MW-11	1/8/2009	2-12	-	1.45	-	91.62	90.17
	7/25/2012		-	3.90	-	91.62	87.72
	6/27/2013		-	0.41	-	91.62	91.21
	7/10/2014		-	3.63	-	91.62	87.99
	10/27/2015		-	1.72	-	91.62	89.90
	9/7/2017		-	NL	-	91.62	NL
	8/27/2018		-	0.59	-	91.62	91.03
MW-14	1/8/2009	3.05-13.05	-	2.23	-	93.23	91.00
	7/25/2012		-	2.29	-	93.23	90.94
	6/27/2013		-	1.30	-	93.23	91.93
	7/10/2014		-	1.81	-	93.23	91.42
	10/27/2015		-	1.76	-	93.23	91.47
	9/7/2017		-	1.17	-	93.23	92.06
	8/27/2018		-	0.83	-	93.23	92.40
MW-15	1/8/2009	2-12	-	4.50	-	96.12	91.62
	7/25/2012		-	4.80	-	96.12	91.32
	6/27/2013		-	3.52	-	96.12	92.60
	7/10/2014		-	3.97	-	96.12	92.15
	10/27/2015		-	4.93	-	96.12	91.19
	9/7/2017		-	3.01	-	96.12	93.11
	8/27/2018		-	2.51	-	96.12	93.61
MW-16	1/8/2009	7-17	-	8.11	-	97.02	88.91
	7/25/2012		-	12.83	-	97.02	84.19
	6/27/2013		-	8.41	-	97.02	88.61
	7/10/2014		-	10.30	-	97.02	86.72
	10/27/2015		-	5.89	-	97.02	91.13
	9/7/2017		-	5.38	-	97.02	91.64
	8/27/2018		-	7.83	-	97.02	89.19
MW-17	1/8/2009	3-13	-	5.88	-	94.96	89.08
	7/25/2012		-	9.49	-	94.96	85.47
	6/27/2013		-	5.35	-	94.96	89.61
	7/10/2014		-	NL	-	94.96	NL
	10/27/2015		-	NL	-	94.96	NL
	9/7/2017		-	NL	-	94.96	NL
	8/27/2018		-	4.14	-	94.96	90.83
MW-18	1/8/2009	2-12	-	2.46	-	91.34	88.88
	7/25/2012		-	NL	-	91.34	NL
	6/27/2013		-	2.87	-	91.34	88.47
	7/10/2014		-	3.87	-	91.34	87.47
	10/27/2015		-	1.85	-	91.34	89.49
	9/7/2017		-	1.17	-	91.34	90.17
	8/27/2018		-	1.00	-	91.34	90.34
MW-19	6/27/2013	2-12	-	4.14	-	93.01	88.87
	7/10/2014		-	6.69	-	93.01	86.32
	10/27/2015		-	4.20	-	93.01	88.81
	9/7/2017		-	4.12	-	93.01	88.89
	8/27/2018		-	2.49	-	93.01	90.52
MW-20	6/27/2013	4-14	-	9.14	-	98.84	89.70
	7/10/2014		-	11.17	-	98.84	87.67
	10/27/2015		-	8.55	-	98.84	90.29
	9/7/2017		-	5.90	-	98.84	92.94
	8/27/2018		-	7.98	-	98.84	90.86
PW-1R	1/8/2009	30-35	-	4.57	-	93.47	88.90
	7/25/2012		-	9.59	-	93.47	83.88
	6/27/2013		-	4.80	-	93.47	88.67
	7/10/2014		-	5.29	-	93.47	87.18
	10/27/2015		-	4.15	-	93.47	89.32
	9/7/2017		-	3.49	-	93.47	89.98
	8/27/2018		-	3.04	-	93.47	90.43
RW-1	7/25/2012	2-12	-	10.53	-	96.15	85.62
	6/27/2013		-	6.47	-	96.15	89.68
	7/10/2014*		8.77	8.92	0.15	96.15	87.36
	10/27/2015*		6.20	6.22	0.02	96.15	89.95
	9/7/2017*		5.42	5.44	0.02	96.15	90.73
	8/27/2018		4.70	4.75	0.05	96.15	91.44
RW-2	7/25/2012	2-12	-	2.59	-	93.56	90.97
	6/27/2013		-	2.19	-	93.56	91.37
	7/10/2014		-	2.04	-	93.56	91.52
	10/27/2015		-	1.42	-	93.56	92.14
	9/7/2017		-	0.97	-	93.56	92.59
	8/27/2018		-	0.89	-	93.56	92.67
RW-3	7/25/2012*	2-12	2.56	2.61	0.05	93.22	90.65
	6/27/2013*		1.32	1.44	0.12	93.22	91.88
	7/10/2014		-	1.74	-	93.22	91.48
	10/27/2015		-	1.82	-	93.22	91.40
	9/7/2017*		0.58	1.10	0.52	93.22	92.56
	8/27/2018		1.01	1.51	0.50	93.22	92.14
RW-4	10/27/2015	2-15	-	8.30	-	96.05	89.75
	9/7/2017		-	5.51	-	96.05	90.54
	8/27/2018		-	5.12	-	96.05	90.93
RW-5	10/27/2015	2-15	-	5.95	-	95.60	89.65
	9/7/2017		-	5.13	-	95.60	90.47
	8/27/2018		4.81	4.83	0.02	95.60	90.79
RW-6	10/27/2015*	2-15	2.20	2.35	0.15	93.07	90.85
	9/7/2017*		0.65	4.90	4.25	93.07	91.78
	8/27/2018		1.79	5.29	3.50	93.07	90.76

Notes:

1. Elevations are referenced to an assumed site datum .
2. Groundwater depths were measured from the top of the PVC riser pipe.
3. Groundwater levels measured 8/27/2018.
4. NL = Not Located.
5. * = Groundwater elevation corrected for the presence of free phase petroleum product using a specific gravity for fuel of 0.85

TABLE 3
GROUNDWATER COC CONCENTRATION DATA
AUGUST 27, 2018 SAMPLING EVENT
SHREEJAKSHANI / PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 18-6460
SCDHEC ID NUMBER 10628

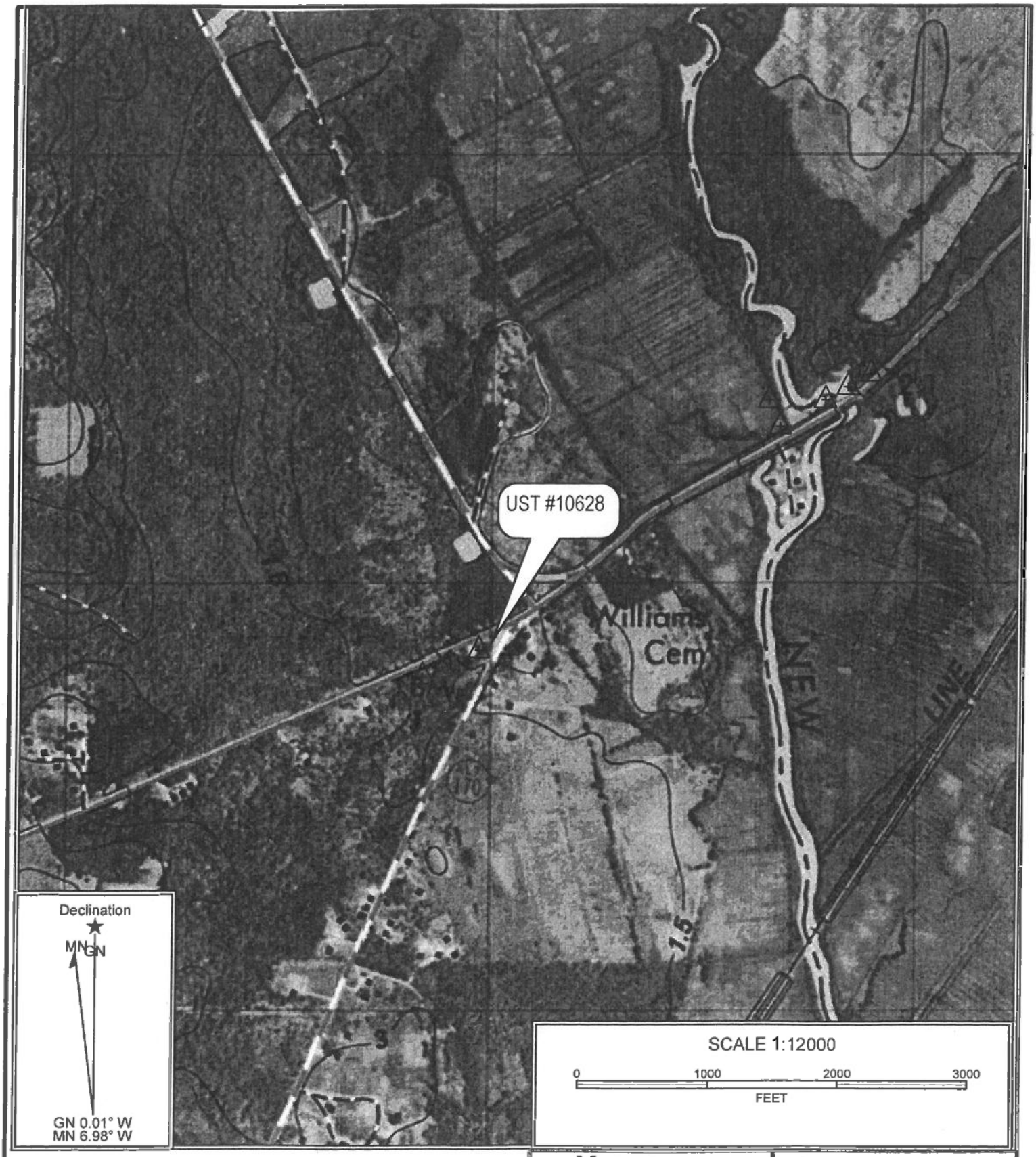
Well Number	Sample Date	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	Naphthalene (ug/l)	MTBE (ug/l)	1,2 DCA (ug/l)	EDB (ug/l)	Total Lead (ug/l)	TAA (ug/l)	TAME (ug/l)	TBF (ug/l)	DIPE (ug/l)	ETBA (ug/l)	Ethanol (ug/l)	ETBE (ug/l)	TBA (ug/l)
MW-3R	1/8/2009	2,700	9,080	1,410	11,600	24,190	748	2,580	<250	<0.19	<5.0	NT	NT	NT	NT	NT	NT	NT	NT
	7/25/2012	1,500	2,500	740	4,000	8,840	180	970	<10	<0.019	NT	2,500	150	<200	1.7J	<200	<2,000	42J	4,300
	6/27/2013	1,000	4,500E	1,100	7,600	14,200E	350	200	<100	<0.020	NT	540J	45J	<2,000	<200	<2,000	<20,000	9.5J	250J
	7/10/2014	1,500	3,900	940	7,500	13,840	240	620	<100	0.27	NT	2,600	130J	<2,000	<200	<2,000	<20,000	68J	3,500
	10/27/2015	2,870	7,130	1,250	12,100	23,390	548	531	<500	<0.021	NT	<10,000	<1,000	<5,000	<500	<10,000	<20,000	<1,000	<10,000
	9/7/2017	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
	8/27/2018	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-4R	1/8/2009	4,640	1,070	1,360	3,990	15,060	<1,000	21,000	<1,000	<0.020	<5.0	NT	NT	NT	NT	NT	NT	NT	NT
	7/25/2012	2,220	2,500	470	1,600	6,790	260	4,200	52	<0.020	NT	4,600	390	<100	6.2J	<100	<1,000	170	23,000
	6/27/2013	4,900	8,800	1,700	5,900	21,300	<500	5,600	<500	<0.021	NT	5,200J	250J	<10,000	<1,000	<10,000	<100,000	99J	28,000
	7/10/2014	2,600	3,800	970	3,700	11,070	100	1,200	<100	<0.020	NT	4,200	110J	<2,000	<200	<2,000	<20,000	91J	11,000
	10/27/2015	1,330	584	206	673	2,793	<62.5	471	<62.5	<0.021	NT	2,690	<125	<625	<62.5	<1,250	<2,500	48.8J	8,190
	9/7/2017	587	42.3	221	987	1,837.3	37.1	95.4	<20.0	<0.020	NT	1,580	<40.0	<200	<20.0	<400	<800	30.6J	3,740
	8/27/2018	373	10.9J	71.5	561	1,016.4J	46.2	33.3	<12.5	<0.019	NT	868	<25.0	<125	<12.5	<250	<500	16.6J	1,610
MW-5R	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	2.3J	<5.0	<0.020	<5.0	NT	NT	NT	NT	NT	NT	NT	NT
	7/25/2012	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	8.9	<5.0	<0.020	NT	64J	<10	<100	4.2J	<100	<1,000	<100	43J
MW-5RR	6/27/2013	<500	<500	<500	<500	BDL	<500	<500	<500	<0.026	NT	<10,000	<1,000	<10,000	<1,000	<10,000	<100,000	<10,000	<10,000
	6/27/2013	<5.0H	<5.0H	<5.0H	<5.0H	BDL	<5.0H	<5.0H	<5.0H	NT	NT	<100H	<10H	<100H	<10H	<100H	<1,000H	<100H	<100H
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT	<100	<10	<100	<10	<100	<1,000	<100	<100
	10/27/2015	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	3.5J	<5.0	<0.020	NT	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
	9/7/2017	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
	8/27/2018	<5.0	<5.0	<5.0	<5.0	BDL	3.9J	4.6J	<5.0	<0.020	NT	493	<10.0	<50.0	<5.0	<100	<200	7.1J	497
MW-7RR	1/8/2009	17,590	22,700	1,850	10,900	52,950	<1,000	<1,000	731J	1.5	157	NT	NT	NT	NT	NT	NT	NT	NT
	7/25/2012	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
	6/27/2013	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
	7/10/2014	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
	10/27/2015	8,910	14,900	1,810	13,700	39,320	1,790	<625	232J	0.72	NT	25,600	<1,250	<6,250	4,560	<12,500	<25,000	<1,250	<12,500
	9/7/2017	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
	8/27/2018	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-9	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.019	<5.0	NT	NT	NT	NT	NT	NT	NT	NT
	7/25/2012	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
	6/27/2013	<500	<500	<500	<500	BDL	<500	<500	<500	<0.020	NT	<10,000	<1,000	<10,000S	<1,000	<10,000	<100,000	<10,000	<10,000
	6/27/2013	<5.0H	<5.0H	<5.0H	<5.0H	BDL	<5.0H	<5.0H	<5.0H	NT	NT	<100H	<10H	<100H	<10H	<100H	<1,000H	<100H	<100H
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	2.4J	<5.0	<0.020	NT	<100	<10	<100	<10	<100	<1,000	<100	<100
	10/27/2015	<5.0	5.3	<5.0	<10.0	5.3	<5.0	<5.0	<5.0	<0.020	NT	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
	9/7/2017	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT	<100	<10.0	<50.0	<5.0	<100	1,000	<10.0	<100
	8/27/2018	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019	NT	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-10	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	3.6J	<5.0	<0.019	11.6	NT	NT	NT	NT	NT	NT	NT	NT
	7/25/2012	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	2.3J	<5.0	<0.020	NT	<100	<10	<100	<10	<100	<1,000	<100	<100
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	3.5J	<5.0	<0.020	NT	<100	<10	<100	<10	<100	<1,000	<100	<100
	10/27/2015	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
	9/7/2017	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT	<100	<10.0	<50.0	<5.0	<100	784	<10.0	<100
	8/27/2018	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019	NT	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-11	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.019	<5.0	NT	NT	NT	NT	NT	NT	NT	NT
	7/25/2012	<5.0	22	<5.0	<5.0	22	<5.0	<5.0	<5.0	<0.019	NT	<100	<10	<100	<10	<100	<1,000	<100	<100
	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT	<100	<10	<100	<10	<100	<1,000	<100	<100
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT	<100	<10	<100	<10	<100	<1,000	<100	<100
	10/27/2015	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020	NT	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
	9/7/2017	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
	8/27/2018	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019	NT	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-14	1/8/2009	11,800	13,700	2,420	11,000	38,920	<500	4,020	<500	<0.020	<5.0	NT	NT	NT	NT	NT	NT	NT	NT
	7/25/2012	9,300	15,000	3,300	14,000	41,500	540	1,600	<500	<0.020	NT	9,900J	460J	<10,000	<1,000	<10,000	<100,000	68J	3,200J
	6/27/2013	8,000	4,500	1,800	6,800	19,100	240J	900	<250	<0.020	NT	6,000	310J	<5,000	<500	<5,000	<50,000	68J	2,400J
	7/10/2014	9,800	31,000	3,700	19,000	63,500	560J	1,400	<1,000	<0.020	NT	7,500J	630J	<20,000	<2,000	<20,000	<200,000	170J	3,600J
	10/27/2015	2,460	2,840	791	2,910	9,001	<125	473	<125	<0.021	NT	3,490	140J	<1,250	<125	<2,500	<5,000	<250	4,460
	9/7/2017	48.1	4.2J	30.8	8.2	91.3J	3.2J	1.8J	<5.0	<0.020	NT	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
	8/27/2018	5.2	3.9J	5.4	11.3	25.8J	<5.0	<5.0	<5.0	<0.019	NT	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-15	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	2.8J	<5.0	<0.019	<5.0	NT	NT	NT	NT	NT	NT	NT	NT
	7/25/2012	1.1J	2.0J	<5.0	2.1J	5.2J	<5.0	1.2J	<5.0	<0.019	NT	13J	<10	<100	0.65J	<100	<1,000	<100	27J
	6/27/2013	0.51J	<5.0	<5.0	<5.0	0.51J	<5.0	0.78J	<5.0	<0.020	NT	<100	<10	<100	<10	<100	<1,000	<100	<100
	7/10/2014	0.66J	<5.0	<5.0	<5.0	0.66J	<5.0	0.67J	<5.0	<0.020	NT	12J	<10	<100	0.65J	<100	<1,000	<100	26J
	10/27/2015	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.019	NT	113	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
	9/7/2017	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
	8/27/2018	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019	NT	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-16	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.021	<5.0	NT	NT	NT	NT	NT	NT	NT	NT
	7/25/2012	0.30J	<5.0	<5.0	<5.0	0.30J	<5.0	<5.0	<5.0	<0.019	NT	<100	<10	<100	<10	<100	<1,000	<100	<100
	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT	<100	<10	<100	<10	<100	<1,000	<100	<100
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT	<100	<10	<100	<10	<100	<1,000	<100	<100
	10/27/2015	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020	NT	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
	9/7/2017	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
	8/27/2018	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019	NT	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-17	1/8/2009	39.1	<5.0	<5.0	<10.0	39.1	<5.0	<5.0	<5.0	<0.023	<5.0	NT	NT	NT	NT	NT	NT	NT	NT
	7/25/2012	0.33J	<5.0	<5.0	<5.0	0.33J	<5.0	<5.0	<5.0	<0.020	NT	<100	<10	<100	3.6J	<100	<1,000	<100	<100
	6/27/2013	250	<25	45	66	361	<25	<25	10J	<0.020	NT	230J	5.9J	<500	180	<500	<5,000	18J	<500
	7/10/2014	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
	10/27/2015	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
	9/7/2017	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
	8/27/2018	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019	NT	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-18	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.023	<5.0	NT	NT	NT	NT	NT	NT	NT	NT
	7/25/2012	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT	<100	<10	<100	6.5J	<100	<1,000	<100	<100
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT	<100	<10	<100	4.5J	<101	<1,000	<100	<100
	10/27/2015	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020	NT	<100	<10.0	<50.0	5.1	<100	<200	<10.0	<100
	9/7/2017	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
	8/27/2018	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019	NT	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100

TABLE 3
GROUNDWATER COC CONCENTRATION DATA
AUGUST 27, 2018 SAMPLING EVENT
SHREEJAIKSHANI / PANTRY 911
HARDEEVILLE, SOUTH CAROLINA
MECI PROJECT NUMBER 18-6460
SCDHEC ID NUMBER 10628

Well Number	Sample Date	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	Naphthalene (ug/l)	MTBE (ug/l)	1,2 DCA (ug/l)	EDB (ug/l)	Total Lead (ug/l)	TAA (ug/l)	TAME (ug/l)	TBF (ug/l)	DIPE (ug/l)	ETBA (ug/l)	Ethanol (ug/l)	ETBE (ug/l)	TBA (ug/l)
MW-19	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	1.5J	<5.0	<0.029	NT	75J	<10	<100	<10	<100	<1,000	<100	110
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT	<100	<10	<100	<10	<100	<1,000	<100	<100
	10/27/2015	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020	NT	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
	9/7/2017	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
	8/27/2018	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-20	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.022	NT	279	<10	<100	65	<100	<1,000	<100	18J
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019	NT	1,000	<10	<100	160	<100	<1,000	<100	33J
	10/27/2015	<5.0	<5.0	<5.0	<10.0	BDL	2.8J	<5.0	<5.0	<0.020	NT	424	<10.0	<50.0	95.6	<100	<200	<10.0	<100
	9/7/2017	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT	<100	<10.0	<50.0	19.3	<100	<200	<10.0	<100
	8/27/2018	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019	NT	<100	<10.0	<50.0	21.9	<100	<200	<10.0	<100
PW-1R	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.019	<5.0	NT	NT	NT	NT	NT	NT	NT	NT
	7/25/2012	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT	<100	<10	<100	<10	<100	<1,000	<100	<100
	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT	<100	<10	<100	<10	<100	<1,000	<100	<100
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT	<100	<10	<100	<10	<100	<1,000	<100	<100
	10/27/2015	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020	NT	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
	9/7/2017	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019	NT	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
	8/27/2018	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
RW-1	7/25/2012	31,000	32,000	2,800	13,000	78,800	510J	<1,000	1,500	1.2	NT	53,000	<2,000	<20,000	12,000	<20,000	<200,000	<20,000	<20,000
	6/27/2013	27,000	31,000	2,600	11,000	71,600	618J	<1,000	<1,000	0.89P	NT	54,000	<2,000	<20,000	10,000	<20,000	<200,000	<20,000	610J
	7/10/2014	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
	10/27/2015	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
	9/7/2017	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
	8/27/2018	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-2	7/25/2012	160	3.6J	67	68	299 J	8.7	13	<5.0	<0.020	NT	41J	1.8J	<100	<10	<100	<1,000	2.0J	310
	6/27/2013	1,800	110	870	870	3,650	190	140	<50	<0.020	NT	740J	31J	<1,000	<100	<1,000	<10,000	34J	4,900
	7/10/2014	2,100	2,500	820	2,100	7,520	210	470	<100	<0.020	NT	1,300J	89J	<2,000	<200	<2,000	<20,000	53J	5,200
	10/27/2015	2.6J	<5.0	<5.0	<10.0	2.6J	<5.0	3.6J	<5.0	<0.020	NT	194	<10.0	<50.0	<5.0	<100	<200	<10.0	1,610
	9/7/2017	29.9	<5.0	21.5	<5.0	80.5	6.9	5.3	<5.0	<0.020	NT	158	<10.0	<50.0	<5.0	<100	<200	<10.0	220
	8/27/2018	25.2	<5.0	7.3	10.3	42.8	<5.0	<5.0	<5.0	<0.020	NT	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
RW-3	7/25/2012	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
	6/27/2013	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
	7/10/2014	10,000	39,000	3,800	22,000	74,800	930J	1,800	240J	<0.020	NT	7,000J	510J	<20,000	<2,000	<20,000	<200,000	250J	4,900J
	10/27/2015	12,400	10,200	524	1,580	24,804	<500	1,429	<500	<0.020	NT	<10,000	600J	<5,000	<500	<10,000	<20,000	409J	11,000
	9/7/2017	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
	8/27/2018	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-4	10/27/2015	19,000	18,500	1,580	8,850	47,930	1,390	<1,250	473J	1.5	NT	48,300	<2,500	<12,500	4,220	<25,000	<50,000	<2,500	<25,000
	9/7/2017	18,200	18,000	1,360	8,390	45,970	1,480	<625	398J	0.77	NT	32,900	<1,250	<6,250	4,640	<12,500	<25,000	<1,250	<12,500
	8/27/2018	7,550	5,430	251	5,960	19,191	1,160	<250	<250	0.20	NT	5,530	<500	<2,500	1,910	<5,000	<10,000	<500	<5,000
RW-5	10/27/2015	16,200	16,300	1,520	7,400	41,420	925J	<1,000	667J	0.50	NT	53,400	<2,000	<10,000	6,330	<20,000	<40,000	<2,000	<20,000
	9/7/2017	21,700	23,700	1,730	8,990	56,020	1,230	<1,000	816J	0.63	NT	39,600	<2,000	<10,000	8,140	<20,000	<40,000	<2,000	<20,000
	8/27/2018	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-6	10/27/2015	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
	9/7/2017	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
	8/27/2018	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
WSW-1	1/8/2009	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.019	NT	NT	NT	NT	NT	NT	NT	NT	NT
	7/25/2012	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019	NT	<100	<10	<100	<10	<100	<1,000	<100	<100
	6/27/2013	<1.0	<1.0	<1.0	<1.0	BDL	<1.0	<1.0	<1.0	<0.020	NT	<100	<10	<100	<10	<100	<1,000	<100	<100
	7/10/2014	<1.0	<1.0	<1.0	<1.0	BDL	<1.0	<1.0	<1.0	<0.020	NT	<100	<10	<100	<10	<100	<1,000	<100	<100
	10/27/2015	<1.0	<1.0	<1.0	<2.0	BDL	<1.0	<1.0	<1.0	<0.020	NT	<100	<10.0	<50.0	<1.0	<100	<200	<10.0	<100
	9/7/2017	<0.50	<0.50	<0.50	<0.50	BDL	<0.50	<0.50	<0.50	<0.020	NT	<100	<10.0	<50.0	<1.0	<100	<200	<10.0	<100
	8/27/2018	<0.50	<0.50	<0.50	<0.50	BDL	<0.50	<0.50	<0.50	<0.020	NT	<100	<10.0	<50.0	<1.0	<100	<200	<10.0	<100
MW-3R Dup.	7/10/2014	1,400	3,900	1,000	7,000	13,300	220	590	<100	0.28	NT	2,500	110J	<2,000	<200	<2,000	<20,000	62J	3,900
RW-1 Dup.	7/25/2012	30,000	30,000	2,700	12,000	74,700	500	53J	1,500	0.86	NT	54,000	<1,000	<10,000	12,000	<10,000	<100,000	<10,000	1,400J
RW-2 Dup.	6/27/2013	1,900	100	880	880	3,760	190	140	<5U	<0.020	NT	890J	30J	<1,000	<100	<1,000	<10,000	34J	4,700
RW-5 Dup.	10/27/2015	19,300	18,600	1,990	8,950	48,740	967J	<1,000	701J	0.44	NT	53,600	<2,000	<10,000	7,270	<20,000	<40,000	<2,000	<20,000
DUP-1 (RW-2)	9/7/2017	31.2	<5.0	21.4	<5.0	52.6	5.3	5.4	<5.0	<0.020	NT	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	187
WSW DUP(WSW-1)	9/7/2017	<0.50	<0.50	<0.50	<0.50	BDL	<0.50	<0.50	<0.50	<0.020	NT	<100	<10.0	<50.0	<1.0	<100	<200	<10.0	<100
DUP-1(MW-18)	6/27/2018	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019	NT	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
WSW DUP(WSW-1)	8/27/2018	<0.50	<0.50	<0.50	<0.50	BDL	<0.50	<0.50	<0.50	<0.020	NT	<100	<10.0	<50.0	<1.0	<100	<200	<10.0	<100
Field Blank	7/25/2012	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT	<100	<10	<100	<10	<100	<1,000	<100	41J
	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT	<100	<10	<100	<10	<100	<1,000	<100	<100
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.021	NT	<100	<10	<100	<10	<100	<1,000	<100	<100
	10/27/2015	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	<0.020	NT	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
	9/7/2017	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020	NT	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
WSW	9/7/2017	<0.50	<0.50	<0.50	<0.50	BDL	<0.50	<0.50	<0.50	<0.020	NT	<100	<10.0	<50.0	<1.0	<100	<200	<10.0	<100
	8/27/2018	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019	NT	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
WSW	8/27/2018	<0.50	0.26J	<0.50	<0.50	.24J	<0.50	<0.50	<0.50	<0.020	NT	<100	<10.0	<50.0	<1.0	<100	<200	<10.0	<100
Trip Blank	7/25/2012	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	NT	NT	<100	<10	<100	<10	<100	<1,000	<100	<100
	6/27/2013	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	NT	NT	<100	<10	<100	<10	<100	<1,000	<100	<100
	7/10/2014	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	NT	NT	<100	<10	<100	<10	<100	<1,000	<100	<100
	10/27/2015	<5.0	<5.0	<5.0	<10.0	BDL	<5.0	<5.0	<5.0	NT	NT	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
	9/7/2017	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	NT	NT	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
WSW	9/7/2017	<0.50	<0.50	<0.50	<0.50	BDL	<0.50	<0.50	<0.50	NT	NT	<100	<10.0	<50.0	<1.0	<100	<200	<10.0	<100
	8/27/2018	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	NT	NT	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
WSW	8/27/2018	<0.50	0.27J	<0.50	<0.50	.27J	<0.50	<0.50	<0.50	NT	NT	<100	<10.0	<50.0	<1.0	<100	<200	<10.0	<100

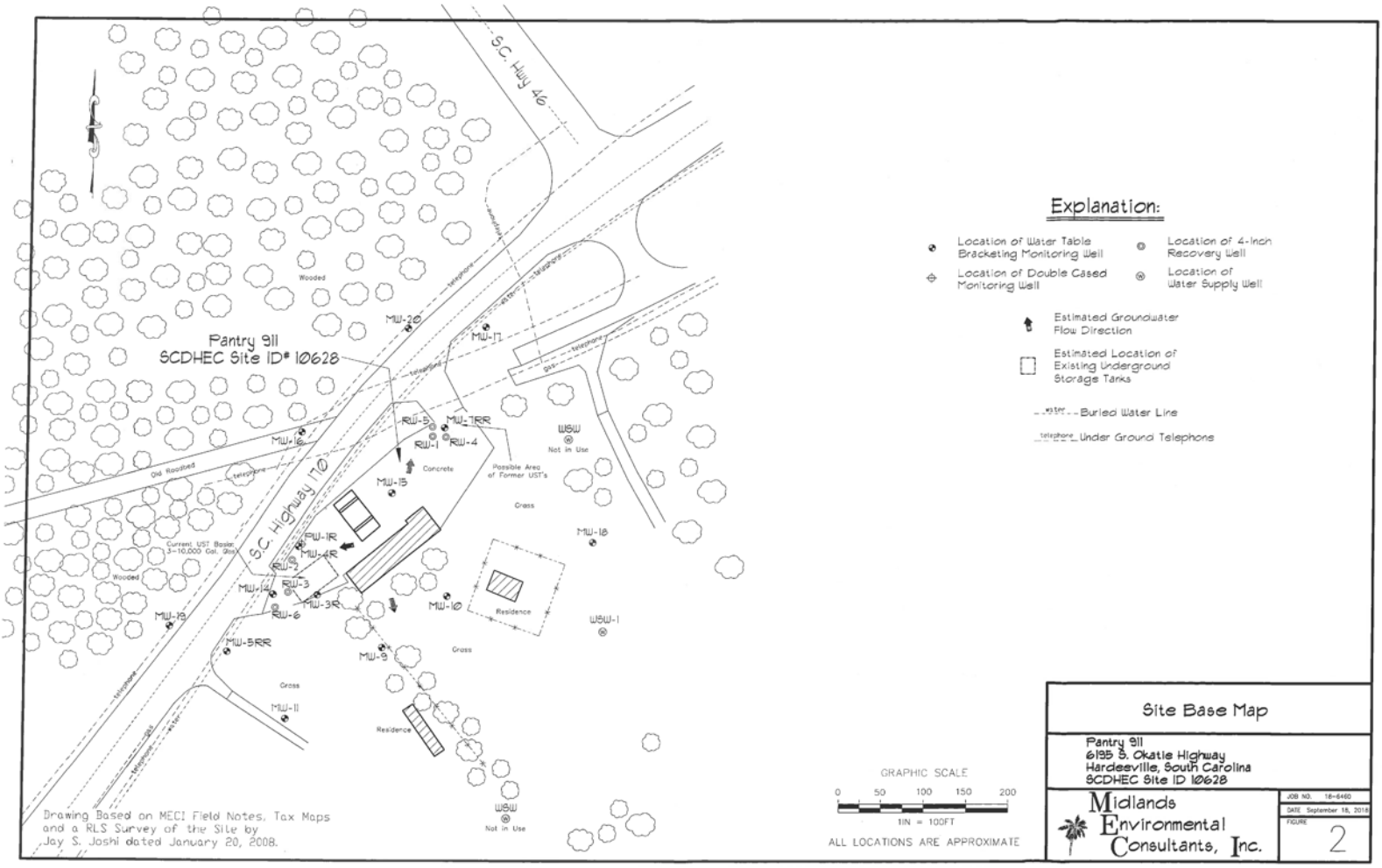
Notes:
1. BDL = Below Practical Quantitative Limits
2. ug/l = micrograms per liter
3. MTBE = Methyl-Tertiary-Butyl Ether
4. 1,2 DCA = 1,2-Dichloroethane
5. EDB = 1,2 - Dibromoethane
6. NL = Not Located
7. NT = Not Tested.
8. H = Out of Hold Time
9. PROD = Free Phase Petroleum Product
10. "J" Values included in Total BTEX Calculations.
11. "J" values report concentrations above the method detection limits (MDL) and below actual reporting limit (RL).

FIGURES



Reference: Limehouse and Hardeeville, South Carolina
Jasper and Pritchardville, South Carolina
USGS 7.5 Min. Quad
Contour Interval—1.5 Meters

Midlands Environmental Consultants, Inc.	Site Location
Pantry 911 6195 South Okatie Highway, Hardeeville, SC SCDHEC Site ID# 10628	
Figure 1	MECI 18-6460

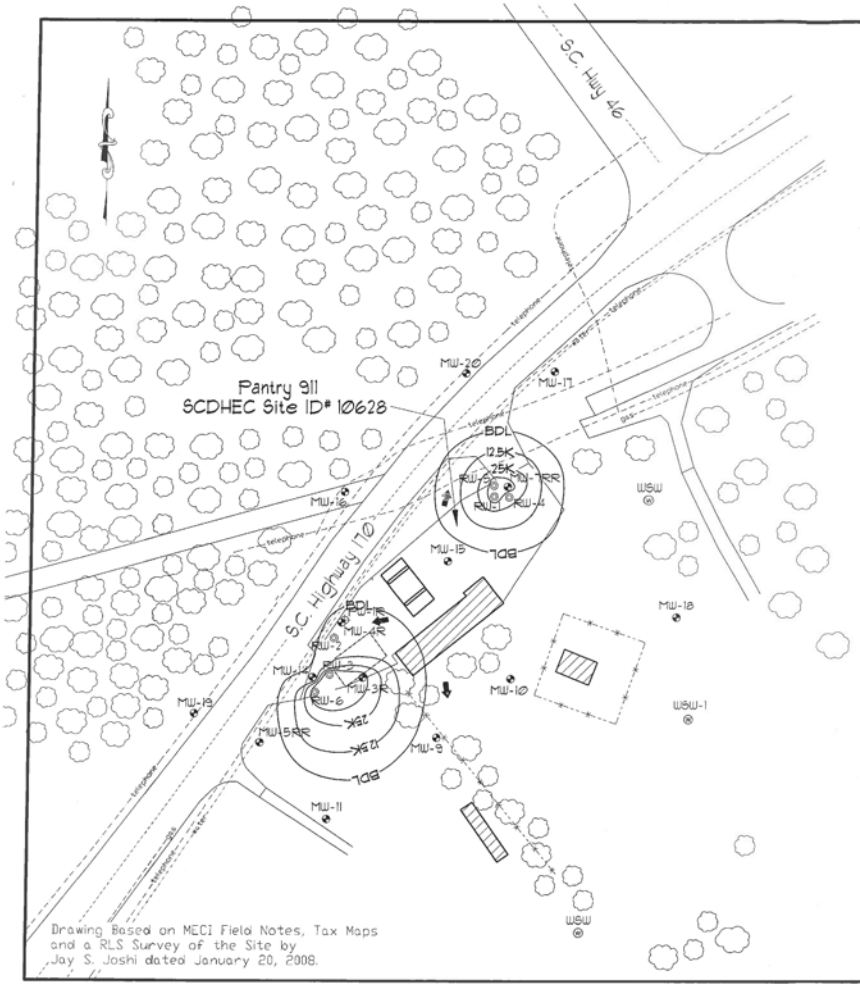


Site Base Map

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 16-6460
DATE September 18, 2018
FIGURE 2



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Water Supply Well
- Location of Double Cased "Deep" Monitoring Well
- Estimated Groundwater Flow Direction
- Location of 4-Inch Recovery Well
- Estimated Location of Removed Underground Storage Tanks
- Total BTEX Concentration Isopleth (ug/l)

Groundwater COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	Naphthalene (ug/l)	MTBE (ug/l)	1,2 DCA (ug/l)	EDB (ug/l)
MW-3R	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-4R	373	10.9J	71.5	561	1,016.4J	46.2	33.3	<12.5	<0.019
MW-5RR	<5.0	<5.0	<5.0	<5.0	BDL	3.9J	4.6J	<5.0	<0.020
MW-7RR	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-9	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
MW-10	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
MW-11	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
MW-14	5.2	3.9J	5.4	11.3	25.8J	<5.0	<5.0	<5.0	<0.019
MW-15	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
MW-16	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
MW-17	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
MW-18	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
MW-19	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-20	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
PW-1R	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
RW-1	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-2	25.2	<5.0	7.3	10.3	42.8	<5.0	<5.0	<5.0	<0.020
RW-3	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-4	7,550	5,430	251	5,960	19,191	1,160	<250	<250	0.20
RW-5	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-6	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
WSW-1	<0.50	<0.50	<0.50	<0.50	BDL	<0.50	<0.50	<0.50	<0.020
DUP-1(MW-18)	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
WSW DUP(WSW-1)	<0.50	<0.50	<0.50	<0.50	BDL	<0.50	<0.50	<0.50	<0.020
Field Blank	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
Trip Blank	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	NT
WSW Field Blank	<0.50	0.26J	<0.50	<0.50	0.26J	<0.50	<0.50	<0.50	<0.020
WSW Trip Blank	<0.50	0.27J	<0.50	<0.50	0.27J	<0.50	<0.50	<0.50	NT

Notes:
- Groundwater samples collected on August 27, 2018.
- Isopleth Interval = 12,500 ug/l
- BDL = Below Detection Limits
- Monitoring well PW-1R not used in isopleth data.
- NL = Not Located
- NT = Not Tested
- PROD = Free Phase Petroleum Detected
- Isopleths Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE
0 50 100 150 200
1IN = 100FT

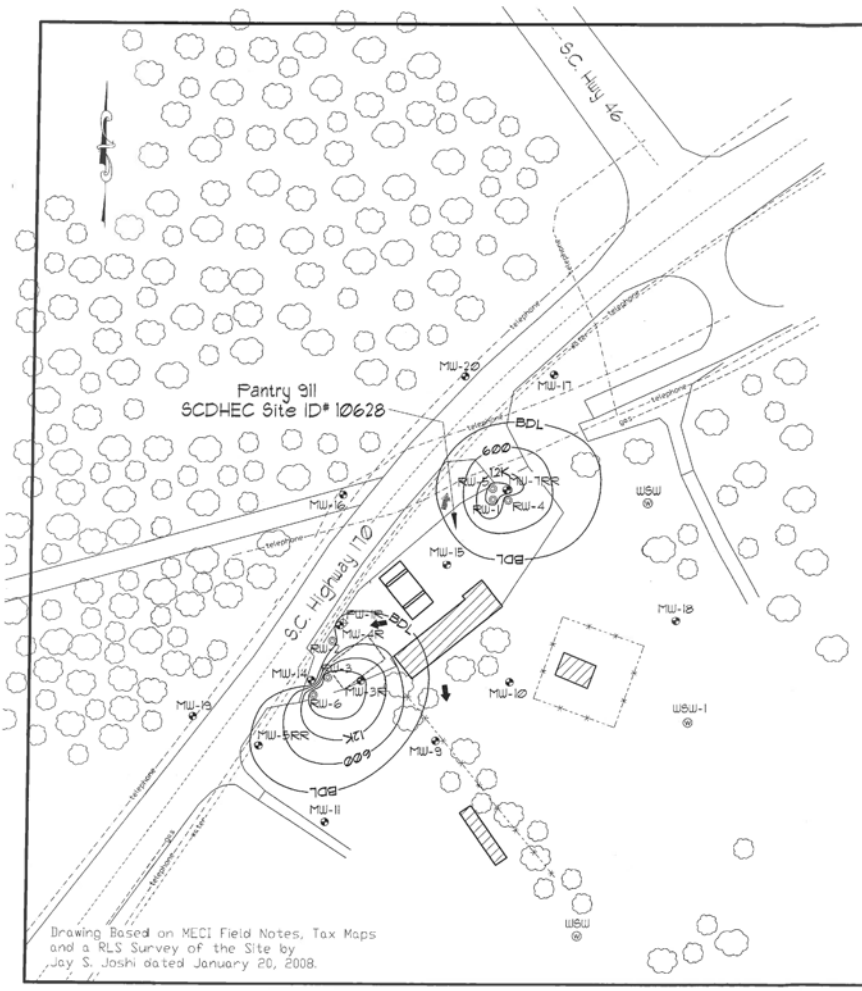
ALL LOCATIONS ARE APPROXIMATE

Groundwater CoC Site Map
(Total BTEX Isopleth)

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 18-6460
DATE September 18, 2018
FIGURE 4



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Water Supply Well
- Location of Double Cased "Deep" Monitoring Well
- Estimated Groundwater Flow Direction
- Location of 4-Inch Recovery Well
- Estimated Location of Removed Underground Storage Tanks
- Naphthalene Concentration Isopleth (ug/l)

Groundwater COC Concentration Data

Sample *	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	Naphthalene (ug/l)	MTBE (ug/l)	1,2 DCA (ug/l)	EDB (ug/l)
MW-3R	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-4R	373	10.9J	71.5	561	1,016.4J	46.2	33.3	<12.5	<0.019
MW-5RR	<5.0	<5.0	<5.0	<5.0	BDL	3.9J	4.6J	<5.0	<0.020
MW-7RR	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-9	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
MW-10	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
MW-11	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
MW-14	5.2	3.9J	3.4	11.3	23.8J	<5.0	<5.0	<5.0	<0.019
MW-15	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
MW-16	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
MW-17	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
MW-18	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
MW-19	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-20	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
PW-1R	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
RW-1	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-2	25.2	<5.0	7.3	10.3	42.8	<5.0	<5.0	<5.0	<0.020
RW-3	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-4	7,550	5,430	251	5,960	19,191	1,160	<250	<250	0.20
RW-5	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-6	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
WSW-1	<0.50	<0.50	<0.50	<0.50	BDL	<0.50	<0.50	<0.50	<0.020
DUP-1(MW-18)	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
WSW DUP(WSW-1)	<0.50	<0.50	<0.50	<0.50	BDL	<0.50	<0.50	<0.50	<0.020
Field Blank	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
Trip Blank	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	NT
WSW Field Blank	<0.50	0.26J	<0.50	<0.50	0.26J	<0.50	<0.50	<0.50	<0.020
WSW Trip Blank	<0.50	0.27J	<0.50	<0.50	0.27J	<0.50	<0.50	<0.50	NT

Notes:
- Groundwater samples collected on August 27, 2018.
- Isopleth Interval = 600 ug/l
- BDL = Below Detection Limits
- Monitoring well PW-1R not used in Isopleth data.
- NL = Not Located
- NT = Not Tested
- PROD = Free Phase Petroleum Detected
- Isopleths Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE
0 50 100 150 200
1IN = 100FT

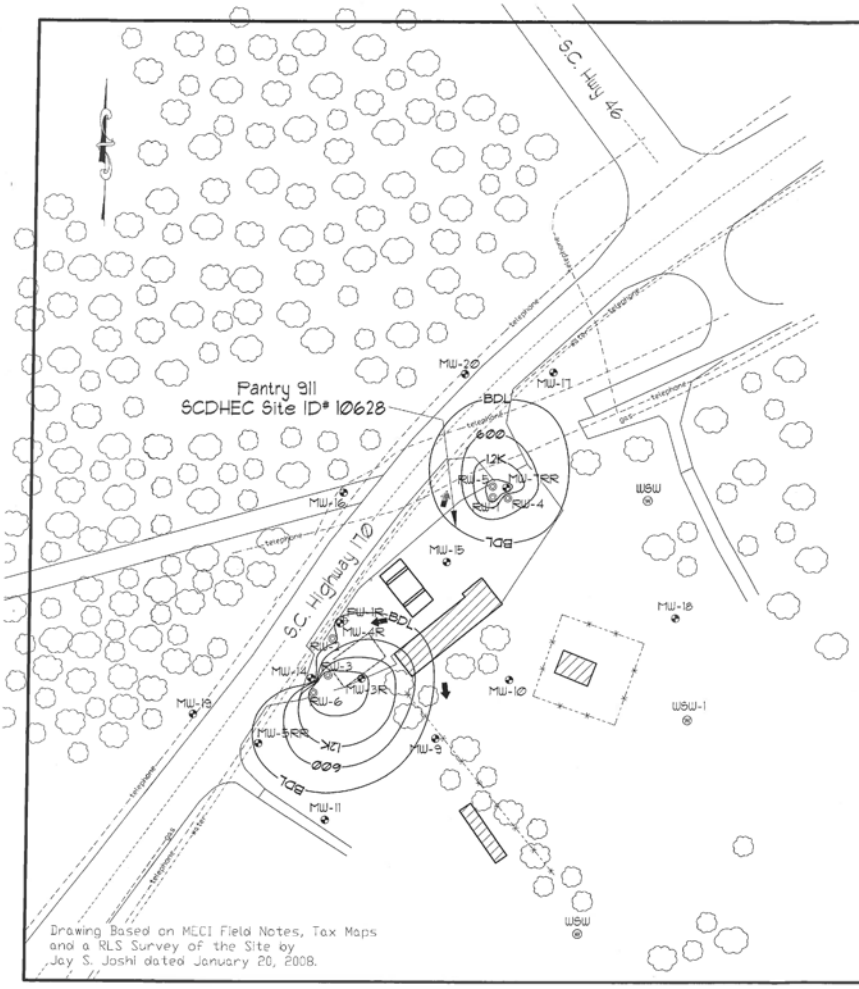
ALL LOCATIONS ARE APPROXIMATE

Groundwater CoC Site Map
(Naphthalene Isopleth)

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 18-6460
DATE September 18, 2018
FIGURE 4A



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Water Supply Well
- Location of Double Cased "Deep" Monitoring Well
- Estimated Groundwater Flow Direction
- Location of 4-Inch Recovery Well
- Estimated Location of Removed Underground Storage Tanks
- MTBE Concentration Isopleth (ug/l)

Groundwater COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Total BTEX (ug/l)	Naphthalene (ug/l)	MTBE (ug/l)	1,2 DCA (ug/l)	EDB (ug/l)
MW-3R	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-4R	373	10.9J	71.5	561	1,016.4J	46.2	33.3	<12.5	<0.019
MW-5RR	<5.0	<5.0	<5.0	<5.0	BDL	3.9J	4.6J	<5.0	<0.020
MW-7RR	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-9	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
MW-10	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
MW-11	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
MW-14	5.2	3.9J	5.4	11.3	25.8J	<5.0	<5.0	<5.0	<0.019
MW-15	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
MW-16	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
MW-17	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
MW-18	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
MW-19	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
MW-20	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
PW-1R	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.020
RW-1	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-2	25.2	<5.0	7.3	10.3	42.8	<5.0	<5.0	<5.0	<0.020
RW-3	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-4	7,550	5,430	251	5,960	19,191	1,160	<250	<250	0.20
RW-5	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-6	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
WSW-1	<0.50	<0.50	<0.50	<0.50	BDL	<0.50	<0.50	<0.50	<0.020
DUP-1(MW-18)	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
WSW DUP(WSW-1)	<0.50	<0.50	<0.50	<0.50	BDL	<0.50	<0.50	<0.50	<0.020
Field Blank	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	<0.019
Trip Blank	<5.0	<5.0	<5.0	<5.0	BDL	<5.0	<5.0	<5.0	NT
WSW Field Blank	<0.50	0.26J	<0.50	<0.50	0.26J	<0.50	<0.50	<0.50	<0.020
WSW Trip Blank	<0.50	0.27J	<0.50	<0.50	0.27J	<0.50	<0.50	<0.50	NT

Notes:
- Groundwater samples collected on August 27, 2018.
- Isopleth Interval = 600 ug/l
- BDL = Below Detection Limits
- Monitoring well PW-1R not used in Isopleth data.
- NL = Not Located
- NT = Not Tested
- PROD = Free Phase Petroleum Detected
- Isopleths Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE
0 50 100 150 200
1IN = 100FT

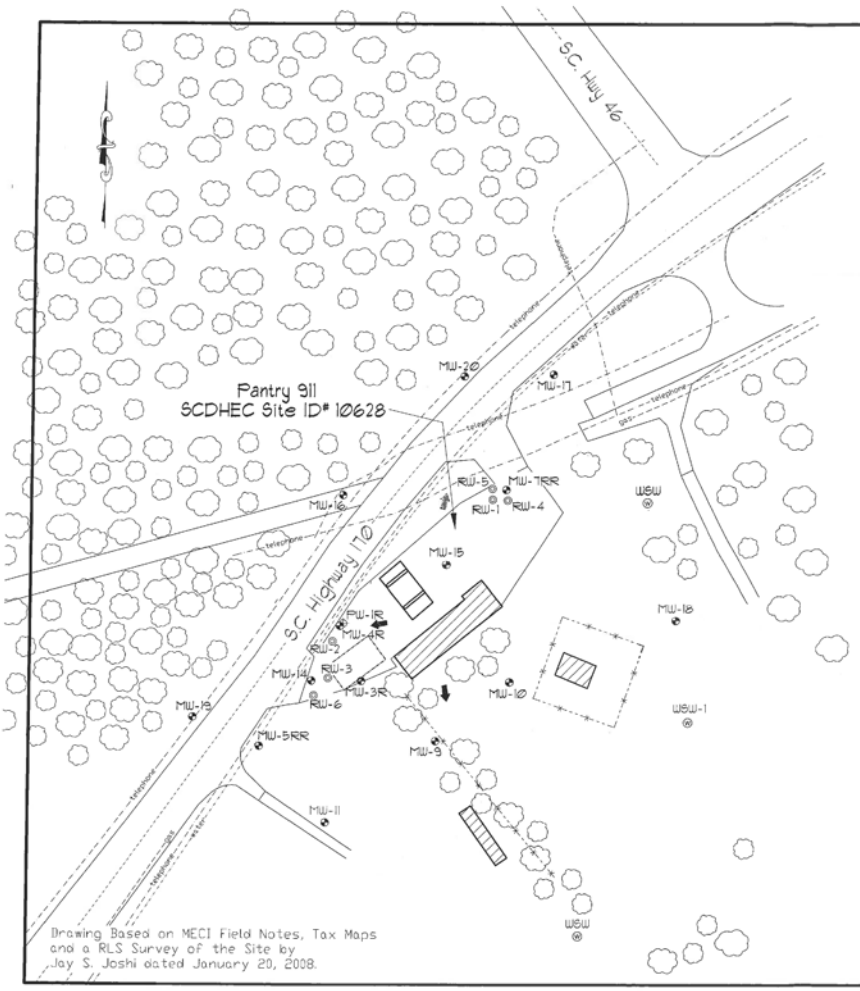
ALL LOCATIONS ARE APPROXIMATE

Groundwater CoC Site Map
(MTBE Isopleth)

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 18-6490
DATE September 18, 2018
FIGURE 4B



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Water Supply Well
- Location of Double Cased "Deep" Monitoring Well
- Estimated Groundwater Flow Direction
- Location of 4-inch Recovery Well
- Estimated Location of Removed Underground Storage Tanks

Groundwater COC Concentration Data - Oxygenates

Sample #	TAA (ug/l)	TAME (ug/l)	TBF (ug/l)	DIPE (ug/l)	ETBA (ug/l)	Ethanol (ug/l)	ETBE (ug/l)	TBA (ug/l)
MW-3R	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-4R	868	<25.0	<125	<12.5	<250	<500	16.6J	1,610
MW-5RR	493	<10.0	<50.0	<5.0	<100	<200	7.1J	497
MW-7RR	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-9	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-10	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-11	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-14	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-15	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-16	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-17	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-18	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-19	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
MW-20	<100	<10.0	<50.0	21.9	<100	<200	<10.0	<100
PW-1R	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
RW-1	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-2	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
RW-3	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-4	5,530	<500	<2,500	1,910	<5,000	<10,000	<500	<5,000
RW-5	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
RW-6	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
WSW-1	<100	<10.0	<50.0	<1.0	<100	<200	<10.0	<100
DUP-1(MW-18)	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
WSW DUP(WSW-1)	<100	<10.0	<50.0	<1.0	<100	<200	<10.0	<100
Field Blank	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
Trip Blank	<100	<10.0	<50.0	<5.0	<100	<200	<10.0	<100
WSW Field Blank	<100	<10.0	<50.0	<1.0	<100	<200	<10.0	<100
WSW Trip Blank	<100	<10.0	<50.0	<1.0	<100	<200	<10.0	<100

Notes: Groundwater samples collected on August 27, 2018.

DIPE = Diisopropyl Ether
ETBE = Ethyl tert-butyl Ether
TAA = tert-Amyl Alcohol
TAME = tert-Amy Methyl Ether
TBA = tert-Butyl Alcohol
TBF = tert-Butyl Formate

GRAPHIC SCALE
0 50 100 150 200
1IN = 100FT

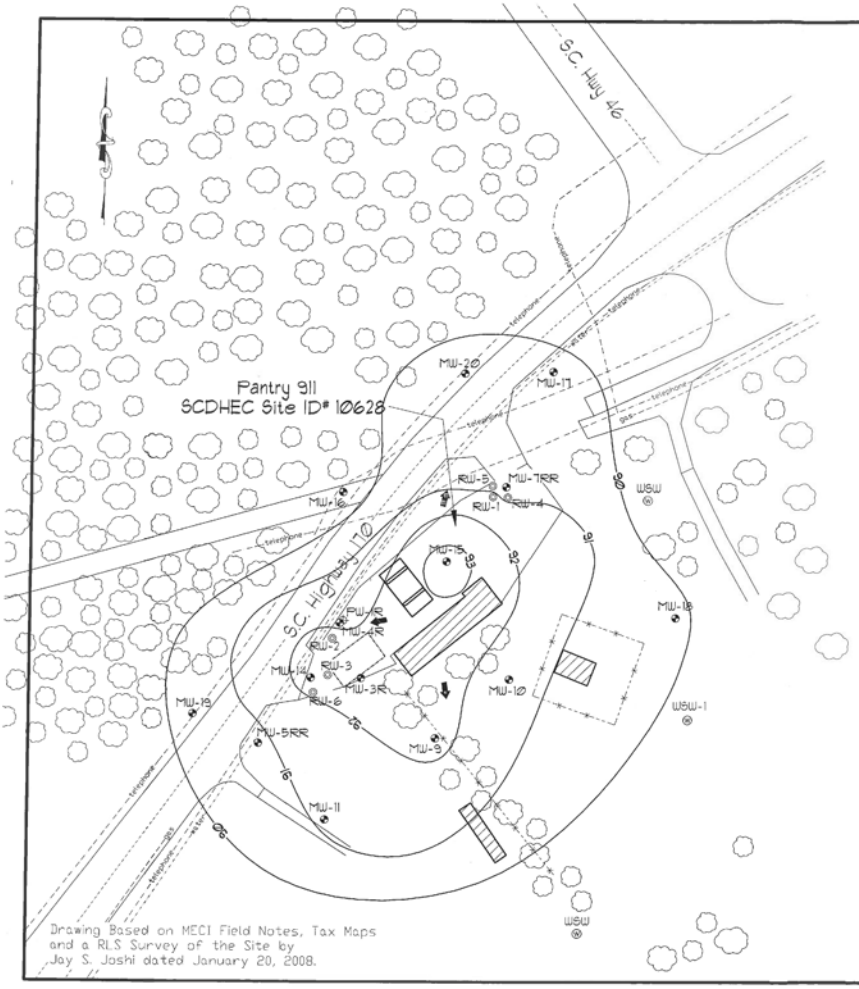
ALL LOCATIONS ARE APPROXIMATE

Groundwater CoC Site Map
(Oxygenates)

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO 18-6460
DATE September 18, 2018
FIGURE 4C



Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated January 20, 2008.

Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Water Supply Well
- Location of Double Cased "Deep" Monitoring Well
- Estimated Groundwater Flow Direction
- Location of 4-Inch Recovery Well
- Estimated Location of Removed Underground Storage Tanks
- Groundwater Elevation Contour (feet)

Potentiometric Data

Well #	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Well Head Elevation	Groundwater Elevation
MW-3R	2-12	2.28	2.32	0.04	94.56	92.27
MW-4R	5-15	---	2.18	---	93.75	91.57
MW-5RR	2-12	---	1.41	---	92.18	90.77
MW-7RR	2-12	4.87	4.88	0.01	95.80	90.93
MW-9	8-18	---	4.50	---	96.73	92.23
MW-10	2-12	---	1.95	---	93.29	91.34
MW-11	2-12	---	0.59	---	91.62	91.03
MW-14	3.05-13.05	---	0.83	---	93.23	92.40
MW-15	2-12	---	2.51	---	96.12	93.61
MW-16	7-17	---	7.83	---	97.02	89.19
MW-17	3-13	---	4.14	---	94.96	90.82
MW-18	2-12	---	1.00	---	91.34	90.34
MW-19	2-12	---	2.49	---	93.01	90.52
MW-20	4-14	---	7.98	---	98.84	90.86
PW-1R	30-35	---	3.04	---	93.47	90.43
RW-1	2-12	4.70	4.75	0.05	96.15	91.44
RW-2	2-12	---	0.89	---	93.56	92.67
RW-3	2-12	1.01	1.51	0.50	93.22	92.14
RW-4	2-15	---	5.12	---	96.05	90.93
RW-5	2-15	4.81	4.83	0.02	95.60	90.79
RW-6	2-15	1.79	5.29	3.50	93.07	90.76

Notes: Depth to groundwater measured on August 27, 2018.

Site Datum Based on Assumed Spot Elevation.

Contour Interval = 1.00 Feet

Monitoring well RW-6 was not used in contouring.

Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

GRAPHIC SCALE

0 50 100 150 200

1IN = 100FT

ALL LOCATIONS ARE APPROXIMATE

Potentiometric Data Site Map
(Groundwater Contour)

Pantry 911
6195 S. Okatie Highway
Hardeeville, South Carolina
SCDHEC Site ID 10628

Midlands Environmental Consultants, Inc.

JOB NO. 18-6460
DATE September 18, 2018
FIGURE 5

APPENDIX A:

SITE SURVEY

(Not Applicable)

APPENDIX B:

SAMPLING LOGS, LABORATORY DATA SHEETS, & CHAIN-OF-CUSTODY FORMS

Midlands Environmental Consultants, Inc.

Monitoring Well Purge And Sampling Data

Field Personnel: JC, LP

Sampling Date(s): 8/27/18

Sampling Case#: 1

Job Name: Pantry 911

Job Number: 18-6460

Calibration Data for :

Calibration Successful? Yes or No (Please Circle)

pH: (Yes) No

Conductivity: (Yes) No

Dissolved Oxygen: (Yes) No

Turbidity: Conductivity Calibrated Every 3 Months by QA Manager

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet): product	Depth to (feet): Initial H_2O	Depth to (feet): final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	Gallons Purged actual	Notes
MW-3R	Initial	11:06		0.04'	Product			2.28	2.32		2-12				0.04' Product
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
MW-4R	Initial	10:36	5.89	272.4	31.3	1.19	19.52		2.18		5-15	4.82	2.09	Dry@ 4.5	Color
	1st	10:39	5.84	274.8	30.7	1.01	47.36								
	2nd	10:42	5.79	273.2	30.1	0.88	49.90						10.45		
	3rd														
	4th														
	5th														
	Sampling	11:00	5.78	270.1	30.0	0.85	24.68								
MW-5RR	Initial	9:58	6.09	389.8	24.8	1.74	116.9		1.41		2-12	10.59	1.73	Dry@ 3.25	No Odor
	1st	10:00	6.06	382.5	24.7	2.20	128.2								
	2nd	10:02	6.04	379.6	24.6	2.49	191.4						8.63		
	3rd														
	4th														
	5th														
	Sampling	10:12	6.03	380.1	24.7	2.71	139.6								
MW-7RR	Initial	12:06		0.01'	Product			4.87	4.88		2-12				0.01' Product
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														

*= (Depth of Well) - (Depth to Water = **Water Height**

One Well Volume =x.047 for 1" wells * x **.163 for 2" wells**, or * x **.66 for 4" wells**, 1.469 for 6" wells

= One Well Volume x 5 = **Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Midlands Environmental Consultants, Inc.

Monitoring Well Purge And Sampling Data

Field Personnel: JC, LP

Sampling Date(s): 8/27/18

Sampling Case#: 1

Job Name: Pantry 911

Job Number: 18-6460

Calibration Data for :

Calibration Successful? Yes or No (Please Circle)

pH: (Yes) No

Conductivity: (Yes) No

Dissolved Oxygen: (Yes) No

Turbidity: **Conductivity Calibrated Every 3 Months by QA Manager**

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet): product	Depth to (feet): Initial H_2O	Depth to (feet): final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	Gallons Purged actual	Notes
MW-9	Initial	9:45	6.62	189.0	24.2	6.07	28.12		4.50		8-18	[redacted]	2.66	DRY @ 8.0	No Odor
	1st	9:48	6.58	172.9	23.9	5.48	56.40		SV: 283			16.33			
	2nd	9:51	6.54	175.7	23.7	5.17	59.71								
	3rd	9:54	6.52	168.2	23.6	5.03	60.01		1.67				13.31		
	4th														
	5th														
	Sampling	10:16	6.51	170.5	23.6	4.99	33.97								
MW-10	Initial	12:28	4.82	471	25.3	1.46	27.83		1.95		2-12	10.05	1.64	DRY @ 3.5	No Odor
	1st	12:30	4.86	441	24.9	1.21	52.66								
	2nd	12:32	4.89	438	24.7	1.03	54.75						8.19		
	3rd														
	4th														
	5th														
	Sampling	12:42	4.88	444	24.7	0.99	32.80								
MW-11	Initial	13:10	6.03	210.1	25.8	6.07	33.22		0.59		2-12	11.41	1.86	DRY @ 4.0	[redacted] Organic Odor
	1st	13:12	6.08	197.6	25.9	5.97	59.79								
	2nd	13:14	5.99	192.5	24.9	5.85	61.02						9.30		
	3rd														
	4th														
	5th														
	Sampling	13:24	6.00	195.8	25.0	5.81	39.48								
MW-14	Initial	10:22	6.24	239.4	30.0	1.10	47.10		0.83		3.05-13.05	12.22	1.99	DRY @ 3.0	No Odor
	1st	10:24	6.29	245.2	29.6	0.96	61.32								
	2nd												9.96		
	3rd														
	4th														
	5th														
	Sampling	10:34	6.31	243.9	29.5	0.93	50.66								

*= (Depth of Well) - (Depth to Water = **Water Height**

One Well Volume =x.047 for 1" wells * x .163 for 2" wells, or * x .66 for 4" wells, 1.469 for 6" wells

**= One Well Volume x 5 = Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Midlands Environmental Consultants, Inc.

Monitoring Well Purge And Sampling Data

Field Personnel: JC, LD

Sampling Date(s): 8/27/18

Sampling Case#: 1

Job Name: Pantry 911

Job Number: 18-6460

Calibration Data for :

Calibration Successful? Yes or No (Please Circle)

pH: (Yes) No

Conductivity: (Yes) No

Dissolved Oxygen: (Yes) No

Turbidity: **Conductivity Calibrated Every 3 Months by QA Manager**

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet): product	Depth to (feet): Initial H_2O	Depth to (feet): final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	Gallons Purged actual	Notes
MW-15	Initial	11:32	5.54	239.6	31.2	1.90	27.19		2.51		2-12	9.49	1.55	DRY @ 2.5	slight odor
	1st	11:34	5.60	241.8	30.7	1.84	49.99						7.73		
	2nd														
	3rd														
	4th														
	5th														
	Sampling	11:55	5.61	244.7	30.8	1.76	33.02								
MW-16	Initial	11:16	5.36	266.6	25.6	2.19	16.09		7.83		7-17	9.17	1.49	DRY @ 2.0	No Odor
	1st	11:18	5.27	280.0	25.2	2.08	35.77						7.47		
	2nd														
	3rd														
	4th														
	5th														
	Sampling	11:28	5.25	284.9	25.0	2.05	19.40								
MW-17	Initial	11:23	5.37	171.8	27.5	2.55	12.38		4.14		3-13	8.86	1.44	DRY @ 2.0	Organic Odor
	1st	11:25	5.33	163.1	27.1	2.20	28.41						7.22		
	2nd														
	3rd														
	4th														
	5th														
	Sampling	11:36	5.31	165.4	27.1	2.16	16.85								
MW-18	Initial	12:20	6.10	92.7	25.5	3.58	42.29		1.00		2-12	11.00	1.79	DRY @ 4.0	No Odor
	1st	12:22	6.07	86.2	25.1	3.05	71.06						8.97		DUP
	2nd	12:24	6.05	85.4	24.9	2.92	73.37								
	3rd														
	4th														
	5th														
	Sampling	12:35	6.06	83.2	25.0	2.90	48.70								

*= (Depth of Well) - (Depth to Water = **Water Height**

One Well Volume =x.047 for 1" wells * x **.163 for 2" wells,** or * x **.66 for 4" wells**, 1.469 for 6" wells

= One Well Volume x **5 = Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Midlands Environmental Consultants, Inc.

Monitoring Well Purge And Sampling Data

Field Personnel: JC, LP

Sampling Date(s): 8/27/18

Sampling Case#: 1

Job Name: Pantry 911

Job Number: 18-6460

Calibration Data for :

Calibration Successful? Yes or No (Please Circle)

pH: (Yes) No

Conductivity: (Yes) No

Dissolved Oxygen: (Yes) No

Turbidity: Conductivity Calibrated Every 3 Months by QA Manager

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet): product	Depth to (feet): Initial H_2O	Depth to (feet): final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	Gallons Purged actual	Notes
MW-19	Initial	10:16	6.13	312.6	27.5	1.80	36.29		2.49		2-12	9.51	1.55	Dry @ 2.0	No Odor
	1st	10:18	6.12	309.2	27.1	1.74	45.80						7.75		
	2nd														
	3rd														
	4th														
	5th														
	Sampling	10:27	6.10	305.7	27.2	1.71	38.61								
MW-20	Initial	11:10	5.58	374.6	28.5	0.93	28.37		7.98		4-14	6.02	0.98	Dry @ 1.0	No Odor
	1st	11:11	5.59	378.2	28.3	0.88	35.16						4.94		
	2nd														
	3rd														
	4th														
	5th														
	Sampling	11:20	5.60	379.1	28.3	0.87	32.20								
PW-1R	Initial	10:36	6.22	316.2	29.7	1.59	17.42		3.04		30-35	31.96	5.21	Dry @ 5.5	Well has no cap
	1st	10:43	6.08	303.5	27.8	1.32	32.60						26.05		Odor
	2nd														
	3rd														
	4th														
	5th														
	Sampling	11:02	6.06	309.8	27.6	1.28	21.94								
RW-1	Initial	12:00		0.05' Product				4.70	4.75		2-12				0.05' Product
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														

*= (Depth of Well) - (Depth to Water = **Water Height**

One Well Volume =x.047 for 1" wells * x **.163 for 2" wells**, or * x **.66 for 4" wells**, 1.469 for 6" wells

= One Well Volume x 5 = **Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Midlands Environmental Consultants, Inc.

Monitoring Well Purge And Sampling Data

Field Personnel: JC, LP

Sampling Date(s): 8/27/18

Sampling Case#: 1

Job Name: Pantry 911

Job Number: 18-6460

Calibration Data for :

Calibration Successful? Yes or No (Please Circle)

pH: (Yes) No

Conductivity: (Yes) No

Dissolved Oxygen: (Yes) No

Turbidity: Conductivity Calibrated Every 3 Months by QA Manager

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet): product	Depth to (feet): Initial H_2O	Depth to (feet): final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	Gallons Purged actual	Notes
RW-2	Initial	10:46	6.01	219.0	30.3	2.30	17.24		0.89		2-12	11.11	7.25	Dry @ 12.0	Odor
	1st	10:54	6.09	212.4	29.7	2.11	59.46								
	2nd														
	3rd														
	4th														
	5th														
	Sampling	11:07	6.12	207.9	29.8	1.95	27.01						36.27		
RW-3	Initial	10:57		0.50' Product				1.01			2-12				0.50' Product
	1st														
	2nd														
	3rd														
	4th														
	5th								1.51						
	Sampling														
RW-4	Initial	11:38		Sheen											
	1st	11:45		Sheen											
	2nd	11:52		Sheen					5.12		2-15	9.88	6.45	Dry @ 17.5	Odor Sheen
	3rd														
	4th														
	5th														
	Sampling	12:09		Sheen									32.26		
RW-5	Initial	11:58		0.02' Product				4.81	4.83		2-15				0.02' Product
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														

*= (Depth of Well) - (Depth to Water = **Water Height**

One Well Volume =x.047 for 1" wells * x **.163 for 2" wells**, or * x **.66 for 4" wells**, 1.469 for 6" wells

= One Well Volume x 5 = **Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Midlands Environmental Consultants, Inc.

Monitoring Well Purge And Sampling Data

Field Personnel: JC, LP

Sampling Date(s): 8/27/18

Sampling Case#: 1

Job Name: Pantry 911

Job Number: 18-6460

Calibration Data for :

Calibration Successful? Yes or No (Please Circle)

pH: (Yes) No

Conductivity: (Yes) No

Dissolved Oxygen: (Yes) No

Turbidity: Conductivity Calibrated Every 3 Months by QA Manager

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet): product	Depth to (feet): initial H_2O	Depth to (feet): final H_2O	Well Depth (feet)	Water Height *(feet)	Gallons Purged **calc.	Gallons Purged actual	Notes
RW-6	Initial	11:04		3.5	Product			1.79	5.29		2-15				3.5' Product
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
DUP-1	Initial	12:25	RW-18		No Odor										
	1st														
	2nd														
FB	3rd	12:50													
	4th														
TB	5th	12:51													
	Sampling														
	Initial														
	1st														
	2nd	12:48	Stickup spigot in Backyard												
WSW-1	3rd														
	4th														
	5th														
	Sampling														
WSW-DUP	Initial	12:49													
	1st														
	2nd														
WSW-FB	3rd	12:52													
	4th														
WSW-TB	5th	12:53													
	Sampling														

*= (Depth of Well) - (Depth to Water = **Water Height**

One Well Volume =x.047 for 1" wells * x **.163 for 2" wells**, or * x **.66 for 4" wells**, 1.469 for 6" wells

= One Well Volume x 5 = **Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251