D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

FEB 16 2007

MR THOMAS F DONN PG
ENVIROSOUTH ENVIRONMENTAL CONSULTANTS
3440 AUGUSTA RD
GREENVILLE SC 29605

Re: Former Red Diamond Oil Company, 519 East North 1st Street, Seneca, SC
UST Permit #14324; CA #25430
Bid #IFB-28949-10/4/05-EMW; PO #605692
Release reported December 30, 1991
Corrective Action System Evaluation (CASE) report received February 14, 2007
Oconee County

Dear Mr. Donn:

The Underground Storage Tank (UST) Program has reviewed the referenced CASE report documenting activities conducted from August 2006 to February 2007. Based upon the current data, EnviroSouth has achieved a 93.08% reduction in the total free-phase product thickness.

The next CASE report documenting activities from February to May 2007 is due on or before **July 1, 2007**. On all correspondence regarding this site, please reference UST Permit #06738. If you have any questions, feel free to contact me by telephone at (803) 896-6398, by fax at (803) 896-6245, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Underground Storage Tank Program
Bureau of Land and Waste Management

JPP/jpp
14324.6

cc: Betty Latham, 2 Stratton Place, Greenville, SC 29615-4217
Technical file

DHEC/UST/JPP/021507

UST PROGRAM
DOCKETING #

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

CERTIFIED MAIL
91 7108 2133 3932 9287 7782

DEC 0 6 2007

MR THOMAS F DONN PG
ENVIROSOUTH ENVIRONMENTAL CONSULTANTS
3440 AUGUSTA RD
GREENVILLE SC 29605

Re: **Warning Notice**
Former Red Diamond Oil Company, 519 East North 1st Street, Seneca, SC
UST Permit #14324; CA #25430
Bid #IFB-28949-10/4/05-EMW; PO #605692
Release reported December 30, 1991
Correspondence from UST Program to EnviroSouth dated February 16, 2007
Oconee County

Dear Mr. Donn:

In correspondence from the UST Program dated February 16, 2007, EnviroSouth Environmental Consultants Group was directed to submit a quarterly corrective action system evaluation (CASE) for the Former Red Diamond Oil Company on or before July 1, 2007. To date, the requested CASE has not been received. Per the referenced bid, EnviroSouth is required to submit CASE reports on a quarterly basis.

Please submit the requested CASE on or before **January 7, 2008**. If the CASE is not submitted by this date, EnviroSouth will receive a breach of contract letter.

On all correspondence regarding this facility, please reference UST Permit #14324. If you have any questions regarding this correspondence, feel free to contact me by telephone at (803) 896-6398, by fax at (803) 896-6245, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Underground Storage Tank Program
Bureau of Land and Waste Management

JPP/jpp
14324.7

enc: Correspondence to EnviroSouth from the UST Program dated February 16, 2007

cc: Technical file (w/o enc)
Contractor certification file (w/o enc)

UST PROGRAM
DOCKETING # 2

DHEC/UST/JPP/120507

ENVIROSOUTH
Environmental Consultants

RECEIVED
JAN 07 2008
UNDERGROUND STORAGE TANK PROGRAM

December 31, 2007

SCDHEC
Bureau of Land and Waste Management
UST Program
2600 Bull Street
Columbia, South Carolina 29201

Attention: Mr. Joel Padgett

Re: Former Red Diamond
(SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Dear Mr. Padgett:

EnviroSouth, Inc. is pleased to provide the SCDHEC UST Program with the remediation and groundwater monitoring report for the Former Red Diamond site in Seneca, South Carolina.

EnviroSouth appreciates the opportunity to be of service to the SCDHEC UST Program. If you have comments or questions concerning the attached report, please do not hesitate to call.

Sincerely,

EnviroSouth, Inc.

Brendan M. Brodie, P.G.
Project Hydrogeologist
S.C. Registration No. 2252

BMB/td

cc: Jessy Smith
R.P. Julian
W.D. MacAulay
Ralph Manly
Betty Lathem

phone: 864.236.9010 • fax: 864.236.9097
3440 Augusta Road • Greenville, SC 29605 • www.envirosouth.com

UST PROGRAM
DOCKETING # 3

RECEIVED

JAN 0 7 2008

UNDERGROUND STORAGE
TANK PROGRAM

Prepared for:

South Carolina Department of Health and Environmental Control
(SCDHEC)
Underground Storage Tank (UST) Program
2600 Bull Street
Columbia, South Carolina 29201

Attn: Mr. Joel Padgett

GROUNDWATER MONITORING REPORT

FORMER RED DIAMOND
519 EAST NORTH 1st STREET
SENECA, SOUTH CAROLINA

(UST PERMIT #14324)

Job No. 1334

Prepared by:

EnviroSouth, Inc.
3440 Augusta Road
Greenville, South Carolina 29605

December 31, 2007

INTRODUCTION

EnviroSouth has completed groundwater gauging and remediation services at the Former Red Diamond facility (UST Permit #14324) facility located in Seneca, South Carolina. The purpose of the gauging event was to evaluate the current water levels and thickness of free-phase petroleum in various monitoring wells and extraction points.

This report includes a description of the field/remediation services, along with our current findings, conclusions, and recommendations.

METHODS and FINDINGS

Groundwater Elevation and Movement

Water level measurements in all monitoring wells and extraction points were last recorded by EnviroSouth with a hydrocarbon sensitive electronic interface probe on February 9, 2007. The interface probe was decontaminated prior to and between each measurement to prevent cross-contamination between wells. The water table aquifer occurs under unconfined conditions underlying the site at depths ranging from 26.14 to 38.97 feet below land surface. Free product was detected in monitoring well MW-1 at a thickness of 0.48 feet. The TOC elevations, water level measurements, and ground water elevation data recorded to date are included on Table 1.

A Product Thickness Map was generated based on free-product thicknesses obtained from site monitoring wells and extraction points. The map is included as Figure 1.

PRODUCT BAILING

Since the last report, EnviroSouth has conducted monthly product bailing. Bailed product has been collected and stored in two 55-gallon drums onsite. Approximately 100 gallons of free-product has been collected to date.

FREE-PRODUCT THICKNESS REDUCTION

Based on the free-product thickness reduction calculation, the free-product reduction at the site is 93.08 percent. The initial cumulative free-product thickness equals 6.97 feet and the SSTL free-product thickness equals 0.03 feet. The initial mass above the SSTL is 6.94 feet. The subsequent free-product thickness for the February 9, 2007 gauging event is 0.48 feet.

$$\text{Free-Product Thickness Reduction} = \frac{(M-N)}{(M)} = \frac{(6.94 - 0.48)}{6.94} = 0.9308*100 = 93.08\% \text{ Reduction}$$

CONCLUSIONS

EnviroSouth plans to continue bailing events until product thickness readings are less than 0.01 foot in all affected monitoring wells. If necessary, additional extraction points may be installed to enhance the rate of site clean-up.

EnviroSouth, Inc.

Brendan M. Brodie, P.G.
Project Hydrogeologist
S.C. Registration No. 2252

BMB/td

APPENDICES

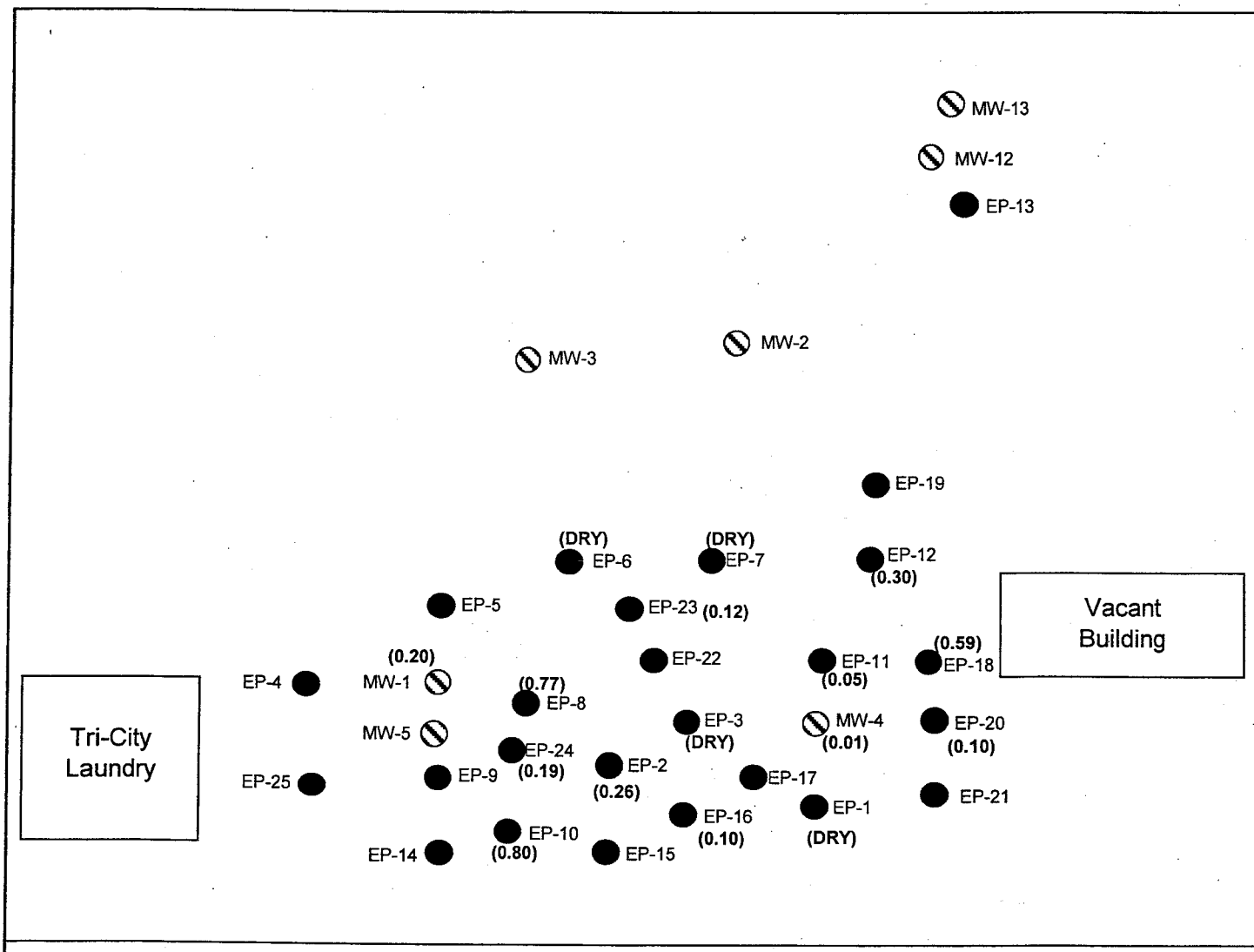
FIGURES

FIGURE 1 – Extraction Point Locations and Product Thickness Map

TABLES

TABLE 1 - Groundwater Elevation Data
TABLE 2 – Product Thickness Data

FIGURES



ENVIROSOUTH
Environmental Consultants

EXTRACTION POINT LOCATIONS AND PRODUCT THICKNESS MAP

FORMER RED DIAMOND
519 EAST NORTH 1ST STREET
SENECA, SOUTH CAROLINA

JOB No: 1334	CHECKED BY: BMB	FIGURE: 1
SCALE: NTS	DRAWN BY: BMB	DATE: 1/04/08

TABLES

TABLE 1

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-1	4/18/03	98.32	29.07	33.27	4.20	65.05
	10/26/05		23.37	27.51	4.14	73.52
	5/4/06		25.64	26.71	1.07	72.41
	5/11/06		26.75	26.87	0.12	71.54
	6/6/06		26.26	26.40	0.14	72.03
	8/14/06		28.25	28.50	0.25	70.01
	2/9/07		27.74	28.22	0.48	70.46
	11/20/07		31.75	31.95	0.20	66.41
MW-2	4/18/05	98.60	--	29.20	ND	69.40
	10/26/05		--	26.00	ND	72.60
	5/4/06		--	27.38	ND	71.22
	8/14/06		--	29.26	ND	69.34
	2/9/07		--	29.02	ND	69.58
	11/20/07		--	33.10	ND	65.50
MW-3	4/18/03	97.92	--	27.93	ND	69.99
	10/26/05		--	24.85	ND	73.07
	5/4/06		--	26.16	ND	71.76
	8/14/06		--	28.09	ND	69.83
	2/9/07		--	27.85	ND	70.07
	11/20/07		--	32.10	ND	65.82
MW-4	4/18/03	99.07	38.29	34.43	3.86	64.64
	10/26/05		24.75	27.61	2.86	73.61
	5/4/06		26.60	27.17	0.57	72.33
	6/6/06		27.27	27.28	0.01	71.79
	8/14/06		--	28.45	ND	70.62
	2/9/07		--	29.15	ND	69.92
	11/20/07		32.47	32.48	0.01	66.60
MW-5	4/18/03	98.03	--	27.67	ND	70.36
	10/26/05		--	24.57	ND	73.46
	5/4/06		--	25.82	ND	72.21
	8/14/06		--	26.24	ND	71.79
	2/9/07		--	26.14	ND	71.89
	11/20/07		--	31.25	ND	66.78
MW-6	4/18/03	103.06	--	32.20	ND	70.86
	10/26/05		--	30.38	ND	72.68
MW-7	4/18/03	99.30	--	32.30	ND	67.25
	10/26/05		--	28.52	ND	70.78
	5/4/06		--	30.10	ND	69.20
	8/14/06		--	31.33	ND	67.97
	2/9/07		--	31.19	ND	68.11
	11/20/07		--	35.01	ND	64.29

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-8	4/18/03	102.13	--	37.88	ND	64.25
	10/26/05		--	35.18	ND	66.95
	5/4/06		--	36.47	ND	65.66
	8/14/06		--	37.05	ND	65.08
	2/9/07		--	36.88	ND	65.25
	11/20/07		--	40.93	ND	61.20
MW-9	4/18/03	104.97	--	38.90	ND	66.07
	10/26/05		--	35.70	ND	69.27
	5/4/06		--	36.70	ND	68.27
	8/14/06		--	37.77	ND	67.20
	2/9/07		--	37.52	ND	67.45
	11/20/07		--	41.60	ND	63.37
MW-10	4/18/03	104.50	--	39.70	ND	64.80
	10/26/05		--	36.52	ND	67.98
	5/4/06		--	38.00	ND	66.50
	8/14/06		--	39.14	ND	65.36
	2/9/07		--	38.97	ND	65.53
	11/20/07		--	42.99	ND	61.51
MW-11	4/18/03	102.92	--	41.10	ND	61.82
	10/26/05		Missing	Missing	--	--
	5/4/06		--	35.89	ND	67.03
	8/14/06		--	36.98	ND	65.94
	2/9/07		--	36.69	ND	66.23
	11/20/07		--	40.02	ND	62.90
MW-12	4/18/03	99.12	--	33.91	ND	65.21
	10/26/05		--	29.24	ND	69.88
	5/4/06		--	29.40	ND	69.72
	8/14/06		--	30.90	ND	68.22
	2/9/07		--	30.77	ND	68.35
	11/20/07		--	33.55	ND	65.57
MW-13	4/18/03	99.41	32.25	33.39	0.57	66.02
	10/26/05		29.58	29.60	0.02	69.83
	5/4/06		--	30.90	ND	68.51
	6/6/06		--	31.35	ND	68.06
	8/14/06		--	32.55	ND	66.86
	2/9/07		--	32.39	ND	67.02
	11/20/07		--	36.20	ND	63.21
MW-14	4/18/03	97.12	--	28.50	ND	68.62
	10/26/05		--	25.80	ND	71.32
MW-15	4/18/05	92.56	--	28.68	ND	63.88
	10/26/05		--	23.42	ND	69.14

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-16	4/18/03	86.29	--	18.65	ND	67.64
	10/26/05		--	13.20	ND	73.09
MW-17	4/18/03	93.98	--	23.41	ND	70.57
	10/26/05		--	20.89	ND	73.09
	5/4/06		--	26.90	ND	67.08
	8/14/06		--	28.06	ND	65.92
	2/9/07		--	27.91	ND	66.07
	11/20/07		--	30.99	ND	62.99
MW-19	4/18/03	99.58	--	33.35	ND	66.23
	10/26/05		--	30.33	ND	69.25
	5/4/06		--	31.75	ND	67.83
	8/14/06		--	32.91	ND	66.67
	2/9/07		--	32.74	ND	66.84
	11/20/07		--	35.06	ND	64.52
MW-20	4/18/03	99.86	--	33.63	ND	66.23
	5/4/06		--	32.35	ND	67.51
	8/14/06		--	33.88	ND	65.98
	2/9/07		--	33.65	ND	66.21
	11/20/07		--	36.21	ND	63.65
MW-21	4/18/03	99.67	--	37.28	ND	62.39
MW-22	4/18/03	89.60	--	29.20	ND	60.40
	5/4/06		--	29.74	ND	59.86
	8/14/06		--	30.99	ND	58.61
	2/9/07		--	30.78	ND	58.82
	11/20/07		--	34.92	ND	54.68

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Notes: *1) ND = None Detected*
2) NM = Not Measured

TABLE 2

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-1	2/20/06	--	26.76	ND
	5/4/06	--	27.10	ND
	5/11/06	--	27.03	ND
	6/6/06	--	27.48	ND
	6/27/06	--	27.82	ND
	7/13/06	--	27.96	ND
	8/14/06	--	28.74	ND
	12/15/06	--	30.31	ND
	1/8/07	--	30.12	ND
	2/9/07	--	30.08	ND
	11/20/07	--	DRY	--
EP-2	2/20/06	26.20	27.11	0.91
	5/4/06	26.48	28.60	2.12
	5/11/06	26.70	27.65	0.95
	6/6/06	27.02	28.89	1.87
	6/27/06	27.44	28.88	1.44
	7/13/06	27.60	28.80	1.20
	8/14/06	28.25	29.95	1.70
	12/15/06	29.68	31.70	2.02
	1/8/07	30.72	31.22	0.50
	2/9/07	28.98	30.22	1.24
	11/20/07	32.15	32.41	0.26
EP-3	2/20/06	25.90	27.47	1.57
	5/4/06	26.24	28.66	2.42
	5/11/06	26.65	27.20	0.55
	6/6/06	27.00	28.51	1.51
	6/27/06	27.37	28.59	1.22
	7/13/06	27.51	28.51	1.00
	8/14/06	28.21	29.41	1.20
	12/15/06	29.90	30.30	0.40
	1/8/07	30.20	30.27	0.07
	2/9/07	29.06	29.30	0.24
	11/20/07	--	DRY	--
EP-4	5/4/06	--	25.80	ND
	5/11/06	--	25.76	ND
	6/6/06	--	26.29	ND
	6/27/06	--	26.56	ND
	7/13/06	--	26.79	ND
	8/14/06	--	27.45	ND
	12/15/06	28.90	29.00	0.10
	1/8/07	28.88	28.89	0.01
	2/9/07	--	27.85	ND
	11/20/07	--	31.70	ND

TABLE 2

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-5	5/4/06	--	25.80	ND
	5/11/06	--	25.78	ND
	6/6/06	--	26.30	ND
	6/27/06	--	26.60	ND
	7/13/06	--	26.76	ND
	8/14/06	--	27.47	ND
	12/15/06	28.76	28.95	0.19
	1/8/07	--	28.69	ND
	2/9/07	--	27.68	ND
	11/20/07	--	32.40	ND
EP-6	5/4/06	26.05	26.08	0.03
	5/11/06	--	26.05	ND
	6/6/06	26.45	26.59	0.14
	6/27/06	26.81	27.00	0.19
	7/13/06	26.94	27.04	0.10
	8/14/06	28.71	28.95	0.24
	12/15/06	29.04	29.15	0.11
	1/8/07	--	28.98	ND
	2/9/07	27.91	27.96	0.05
	11/20/07	--	DRY	--
EP-7	5/4/06	--	26.54	ND
	5/11/06	--	26.49	ND
	6/6/06	27.04	27.08	0.04
	6/27/06	--	27.30	ND
	7/13/06	--	27.44	ND
	8/14/06	28.21	28.37	0.16
	12/15/06	29.60	29.68	0.08
	1/8/07	--	29.45	ND
	2/9/07	28.63	28.64	0.01
	11/20/07	--	DRY	--
EP-8	5/4/06	25.87	25.99	0.12
	5/11/06	--	25.83	ND
	6/6/06	26.30	26.59	0.29
	6/27/06	26.50	26.59	0.09
	7/13/06	26.61	26.71	0.10
	8/14/06	27.47	27.85	0.38
	12/15/06	28.85	29.40	0.55
	1/8/07	28.50	28.65	0.15
	11/20/07	32.00	32.77	0.77

TABLE 2

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-9	5/4/06	25.42	26.22	0.80
	5/11/06	25.54	25.70	0.16
	6/6/06	25.80	27.01	1.21
	6/27/06	26.36	26.70	0.34
	7/13/06	26.52	26.77	0.25
	8/14/06	27.01	28.12	1.11
	12/15/06	28.75	29.08	0.33
	1/8/07	28.86	28.87	0.01
	2/9/07	27.77	28.67	0.90
	11/20/07	--	31.42	ND
EP-10	5/4/06	26.47	27.99	1.52
	5/11/06	26.50	27.49	0.99
	6/6/06	26.84	28.80	1.96
	6/27/06	27.24	28.80	1.56
	7/13/06	27.36	28.86	1.50
	8/14/06	27.99	30.00	2.01
	12/15/06	29.54	31.55	2.01
	1/8/07	30.74	31.14	0.40
	2/9/07	29.02	29.58	0.56
	11/20/07	33.00	33.80	0.80
EP-11	5/4/06	27.34	26.36	0.98
	5/11/06	26.63	26.80	0.17
	6/6/06	26.97	28.05	1.08
	6/27/06	27.40	28.00	0.60
	7/13/06	27.55	27.95	0.50
	8/14/06	28.22	28.99	0.77
	12/15/06	29.39	31.65	2.26
	1/8/07	31.15	31.32	0.17
	2/9/07	29.08	29.25	0.17
	11/20/07	32.25	32.30	0.05
EP-12	5/4/06	26.70	26.72	0.02
	5/11/06	26.61	26.65	0.04
	6/6/06	27.11	27.42	0.31
	6/27/06	27.42	27.70	0.28
	7/13/06	27.63	27.88	0.25
	8/14/06	28.37	28.49	0.12
	12/15/06	29.70	30.40	0.70
	1/8/07	30.09	30.10	0.01
	2/9/07	29.02	29.04	0.02
	11/20/07	31.90	32.20	0.30

TABLE 2

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-13	5/4/06	--	30.62	ND
	5/11/06	--	30.81	ND
	6/6/06	--	31.03	ND
	6/27/06	--	31.32	ND
	7/13/06	--	31.40	ND
	8/14/06	--	32.30	ND
	12/15/06	--	33.69	ND
	1/8/07	--	33.22	ND
	2/9/07	--	32.45	ND
	11/20/07	--	36.20	ND
EP-14	7/13/06	--	27.88	ND
	8/14/06	--	27.89	ND
	12/15/06	--	29.47	ND
	1/8/07	--	29.31	ND
	2/9/07	--	29.02	ND
	11/20/07	--	32.20	ND
EP-15	7/13/06	--	27.92	ND
	8/14/06	--	28.39	ND
	12/15/06	--	30.00	ND
	1/8/07	--	29.45	ND
	2/9/07	--	29.12	ND
	11/20/07	--	32.70	ND
EP-16	7/13/06	27.75	27.95	0.20
	8/14/06	28.40	28.62	0.22
	12/15/06	29.92	30.35	0.43
	1/8/07	--	30.11	ND
	2/9/07	29.22	29.23	0.01
	11/20/07	32.30	32.40	0.10
EP-17	7/13/06	--	28.22	ND
	8/14/06	--	28.50	ND
	12/15/06	--	30.04	ND
	1/8/07	--	29.65	ND
	2/9/07	--	29.57	N
	11/20/07	--	32.17	ND
EP-18	7/13/06	27.99	28.24	0.25
	8/14/06	28.19	29.00	0.81
	12/15/06	29.50	31.25	1.75
	1/8/07	30.77	30.97	0.20
	2/9/07	29.08	29.33	0.25
	11/20/07	31.41	32.00	0.59

TABLE 2

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-19	7/13/06	--	28.31	ND
	8/14/06	--	28.43	ND
	12/15/06	--	29.92	ND
	1/8/07	--	29.77	ND
	2/9/07	--	29.43	ND
	11/20/07	--	32.15	ND
EP-20	1/8/07	--	30.09	ND
	2/9/07	29.68	30.17	0.49
	11/20/07	32.40	32.50	0.10
EP-21	1/8/07	--	30.02	ND
	2/9/07	--	29.57	ND
	11/20/07	--	32.55	ND
EP-22	1/8/07	--	30.01	ND
	2/9/07	--	29.07	ND
	11/20/07	--	32.65	ND
EP-23	1/8/07	--	30.12	ND
	2/9/07	27.94	27.99	0.05
	11/20/07	32.00	32.12	0.12
EP-24	1/8/07	29.89	30.19	0.30
	2/9/07	29.33	29.68	0.35
	11/20/07	31.91	32.10	0.19
EP-25	1/8/07	--	30.14	ND
	2/9/07	--	27.88	ND
	11/20/07	--	31.70	ND

Notes: 1) ND = None Detected

ENVIROSOUTH Environmental Consultants

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

JAN 09 2008

MR THOMAS F DONN PG
ENVIROSOUTH ENVIRONMENTAL CONSULTANTS
3440 AUGUSTA RD
GREENVILLE SC 29605

Re: CASE report review
Former Red Diamond Oil Company, 519 East North 1st Street, Seneca, SC
UST Permit #14324; CA #25430
Bid #IFB-28949-10/4/05-EMW; PO #605692
Release reported December 30, 1991
Corrective Action System Evaluation (CASE) report received January 4, 2008
Oconee County

Dear Mr. Donn:

The Underground Storage Tank (UST) Program has reviewed the referenced CASE report documenting activities conducted from February 2007 to November 2007. Based upon the current data, EnviroSouth has achieved a 97.26% reduction in the total free-phase product thickness ([6.94'-0.19']/6.94'= 0.9726*100=97.26%)

The next CASE report documenting activities from November 2007 to February 2008 is due on or before **April 1, 2008**. On all correspondence regarding this site, please reference UST Permit #14324. If you have any questions, feel free to contact me by telephone at (803) 896-6398, by fax at (803) 896-6245, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Underground Storage Tank Program
Bureau of Land and Waste Management

JPP/jpp
14324.8

cc: Betty Latham, 2 Stratton Place, Greenville, SC 29615-4217
Technical file

DHEC/UST/JPP/010808

UST PROGRAM
DOCKETING # 4

ENVIROSOUTH
Environmental Consultants

RECEIVED
JUL 28 2008
UNDERGROUND STORAGE
TANK PROGRAM

July 24, 2008

SCDHEC
Bureau of Land and Waste Management
UST Program
2600 Bull Street
Columbia, South Carolina 29201

Attention: Mr. Joel Padgett

Re: Former Red Diamond
(SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Dear Mr. Padgett:

EnviroSouth, Inc. is pleased to provide the SCDHEC UST Program with the attached remediation and groundwater monitoring report for the Former Red Diamond site in Seneca, South Carolina.

EnviroSouth appreciates the opportunity to be of service to the SCDHEC UST Program. In the future, we will ensure that reports are sent out on a regular quarterly schedule as required. If you have comments or questions concerning the attached report, please do not hesitate to call.

Sincerely,

EnviroSouth, Inc.

Thomas F. Donn, P.G.
Project Hydrogeologist
S.C. Registration No. 908

TFD/td

UST DOCKET
ST

phone: 864.236.9010 • fax: 864.236.9097
3440 Augusta Road • Greenville, SC 29605 • www.envirosouth.com

RECEIVED
JUL 28 2008
UNDERGROUND STORAGE
TANK PROGRAM

Prepared for:

South Carolina Department of Health and Environmental Control
(SCDHEC)
Underground Storage Tank (UST) Program
2600 Bull Street
Columbia, South Carolina 29201

Attn: Mr. Joel Padgett

REMEDIATION AND GROUNDWATER MONITORING REPORT

FORMER RED DIAMOND
519 EAST NORTH 1st STREET
SENECA, SOUTH CAROLINA

(UST PERMIT #14324)

Job No. 1334

Prepared by:

EnviroSouth, Inc.
3440 Augusta Road
Greenville, South Carolina 29605

July 24, 2008

INTRODUCTION

EnviroSouth has completed groundwater gauging and remediation services at the Former Red Diamond facility (UST Permit #14324) facility located in Seneca, South Carolina. The purpose of the gauging event was to evaluate the current water levels and thickness of free-phase petroleum in various monitoring wells and extraction points.

This report includes a description of the field/remediation services, along with our current findings, conclusions, and recommendations.

METHODS and FINDINGS

Groundwater Elevation and Movement

Water level measurements in all monitoring wells and extraction points were last recorded by EnviroSouth with a hydrocarbon sensitive electronic interface probe on June 5, 2008. The interface probe was decontaminated prior to and between each measurement to prevent cross-contamination between wells. The water table aquifer occurs under unconfined conditions underlying the site at depths ranging from approximately 31 to 43 feet below land surface. Free product was detected in monitoring well MW-1 at a thickness of 0.15 feet and in well MW-4 at a thickness of 2.32 feet. The TOC elevations, water level measurements, and ground water elevation data recorded to date are included on Table 1.

A Product Thickness Map was generated based on free-product thicknesses obtained from site monitoring wells and extraction points. The map is included as Figure 1.

Product Recovery

Since the last report, EnviroSouth has conducted monthly manual product recovery events. The ineffective results of manual bailing indicate that AFVR events will be needed to achieve project closure.

Free-Product Thickness Reduction

Based on the free-product thickness reduction calculation, the free-product reduction at the site is 64.41 percent. The initial cumulative free-product thickness equals 6.97 feet and the SSTL free-product thickness equals 0.03 feet. The initial mass above the SSTL is 6.94 feet. The subsequent free-product thickness for the June 5, 2008 gauging event is 2.47 feet.

Free-Product Thickness Reduction = $\frac{(M-N)}{(M)} = \frac{(6.94-2.47)}{6.94} = 0.6441*100 = 64.41\%$ Reduction

CONCLUSIONS

EnviroSouth plans to be much more aggressive in product recovery efforts. This will include conducting monthly AFVR events during this time of extremely low water table elevations.

EnviroSouth, Inc.

Thomas F. Donn, P.G.
Project Hydrogeologist
S.C. Registration No. 908

TFD/td

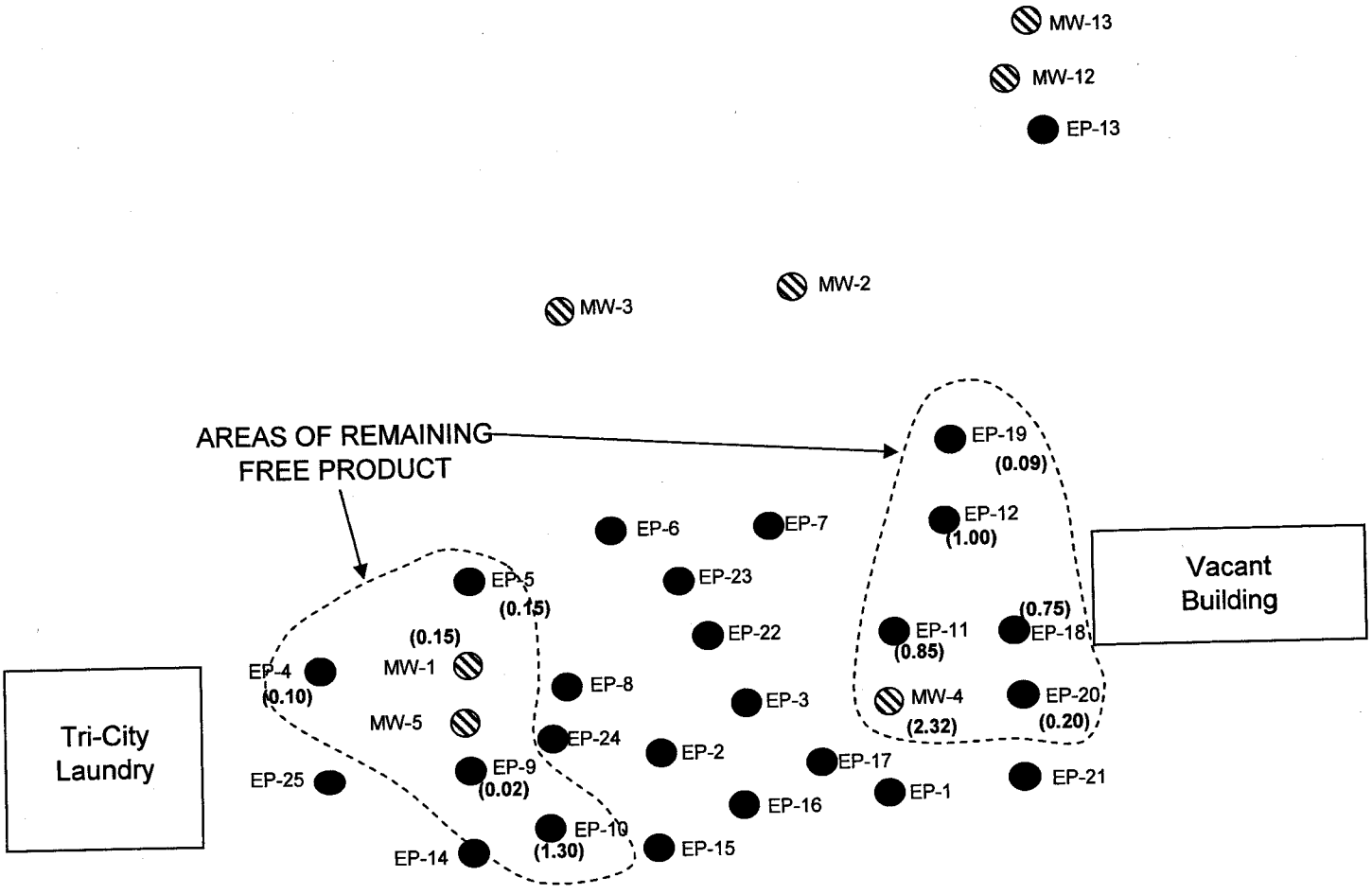
APPENDICES

FIGURES

1 – Extraction Point Locations and Product Thickness Map

TABLES

1 - Groundwater Elevation Data
2 – Product Thickness Data



LEGEND

ND= None Detected

Monitoring Well Location

MW-5 and MW-12 are Deep Wells

EXTRACTION POINT LOCATIONS AND PRODUCT THICKNESS MAP
(DATA COLLECTED 6/5/08)

FORMER RED DIAMOND
519 EAST NORTH 1ST STREET
SENECA, SOUTH CAROLINA

ENVIROSOUTH Environmental Consultants

JOB No: 1334	CHECKED BY: TFD	FIGURE: 1
SCALE: NTS	DRAWN BY: TD	DATE: 7/24/08

TABLE 1

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-1	4/18/03	98.32	29.07	33.27	4.20	65.05
	10/26/05		23.37	27.51	4.14	73.52
	5/4/06		25.64	26.71	1.07	72.41
	5/11/06		26.75	26.87	0.12	71.54
	6/6/06		26.26	26.40	0.14	72.03
	8/14/06		28.25	28.50	0.25	70.01
	2/9/07		27.74	28.22	0.48	70.46
	11/20/07		31.75	31.95	0.20	66.52
	6/5/08		32.00	32.15	0.15	66.28
MW-2	4/18/05	98.60	--	29.20	ND	69.40
	10/26/05		--	26.00	ND	72.60
	5/4/06		--	27.38	ND	71.22
	8/14/06		--	29.26	ND	69.34
	2/9/07		--	29.02	ND	69.58
	11/20/07		--	33.10	ND	65.50
	6/5/08		--	33.30	ND	65.30
MW-3	4/18/03	97.92	--	27.93	ND	69.99
	10/26/05		--	24.85	ND	73.07
	5/4/06		--	26.16	ND	71.76
	8/14/06		--	28.09	ND	69.83
	2/9/07		--	27.85	ND	70.07
	11/20/07		--	32.10	ND	65.82
	6/5/08		--	32.28	ND	65.64
MW-4	4/18/03	99.07	38.29	34.43	3.86	64.64
	10/26/05		24.75	27.61	2.86	73.61
	5/4/06		26.60	27.17	0.57	72.33
	6/6/06		27.27	27.28	0.01	71.79
	8/14/06		--	28.45	ND	70.62
	2/9/07		--	29.15	ND	69.92
	11/20/07		32.47	32.48	0.01	66.60
	6/5/08		32.40	34.72	2.32	66.09
MW-5	4/18/03	98.03	--	27.67	ND	70.36
	10/26/05		--	24.57	ND	73.46
	5/4/06		--	25.82	ND	72.21
	8/14/06		--	26.24	ND	71.79
	2/9/07		--	26.14	ND	71.89
	11/20/07		--	31.25	ND	66.78
	6/5/08		--	31.47	ND	66.56
MW-6	4/18/03	103.06	--	32.20	ND	70.86
	10/26/05		--	30.38	ND	72.68

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-7	4/18/03	99.30	--	32.30	ND	67.25
	10/26/05		--	28.52	ND	70.78
	5/4/06		--	30.10	ND	69.20
	8/14/06		--	31.33	ND	67.97
	2/9/07		--	31.19	ND	68.11
	11/20/07		--	35.01	ND	64.29
	6/5/08		--	35.19	ND	64.11
MW-8	4/18/03	102.13	--	37.88	ND	64.25
	10/26/05		--	35.18	ND	66.95
	5/4/06		--	36.47	ND	65.66
	8/14/06		--	37.05	ND	65.08
	2/9/07		--	36.88	ND	65.25
	11/20/07		--	40.93	ND	61.20
	6/5/08		--	41.11	ND	61.02
MW-9	4/18/03	104.97	--	38.90	ND	66.07
	10/26/05		--	35.70	ND	69.27
	5/4/06		--	36.70	ND	68.27
	8/14/06		--	37.77	ND	67.20
	2/9/07		--	37.52	ND	67.45
	11/20/07		--	41.60	ND	63.37
	6/5/08		--	41.82	ND	63.15
MW-10	4/18/03	104.50	--	39.70	ND	64.80
	10/26/05		--	36.52	ND	67.98
	5/4/06		--	38.00	ND	66.50
	8/14/06		--	39.14	ND	65.36
	2/9/07		--	38.97	ND	65.53
	11/20/07		--	42.99	ND	61.51
	6/5/08		--	43.10	ND	61.40
MW-11	4/18/03	102.92	--	41.10	ND	61.82
	10/26/05		Missing	Missing	--	--
	5/4/06		--	35.89	ND	67.03
	8/14/06		--	36.98	ND	65.94
	2/9/07		--	36.69	ND	66.23
	11/20/07		--	40.02	ND	62.90
	6/5/08		--	40.20	ND	62.72
MW-12	4/18/03	99.12	--	33.91	ND	65.21
	10/26/05		--	29.24	ND	69.88
	5/4/06		--	29.40	ND	69.72
	8/14/06		--	30.90	ND	68.22
	2/9/07		--	30.77	ND	68.35
	11/20/07		--	33.55	ND	65.57
	6/5/08		--	33.77	ND	65.35

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-13	4/18/03	99.41	32.25	33.39	0.57	66.02
	10/26/05		29.58	29.60	0.02	69.83
	5/4/06		--	30.90	ND	68.51
	6/6/06		--	31.35	ND	68.06
	8/14/06		--	32.55	ND	66.86
	2/9/07		--	32.39	ND	67.02
	11/20/07		--	36.20	ND	63.21
	6/5/08		--	36.17	ND	63.24
MW-14	4/18/03	97.12	--	28.50	ND	68.62
	10/26/05		--	25.80	ND	71.32
MW-15	4/18/05	92.56	--	28.68	ND	63.88
	10/26/05		--	23.42	ND	69.14
MW-16	4/18/03	86.29	--	18.65	ND	67.64
	10/26/05		--	13.20	ND	73.09
MW-17	4/18/03	93.98	--	23.41	ND	70.57
	10/26/05		--	20.89	ND	73.09
	5/4/06		--	26.90	ND	67.08
	8/14/06		--	28.06	ND	65.92
	2/9/07		--	27.91	ND	66.07
	11/20/07		--	30.99	ND	62.99
	6/5/08		--	31.09	ND	62.89
MW-19	4/18/03	99.58	--	33.35	ND	66.23
	10/26/05		--	30.33	ND	69.25
	5/4/06		--	31.75	ND	67.83
	8/14/06		--	32.91	ND	66.67
	2/9/07		--	32.74	ND	66.84
	11/20/07		--	35.06	ND	64.52
	6/5/08		--	35.26	ND	64.32
MW-20	4/18/03	99.86	--	33.63	ND	66.23
	5/4/06		--	32.35	ND	67.51
	8/14/06		--	33.88	ND	65.98
	2/9/07		--	33.65	ND	66.21
	11/20/07		--	36.21	ND	63.65
	6/5/08		--	36.40	ND	63.46
MW-21	4/18/03	99.67	--	37.28	ND	62.39

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-22	4/18/03	89.60	--	29.20	ND	60.40
	5/4/06		--	29.74	ND	59.86
	8/14/06		--	30.99	ND	58.61
	2/9/07		--	30.78	ND	58.82
	11/20/07		--	34.92	ND	54.68
	6/5/08		--	35.21	ND	54.39

ENVIROSOUTH Environmental Consultants

Notes: *1) ND = None Detected*
2) NM = Not Measured

TABLE 2

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-1	2/20/06	--	26.76	ND
	5/4/06	--	27.10	ND
	5/11/06	--	27.03	ND
	6/6/06	--	27.48	ND
	6/27/06	--	27.82	ND
	7/13/06	--	27.96	ND
	8/14/06	--	28.74	ND
	12/15/06	--	30.31	ND
	1/8/07	--	30.12	ND
	2/9/07	--	30.08	ND
	11/20/07	--	DRY	--
	6/5/08	--	DRY	--
EP-2	2/20/06	26.20	27.11	0.91
	5/4/06	26.48	28.60	2.12
	5/11/06	26.70	27.65	0.95
	6/6/06	27.02	28.89	1.87
	6/27/06	27.44	28.88	1.44
	7/13/06	27.60	28.80	1.20
	8/14/06	28.25	29.95	1.70
	12/15/06	29.68	31.70	2.02
	1/8/07	30.72	31.22	0.50
	2/9/07	28.98	30.22	1.24
	11/20/07	32.15	32.41	0.26
	6/5/08	--	DRY	--
EP-3	2/20/06	25.90	27.47	1.57
	5/4/06	26.24	28.66	2.42
	5/11/06	26.65	27.20	0.55
	6/6/06	27.00	28.51	1.51
	6/27/06	27.37	28.59	1.22
	7/13/06	27.51	28.51	1.00
	8/14/06	28.21	29.41	1.20
	12/15/06	29.90	30.30	0.40
	1/8/07	30.20	30.27	0.07
	2/9/07	29.06	29.30	0.24
	11/20/07	--	DRY	--
	6/5/08	--	DRY	--
EP-4	5/4/06	--	25.80	ND
	5/11/06	--	25.76	ND
	6/6/06	--	26.29	ND
	6/27/06	--	26.56	ND
	7/13/06	--	26.79	ND
	8/14/06	--	27.45	ND
	12/15/06	28.90	29.00	0.10

TABLE 2

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-4 Continued	1/8/07	28.88	28.89	0.01
	2/9/07	--	27.85	ND
	11/20/07	--	31.70	ND
	6/5/08	NM	NM	0.10
EP-5	5/4/06	--	25.80	ND
	5/11/06	--	25.78	ND
	6/6/06	--	26.30	ND
	6/27/06	--	26.60	ND
	7/13/06	--	26.76	ND
	8/14/06	--	27.47	ND
	12/15/06	28.76	28.95	0.19
	1/8/07	--	28.69	ND
	2/9/07	--	27.68	ND
	11/20/07	--	32.40	ND
	6/5/08	NM	NM	0.15
EP-6	5/4/06	26.05	26.08	0.03
	5/11/06	--	26.05	ND
	6/6/06	26.45	26.59	0.14
	6/27/06	26.81	27.00	0.19
	7/13/06	26.94	27.04	0.10
	8/14/06	28.71	28.95	0.24
	12/15/06	29.04	29.15	0.11
	1/8/07	--	28.98	ND
	2/9/07	27.91	27.96	0.05
	11/20/07	--	DRY	--
	6/5/08	NM	NM	ND
EP-7	5/4/06	--	26.54	ND
	5/11/06	--	26.49	ND
	6/6/06	27.04	27.08	0.04
	6/27/06	--	27.30	ND
	7/13/06	--	27.44	ND
	8/14/06	28.21	28.37	0.16
	12/15/06	29.60	29.68	0.08
	1/8/07	--	29.45	ND
	2/9/07	28.63	28.64	0.01
	11/20/07	--	DRY	--
	6/5/08	--	DRY	--
EP-8	5/4/06	25.87	25.99	0.12
	5/11/06	--	25.83	ND
	6/6/06	26.30	26.59	0.29
	6/27/06	26.50	26.59	0.09
	7/13/06	26.61	26.71	0.10

TABLE 2

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-8 Continued	8/14/06	27.47	27.85	0.38
	12/15/06	28.85	29.40	0.55
	1/8/07	28.50	28.65	0.15
	11/20/07	32.00	32.77	0.77
	6/5/08	--	MISSING	--
EP-9	5/4/06	25.42	26.22	0.80
	5/11/06	25.54	25.70	0.16
	6/6/06	25.80	27.01	1.21
	6/27/06	26.36	26.70	0.34
	7/13/06	26.52	26.77	0.25
	8/14/06	27.01	28.12	1.11
	12/15/06	28.75	29.08	0.33
	1/8/07	28.86	28.87	0.01
	2/9/07	27.77	28.67	0.90
	11/20/07	--	31.42	ND
	6/5/08	NM	NM	0.02
EP-10	5/4/06	26.47	27.99	1.52
	5/11/06	26.50	27.49	0.99
	6/6/06	26.84	28.80	1.96
	6/27/06	27.24	28.80	1.56
	7/13/06	27.36	28.86	1.50
	8/14/06	27.99	30.00	2.01
	12/15/06	29.54	31.55	2.01
	1/8/07	30.74	31.14	0.40
	2/9/07	29.02	29.58	0.56
	11/20/07	33.00	33.80	0.80
	6/5/08	NM	NM	1.30
EP-11	5/4/06	27.34	26.36	0.98
	5/11/06	26.63	26.80	0.17
	6/6/06	26.97	28.05	1.08
	6/27/06	27.40	28.00	0.60
	7/13/06	27.55	27.95	0.50
	8/14/06	28.22	28.99	0.77
	12/15/06	29.39	31.65	2.26
	1/8/07	31.15	31.32	0.17
	2/9/07	29.08	29.25	0.17
	11/20/07	32.25	32.30	0.05
	6/5/08	NM	NM	0.85
EP-12	5/4/06	26.70	26.72	0.02
	5/11/06	26.61	26.65	0.04
	6/6/06	27.11	27.42	0.31
	6/27/06	27.42	27.70	0.28

TABLE 2

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-12 Continued	7/13/06	27.63	27.88	0.25
	8/14/06	28.37	28.49	0.12
	12/15/06	29.70	30.40	0.70
	1/8/07	30.09	30.10	0.01
	2/9/07	29.02	29.04	0.02
	11/20/07	31.90	32.20	0.30
	6/5/08	NM	NM	1.00
EP-13	5/4/06	--	30.62	ND
	5/11/06	--	30.81	ND
	6/6/06	--	31.03	ND
	6/27/06	--	31.32	ND
	7/13/06	--	31.40	ND
	8/14/06	--	32.30	ND
	12/15/06	--	33.69	ND
	1/8/07	--	33.22	ND
	2/9/07	--	32.45	ND
	11/20/07	--	36.20	ND
	6/5/08	NM	NM	ND
EP-14	7/13/06	--	27.88	ND
	8/14/06	--	27.89	ND
	12/15/06	--	29.47	ND
	1/8/07	--	29.31	ND
	2/9/07	--	29.02	ND
	11/20/07	--	32.20	ND
	6/5/08	NM	NM	ND
EP-15	7/13/06	--	27.92	ND
	8/14/06	--	28.39	ND
	12/15/06	--	30.00	ND
	1/8/07	--	29.45	ND
	2/9/07	--	29.12	ND
	11/20/07	--	32.70	ND
	6/5/08	NM	NM	0.15
EP-16	7/13/06	27.75	27.95	0.20
	8/14/06	28.40	28.62	0.22
	12/15/06	29.92	30.35	0.43
	1/8/07	--	30.11	ND
	2/9/07	29.22	29.23	0.01
	11/20/07	32.30	32.40	0.10
	6/5/08	--	DRY	--

TABLE 2

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-17	7/13/06	--	28.22	ND
	8/14/06	--	28.50	ND
	12/15/06	--	30.04	ND
	1/8/07	--	29.65	ND
	2/9/07	--	29.57	ND
	11/20/07	--	32.17	ND
	6/5/08	--	DRY	--
EP-18	7/13/06	27.99	28.24	0.25
	8/14/06	28.19	29.00	0.81
	12/15/06	29.50	31.25	1.75
	1/8/07	30.77	30.97	0.20
	2/9/07	29.08	29.33	0.25
	11/20/07	31.41	32.00	0.59
	6/5/08	NM	NM	0.75
EP-19	7/13/06	--	28.31	ND
	8/14/06	--	28.43	ND
	12/15/06	--	29.92	ND
	1/8/07	--	29.77	ND
	2/9/07	--	29.43	ND
	11/20/07	--	32.15	ND
	6/5/08	NM	NM	0.09
EP-20	1/8/07	--	30.09	ND
	2/9/07	29.68	30.17	0.49
	11/20/07	32.40	32.50	0.10
	6/5/08	NM	NM	0.20
EP-21	1/8/07	--	30.02	ND
	2/9/07	--	29.57	ND
	11/20/07	--	32.55	ND
	6/5/08	NM	NM	ND
EP-22	1/8/07	--	30.01	ND
	2/9/07	--	29.07	ND
	11/20/07	--	32.65	ND
	6/5/08	--	DRY	--
EP-23	1/8/07	--	30.12	ND
	2/9/07	27.94	27.99	0.05
	11/20/07	32.00	32.12	0.12
	6/5/08	NM	NM	ND
EP-24	1/8/07	29.89	30.19	0.30
	2/9/07	29.33	29.68	0.35
	11/20/07	31.91	32.10	0.19
	6/5/08	--	DRY	--

TABLE 2

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-25	1/8/07	--	30.14	ND
	2/9/07	--	27.88	ND
	11/20/07	--	31.70	ND
	6/5/08	NM	NM	ND

Notes: 1) ND = None Detected
2) NM = Not Measured

ENVIROSOUTH
Environmental Consultants

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

JUL 30 2008

MR THOMAS F DONN PG
ENVIROSOUTH ENVIRONMENTAL CONSULTANTS
3440 AUGUSTA RD
GREENVILLE SC 29605

Re: CASE report review
Former Red Diamond Oil Company, 519 East North 1st Street, Seneca, SC
UST Permit #14324; CA #25430
Bid #IFB-28949-10/4/05-EMW; PO #605692
Release reported December 30, 1991
Corrective Action System Evaluation (CASE) report received July 28, 2008
Oconee County

Dear Mr. Donn:

The Underground Storage Tank (UST) Program has reviewed the referenced CASE report documenting activities conducted from November 2007 to June 2008. The Program concurs with your free-phase product reduction calculation of 64.41%. The decrease in reduction, as compared to the last monitoring event, is most likely caused by the drop in the water table elevation. Accordingly, the Program agrees with your plan to be more aggressive with product recovery during the next quarter.

The next CASE report documenting activities from June 2008 to September 2008 is due on or before **November 1, 2008**. On all correspondence regarding this site, please reference UST Permit #14324. If you have any questions, feel free to contact me by telephone at (803) 896-6398, by fax at (803) 896-6245, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Underground Storage Tank Program
Bureau of Land and Waste Management

JPP/jpp
14324.8

cc: Betty Latham, 2 Stratton Place, Greenville, SC 29615-4217
Technical file
DHEC/UST/JPP/072908

UST DOCKET
6 tech

Prepared for:

South Carolina Department of Health and Environmental Control
(SCDHEC)
Underground Storage Tank (UST) Program
2600 Bull Street
Columbia, South Carolina 29201

Attn: Mr. Joel Padgett

RECEIVED
OCT
UNDERGROUND STORAGE
TANK PROGRAM

REMEDIATION AND GROUNDWATER MONITORING REPORT

FORMER RED DIAMOND
519 EAST NORTH 1st STREET
SENECA, SOUTH CAROLINA

(UST PERMIT #14324)

Job No. 1334

Prepared by:

EnviroSouth, Inc.
3440 Augusta Road
Greenville, South Carolina 29605

October 23, 2008

UST DOCKET
7 tech

INTRODUCTION

EnviroSouth has completed groundwater gauging and remediation services at the Former Red Diamond facility (UST Permit #14324) facility located in Seneca, South Carolina. The purpose of the gauging event was to evaluate the current water levels and thickness of free-phase petroleum in various monitoring wells and extraction points.

This report includes a description of the field/remediation services, along with our current findings, conclusions, and recommendations.

METHODS and FINDINGS

Groundwater Elevation and Movement

Water level measurements in all monitoring wells and extraction points were last recorded by EnviroSouth with a hydrocarbon sensitive electronic interface probe on September 26, 2008. The interface probe was decontaminated prior to and between each measurement to prevent cross-contamination between wells. The water table aquifer occurs under unconfined conditions underlying the site at depths ranging from approximately 32 to 44 feet below land surface. Free product was detected in monitoring well MW-1 at a thickness of 0.03 feet and in well MW-4 at a thickness of 0.06 feet. The TOC elevations, water level measurements, and ground water elevation data recorded to date are included on Table 1.

A Product Thickness Map was generated based on free-product thicknesses obtained from site monitoring wells and extraction points. The map is included as Figure 1.

Product Recovery

Since the last report, EnviroSouth has conducted several vacuum enhanced free-product recovery (VEFR) events. Tabulations of VEFR data and disposal manifests will be included in the next quarterly report.

Free-Product Thickness Reduction

Based on the free-product thickness reduction calculation, the free-product reduction at the site is 98.7 percent. The initial cumulative free-product thickness equals 6.97 feet and the SSTL free-product thickness equals 0.03 feet. The initial mass above the SSTL is 6.94 feet. The subsequent free-product thickness for the June 5, 2008 gauging event is 0.09 feet.

Free-Product Thickness Reduction = $\frac{(M-N)}{(M)} = \frac{(6.94 - 0.09)}{6.94} = 0.98703 = 98.7\%$ Reduction

CONCLUSIONS

EnviroSouth plans to be much more aggressive in product recovery efforts. This will include conducting monthly AFVR events during this time of extremely low water table elevations.

EnviroSouth, Inc.

Brendan M. Brodie, P.G.
Project Hydrogeologist
S.C. Registration No. 2252

TFD/td

APPENDICES

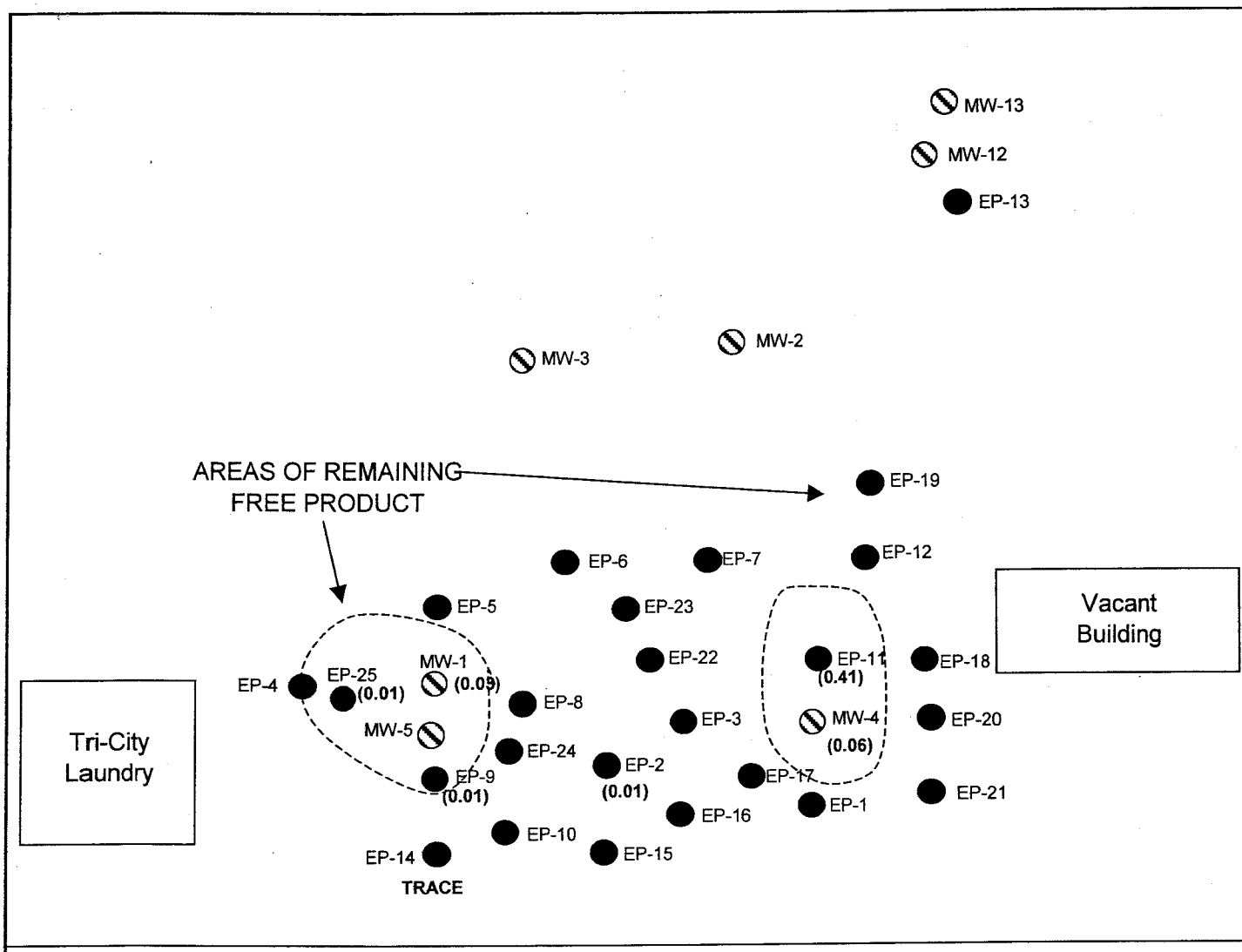
FIGURES

1 – Extraction Point Locations and Product Thickness Map

TABLES

1 - Groundwater Elevation Data
2 – Product Thickness Data

FIGURE



LEGEND

ND= None Detected

⊘ Monitoring Well Location

MW-5 and MW-12 are Deep Wells

ENVIROSOUTH
Environmental Consultants

EXTRACTION POINT LOCATIONS AND PRODUCT THICKNESS MAP
(DATA COLLECTED 9/26/08)

FORMER RED DIAMOND
519 EAST NORTH 1ST STREET
SENECA, SOUTH CAROLINA

JOB No: 1334	CHECKED BY: BMB	FIGURE: 1
SCALE: NTS	DRAWN BY: TD	DATE: 10/23/08

TABLES

TABLE 1

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-1	4/18/03	98.32	29.07	33.27	4.20	65.05
	10/26/05		23.37	27.51	4.14	73.52
	5/4/06		25.64	26.71	1.07	72.41
	5/11/06		26.75	26.87	0.12	71.54
	6/6/06		26.26	26.40	0.14	72.03
	8/14/06		28.25	28.50	0.25	70.01
	2/9/07		27.74	28.22	0.48	70.46
	11/20/07		31.75	31.95	0.20	66.52
	6/5/08		32.00	32.15	0.15	66.28
	9/26/08		33.50	33.53	0.03	64.81
MW-2	4/18/05	98.60	--	29.20	ND	69.40
	10/26/05		--	26.00	ND	72.60
	5/4/06		--	27.38	ND	71.22
	8/14/06		--	29.26	ND	69.34
	2/9/07		--	29.02	ND	69.58
	11/20/07		--	33.10	ND	65.50
	6/5/08		--	33.30	ND	65.30
	9/26/08		--	34.71	ND	63.89
MW-3	4/18/03	97.92	--	27.93	ND	69.99
	10/26/05		--	24.85	ND	73.07
	5/4/06		--	26.16	ND	71.76
	8/14/06		--	28.09	ND	69.83
	2/9/07		--	27.85	ND	70.07
	11/20/07		--	32.10	ND	65.82
	6/5/08		--	32.28	ND	65.64
	9/26/08		--	33.74	ND	64.18
MW-4	4/18/03	99.07	38.29	34.43	3.86	64.64
	10/26/05		24.75	27.61	2.86	73.61
	5/4/06		26.60	27.17	0.57	72.33
	6/6/06		27.27	27.28	0.01	71.79
	8/14/06		--	28.45	ND	70.62
	2/9/07		--	29.15	ND	69.92
	11/20/07		32.47	32.48	0.01	66.60
	6/5/08		32.40	34.72	2.32	66.09
	9/26/08		33.96	34.02	0.06	65.10

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-5	4/18/03	98.03	--	27.67	ND	70.36
	10/26/05		--	24.57	ND	73.46
	5/4/06		--	25.82	ND	72.21
	8/14/06		--	26.24	ND	71.79
	2/9/07		--	26.14	ND	71.89
	11/20/07		--	31.25	ND	66.78
	6/5/08		--	31.47	ND	66.56
	9/26/08		--	32.92	ND	65.11
MW-6	4/18/03	103.06	--	32.20	ND	70.86
	10/26/05		--	30.38	ND	72.68
MW-7	4/18/03	99.30	--	32.30	ND	67.25
	10/26/05		--	28.52	ND	70.78
	5/4/06		--	30.10	ND	69.20
	8/14/06		--	31.33	ND	67.97
	2/9/07		--	31.19	ND	68.11
	11/20/07		--	35.01	ND	64.29
	6/5/08		--	35.19	ND	64.11
	9/26/08		--	36.62	ND	62.68
MW-8	4/18/03	102.13	--	37.88	ND	64.25
	10/26/05		--	35.18	ND	66.95
	5/4/06		--	36.47	ND	65.66
	8/14/06		--	37.05	ND	65.08
	2/9/07		--	36.88	ND	65.25
	11/20/07		--	40.93	ND	61.20
	6/5/08		--	41.11	ND	61.02
	9/26/08		--	42.60	ND	59.53
MW-9	4/18/03	104.97	--	38.90	ND	66.07
	10/26/05		--	35.70	ND	69.27
	5/4/06		--	36.70	ND	68.27
	8/14/06		--	37.77	ND	67.20
	2/9/07		--	37.52	ND	67.45
	11/20/07		--	41.60	ND	63.37
	6/5/08		--	41.82	ND	63.15
	9/26/08		--	43.19	ND	61.78

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-10	4/18/03	104.50	--	39.70	ND	64.80
	10/26/05		--	36.52	ND	67.98
	5/4/06		--	38.00	ND	66.50
	8/14/06		--	39.14	ND	65.36
	2/9/07		--	38.97	ND	65.53
	11/20/07		--	42.99	ND	61.51
	6/5/08		--	43.10	ND	61.40
	9/26/08		--	44.63	ND	59.87
MW-11	4/18/03	102.92	--	41.10	ND	61.82
	10/26/05		Missing	Missing	--	--
	5/4/06		--	35.89	ND	67.03
	8/14/06		--	36.98	ND	65.94
	2/9/07		--	36.69	ND	66.23
	11/20/07		--	40.02	ND	62.90
	6/5/08		--	40.20	ND	62.72
	9/26/08		--	41.73	ND	61.19
MW-12	4/18/03	99.12	--	33.91	ND	65.21
	10/26/05		--	29.24	ND	69.88
	5/4/06		--	29.40	ND	69.72
	8/14/06		--	30.90	ND	68.22
	2/9/07		--	30.77	ND	68.35
	11/20/07		--	33.55	ND	65.57
	6/5/08		--	33.77	ND	65.35
	9/26/08		--	35.21	ND	63.91
MW-13	4/18/03	99.41	32.25	33.39	0.57	66.02
	10/26/05		29.58	29.60	0.02	69.83
	5/4/06		--	30.90	ND	68.51
	6/6/06		--	31.35	ND	68.06
	8/14/06		--	32.55	ND	66.86
	2/9/07		--	32.39	ND	67.02
	11/20/07		--	36.20	ND	63.21
	6/5/08		--	36.17	ND	63.24
	9/26/08		--	37.68	ND	61.73
MW-14	4/18/03	97.12	--	28.50	ND	68.62
	10/26/05		--	25.80	ND	71.32
MW-15	4/18/05	92.56	--	28.68	ND	63.88
	10/26/05		--	23.42	ND	69.14

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-16	4/18/03	86.29	--	18.65	ND	67.64
	10/26/05		--	13.20	ND	73.09
MW-17	4/18/03	93.98	--	23.41	ND	70.57
	10/26/05		--	20.89	ND	73.09
	5/4/06		--	26.90	ND	67.08
	8/14/06		--	28.06	ND	65.92
	2/9/07		--	27.91	ND	66.07
	11/20/07		--	30.99	ND	62.99
	6/5/08		--	31.09	ND	62.89
	9/26/08		--	32.59	ND	61.39
MW-19	4/18/03	99.58	--	33.35	ND	66.23
	10/26/05		--	30.33	ND	69.25
	5/4/06		--	31.75	ND	67.83
	8/14/06		--	32.91	ND	66.67
	2/9/07		--	32.74	ND	66.84
	11/20/07		--	35.06	ND	64.52
	6/5/08		--	35.26	ND	64.32
	9/26/08		--	36.71	ND	62.87
MW-20	4/18/03	99.86	--	33.63	ND	66.23
	5/4/06		--	32.35	ND	67.51
	8/14/06		--	33.88	ND	65.98
	2/9/07		--	33.65	ND	66.21
	11/20/07		--	36.21	ND	63.65
	6/5/08		--	36.40	ND	63.46
	9/26/08		--	37.88	ND	61.98
MW-21	4/18/03	99.67	--	37.28	ND	62.39
MW-22	4/18/03	89.60	--	29.20	ND	60.40
	5/4/06		--	29.74	ND	59.86
	8/14/06		--	30.99	ND	58.61
	2/9/07		--	30.78	ND	58.82
	11/20/07		--	34.92	ND	54.68
	6/5/08		--	35.21	ND	54.39
	9/26/08		--	36.73	ND	52.87

Notes: 1) ND = None Detected
2) NM = Not Measured

TABLE 2

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-1	2/20/06	--	26.76	ND
	5/4/06	--	27.10	ND
	5/11/06	--	27.03	ND
	6/6/06	--	27.48	ND
	6/27/06	--	27.82	ND
	7/13/06	--	27.96	ND
	8/14/06	--	28.74	ND
	12/15/06	--	30.31	ND
	1/8/07	--	30.12	ND
	2/9/07	--	30.08	ND
	11/20/07	--	DRY	--
	6/5/08	--	DRY	--
	9/26/08	--	DRY	--
EP-2	2/20/06	26.20	27.11	0.91
	5/4/06	26.48	28.60	2.12
	5/11/06	26.70	27.65	0.95
	6/6/06	27.02	28.89	1.87
	6/27/06	27.44	28.88	1.44
	7/13/06	27.60	28.80	1.20
	8/14/06	28.25	29.95	1.70
	12/15/06	29.68	31.70	2.02
	1/8/07	30.72	31.22	0.50
	2/9/07	28.98	30.22	1.24
	11/20/07	32.15	32.41	0.26
	6/5/08	--	DRY	--
	9/26/08	32.97	32.98	0.01
EP-3	2/20/06	25.90	27.47	1.57
	5/4/06	26.24	28.66	2.42
	5/11/06	26.65	27.20	0.55
	6/6/06	27.00	28.51	1.51
	6/27/06	27.37	28.59	1.22
	7/13/06	27.51	28.51	1.00
	8/14/06	28.21	29.41	1.20
	12/15/06	29.90	30.30	0.40
	1/8/07	30.20	30.27	0.07
	2/9/07	29.06	29.30	0.24
	11/20/07	--	DRY	--
	6/5/08	--	DRY	--
	9/26/08	--	DRY	--
EP-4	5/4/06	--	25.80	ND
	5/11/06	--	25.76	ND
	6/6/06	--	26.29	ND
	6/27/06	--	26.56	ND

TABLE 2

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-4 Continued	7/13/06	--	26.79	ND
	8/14/06	--	27.45	ND
	12/15/06	28.90	29.00	0.10
	1/8/07	28.88	28.89	0.01
	2/9/07	--	27.85	ND
	11/20/07	--	31.70	ND
	6/5/08	NM	NM	0.1
	9/26/08	--	DRY	--
EP-5	5/4/06	--	25.80	ND
	5/11/06	--	25.78	ND
	6/6/06	--	26.30	ND
	6/27/06	--	26.60	ND
	7/13/06	--	26.76	ND
	8/14/06	--	27.47	ND
	12/15/06	28.76	28.95	0.19
	1/8/07	--	28.69	ND
	2/9/07	--	27.68	ND
	11/20/07	--	32.40	ND
	6/5/08	NM	NM	0.15
	9/26/08	--	DRY	--
EP-6	5/4/06	26.05	26.08	0.03
	5/11/06	--	26.05	ND
	6/6/06	26.45	26.59	0.14
	6/27/06	26.81	27.00	0.19
	7/13/06	26.94	27.04	0.10
	8/14/06	28.71	28.95	0.24
	12/15/06	29.04	29.15	0.11
	1/8/07	--	28.98	ND
	2/9/07	27.91	27.96	0.05
	11/20/07	--	DRY	--
	6/5/08	NM	NM	ND
	9/26/08	--	DRY	--
EP-7	5/4/06	--	26.54	ND
	5/11/06	--	26.49	ND
	6/6/06	27.04	27.08	0.04
	6/27/06	--	27.30	ND
	7/13/06	--	27.44	ND
	8/14/06	28.21	28.37	0.16
	12/15/06	29.60	29.68	0.08
	1/8/07	--	29.45	ND
	2/9/07	28.63	28.64	0.01
	11/20/07	--	DRY	--

TABLE 2

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-7 Continued	6/5/08	--	DRY	--
	9/26/08	--	DRY	--
EP-8	5/4/06	25.87	25.99	0.12
	5/11/06	--	25.83	ND
	6/6/06	26.30	26.59	0.29
	6/27/06	26.50	26.59	0.09
	7/13/06	26.61	26.71	0.10
	8/14/06	27.47	27.85	0.38
	12/15/06	28.85	29.40	0.55
	1/8/07	28.50	28.65	0.15
	11/20/07	32.00	32.77	0.77
	6/5/08	--	MISSING	--
	9/26/08	--	MISSING	--
EP-9	5/4/06	25.42	26.22	0.80
	5/11/06	25.54	25.70	0.16
	6/6/06	25.80	27.01	1.21
	6/27/06	26.36	26.70	0.34
	7/13/06	26.52	26.77	0.25
	8/14/06	27.01	28.12	1.11
	12/15/06	28.75	29.08	0.33
	1/8/07	28.86	28.87	0.01
	2/9/07	27.77	28.67	0.90
	11/20/07	--	31.42	ND
	6/5/08	NM	NM	0.02
	9/26/08	32.94	32.95	0.01
EP-10	5/4/06	26.47	27.99	1.52
	5/11/06	26.50	27.49	0.99
	6/6/06	26.84	28.80	1.96
	6/27/06	27.24	28.80	1.56
	7/13/06	27.36	28.86	1.50
	8/14/06	27.99	30.00	2.01
	12/15/06	29.54	31.55	2.01
	1/8/07	30.74	31.14	0.40
	2/9/07	29.02	29.58	0.56
	11/20/07	33.00	33.80	0.80
	6/5/08	NM	NM	1.30
	9/26/08	--	DRY	--
EP-11	5/4/06	27.34	26.36	0.98
	5/11/06	26.63	26.80	0.17
	6/6/06	26.97	28.05	1.08
	6/27/06	27.40	28.00	0.60
	7/13/06	27.55	27.95	0.50

TABLE 2

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-11 Continued	8/14/06	28.22	28.99	0.77
	12/15/06	29.39	31.65	2.26
	1/8/07	31.15	31.32	0.17
	2/9/07	29.08	29.25	0.17
	11/20/07	32.25	32.30	0.05
	6/5/08	NM	NM	0.85
	9/26/08	33.72	34.13	0.41
EP-12	5/4/06	26.70	26.72	0.02
	5/11/06	26.61	26.65	0.04
	6/6/06	27.11	27.42	0.31
	6/27/06	27.42	27.70	0.28
	7/13/06	27.63	27.88	0.25
	8/14/06	28.37	28.49	0.12
	12/15/06	29.70	30.40	0.70
	1/8/07	30.09	30.10	0.01
	2/9/07	29.02	29.04	0.02
	11/20/07	31.90	32.20	0.30
	6/5/08	NM	NM	1.00
	9/28/08	--	33.51	--
EP-13	5/4/06	--	30.62	ND
	5/11/06	--	30.81	ND
	6/6/06	--	31.03	ND
	6/27/06	--	31.32	ND
	7/13/06	--	31.40	ND
	8/14/06	--	32.30	ND
	12/15/06	--	33.69	ND
	1/8/07	--	33.22	ND
	2/9/07	--	32.45	ND
	11/20/07	--	36.20	ND
	6/5/08	NM	NM	ND
	9/28/08	NM	NM	ND
EP-14	7/13/06	--	27.88	ND
	8/14/06	--	27.89	ND
	12/15/06	--	29.47	ND
	1/8/07	--	29.31	ND
	2/9/07	--	29.02	ND
	11/20/07	--	32.20	ND
	6/5/08	NM	NM	ND
	9/28/08	--	33.60	TRACE
EP-15	7/13/06	--	27.92	ND
	8/14/06	--	28.39	ND
	12/15/06	--	30.00	ND

TABLE 2

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-15 Continued	1/8/07	--	29.45	ND
	2/9/07	--	29.12	ND
	11/20/07	--	32.70	ND
	6/5/08	NM	NM	ND
	9/28/08	NM	NM	ND
EP-16	7/13/06	27.75	27.95	0.20
	8/14/06	28.40	28.62	0.22
	12/15/06	29.92	30.35	0.43
	1/8/07	--	30.11	ND
	2/9/07	29.22	29.23	0.01
	11/20/07	32.30	32.40	0.10
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
EP-17	7/13/06	--	28.22	ND
	8/14/06	--	28.50	ND
	12/15/06	--	30.04	ND
	1/8/07	--	29.65	ND
	2/9/07	--	29.57	ND
	11/20/07	--	32.17	ND
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
EP-18	7/13/06	27.99	28.24	0.25
	8/14/06	28.19	29.00	0.81
	12/15/06	29.50	31.25	1.75
	1/8/07	30.77	30.97	0.20
	2/9/07	29.08	29.33	0.25
	11/20/07	31.41	32.00	0.59
	6/5/08	NM	NM	0.75
	9/28/08	--	32.73	--
EP-19	7/13/06	--	28.31	ND
	8/14/06	--	28.43	ND
	12/15/06	--	29.92	ND
	1/8/07	--	29.77	ND
	2/9/07	--	29.43	ND
	11/20/07	--	32.15	ND
	6/5/08	NM	NM	0.09
	9/28/08	NM	NM	ND
EP-20	1/8/07	--	30.09	ND
	2/9/07	29.68	30.17	0.49
	11/20/07	32.40	32.50	0.10
	6/5/08	NM	NM	0.20
	9/28/08	--	32.47	--

TABLE 2

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-21	1/8/07	--	30.02	ND
	2/9/07	--	29.57	ND
	11/20/07	--	32.55	ND
	6/5/08	NM	NM	ND
	9/28/08	NM	NM	ND
EP-22	1/8/07	--	30.01	ND
	2/9/07	--	29.07	ND
	11/20/07	--	32.65	ND
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
EP-23	1/8/07	--	30.12	ND
	2/9/07	27.94	27.99	0.05
	11/20/07	32.00	32.12	0.12
	6/5/08	NM	NM	ND
	9/28/08	--	32.80	--
EP-24	1/8/07	29.89	30.19	0.30
	2/9/07	29.33	29.68	0.35
	11/20/07	31.91	32.10	0.19
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
EP-25	1/8/07	--	30.14	ND
	2/9/07	--	27.88	ND
	11/20/07	--	31.70	ND
	6/5/08	NM	NM	ND
	9/28/08	33.32	33.33	0.01

Notes: 1) ND = None Detected
2) NM = Not Measured

ENVIROSOUTH
Environmental Consultants

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

NOV 07 2008

MR THOMAS F DONN PG
ENVIROSOUTH ENVIRONMENTAL CONSULTANTS
3440 AUGUSTA RD
GREENVILLE SC 29605

Re: CASE report review
Former Red Diamond Oil Company, 519 East North 1st Street, Seneca, SC
UST Permit #14324; CA #25430
Bid #IFB-28949-10/4/05-EMW; PO #605692
Release reported December 30, 1991
Corrective Action System Evaluation (CASE) report received October 31, 2008
Oconee County

Dear Mr. Donn:

The Underground Storage Tank (UST) Program has reviewed the referenced CASE report documenting activities conducted from June 2008 to September 2008. The Program concurs with your free-phase product reduction calculation of 98.70%.

The next CASE report documenting activities from September to December 2008 is due on or before **February 1, 2009**. On all correspondence regarding this site, please reference UST Permit #14324. If you have any questions, feel free to contact me by telephone at (803) 896-6398, by fax at (803) 896-6245, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Hydrogeologist
Southwestern SC Corrective Action Section
Underground Storage Tank Program
Bureau of Land and Waste Management

JPP/jpp
14324.9

cc: Betty Latham, 2 Stratton Place, Greenville, SC 29615-4217
Technical file

UST DOCK
Steel

DHEC/UST/JPP/110708

ENVIROSOUTH
Environmental Consultants

February 24, 2009



SCDHEC
Bureau of Land and Waste Management
UST Program
2600 Bull Street
Columbia, South Carolina 29201

Attention: Mr. Joel Padgett

Re: Former Red Diamond
519 East North 1st Street
Seneca, South Carolina
SCDHEC ID #14324
EnviroSouth Job No. 1334

Dear Mr. Padgett:

EnviroSouth, Inc. is pleased to provide the SCDHEC UST Program with the remediation and groundwater monitoring report for the Former Red Diamond site in Seneca, South Carolina.

EnviroSouth appreciates the opportunity to be of service to the SCDHEC UST Program. If you have comments or questions concerning the attached report, please do not hesitate to call.

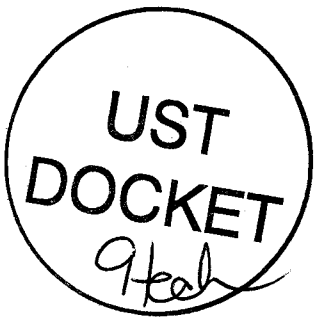
Sincerely,

EnviroSouth, Inc.

Brendan M. Brodie, P.G.
Project Hydrogeologist
S.C. Registration No. 2252

BMB/td

cc: Jessy Smith
R.P. Julian
W.D. MacAulay
Ralph Manly
Betty Lathem



phone: 864.236.9010 • fax: 864.236.9097
3440 Augusta Road • Greenville, SC 29605 • www.envirosouth.com

Prepared for:

South Carolina Department of Health and Environmental Control
(SCDHEC)
Underground Storage Tank (UST) Program
2600 Bull Street
Columbia, South Carolina 29201

Attn: Mr. Joel Padgett

GROUNDWATER MONITORING REPORT

FORMER RED DIAMOND
519 EAST NORTH 1st STREET
SENECA, SOUTH CAROLINA

UST PERMIT #14324

Job No. 1334

Prepared by:

EnviroSouth, Inc.
3440 Augusta Road
Greenville, South Carolina 29605

February 24, 2009

INTRODUCTION

EnviroSouth has completed groundwater gauging and remediation services at the Former Red Diamond facility (UST Permit #14324) facility located in Seneca, South Carolina. The purpose of the gauging event was to evaluate the current water levels and thickness of free-phase petroleum in various monitoring wells and extraction points.

This report includes a description of the field/remediation services, along with our current findings, conclusions, and recommendations.

METHODS and FINDINGS

Groundwater Elevation and Movement

Water level measurements in all monitoring wells and extraction points were last recorded by EnviroSouth with a hydrocarbon sensitive electronic interface probe on January 22, 2009. The interface probe was decontaminated prior to and between each measurement to prevent cross-contamination between wells. The water table aquifer occurs under unconfined conditions underlying the site at depths ranging from 27 to 39 feet below land surface. Free product was detected in monitoring well MW-1 at a thickness of 0.17 feet and MW-4 at a thickness of 0.26 feet. The TOC elevations, water level measurements, and ground water elevation data recorded to date are included on Table 1.

A map of extraction point locations is included as Figure 1.

PRODUCT BAILING

Since the last report, EnviroSouth has conducted monthly product bailing. Bailed product has been collected and stored in two 55-gallon drums onsite. Approximately 50 gallons of free-product has been collected to date.

VACUUM ENHANCED FLUID RECOVERY

A Vacuum Enhanced Fluid Recovery (VEFR) event was performed on January 22, 2009. Free-product and eater was removed from all extraction points containing free-product. A total of 216 gallons of fluid was extracted. The disposal manifest is included in the appendix.

FREE-PRODUCT THICKNESS REDUCTION

Based on the free-product thickness reduction calculation, the free-product reduction at the site is 93.80 percent. The initial cumulative free-product thickness equals 6.97 feet and the SSTL free-product thickness equals 0.03 feet. The initial mass above the SSTL is 6.94 feet. The subsequent free-product thickness for the January 22, 2009 gauging event is 0.43 feet.

$$\text{Free-Product Thickness Reduction} = \frac{(M-N)}{(M)} = \frac{(6.94-0.43)}{6.94} = 0.9380*100 = 93.80\% \text{ Reduction}$$

CONCLUSIONS

EnviroSouth plans to continue bailing and VEFR events until product thickness readings are less than 0.01 foot in all affected monitoring wells. If necessary, additional extraction points may be installed to enhance the rate of site clean-up.

EnviroSouth, Inc.

Brendan M. Brodie, P.G.
Project Hydrogeologist
S.C. Registration No. 2252

BMB/td

APPENDICES

FIGURES

FIGURE 1 – Extraction Point Locations and Product Thickness Map

TABLES

TABLE 1 - Groundwater Elevation Data
TABLE 2 - Product Thickness Data

DISPOSAL MANIFEST

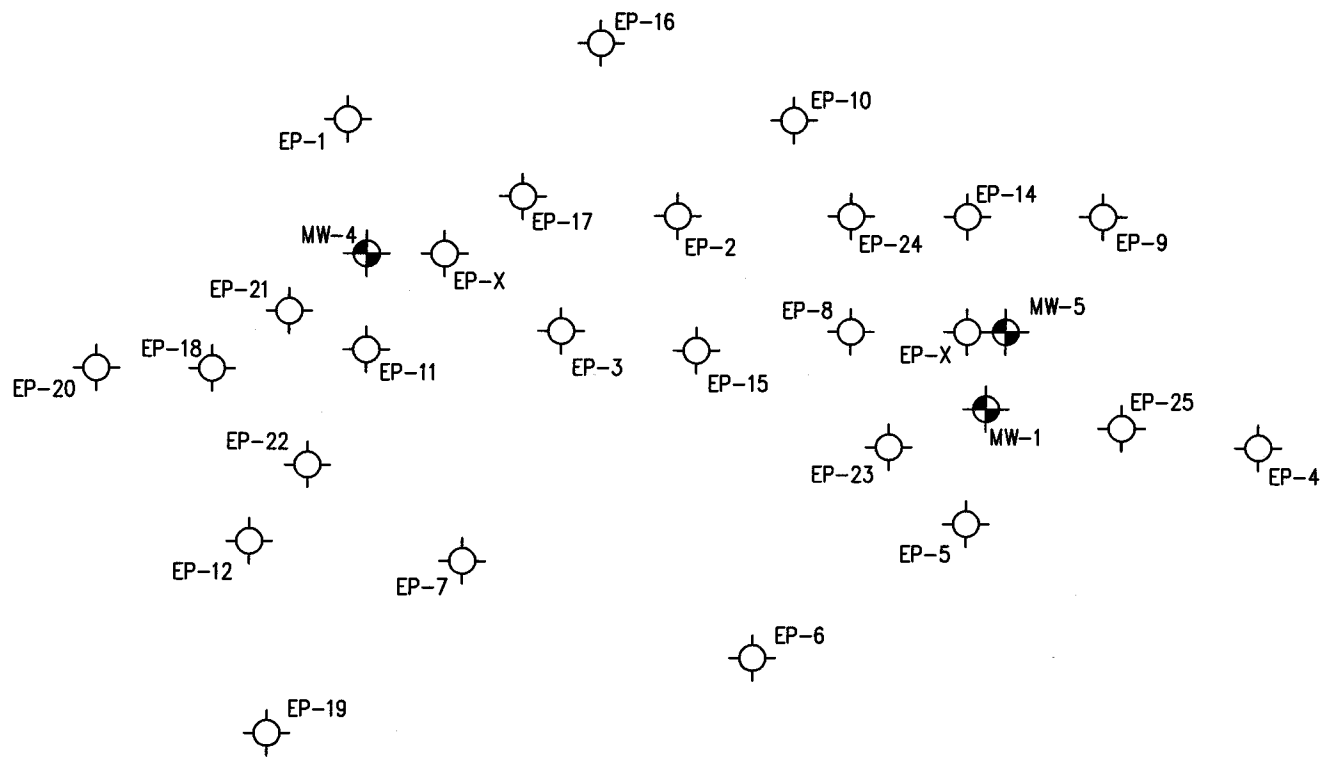
FIGURE

EXPLANATION

MW-5 — MONITORING WELL

EP-5 — EXTRACTION POINT WELL

EAST NORTH 1ST STREET



VACANT BUILDING

TRI-CITY LAUNDRY

10 0 10 20

SCALE: 1" = 10'±

07/14/2008	DRAWN BY DF	CHECKED BY BMB	SCALE 1"=10'±	JOB NO. 1334	FIGURE 1

ENVIROSOUTH Environmental Consultants

EXTRACTION POINT LOCATIONS

FORMER RED DIAMOND
519 EAST NORTH 1ST STREET
SENECA, SC
SDHEC UST ID #14324

TABLES

TABLE 1

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-1	4/18/03	98.32	29.07	33.27	4.20	65.05
	10/26/05		23.37	27.51	4.14	73.52
	5/4/06		25.64	26.71	1.07	72.41
	5/11/06		26.75	26.87	0.12	71.54
	6/6/06		26.26	26.40	0.14	72.03
	8/14/06		28.25	28.50	0.25	70.01
	2/9/07		27.74	28.22	0.48	70.46
	11/20/07		31.75	31.95	0.20	66.52
	6/5/08		32.00	32.15	0.15	66.28
	9/26/08		33.50	33.53	0.03	64.81
	1/22/09		32.93	33.10	0.17	65.35
MW-2	4/18/05	98.60	--	29.20	ND	69.40
	10/26/05		--	26.00	ND	72.60
	5/4/06		--	27.38	ND	71.22
	8/14/06		--	29.26	ND	69.34
	2/9/07		--	29.02	ND	69.58
	11/20/07		--	33.10	ND	65.50
	6/5/08		--	33.30	ND	65.30
	9/26/08		--	34.71	ND	63.89
	1/22/09		--	34.70	ND	63.90
MW-3	4/18/03	97.92	--	27.93	ND	69.99
	10/26/05		--	24.85	ND	73.07
	5/4/06		--	26.16	ND	71.76
	8/14/06		--	28.09	ND	69.83
	2/9/07		--	27.85	ND	70.07
	11/20/07		--	32.10	ND	65.82
	6/5/08		--	32.28	ND	65.64
	9/26/08		--	33.74	ND	64.18
	1/22/09		--	33.50	ND	64.42
MW-4	4/18/03	99.07	38.29	34.43	3.86	64.64
	10/26/05		24.75	27.61	2.86	73.61
	5/4/06		26.60	27.17	0.57	72.33
	6/6/06		27.27	27.28	0.01	71.79
	8/14/06		--	28.45	ND	70.62
	2/9/07		--	29.15	ND	69.92
	11/20/07		32.47	32.48	0.01	66.60
	6/5/08		32.40	34.72	2.32	66.09
	9/26/08		33.96	34.02	0.06	65.10
	1/22/09		34.20	34.46	0.26	64.81

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-5	4/18/03	98.03	--	27.67	ND	70.36
	10/26/05		--	24.57	ND	73.46
	5/4/06		--	25.82	ND	72.21
	8/14/06		--	26.24	ND	71.79
	2/9/07		--	26.14	ND	71.89
	11/20/07		--	31.25	ND	66.78
	6/5/08		--	31.47	ND	66.56
	9/26/08		--	32.92	ND	65.11
	1/22/09		--	33.21	ND	64.82
MW-6	4/18/03	103.06	--	32.20	ND	70.86
	10/26/05		--	30.38	ND	72.68
MW-7	4/18/03	99.30	--	32.30	ND	67.25
	10/26/05		--	28.52	ND	70.78
	5/4/06		--	30.10	ND	69.20
	8/14/06		--	31.33	ND	67.97
	2/9/07		--	31.19	ND	68.11
	11/20/07		--	35.01	ND	64.29
	6/5/08		--	35.19	ND	64.11
	9/26/08		--	36.62	ND	62.68
	1/22/09		--	36.66	ND	62.64
MW-8	4/18/03	102.13	--	37.88	ND	64.25
	10/26/05		--	35.18	ND	66.95
	5/4/06		--	36.47	ND	65.66
	8/14/06		--	37.05	ND	65.08
	2/9/07		--	36.88	ND	65.25
	11/20/07		--	40.93	ND	61.20
	6/5/08		--	41.11	ND	61.02
	9/26/08		--	42.60	ND	59.53
	1/22/09		--	42.64	ND	59.49
MW-9	4/18/03	104.97	--	38.90	ND	66.07
	10/26/05		--	35.70	ND	69.27
	5/4/06		--	36.70	ND	68.27
	8/14/06		--	37.77	ND	67.20
	2/9/07		--	37.52	ND	67.45
	11/20/07		--	41.60	ND	63.37
	6/5/08		--	41.82	ND	63.15
	9/26/08		--	43.19	ND	61.78
	1/22/09		--	43.24	ND	61.73

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-10	4/18/03	104.50	--	39.70	ND	64.80
	10/26/05		--	36.52	ND	67.98
	5/4/06		--	38.00	ND	66.50
	8/14/06		--	39.14	ND	65.36
	2/9/07		--	38.97	ND	65.53
	11/20/07		--	42.99	ND	61.51
	6/5/08		--	43.10	ND	61.40
	9/26/08		--	44.63	ND	59.87
	1/22/09		--	44.67	ND	59.83
MW-11	4/18/03	102.92	--	41.10	ND	61.82
	10/26/05		Missing	Missing	--	--
	5/4/06		--	35.89	ND	67.03
	8/14/06		--	36.98	ND	65.94
	2/9/07		--	36.69	ND	66.23
	11/20/07		--	40.02	ND	62.90
	6/5/08		--	40.20	ND	62.72
	9/26/08		--	41.73	ND	61.19
	1/22/09		--	41.80	ND	61.12
MW-12	4/18/03	99.12	--	33.91	ND	65.21
	10/26/05		--	29.24	ND	69.88
	5/4/06		--	29.40	ND	69.72
	8/14/06		--	30.90	ND	68.22
	2/9/07		--	30.77	ND	68.35
	11/20/07		--	33.55	ND	65.57
	6/5/08		--	33.77	ND	65.35
	9/26/08		--	35.21	ND	63.91
	1/22/09		--	36.61	ND	62.51
MW-13	4/18/03	99.41	32.25	33.39	0.57	66.02
	10/26/05		29.58	29.60	0.02	69.83
	5/4/06		--	30.90	ND	68.51
	6/6/06		--	31.35	ND	68.06
	8/14/06		--	32.55	ND	66.86
	2/9/07		--	32.39	ND	67.02
	11/20/07		--	36.20	ND	63.21
	6/5/08		--	36.17	ND	63.24
	9/26/08		--	37.68	ND	61.73
	1/22/09		--	37.73	ND	61.68
MW-14	4/18/03	97.12	--	28.50	ND	68.62
	10/26/05		--	25.80	ND	71.32
MW-15	4/18/05	92.56	--	28.68	ND	63.88
	10/26/05		--	23.42	ND	69.14

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-16	4/18/03	86.29	--	18.65	ND	67.64
	10/26/05		--	13.20	ND	73.09
MW-17	4/18/03	93.98	--	23.41	ND	70.57
	10/26/05		--	20.89	ND	73.09
	5/4/06		--	26.90	ND	67.08
	8/14/06		--	28.06	ND	65.92
	2/9/07		--	27.91	ND	66.07
	11/20/07		--	30.99	ND	62.99
	6/5/08		--	31.09	ND	62.89
	9/26/08		--	32.59	ND	61.39
	1/22/09		--	32.61	ND	61.37
MW-19	4/18/03	99.58	--	33.35	ND	66.23
	10/26/05		--	30.33	ND	69.25
	5/4/06		--	31.75	ND	67.83
	8/14/06		--	32.91	ND	66.67
	2/9/07		--	32.74	ND	66.84
	11/20/07		--	35.06	ND	64.52
	6/5/08		--	35.26	ND	64.32
	9/26/08		--	36.71	ND	62.87
	1/22/09		--	36.74	ND	62.84
MW-20	4/18/03	99.86	--	33.63	ND	66.23
	5/4/06		--	32.35	ND	67.51
	8/14/06		--	33.88	ND	65.98
	2/9/07		--	33.65	ND	66.21
	11/20/07		--	36.21	ND	63.65
	6/5/08		--	36.40	ND	63.46
	9/26/08		--	37.88	ND	61.98
	1/22/09		--	37.89	ND	61.97
MW-21	4/18/03	99.67	--	37.28	ND	62.39
MW-22	4/18/03	89.60	--	29.20	ND	60.40
	5/4/06		--	29.74	ND	59.86
	8/14/06		--	30.99	ND	58.61
	2/9/07		--	30.78	ND	58.82
	11/20/07		--	34.92	ND	54.68
	6/5/08		--	35.21	ND	54.39
	9/26/08		--	36.73	ND	52.87
	1/22/09		--	36.75	ND	52.85

Notes: 1) *ND = None Detected*
2) *NM = Not Measured*

TABLE 2

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-1	2/20/06	--	26.76	ND
	5/4/06	--	27.10	ND
	5/11/06	--	27.03	ND
	6/6/06	--	27.48	ND
	6/27/06	--	27.82	ND
	7/13/06	--	27.96	ND
	8/14/06	--	28.74	ND
	12/15/06	--	30.31	ND
	1/8/07	--	30.12	ND
	2/9/07	--	30.08	ND
	11/20/07	--	DRY	--
	6/5/08	--	DRY	--
	9/26/08	--	DRY	--
	1/22/09	--	34.18	ND
EP-2	2/20/06	26.20	27.11	0.91
	5/4/06	26.48	28.60	2.12
	5/11/06	26.70	27.65	0.95
	6/6/06	27.02	28.89	1.87
	6/27/06	27.44	28.88	1.44
	7/13/06	27.60	28.80	1.20
	8/14/06	28.25	29.95	1.70
	12/15/06	29.68	31.70	2.02
	1/8/07	30.72	31.22	0.50
	2/9/07	28.98	30.22	1.24
	11/20/07	32.15	32.41	0.26
	6/5/08	--	DRY	--
	9/26/08	32.97	32.98	0.01
	1/22/09	--	DRY	--
EP-3	2/20/06	25.90	27.47	1.57
	5/4/06	26.24	28.66	2.42
	5/11/06	26.65	27.20	0.55
	6/6/06	27.00	28.51	1.51
	6/27/06	27.37	28.59	1.22
	7/13/06	27.51	28.51	1.00
	8/14/06	28.21	29.41	1.20
	12/15/06	29.90	30.30	0.40
	1/8/07	30.20	30.27	0.07
	2/9/07	29.06	29.30	0.24
	11/20/07	--	DRY	--
	6/5/08	--	DRY	--
	9/26/08	--	DRY	--
	1/22/09	--	DRY	--

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-4	5/4/06	--	25.80	ND
	5/11/06	--	25.76	ND
	6/6/06	--	26.29	ND
	6/27/06	--	26.56	ND
	7/13/06	--	26.79	ND
	8/14/06	--	27.45	ND
	12/15/06	28.90	29.00	0.10
	1/8/07	28.88	28.89	0.01
	2/9/07	--	27.85	ND
	11/20/07	--	31.70	ND
	6/5/08	NM	NM	0.1
	9/26/08	--	DRY	--
	1/22/09	--	32.60	ND
EP-5	5/4/06	--	25.80	ND
	5/11/06	--	25.78	ND
	6/6/06	--	26.30	ND
	6/27/06	--	26.60	ND
	7/13/06	--	26.76	ND
	8/14/06	--	27.47	ND
	12/15/06	28.76	28.95	0.19
	1/8/07	--	28.69	ND
	2/9/07	--	27.68	ND
	11/20/07	--	32.40	ND
	6/5/08	NM	NM	0.15
	9/26/08	--	DRY	--
	1/22/09	--	32.79	ND
EP-6	5/4/06	26.05	26.08	0.03
	5/11/06	--	26.05	ND
	6/6/06	26.45	26.59	0.14
	6/27/06	26.81	27.00	0.19
	7/13/06	26.94	27.04	0.10
	8/14/06	28.71	28.95	0.24
	12/15/06	29.04	29.15	0.11
	1/8/07	--	28.98	ND
	2/9/07	27.91	27.96	0.05
	11/20/07	--	DRY	--
	6/5/08	NM	NM	ND
	9/26/08	--	DRY	--
	1/22/09	--	32.56	ND
EP-7	5/4/06	--	26.54	ND
	5/11/06	--	26.49	ND
	6/6/06	27.04	27.08	0.04

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-7 Continued	6/27/06	--	27.30	ND
	7/13/06	--	27.44	ND
	8/14/06	28.21	28.37	0.16
	12/15/06	29.60	29.68	0.08
	1/8/07	--	29.45	ND
	2/9/07	28.63	28.64	0.01
	11/20/07	--	DRY	--
	6/5/08	--	DRY	--
	9/26/08	--	DRY	--
	1/22/09	--	32.75	ND
EP-8	5/4/06	25.87	25.99	0.12
	5/11/06	--	25.83	ND
	6/6/06	26.30	26.59	0.29
	6/27/06	26.50	26.59	0.09
	7/13/06	26.61	26.71	0.10
	8/14/06	27.47	27.85	0.38
	12/15/06	28.85	29.40	0.55
	1/8/07	28.50	28.65	0.15
	11/20/07	32.00	32.77	0.77
	6/5/08	--	MISSING	--
	9/26/08	--	MISSING	--
	1/22/09	--	33.10	ND
EP-9	5/4/06	25.42	26.22	0.80
	5/11/06	25.54	25.70	0.16
	6/6/06	25.80	27.01	1.21
	6/27/06	26.36	26.70	0.34
	7/13/06	26.52	26.77	0.25
	8/14/06	27.01	28.12	1.11
	12/15/06	28.75	29.08	0.33
	1/8/07	28.86	28.87	0.01
	2/9/07	27.77	28.67	0.90
	11/20/07	--	31.42	ND
	6/5/08	NM	NM	0.02
	9/26/08	32.94	32.95	0.01
	1/22/09	--	34.40	ND
EP-10	5/4/06	26.47	27.99	1.52
	5/11/06	26.50	27.49	0.99
	6/6/06	26.84	28.80	1.96
	6/27/06	27.24	28.80	1.56
	7/13/06	27.36	28.86	1.50
	8/14/06	27.99	30.00	2.01
	12/15/06	29.54	31.55	2.01

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-10 Continued	1/8/07	30.74	31.14	0.40
	2/9/07	29.02	29.58	0.56
	11/20/07	33.00	33.80	0.80
	6/5/08	NM	NM	1.30
	9/26/08	--	DRY	--
	1/22/09	34.20	34.59	0.39
EP-11	5/4/06	27.34	26.36	0.98
	5/11/06	26.63	26.80	0.17
	6/6/06	26.97	28.05	1.08
	6/27/06	27.40	28.00	0.60
	7/13/06	27.55	27.95	0.50
	8/14/06	28.22	28.99	0.77
	12/15/06	29.39	31.65	2.26
	1/8/07	31.15	31.32	0.17
	2/9/07	29.08	29.25	0.17
	11/20/07	32.25	32.30	0.05
	6/5/08	NM	NM	0.85
	9/26/08	33.72	34.13	0.41
	1/22/09	34.10	34.55	0.45
EP-12	5/4/06	26.70	26.72	0.02
	5/11/06	26.61	26.65	0.04
	6/6/06	27.11	27.42	0.31
	6/27/06	27.42	27.70	0.28
	7/13/06	27.63	27.88	0.25
	8/14/06	28.37	28.49	0.12
	12/15/06	29.70	30.40	0.70
	1/8/07	30.09	30.10	0.01
	2/9/07	29.02	29.04	0.02
	11/20/07	31.90	32.20	0.30
	6/5/08	NM	NM	1.00
	9/28/08	--	33.51	--
	1/22/09	33.60	33.87	0.27
EP-13	5/4/06	--	30.62	ND
	5/11/06	--	30.81	ND
	6/6/06	--	31.03	ND
	6/27/06	--	31.32	ND
	7/13/06	--	31.40	ND
	8/14/06	--	32.30	ND
	12/15/06	--	33.69	ND
	1/8/07	--	33.22	ND
	2/9/07	--	32.45	ND
	11/20/07	--	36.20	ND

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-13 Continued	6/5/08	NM	NM	ND
	9/28/08	NM	NM	ND
	1/22/09	--	37.27	ND
EP-14	7/13/06	--	27.88	ND
	8/14/06	--	27.89	ND
	12/15/06	--	29.47	ND
	1/8/07	--	29.31	ND
	2/9/07	--	29.02	ND
	11/20/07	--	32.20	ND
	6/5/08	NM	NM	ND
	9/28/08	--	33.60	TRACE
	1/22/09	--	34.00	ND
EP-15	7/13/06	--	27.92	ND
	8/14/06	--	28.39	ND
	12/15/06	--	30.00	ND
	1/8/07	--	29.45	ND
	2/9/07	--	29.12	ND
	11/20/07	--	32.70	ND
	6/5/08	NM	NM	ND
	9/28/08	NM	NM	ND
	1/22/09	--	33.73	ND
EP-16	7/13/06	27.75	27.95	0.20
	8/14/06	28.40	28.62	0.22
	12/15/06	29.92	30.35	0.43
	1/8/07	--	30.11	ND
	2/9/07	29.22	29.23	0.01
	11/20/07	32.30	32.40	0.10
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
	1/22/09	33.90	34.02	0.12
EP-17	7/13/06	--	28.22	ND
	8/14/06	--	28.50	ND
	12/15/06	--	30.04	ND
	1/8/07	--	29.65	ND
	2/9/07	--	29.57	ND
	11/20/07	--	32.17	ND
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
	1/22/09	--	33.78	ND
EP-18	7/13/06	27.99	28.24	0.25
	8/14/06	28.19	29.00	0.81
	12/15/06	29.50	31.25	1.75

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-18 Continued	1/8/07	30.77	30.97	0.20
	2/9/07	29.08	29.33	0.25
	11/20/07	31.41	32.00	0.59
	6/5/08	NM	NM	0.75
	9/28/08	--	32.73	--
	1/22/09	--	32.75	ND
EP-19	7/13/06	--	28.31	ND
	8/14/06	--	28.43	ND
	12/15/06	--	29.92	ND
	1/8/07	--	29.77	ND
	2/9/07	--	29.43	ND
	11/20/07	--	32.15	ND
	6/5/08	NM	NM	0.09
	9/28/08	NM	NM	ND
	1/22/09	--	34.01	ND
EP-20	1/8/07	--	30.09	ND
	2/9/07	29.68	30.17	0.49
	11/20/07	32.40	32.50	0.10
	6/5/08	NM	NM	0.20
	9/28/08	--	32.47	--
	1/22/09	--	32.49	ND
EP-21	1/8/07	--	30.02	ND
	2/9/07	--	29.57	ND
	11/20/07	--	32.55	ND
	6/5/08	NM	NM	ND
	9/28/08	NM	NM	ND
	1/22/09	--	34.47	ND
EP-22	1/8/07	--	30.01	ND
	2/9/07	--	29.07	ND
	11/20/07	--	32.65	ND
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
	1/22/09	--	34.21	ND
EP-23	1/8/07	--	30.12	ND
	2/9/07	27.94	27.99	0.05
	11/20/07	32.00	32.12	0.12
	6/5/08	NM	NM	ND
	9/28/08	--	32.80	--
	1/22/09	--	32.76	ND
EP-24	1/8/07	29.89	30.19	0.30
	2/9/07	29.33	29.68	0.35
	11/20/07	31.91	32.10	0.19

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-24 Continued	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
	1/22/09	31.86	32.03	0.17
EP-25	1/8/07	--	30.14	ND
	2/9/07	--	27.88	ND
	11/20/07	--	31.70	ND
	6/5/08	NM	NM	ND
	9/28/08	33.32	33.33	0.01
	1/22/09	--	33.00	ND

Notes: 1) ND = None Detected
2) NM = Not Measured

ENVIROSOUTH
Environmental Consultants

DISPOSAL MANIFEST

1334

MATERIAL MANIFEST

JBR Environmental Services
P. O. Box 4098
Spartanburg, SC 29305

Emergency Phone Number: (864) 583-2717

Manifest Document No. I-0122013O

Page of

Job No. I-0122013O

GENERATOR INFORMATION

Name: EnviroSouth

US EPA ID No.

Street Address: 519 E. 1D. 1st St. Seneca SC

Mailing Address: 3440 Augusta rd. Greenville SC 29605

Phone No.: 230-414117

Contact: Brendan Brodie

DESCRIPTION OF MATERIALS

	HM	USDOT Proper Shipping Name (Complete All Items for Hazardous Materials)	Hazard Class	UN/NA ID No.	Packing Group	Containers Qty	Containers Type	Total Quantity	Unit Wt./Vol.
a.		Non Haz liquid NOS	—	—	—	1	VT	1800 LBS	49,160
b.									
c.								0.90	TONS

ADDITIONAL INFORMATION		ERG No.	JBR Profile Code	Facility Use
a.	Contact water		JB-090814J	APPROVED FOR DISPOSAL
b.				
c.				

GENERATORS CERTIFICATION

This is to certify that the above -described materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. I further certify that none of the materials described above are a hazardous waste as defined by EPA 40 CFR Part 261 or any applicable state law, and unless specifically identified above, the materials contain less than 1,000 ppm total halogens and do not contain quantifiable levels (2 ppm) of PCBs as defined by EPA 40 CFR Parts 279 and 761.

Printed/Typed Name: Brendan Brodie | Signature: [signature] | Mo./Day/Yr.: 1-22-09

TRANSPORTER INFORMATION

Transporter: JBR Environmental Services

Address: 210 Alice Street, Spartanburg, SC 29303

Transporter or EPA ID No.: SCR000004358 | Unit No.: #17

Phone: 864-583-2717

I hereby acknowledge receipt of the above-described materials for transport from the generator site listed above.

Signature: [signature] Shipment Date: 1-22-09

I hereby acknowledge that the above-described materials were received from the generator site and were transported to the facility listed below.

Signature: [signature] Delivery Date: 1-22-09

FACILITY INFORMATION

Facility: JBR Environmental Services

Address: 210 Alice Street, Spartanburg, SC 29303

Facility or EPA ID No.: SCR000004358

Phone: 864-583-2717

Contact: Rex Russell

I hereby acknowledge receipt of the materials covered by this manifest except for any discrepancy noted below.

Signature: [signature] Receipt Date: 01/23/09

	Discrepancies	Routing Codes	Handling Methods.
a.		WM-3219	
b.			
c.			

Original - Facility Retain | COPY 2 - Return to Generator | COPY 3 - Transporter Retain | COPY 4 - Generator Retain

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

MR THOMAS F DONN PG
ENVIROSOUTH ENVIRONMENTAL CONSULTANTS
3440 AUGUSTA RD
GREENVILLE SC 29605

MAR 16 2009

Re: CASE report review
Former Red Diamond Oil Company, 519 East North 1st Street, Seneca, SC
UST Permit #14324; CA #25430
Bid #IFB-28949-10/4/05-EMW; PO #605692
Release reported December 30, 1991
Corrective Action System Evaluation (CASE) report received February 27, 2008
Oconee County

Dear Mr. Donn:

The Underground Storage Tank (UST) Program has reviewed the referenced CASE report documenting activities conducted from September 2008 to January 2009. The Program concurs with your free-phase product reduction calculation of 93.80%.

The next CASE report documenting activities from January 2009 to April 2009 is due on or before **June 1, 2009**. On all correspondence regarding this site, please reference UST Permit #14324. If you have any questions, feel free to contact me by telephone at (803) 896-6398, by fax at (803) 896-6245, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Geologist/Hydrogeologist
Corrective Action Section
Underground Storage Tank Program
Bureau of Land and Waste Management

JPP/jpp
14324.10

cc: Betty Latham, 2 Stratton Place, Greenville, SC 29615-4217
Technical file

UST DOCKET 10 feet

DHEC/UST/JPP/031309

ENVIROSOUTH
Environmental Consultants

May 27, 2009



Mr. Joel Padgett
SCDHEC
Bureau of Land and Waste Management
UST Program
2600 Bull Street
Columbia, South Carolina 29201

Re: Former Red Diamond
519 East North 1st Street
Seneca, South Carolina
SCDHEC ID #14324
EnviroSouth Job No. 1334

Dear Mr. Padgett:

EnviroSouth, Inc. is pleased to provide the SCDHEC UST Program with the remediation and groundwater monitoring report for the Former Red Diamond site in Seneca, South Carolina.

EnviroSouth appreciates the opportunity to be of service to the SCDHEC UST Program. If you have comments or questions concerning the attached report, please do not hesitate to call.

Sincerely,

EnviroSouth, Inc.

Brendan M. Brodie /td

Brendan M. Brodie, P.G.
Project Hydrogeologist
S.C. Registration No. 2252

BMB/td



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Prepared for:

South Carolina Department of Health and Environmental Control
(SCDHEC)
Underground Storage Tank (UST) Program
2600 Bull Street
Columbia, South Carolina 29201

Attn: Mr. Joel Padgett

GROUNDWATER MONITORING REPORT

FORMER RED DIAMOND
519 EAST NORTH 1st STREET
SENECA, SOUTH CAROLINA

UST PERMIT #14324

Job No. 1334

Prepared by:

EnviroSouth, Inc.
3440 Augusta Road
Greenville, South Carolina 29605

May 27, 2009

INTRODUCTION

EnviroSouth has completed groundwater gauging and remediation services at the Former Red Diamond facility (UST Permit #14324) facility located in Seneca, South Carolina. The purpose of the gauging event was to evaluate the current water levels and thickness of free-phase petroleum in various monitoring wells and extraction points.

This report includes a description of the field/remediation services, along with our current findings, conclusions, and recommendations.

METHODS and FINDINGS

Groundwater Elevation and Movement

Water level measurements in all monitoring wells and extraction points were last recorded by EnviroSouth with a hydrocarbon sensitive electronic interface probe on April 16, 2009. The interface probe was decontaminated prior to and between each measurement to prevent cross-contamination between wells. The water table aquifer occurs under unconfined conditions underlying the site at depths ranging from 27 to 39 feet below land surface. Free product was detected in monitoring well MW-1 at a thickness of 0.17 feet and MW-4 at a thickness of 0.77 feet. The TOC elevations, water level measurements, and ground water elevation data recorded to date are included on Table 1.

A map of extraction point locations is included as Figure 1.

PRODUCT BAILING

Since the last report, EnviroSouth has conducted monthly product bailing. Bailed product has been collected and stored in two 55-gallon drums onsite. Approximately 55 gallons of free-product has been collected to date.

VACUUM ENHANCED FLUID RECOVERY

A Vacuum Enhanced Fluid Recovery (VEFR) event was performed on April 16, 2009. Free-product and eater was removed from all extraction points containing free-product. A total of 262 gallons of fluid was extracted. The disposal manifest is included in the appendix.

FREE-PRODUCT THICKNESS REDUCTION

Based on the free-product thickness reduction calculation, the free-product reduction at the site is 93.80 percent. The initial cumulative free-product thickness equals 6.97 feet and the SSTL free-product thickness equals 0.03 feet. The initial mass above the SSTL is 6.94 feet. The subsequent free-product thickness for the January 22, 2009 gauging event is 0.43 feet.

$$\text{Free-Product Thickness Reduction} = \frac{(M-N)}{(M)} = \frac{(6.94-0.94)}{6.94} = 0.8645*100 = 86.5\% \text{ Reduction}$$

CONCLUSIONS

EnviroSouth plans to continue bailing and VEFR events until product thickness readings are less than 0.01 foot in all affected monitoring wells. If necessary, additional extraction points may be installed to enhance the rate of site clean-up.

EnviroSouth, Inc.

Brendan M. Brodie/td

Brendan M. Brodie, P.G.
Project Hydrogeologist
S.C. Registration No. 2252

BMB/td

APPENDICES

FIGURES

FIGURE 1 – Extraction Point Locations

TABLES

TABLE 1 - Groundwater Elevation Data
TABLE 2 - Product Thickness Data

DISPOSAL MANIFEST

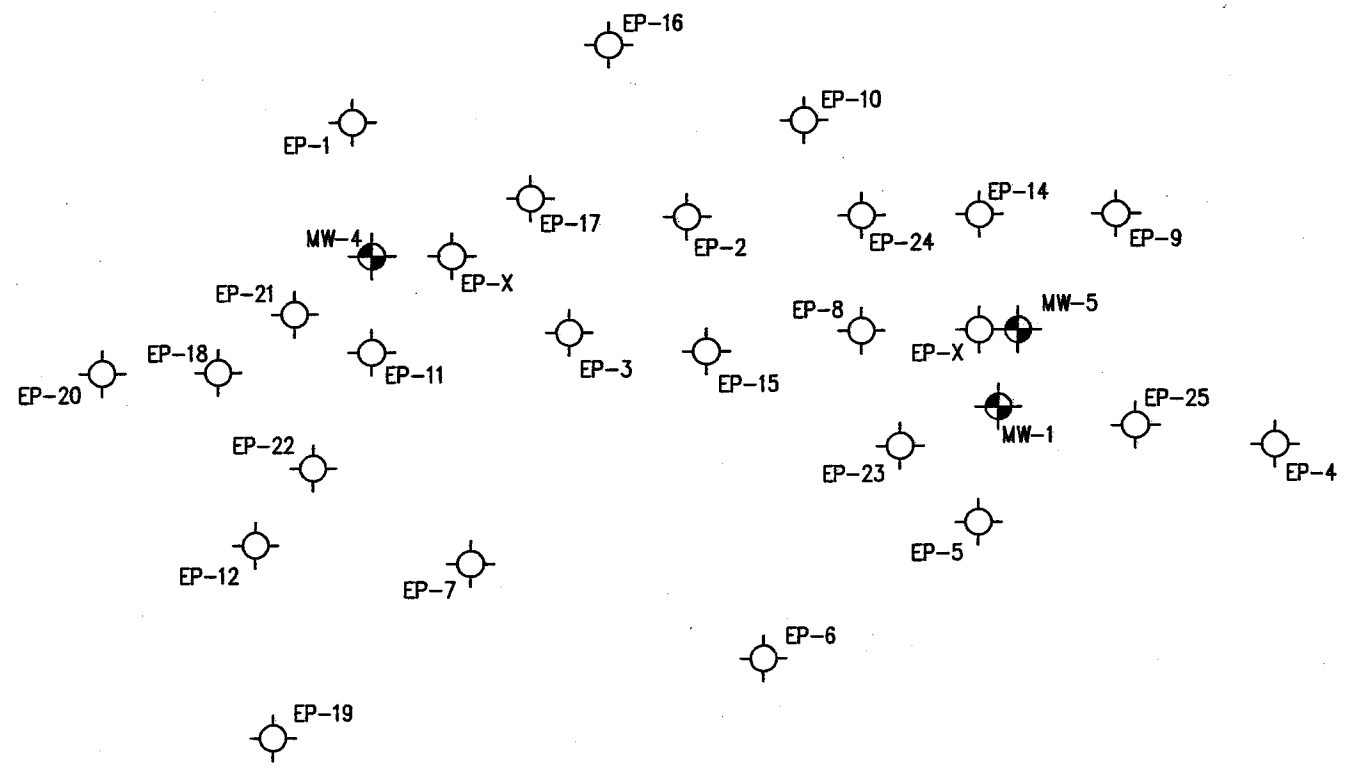
FIGURE

EXPLANATION

MW-5 — MONITORING WELL

EP-5 — EXTRACTION POINT WELL

EAST NORTH 1ST STREET



VACANT BUILDING

TRI-CITY LAUNDRY

10 0 10 20

SCALE: 1" = 10'±

07/14/2008	DRAWN BY DF	CHECKED BY BMB	SCALE 1"=10'±	JOB NO. 1334	FIGURE 1

ENVIROSOUTH Environmental Consultants

EXTRACTION POINT LOCATIONS

FORMER RED DIAMOND
519 EAST NORTH 1ST STREET
SENECA, SC
SDHEC UST ID #14324

TABLES

TABLE 1

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-1	4/18/03	98.32	29.07	33.27	4.20	65.05
	10/26/05		23.37	27.51	4.14	73.52
	5/4/06		25.64	26.71	1.07	72.41
	5/11/06		26.75	26.87	0.12	71.54
	6/6/06		26.26	26.40	0.14	72.03
	8/14/06		28.25	28.50	0.25	70.01
	2/9/07		27.74	28.22	0.48	70.46
	11/20/07		31.75	31.95	0.20	66.52
	6/5/08		32.00	32.15	0.15	66.28
	9/26/08		33.50	33.53	0.03	64.81
	1/22/09		32.93	33.10	0.17	65.35
	4/16/09		31.80	31.97	0.17	66.48
MW-2	4/18/05	98.60	--	29.20	ND	69.40
	10/26/05		--	26.00	ND	72.60
	5/4/06		--	27.38	ND	71.22
	8/14/06		--	29.26	ND	69.34
	2/9/07		--	29.02	ND	69.58
	11/20/07		--	33.10	ND	65.50
	6/5/08		--	33.30	ND	65.30
	9/26/08		--	34.71	ND	63.89
	1/22/09		--	34.70	ND	63.90
	4/16/09		--	33.72	ND	64.88
MW-3	4/18/03	97.92	--	27.93	ND	69.99
	10/26/05		--	24.85	ND	73.07
	5/4/06		--	26.16	ND	71.76
	8/14/06		--	28.09	ND	69.83
	2/9/07		--	27.85	ND	70.07
	11/20/07		--	32.10	ND	65.82
	6/5/08		--	32.28	ND	65.64
	9/26/08		--	33.74	ND	64.18
	1/22/09		--	33.50	ND	64.42
	4/16/09		--	32.48	ND	65.44
MW-4	4/18/03	99.07	38.29	34.43	3.86	64.64
	10/26/05		24.75	27.61	2.86	73.61
	5/4/06		26.60	27.17	0.57	72.33
	6/6/06		27.27	27.28	0.01	71.79
	8/14/06		--	28.45	ND	70.62
	2/9/07		--	29.15	ND	69.92
	11/20/07		32.47	32.48	0.01	66.60

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-4 Continued	6/5/08		32.40	34.72	2.32	66.09
	9/26/08		33.96	34.02	0.06	65.10
	1/22/09		34.20	34.46	0.26	64.81
	4/16/09		32.74	33.51	0.77	66.14
MW-5	4/18/03	98.03	--	27.67	ND	70.36
	10/26/05		--	24.57	ND	73.46
	5/4/06		--	25.82	ND	72.21
	8/14/06		--	26.24	ND	71.79
	2/9/07		--	26.14	ND	71.89
	11/20/07		--	31.25	ND	66.78
	6/5/08		--	31.47	ND	66.56
	9/26/08		--	32.92	ND	65.11
	1/22/09		--	33.21	ND	64.82
	4/16/09		--	32.29	ND	65.74
MW-6	4/18/03	103.06	--	32.20	ND	70.86
	10/26/05		--	30.38	ND	72.68
MW-7	4/18/03	99.30	--	32.30	ND	67.25
	10/26/05		--	28.52	ND	70.78
	5/4/06		--	30.10	ND	69.20
	8/14/06		--	31.33	ND	67.97
	2/9/07		--	31.19	ND	68.11
	11/20/07		--	35.01	ND	64.29
	6/5/08		--	35.19	ND	64.11
	9/26/08		--	36.62	ND	62.68
	1/22/09		--	36.66	ND	62.64
	4/16/09		--	35.67	ND	63.63
MW-8	4/18/03	102.13	--	37.88	ND	64.25
	10/26/05		--	35.18	ND	66.95
	5/4/06		--	36.47	ND	65.66
	8/14/06		--	37.05	ND	65.08
	2/9/07		--	36.88	ND	65.25
	11/20/07		--	40.93	ND	61.20
	6/5/08		--	41.11	ND	61.02
	9/26/08		--	42.60	ND	59.53
	1/22/09		--	42.64	ND	59.49
	4/16/09		--	41.60	ND	60.53
MW-9	4/18/03	104.97	--	38.90	ND	66.07
	10/26/05		--	35.70	ND	69.27
	5/4/06		--	36.70	ND	68.27
	8/14/06		--	37.77	ND	67.20
	2/9/07		--	37.52	ND	67.45

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-9 Continued	11/20/07		--	41.60	ND	63.37
	6/5/08		--	41.82	ND	63.15
	9/26/08		--	43.19	ND	61.78
	1/22/09		--	43.24	ND	61.73
	4/16/09		--	42.29	ND	62.68
MW-10	4/18/03	104.50	--	39.70	ND	64.80
	10/26/05		--	36.52	ND	67.98
	5/4/06		--	38.00	ND	66.50
	8/14/06		--	39.14	ND	65.36
	2/9/07		--	38.97	ND	65.53
	11/20/07		--	42.99	ND	61.51
	6/5/08		--	43.10	ND	61.40
	9/26/08		--	44.63	ND	59.87
	1/22/09		--	44.67	ND	59.83
	4/16/09		--	43.70	ND	60.80
MW-11	4/18/03	102.92	--	41.10	ND	61.82
	10/26/05		Missing	Missing	--	--
	5/4/06		--	35.89	ND	67.03
	8/14/06		--	36.98	ND	65.94
	2/9/07		--	36.69	ND	66.23
	11/20/07		--	40.02	ND	62.90
	6/5/08		--	40.20	ND	62.72
	9/26/08		--	41.73	ND	61.19
	1/22/09		--	41.80	ND	61.12
	4/16/09		--	40.94	ND	61.98
MW-12	4/18/03	99.12	--	33.91	ND	65.21
	10/26/05		--	29.24	ND	69.88
	5/4/06		--	29.40	ND	69.72
	8/14/06		--	30.90	ND	68.22
	2/9/07		--	30.77	ND	68.35
	11/20/07		--	33.55	ND	65.57
	6/5/08		--	33.77	ND	65.35
	9/26/08		--	35.21	ND	63.91
	1/22/09		--	36.61	ND	62.51
	4/16/09		--	35.72	ND	63.40
MW-13	4/18/03	99.41	32.25	33.39	0.57	66.02
	10/26/05		29.58	29.60	0.02	69.83
	5/4/06		--	30.90	ND	68.51
	6/6/06		--	31.35	ND	68.06
	8/14/06		--	32.55	ND	66.86

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-13 Continued	2/9/07		--	32.39	ND	67.02
	11/20/07		--	36.20	ND	63.21
	6/5/08		--	36.17	ND	63.24
	9/26/08		--	37.68	ND	61.73
	1/22/09		--	37.73	ND	61.68
	4/16/09		--	37.70	ND	61.71
MW-14	4/18/03	97.12	--	28.50	ND	68.62
	10/26/05		--	25.80	ND	71.32
MW-15	4/18/05	92.56	--	28.68	ND	63.88
	10/26/05		--	23.42	ND	69.14
MW-16	4/18/03	86.29	--	18.65	ND	67.64
	10/26/05		--	13.20	ND	73.09
MW-17	4/18/03	93.98	--	23.41	ND	70.57
	10/26/05		--	20.89	ND	73.09
	5/4/06		--	26.90	ND	67.08
	8/14/06		--	28.06	ND	65.92
	2/9/07		--	27.91	ND	66.07
	11/20/07		--	30.99	ND	62.99
	6/5/08		--	31.09	ND	62.89
	9/26/08		--	32.59	ND	61.39
	1/22/09		--	32.61	ND	61.37
	4/16/09		--	31.59	ND	62.39
MW-19	4/18/03	99.58	--	33.35	ND	66.23
	10/26/05		--	30.33	ND	69.25
	5/4/06		--	31.75	ND	67.83
	8/14/06		--	32.91	ND	66.67
	2/9/07		--	32.74	ND	66.84
	11/20/07		--	35.06	ND	64.52
	6/5/08		--	35.26	ND	64.32
	9/26/08		--	36.71	ND	62.87
	1/22/09		--	36.74	ND	62.84
	4/16/09		--	35.80	ND	63.78
MW-20	4/18/03	99.86	--	33.63	ND	66.23
	5/4/06		--	32.35	ND	67.51
	8/14/06		--	33.88	ND	65.98
	2/9/07		--	33.65	ND	66.21
	11/20/07		--	36.21	ND	63.65
	6/5/08		--	36.40	ND	63.46
	9/26/08		--	37.88	ND	61.98
	1/22/09		--	37.89	ND	61.97
	4/16/09		--	37.00	ND	62.86
MW-21	4/18/03	99.67	--	37.28	ND	62.39

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-22	4/18/03	89.60	--	29.20	ND	60.40
	5/4/06		--	29.74	ND	59.86
	8/14/06		--	30.99	ND	58.61
	2/9/07		--	30.78	ND	58.82
	11/20/07		--	34.92	ND	54.68
	6/5/08		--	35.21	ND	54.39
	9/26/08		--	36.73	ND	52.87
	1/22/09		--	36.75	ND	52.85
	4/16/09		--	35.83	ND	53.77

Notes: 1) ND = None Detected
2) NM = Not Measured

ENVIROSOUTH Environmental Consultants

TABLE 2

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-1	2/20/06	--	26.76	ND
	5/4/06	--	27.10	ND
	5/11/06	--	27.03	ND
	6/6/06	--	27.48	ND
	6/27/06	--	27.82	ND
	7/13/06	--	27.96	ND
	8/14/06	--	28.74	ND
	12/15/06	--	30.31	ND
	1/8/07	--	30.12	ND
	2/9/07	--	30.08	ND
	11/20/07	--	DRY	--
	6/5/08	--	DRY	--
	9/26/08	--	DRY	--
	1/22/09	--	34.18	ND
	4/16/09	--	33.04	ND
EP-2	2/20/06	26.20	27.11	0.91
	5/4/06	26.48	28.60	2.12
	5/11/06	26.70	27.65	0.95
	6/6/06	27.02	28.89	1.87
	6/27/06	27.44	28.88	1.44
	7/13/06	27.60	28.80	1.20
	8/14/06	28.25	29.95	1.70
	12/15/06	29.68	31.70	2.02
	1/8/07	30.72	31.22	0.50
	2/9/07	28.98	30.22	1.24
	11/20/07	32.15	32.41	0.26
	6/5/08	--	DRY	--
	9/26/08	32.97	32.98	0.01
	1/22/09	--	DRY	--
	4/16/09	--	DRY	--
EP-3	2/20/06	25.90	27.47	1.57
	5/4/06	26.24	28.66	2.42
	5/11/06	26.65	27.20	0.55
	6/6/06	27.00	28.51	1.51
	6/27/06	27.37	28.59	1.22
	7/13/06	27.51	28.51	1.00
	8/14/06	28.21	29.41	1.20
	12/15/06	29.90	30.30	0.40
	1/8/07	30.20	30.27	0.07
	2/9/07	29.06	29.30	0.24
	11/20/07	--	DRY	--

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-3 Continued	6/5/08	--	DRY	--
	9/26/08	--	DRY	--
	1/22/09	--	DRY	--
	4/16/09	--	DRY	--
EP-4	5/4/06	--	25.80	ND
	5/11/06	--	25.76	ND
	6/6/06	--	26.29	ND
	6/27/06	--	26.56	ND
	7/13/06	--	26.79	ND
	8/14/06	--	27.45	ND
	12/15/06	28.90	29.00	0.10
	1/8/07	28.88	28.89	0.01
	2/9/07	--	27.85	ND
	11/20/07	--	31.70	ND
	6/5/08	NM	NM	0.1
	9/26/08	--	DRY	--
	1/22/09	--	32.60	ND
	4/16/09	32.42	32.64	0.22
EP-5	5/4/06	--	25.80	ND
	5/11/06	--	25.78	ND
	6/6/06	--	26.30	ND
	6/27/06	--	26.60	ND
	7/13/06	--	26.76	ND
	8/14/06	--	27.47	ND
	12/15/06	28.76	28.95	0.19
	1/8/07	--	28.69	ND
	2/9/07	--	27.68	ND
	11/20/07	--	32.40	ND
	6/5/08	NM	NM	0.15
	9/26/08	--	DRY	--
	1/22/09	--	32.79	ND
	4/16/09	31.04	31.26	0.22
EP-6	5/4/06	26.05	26.08	0.03
	5/11/06	--	26.05	ND
	6/6/06	26.45	26.59	0.14
	6/27/06	26.81	27.00	0.19
	7/13/06	26.94	27.04	0.10
	8/14/06	28.71	28.95	0.24
	12/15/06	29.04	29.15	0.11
	1/8/07	--	28.98	ND
	2/9/07	27.91	27.96	0.05
	11/20/07	--	DRY	--

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-6 Continued	6/5/08	NM	NM	ND
	9/26/08	--	DRY	--
	1/22/09	--	32.56	ND
	4/16/09	31.26	31.94	0.68
EP-7	5/4/06	--	26.54	ND
	5/11/06	--	26.49	ND
	6/6/06	27.04	27.08	0.04
	6/27/06	--	27.30	ND
	7/13/06	--	27.44	ND
	8/14/06	28.21	28.37	0.16
	12/15/06	29.60	29.68	0.08
	1/8/07	--	29.45	ND
	2/9/07	28.63	28.64	0.01
	11/20/07	--	DRY	--
	6/5/08	--	DRY	--
	9/26/08	--	DRY	--
	1/22/09	--	32.75	ND
	4/16/09	32.37	32.55	0.18
EP-8	5/4/06	25.87	25.99	0.12
	5/11/06	--	25.83	ND
	6/6/06	26.30	26.59	0.29
	6/27/06	26.50	26.59	0.09
	7/13/06	26.61	26.71	0.10
	8/14/06	27.47	27.85	0.38
	12/15/06	28.85	29.40	0.55
	1/8/07	28.50	28.65	0.15
	11/20/07	32.00	32.77	0.77
	6/5/08	--	MISSING	--
	9/26/08	--	MISSING	--
	1/22/09	--	33.10	ND
	4/16/09	31.55	31.62	0.07
EP-9	5/4/06	25.42	26.22	0.80
	5/11/06	25.54	25.70	0.16
	6/6/06	25.80	27.01	1.21
	6/27/06	26.36	26.70	0.34
	7/13/06	26.52	26.77	0.25
	8/14/06	27.01	28.12	1.11
	12/15/06	28.75	29.08	0.33
	1/8/07	28.86	28.87	0.01
	2/9/07	27.77	28.67	0.90
	11/20/07	--	31.42	ND

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-9 Continued	6/5/08	NM	NM	0.02
	9/26/08	32.94	32.95	0.01
	1/22/09	--	34.40	ND
	4/16/09	--	31.61	ND
EP-10	5/4/06	26.47	27.99	1.52
	5/11/06	26.50	27.49	0.99
	6/6/06	26.84	28.80	1.96
	6/27/06	27.24	28.80	1.56
	7/13/06	27.36	28.86	1.50
	8/14/06	27.99	30.00	2.01
	12/15/06	29.54	31.55	2.01
	1/8/07	30.74	31.14	0.40
	2/9/07	29.02	29.58	0.56
	11/20/07	33.00	33.80	0.80
	6/5/08	NM	NM	1.30
	9/26/08	--	DRY	--
	1/22/09	34.20	34.59	0.39
	4/16/09	32.64	33.83	1.19
EP-11	5/4/06	27.34	26.36	0.98
	5/11/06	26.63	26.80	0.17
	6/6/06	26.97	28.05	1.08
	6/27/06	27.40	28.00	0.60
	7/13/06	27.55	27.95	0.50
	8/14/06	28.22	28.99	0.77
	12/15/06	29.39	31.65	2.26
	1/8/07	31.15	31.32	0.17
	2/9/07	29.08	29.25	0.17
	11/20/07	32.25	32.30	0.05
	6/5/08	NM	NM	0.85
	9/26/08	33.72	34.13	0.41
	1/22/09	34.10	34.55	0.45
	4/16/09	32.87	32.95	0.08
EP-12	5/4/06	26.70	26.72	0.02
	5/11/06	26.61	26.65	0.04
	6/6/06	27.11	27.42	0.31
	6/27/06	27.42	27.70	0.28
	7/13/06	27.63	27.88	0.25
	8/14/06	28.37	28.49	0.12
	12/15/06	29.70	30.40	0.70
	1/8/07	30.09	30.10	0.01
	2/9/07	29.02	29.04	0.02

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-12 Continued	11/20/07	31.90	32.20	0.30
	6/5/08	NM	NM	1.00
	9/28/08	--	33.51	--
	1/22/09	33.60	33.87	0.27
	4/16/09	32.52	33.73	1.21
EP-13	5/4/06	--	30.62	ND
	5/11/06	--	30.81	ND
	6/6/06	--	31.03	ND
	6/27/06	--	31.32	ND
	7/13/06	--	31.40	ND
	8/14/06	--	32.30	ND
	12/15/06	--	33.69	ND
	1/8/07	--	33.22	ND
	2/9/07	--	32.45	ND
	11/20/07	--	36.20	ND
	6/5/08	NM	NM	ND
	9/28/08	NM	NM	ND
	1/22/09	--	37.27	ND
	4/16/09	--	36.40	ND
EP-14	7/13/06	--	27.88	ND
	8/14/06	--	27.89	ND
	12/15/06	--	29.47	ND
	1/8/07	--	29.31	ND
	2/9/07	--	29.02	ND
	11/20/07	--	32.20	ND
	6/5/08	NM	NM	ND
	9/28/08	--	33.60	TRACE
	1/22/09	--	34.00	ND
	4/16/09	--	32.60	ND
EP-15	7/13/06	--	27.92	ND
	8/14/06	--	28.39	ND
	12/15/06	--	30.00	ND
	1/8/07	--	29.45	ND
	2/9/07	--	29.12	ND
	11/20/07	--	32.70	ND
	6/5/08	NM	NM	ND
	9/28/08	NM	NM	ND
	1/22/09	--	33.73	ND
	4/16/09	--	32.27	ND
EP-16	7/13/06	27.75	27.95	0.20
	8/14/06	28.40	28.62	0.22

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-16 Continued	12/15/06	29.92	30.35	0.43
	1/8/07	--	30.11	ND
	2/9/07	29.22	29.23	0.01
	11/20/07	32.30	32.40	0.10
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
	1/22/09	33.90	34.02	0.12
	4/16/09	33.04	33.18	0.14
EP-17	7/13/06	--	28.22	ND
	8/14/06	--	28.50	ND
	12/15/06	--	30.04	ND
	1/8/07	--	29.65	ND
	2/9/07	--	29.57	ND
	11/20/07	--	32.17	ND
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
	1/22/09	--	33.78	ND
	4/16/09	32.80	33.57	0.77
EP-18	7/13/06	27.99	28.24	0.25
	8/14/06	28.19	29.00	0.81
	12/15/06	29.50	31.25	1.75
	1/8/07	30.77	30.97	0.20
	2/9/07	29.08	29.33	0.25
	11/20/07	31.41	32.00	0.59
	6/5/08	NM	NM	0.75
	9/28/08	--	32.73	--
	1/22/09	--	32.75	ND
	4/16/09	--	32.73	ND
EP-19	7/13/06	--	28.31	ND
	8/14/06	--	28.43	ND
	12/15/06	--	29.92	ND
	1/8/07	--	29.77	ND
	2/9/07	--	29.43	ND
	11/20/07	--	32.15	ND
	6/5/08	NM	NM	0.09
	9/28/08	NM	NM	ND
	1/22/09	--	34.01	ND
	4/16/09	--	32.84	ND
EP-20	1/8/07	--	30.09	ND
	2/9/07	29.68	30.17	0.49
	11/20/07	32.40	32.50	0.10

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-20 Continued	6/5/08	NM	NM	0.20
	9/28/08	--	32.47	--
	1/22/09	--	32.49	ND
	4/16/09	--	32.59	ND
EP-21	1/8/07	--	30.02	ND
	2/9/07	--	29.57	ND
	11/20/07	--	32.55	ND
	6/5/08	NM	NM	ND
	9/28/08	NM	NM	ND
	1/22/09	--	34.47	ND
EP-22	1/8/07	--	30.01	ND
	2/9/07	--	29.07	ND
	11/20/07	--	32.65	ND
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
	1/22/09	--	34.21	ND
	4/16/09	32.68	32.73	0.05
EP-23	1/8/07	--	30.12	ND
	2/9/07	27.94	27.99	0.05
	11/20/07	32.00	32.12	0.12
	6/5/08	NM	NM	ND
	9/28/08	--	32.80	--
	1/22/09	--	32.76	ND
	4/16/09	31.00	31.09	0.09
EP-24	1/8/07	29.89	30.19	0.30
	2/9/07	29.33	29.68	0.35
	11/20/07	31.91	32.10	0.19
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
	1/22/09	31.86	32.03	0.17
	4/16/09	--	DRY	--
EP-25	1/8/07	--	30.14	ND
	2/9/07	--	27.88	ND
	11/20/07	--	31.70	ND
	6/5/08	NM	NM	ND
	9/28/08	33.32	33.33	0.01
	1/22/09	--	33.00	ND
	4/16/09	32.14	32.59	0.45

Notes: 1) ND = None Detected
2) NM = Not Measured

DISPOSAL MANIFEST

13.34

MATERIAL MANIFEST

JBR Environmental Services
P. O. Box 4098
Spartanburg, SC 29305

Manifest Document No. I-0916076O
Page of
Job No. I-0916076O

Emergency Phone Number: (864) 583-2717

GENERATOR INFORMATION

Name: EnviroSouth
US EPA ID No.

Street Address: 519 E North 1st St. Seneca SC.
Mailing Address: 3410 Augusta rd. Greenville SC 29605
Phone No.: 230-4417
Contact: Brendan Brodie

DESCRIPTION OF MATERIALS

	HM	USDOT Proper Shipping Name (Complete All Items for Hazardous Materials)	Hazard Class	UN/NA ID No.	Packing Group	Containers Qty	Containers Type	Total Quantity	Unit Wt./Vol.
a.		Non Hazardous liquid NOS				1	VT	49,540	1.09 TONS
b.								47360	
c.								2180	lbs.

ADDITIONAL INFORMATION		ERG No.	JBR Profile Code	Facility Use
a.	Contact water		JB0908145	Approved for Disposal
b.				
c.				

GENERATORS CERTIFICATION

This is to certify that the above -described materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. I further certify that none of the materials described above are a hazardous waste as defined by EPA 40 CFR Part 261 or any applicable state law, and unless specifically identified above, the materials contain less than 1,000 ppm total halogens and do not contain quantifiable levels (2 ppm) of PCBs as defined by EPA 40 CFR Parts 279 and 761.

Printed/Typed Name: Brendan M. Brodie
Signature: B. M. Brodie
Mo./Day/Yr.: 5-16-09

TRANSPORTER INFORMATION

Transporter: JBR Environmental Services
Address: 210 Alice Street, Spartanburg, SC 29303
Transporter or EPA ID No.: SCR000004358
Unit No.: #17
Phone: 864-583-2717

I hereby acknowledge receipt of the above-described materials for transport from the generator site listed above.

Signature: [signature] Shipment Date: 4-16-09

I hereby acknowledge that the above-described materials were received from the generator site and were transported to the facility listed below.

Signature: [signature] Delivery Date: 4-16-09

FACILITY INFORMATION

Facility: JBR Environmental Services
Address: 210 Alice Street, Spartanburg, SC 29303
Facility or EPA ID No.: SCR000004358
Phone: 864-583-2717
Contact: Rex Russell

I hereby acknowledge receipt of the materials covered by this manifest except for any discrepancy noted below.

Signature: Mark A Schaberg Receipt Date: 4/16/09

	Discrepancies	Routing Codes	Handling Methods.
a.		WM329.	
b.			
c.			

Original - Facility Retain **COPY 2 - Return to Generator** **COPY 3 - Transporter Retain** **COPY 4 - Generator Retain**

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

JUN 05 2009

MR THOMAS F DONN PG
ENVIROSOUTH ENVIRONMENTAL CONSULTANTS
3440 AUGUSTA RD
GREENVILLE SC 29605

Re: CASE report review
Former Red Diamond Oil Company, 519 East North 1st Street, Seneca, SC
UST Permit #14324; CA #25430
Bid #IFB-28949-10/4/05-EMW; PO #605692
Release reported December 30, 1991
Corrective Action System Evaluation (CASE) report received May 29, 2009
Oconee County

Dear Mr. Donn:

The Underground Storage Tank (UST) Management Division has reviewed the referenced CASE report documenting activities conducted from January to April 2009. The Division concurs with your free-phase product reduction calculation of 86.50%.

The next CASE report documenting activities from April to July 2009 is due on or before **September 1, 2009**. On all correspondence regarding this site, please reference UST Permit #14324. If you have any questions, feel free to contact me by telephone at (803) 896-6398, by fax at (803) 896-6245, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Geologist/Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

JPP/jpp
14324.11

cc: Betty Latham, 2 Stratton Place, Greenville, SC 29615-4217
Technical file

12tech
UST
DOCKET

DHEC/UST/JPP/060509

ENVIROSOUTH
Environmental Consultants

October 12, 2009



Mr. Joel Padgett
SCDHEC
Bureau of Land and Waste Management
UST Program
2600 Bull Street
Columbia, South Carolina 29201

Re: Former Red Diamond
519 East North 1st Street
Seneca, South Carolina
SCDHEC ID #14324
EnviroSouth Job No. 1334

Dear Mr. Padgett:

EnviroSouth, Inc. is pleased to provide the SCDHEC UST Program with the remediation and groundwater monitoring report for the Former Red Diamond site in Seneca, South Carolina.

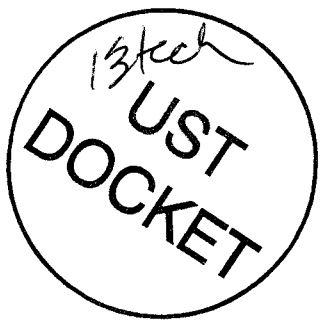
EnviroSouth appreciates the opportunity to be of service to the SCDHEC UST Program. If you have comments or questions concerning the attached report, please do not hesitate to call.

Sincerely,

EnviroSouth, Inc.

Brendan M. Brodie, P.G.
Project Hydrogeologist
S.C. Registration No. 2252

BMB/td



phone: 864.236.9010 • fax: 864.236.9097
3440 Augusta Road • Greenville, SC 29605 • www.envirosouth.com

Prepared for:

South Carolina Department of Health and Environmental Control
(SCDHEC)
Underground Storage Tank (UST) Program
2600 Bull Street
Columbia, South Carolina 29201

Attn: Mr. Joel Padgett

GROUNDWATER MONITORING REPORT

FORMER RED DIAMOND
519 EAST NORTH 1st STREET
SENECA, SOUTH CAROLINA

UST PERMIT #14324

Job No. 1334

Prepared by:

EnviroSouth, Inc.
3440 Augusta Road
Greenville, South Carolina 29605
SCDHEC Certification No. 257

October 12, 2009

INTRODUCTION

EnviroSouth has completed groundwater gauging and remediation services at the Former Red Diamond facility (UST Permit #14324) facility located in Seneca, South Carolina. The purpose of the gauging event was to evaluate the current water levels and thickness of free-phase petroleum in various monitoring wells and extraction points.

This report includes a description of the field/remediation services, along with our current findings, conclusions, and recommendations.

METHODS and FINDINGS

Groundwater Elevation and Movement

Water level measurements in all monitoring wells and extraction points were last recorded by EnviroSouth with a hydrocarbon sensitive electronic interface probe on September 18, 2009. The water levels and free-product thicknesses in the extraction point wells were also recorded on July 23, 2009. The interface probe was decontaminated prior to and between each measurement to prevent cross-contamination between wells. The water table aquifer occurs under unconfined conditions underlying the site at depths ranging from 27 to 39 feet below land surface. Free product was detected in monitoring well MW-1 at a thickness of 0.10 feet and MW-4 at a thickness of 0.21 feet. The TOC elevations, water level measurements, and ground water elevation data recorded to date are included on Table 1.

A map of extraction point locations is included as Figure 1.

PRODUCT BAILING

Since the last report, EnviroSouth has conducted monthly product bailing. Bailed product has been collected and stored in two 55-gallon drums onsite. Approximately 60 gallons of free-product has been collected to date.

VACUUM ENHANCED FLUID RECOVERY

Two Vacuum Enhanced Fluid Recovery (VEFR) events were performed on July 23 and September 18, 2009. Free-product and water was removed from all extraction points containing free-product. A total of 700 gallons of fluid was extracted. The disposal manifests are included in the appendix.

FREE-PRODUCT THICKNESS REDUCTION

Based on the free-product thickness reduction calculation, the free-product reduction at the site is 95.5 percent. The initial cumulative free-product thickness equals 6.97 feet and the SSTL free-product thickness equals 0.03 feet. The initial mass above the SSTL is 6.94 feet. The subsequent free-product thickness for the September 18, 2009 gauging event is 0.31 feet.

Free-Product Thickness Reduction = $\frac{(M-N)}{(M)} = \frac{(6.94 - 0.31)}{6.94} = 0.9553*100 = 95.5\%$ Reduction

CONCLUSIONS

EnviroSouth plans to continue bailing and VEFR events until product thickness readings are less than 0.01 foot in all affected monitoring wells. If necessary, additional extraction points may be installed to enhance the rate of site clean-up.

EnviroSouth, Inc.

Brendan M. Brodie, P.G.
Project Hydrogeologist
S.C. Registration No. 2252

BMB/td

APPENDICES

FIGURES

FIGURE 1 – Extraction Point Locations

TABLES

TABLE 1 - Groundwater Elevation Data
TABLE 2 - Product Thickness Data

DISPOSAL MANIFESTS

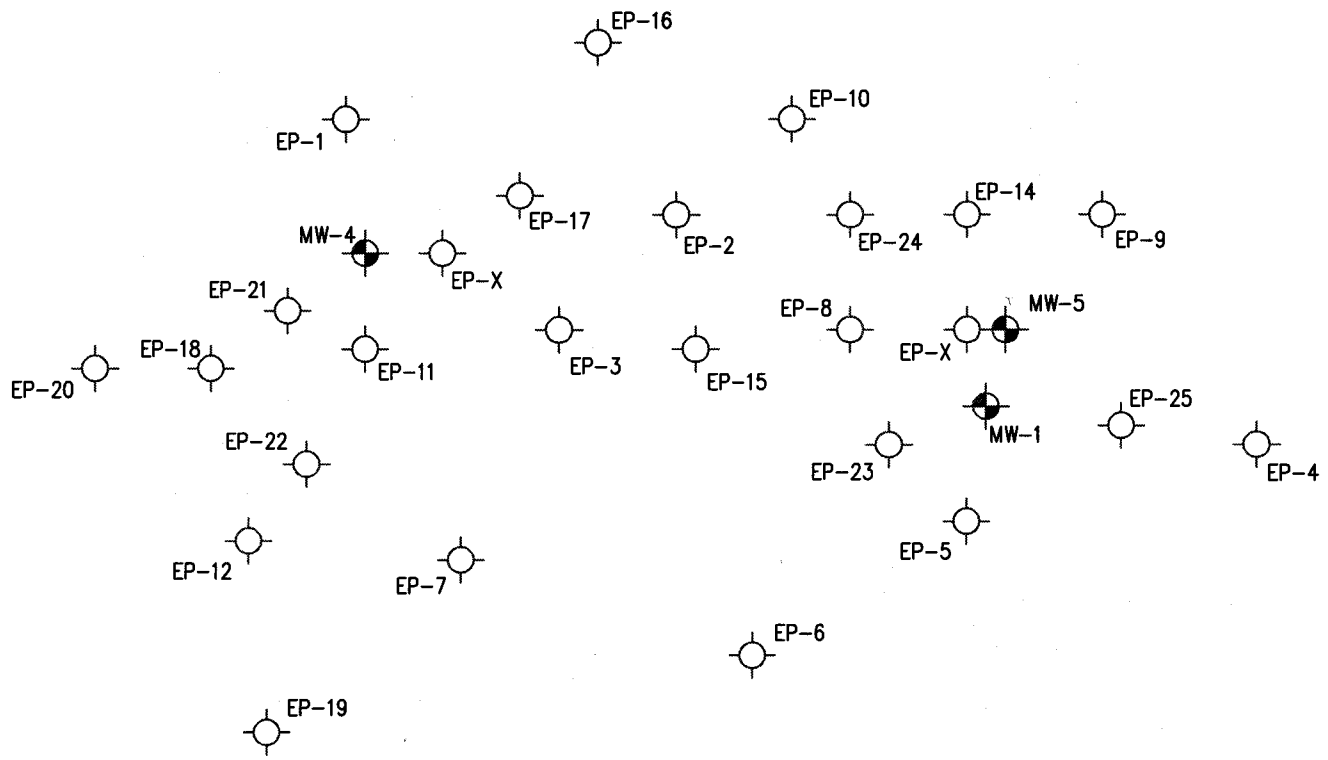
FIGURE

EXPLANATION

MW-5 — MONITORING WELL

EP-5 — EXTRACTION POINT WELL

EAST NORTH 1ST STREET



VACANT BUILDING

TRI-CITY LAUNDRY

10 0 10 20

SCALE: 1' = 10'±

10/12/09	DRAWN BY DF	CHECKED BY BMB	SCALE 1"=10'±	JOB NO. 1334	FIGURE 1

ENVIROSOUTH Environmental Consultants

EXTRACTION POINT LOCATIONS

FORMER RED DIAMOND
519 EAST NORTH 1ST STREET
SENECA, SC
SDHEC UST ID #14324

TABLES

TABLE 1

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-1	4/18/03	98.32	29.07	33.27	4.20	65.05
	10/26/05		23.37	27.51	4.14	73.52
	5/4/06		25.64	26.71	1.07	72.41
	5/11/06		26.75	26.87	0.12	71.54
	6/6/06		26.26	26.40	0.14	72.03
	8/14/06		28.25	28.50	0.25	70.01
	2/9/07		27.74	28.22	0.48	70.46
	11/20/07		31.75	31.95	0.20	66.52
	6/5/08		32.00	32.15	0.15	66.28
	9/26/08		33.50	33.53	0.03	64.81
	1/22/09		32.93	33.10	0.17	65.35
	4/16/09		31.80	31.97	0.17	66.48
	9/18/09		32.25	32.35	0.10	66.05
MW-2	4/18/05	98.60	--	29.20	ND	69.40
	10/26/05		--	26.00	ND	72.60
	5/4/06		--	27.38	ND	71.22
	8/14/06		--	29.26	ND	69.34
	2/9/07		--	29.02	ND	69.58
	11/20/07		--	33.10	ND	65.50
	6/5/08		--	33.30	ND	65.30
	9/26/08		--	34.71	ND	63.89
	1/22/09		--	34.70	ND	63.90
	4/16/09		--	33.72	ND	64.88
	9/18/09		--	34.12	ND	64.48
MW-3	4/18/03	97.92	--	27.93	ND	69.99
	10/26/05		--	24.85	ND	73.07
	5/4/06		--	26.16	ND	71.76
	8/14/06		--	28.09	ND	69.83
	2/9/07		--	27.85	ND	70.07
	11/20/07		--	32.10	ND	65.82
	6/5/08		--	32.28	ND	65.64
	9/26/08		--	33.74	ND	64.18
	1/22/09		--	33.50	ND	64.42
	4/16/09		--	32.48	ND	65.44
	9/18/09		--	32.87	ND	65.05
MW-4	4/18/03	99.07	38.29	34.43	3.86	64.64
	10/26/05		24.75	27.61	2.86	73.61
	5/4/06		26.60	27.17	0.57	72.33
	6/6/06		27.27	27.28	0.01	71.79

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-4	8/14/06		--	28.45	ND	70.62
Continued	2/9/07		--	29.15	ND	69.92
	11/20/07		32.47	32.48	0.01	66.60
	6/5/08		32.40	34.72	2.32	66.09
	9/26/08		33.96	34.02	0.06	65.10
	1/22/09		34.20	34.46	0.26	64.81
	4/16/09		32.74	33.51	0.77	66.14
	9/18/09		33.20	33.41	0.21	65.82
MW-5	4/18/03	98.03	--	27.67	ND	70.36
	10/26/05		--	24.57	ND	73.46
	5/4/06		--	25.82	ND	72.21
	8/14/06		--	26.24	ND	71.79
	2/9/07		--	26.14	ND	71.89
	11/20/07		--	31.25	ND	66.78
	6/5/08		--	31.47	ND	66.56
	9/26/08		--	32.92	ND	65.11
	1/22/09		--	33.21	ND	64.82
	4/16/09		--	32.29	ND	65.74
	9/18/09		--	32.68	ND	65.35
MW-6	4/18/03	103.06	--	32.20	ND	70.86
	10/26/05		--	30.38	ND	72.68
MW-7	4/18/03	99.30	--	32.30	ND	67.25
	10/26/05		--	28.52	ND	70.78
	5/4/06		--	30.10	ND	69.20
	8/14/06		--	31.33	ND	67.97
	2/9/07		--	31.19	ND	68.11
	11/20/07		--	35.01	ND	64.29
	6/5/08		--	35.19	ND	64.11
	9/26/08		--	36.62	ND	62.68
	1/22/09		--	36.66	ND	62.64
	4/16/09		--	35.67	ND	63.63
	9/18/09		--	36.00	ND	63.30
MW-8	4/18/03	102.13	--	37.88	ND	64.25
	10/26/05		--	35.18	ND	66.95
	5/4/06		--	36.47	ND	65.66
	8/14/06		--	37.05	ND	65.08
	2/9/07		--	36.88	ND	65.25
	11/20/07		--	40.93	ND	61.20
	6/5/08		--	41.11	ND	61.02
	9/26/08		--	42.60	ND	59.53
	1/22/09		--	42.64	ND	59.49

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-8	4/16/09		--	41.60	ND	60.53
Continued	9/18/09		--	41.99	ND	60.14
MW-9	4/18/03	104.97	--	38.90	ND	66.07
	10/26/05		--	35.70	ND	69.27
	5/4/06		--	36.70	ND	68.27
	8/14/06		--	37.77	ND	67.20
	2/9/07		--	37.52	ND	67.45
	11/20/07		--	41.60	ND	63.37
	6/5/08		--	41.82	ND	63.15
	9/26/08		--	43.19	ND	61.78
	1/22/09		--	43.24	ND	61.73
	4/16/09		--	42.29	ND	62.68
	9/18/09		--	42.68	ND	62.29
MW-10	4/18/03	104.50	--	39.70	ND	64.80
	10/26/05		--	36.52	ND	67.98
	5/4/06		--	38.00	ND	66.50
	8/14/06		--	39.14	ND	65.36
	2/9/07		--	38.97	ND	65.53
	11/20/07		--	42.99	ND	61.51
	6/5/08		--	43.10	ND	61.40
	9/26/08		--	44.63	ND	59.87
	1/22/09		--	44.67	ND	59.83
	4/16/09		--	43.70	ND	60.80
	9/18/09		--	44.10	ND	60.40
MW-11	4/18/03	102.92	--	41.10	ND	61.82
	10/26/05		Missing	Missing	--	--
	5/4/06		--	35.89	ND	67.03
	8/14/06		--	36.98	ND	65.94
	2/9/07		--	36.69	ND	66.23
	11/20/07		--	40.02	ND	62.90
	6/5/08		--	40.20	ND	62.72
	9/26/08		--	41.73	ND	61.19
	1/22/09		--	41.80	ND	61.12
	4/16/09		--	40.94	ND	61.98
	9/18/09		--	41.36	ND	61.56
MW-12	4/18/03	99.12	--	33.91	ND	65.21
	10/26/05		--	29.24	ND	69.88
	5/4/06		--	29.40	ND	69.72
	8/14/06		--	30.90	ND	68.22
	2/9/07		--	30.77	ND	68.35
	11/20/07		--	33.55	ND	65.57
	6/5/08		--	33.77	ND	65.35

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-12 Continued	9/26/08		--	35.21	ND	63.91
	1/22/09		--	36.61	ND	62.51
	4/16/09		--	35.72	ND	63.40
	9/18/09		--	35.99	ND	63.13
MW-13	4/18/03	99.41	32.25	33.39	0.57	66.02
	10/26/05		29.58	29.60	0.02	69.83
	5/4/06		--	30.90	ND	68.51
	6/6/06		--	31.35	ND	68.06
	8/14/06		--	32.55	ND	66.86
	2/9/07		--	32.39	ND	67.02
	11/20/07		--	36.20	ND	63.21
	6/5/08		--	36.17	ND	63.24
	9/26/08		--	37.68	ND	61.73
	1/22/09		--	37.73	ND	61.68
	4/16/09		--	37.70	ND	61.71
	9/18/09		--	38.11	ND	61.30
MW-14	4/18/03	97.12	--	28.50	ND	68.62
	10/26/05		--	25.80	ND	71.32
MW-15	4/18/05	92.56	--	28.68	ND	63.88
	10/26/05		--	23.42	ND	69.14
MW-16	4/18/03	86.29	--	18.65	ND	67.64
	10/26/05		--	13.20	ND	73.09
MW-17	4/18/03	93.98	--	23.41	ND	70.57
	10/26/05		--	20.89	ND	73.09
	5/4/06		--	26.90	ND	67.08
	8/14/06		--	28.06	ND	65.92
	2/9/07		--	27.91	ND	66.07
	11/20/07		--	30.99	ND	62.99
	6/5/08		--	31.09	ND	62.89
	9/26/08		--	32.59	ND	61.39
	1/22/09		--	32.61	ND	61.37
	4/16/09		--	31.59	ND	62.39
	9/18/09		--	31.93	ND	62.05
MW-19	4/18/03	99.58	--	33.35	ND	66.23
	10/26/05		--	30.33	ND	69.25
	5/4/06		--	31.75	ND	67.83
	8/14/06		--	32.91	ND	66.67
	2/9/07		--	32.74	ND	66.84
	11/20/07		--	35.06	ND	64.52
	6/5/08		--	35.26	ND	64.32
	9/26/08		--	36.71	ND	62.87
	1/22/09		--	36.74	ND	62.84

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-19	4/16/09		--	35.80	ND	63.78
Continued	9/18/09		--	36.18	ND	63.40
MW-20	4/18/03	99.86	--	33.63	ND	66.23
	5/4/06		--	32.35	ND	67.51
	8/14/06		--	33.88	ND	65.98
	2/9/07		--	33.65	ND	66.21
	11/20/07		--	36.21	ND	63.65
	6/5/08		--	36.40	ND	63.46
	9/26/08		--	37.88	ND	61.98
	1/22/09		--	37.89	ND	61.97
	4/16/09		--	37.00	ND	62.86
	9/18/09		--	37.39	ND	62.47
MW-21	4/18/03	99.67	--	37.28	ND	62.39
MW-22	4/18/03	89.60	--	29.20	ND	60.40
	5/4/06		--	29.74	ND	59.86
	8/14/06		--	30.99	ND	58.61
	2/9/07		--	30.78	ND	58.82
	11/20/07		--	34.92	ND	54.68
	6/5/08		--	35.21	ND	54.39
	9/26/08		--	36.73	ND	52.87
	1/22/09		--	36.75	ND	52.85
	4/16/09		--	35.83	ND	53.77
	9/18/09		--	36.18	ND	53.42

Notes: 1) ND = None Detected
2) NM = Not Measured

ENVIROSOUTH Environmental Consultants

TABLE 2

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-1	2/20/06	--	26.76	ND
	5/4/06	--	27.10	ND
	5/11/06	--	27.03	ND
	6/6/06	--	27.48	ND
	6/27/06	--	27.82	ND
	7/13/06	--	27.96	ND
	8/14/06	--	28.74	ND
	12/15/06	--	30.31	ND
	1/8/07	--	30.12	ND
	2/9/07	--	30.08	ND
	11/20/07	--	DRY	--
	6/5/08	--	DRY	--
	9/26/08	--	DRY	--
	1/22/09	--	34.18	ND
	4/16/09	--	33.04	ND
	7/23/09	--	32.59	ND
	9/18/09	--	32.61	ND
EP-2	2/20/06	26.20	27.11	0.91
	5/4/06	26.48	28.60	2.12
	5/11/06	26.70	27.65	0.95
	6/6/06	27.02	28.89	1.87
	6/27/06	27.44	28.88	1.44
	7/13/06	27.60	28.80	1.20
	8/14/06	28.25	29.95	1.70
	12/15/06	29.68	31.70	2.02
	1/8/07	30.72	31.22	0.50
	2/9/07	28.98	30.22	1.24
	11/20/07	32.15	32.41	0.26
	6/5/08	--	DRY	--
	9/26/08	32.97	32.98	0.01
	1/22/09	--	DRY	--
	4/16/09	--	DRY	--
	7/23/09	32.44	32.48	0.04
	9/18/09	32.43	32.44	0.01
EP-3	2/20/06	25.90	27.47	1.57
	5/4/06	26.24	28.66	2.42
	5/11/06	26.65	27.20	0.55
	6/6/06	27.00	28.51	1.51
	6/27/06	27.37	28.59	1.22
	7/13/06	27.51	28.51	1.00
	8/14/06	28.21	29.41	1.20
	12/15/06	29.90	30.30	0.40

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-3 Continued	1/8/07	30.20	30.27	0.07
	2/9/07	29.06	29.30	0.24
	11/20/07	--	DRY	--
	6/5/08	--	DRY	--
	9/26/08	--	DRY	--
	1/22/09	--	DRY	--
	4/16/09	--	DRY	--
	7/23/09	32.25	32.27	0.02
	9/18/09	32.26	32.27	0.01
EP-4	5/4/06	--	25.80	ND
	5/11/06	--	25.76	ND
	6/6/06	--	26.29	ND
	6/27/06	--	26.56	ND
	7/13/06	--	26.79	ND
	8/14/06	--	27.45	ND
	12/15/06	28.90	29.00	0.10
	1/8/07	28.88	28.89	0.01
	2/9/07	--	27.85	ND
	11/20/07	--	31.70	ND
	6/5/08	NM	NM	0.1
	9/26/08	--	DRY	--
	1/22/09	--	32.60	ND
	4/16/09	32.42	32.64	0.22
	7/23/09	NM	NM	ND
	9/18/09	NM	NM	ND
EP-5	5/4/06	--	25.80	ND
	5/11/06	--	25.78	ND
	6/6/06	--	26.30	ND
	6/27/06	--	26.60	ND
	7/13/06	--	26.76	ND
	8/14/06	--	27.47	ND
	12/15/06	28.76	28.95	0.19
	1/8/07	--	28.69	ND
	2/9/07	--	27.68	ND
	11/20/07	--	32.40	ND
	6/5/08	NM	NM	0.15
	9/26/08	--	DRY	--
	1/22/09	--	32.79	ND
	4/16/09	31.04	31.26	0.22
	7/23/09	31.18	31.47	0.29
	9/18/09	31.19	31.43	0.24
EP-6	5/4/06	26.05	26.08	0.03

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-6	5/11/06	--	26.05	ND
Continued	6/6/06	26.45	26.59	0.14
	6/27/06	26.81	27.00	0.19
	7/13/06	26.94	27.04	0.10
	8/14/06	28.71	28.95	0.24
	12/15/06	29.04	29.15	0.11
	1/8/07	--	28.98	ND
	2/9/07	27.91	27.96	0.05
	11/20/07	--	DRY	--
	6/5/08	NM	NM	ND
	9/26/08	--	DRY	--
	1/22/09	--	32.56	ND
	4/16/09	31.26	31.94	0.68
	7/23/09	31.22	31.83	0.61
	9/18/09	31.24	31.70	0.46
EP-7	5/4/06	--	26.54	ND
	5/11/06	--	26.49	ND
	6/6/06	27.04	27.08	0.04
	6/27/06	--	27.30	ND
	7/13/06	--	27.44	ND
	8/14/06	28.21	28.37	0.16
	12/15/06	29.60	29.68	0.08
	1/8/07	--	29.45	ND
	2/9/07	28.63	28.64	0.01
	11/20/07	--	DRY	--
	6/5/08	--	DRY	--
	9/26/08	--	DRY	--
	1/22/09	--	32.75	ND
	4/16/09	32.37	32.55	0.18
	7/23/09	31.93	32.07	0.14
	9/18/09	31.95	32.05	0.10
EP-8	5/4/06	25.87	25.99	0.12
	5/11/06	--	25.83	ND
	6/6/06	26.30	26.59	0.29
	6/27/06	26.50	26.59	0.09
	7/13/06	26.61	26.71	0.10
	8/14/06	27.47	27.85	0.38
	12/15/06	28.85	29.40	0.55
	1/8/07	28.50	28.65	0.15
	11/20/07	32.00	32.77	0.77
	6/5/08	--	MISSING	--
	9/26/08	--	MISSING	--

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-8 Continued	1/22/09	--	33.10	ND
	4/16/09	31.55	31.62	0.07
	7/23/09	31.28	31.53	0.25
	9/18/09	31.30	31.50	0.20
EP-9	5/4/06	25.42	26.22	0.80
	5/11/06	25.54	25.70	0.16
	6/6/06	25.80	27.01	1.21
	6/27/06	26.36	26.70	0.34
	7/13/06	26.52	26.77	0.25
	8/14/06	27.01	28.12	1.11
	12/15/06	28.75	29.08	0.33
	1/8/07	28.86	28.87	0.01
	2/9/07	27.77	28.67	0.90
	11/20/07	--	31.42	ND
	6/5/08	NM	NM	0.02
	9/26/08	32.94	32.95	0.01
	1/22/09	--	34.40	ND
	4/16/09	--	31.61	ND
	7/23/09	NM	NM	ND
	9/18/09	--	32.00	ND
EP-10	5/4/06	26.47	27.99	1.52
	5/11/06	26.50	27.49	0.99
	6/6/06	26.84	28.80	1.96
	6/27/06	27.24	28.80	1.56
	7/13/06	27.36	28.86	1.50
	8/14/06	27.99	30.00	2.01
	12/15/06	29.54	31.55	2.01
	1/8/07	30.74	31.14	0.40
	2/9/07	29.02	29.58	0.56
	11/20/07	33.00	33.80	0.80
	6/5/08	NM	NM	1.30
	9/26/08	--	DRY	--
	1/22/09	34.20	34.59	0.39
	4/16/09	32.64	33.83	1.19
	7/23/09	32.10	33.03	0.93
	9/18/09	32.15	33.00	0.85
EP-11	5/4/06	27.34	26.36	0.98
	5/11/06	26.63	26.80	0.17
	6/6/06	26.97	28.05	1.08
	6/27/06	27.40	28.00	0.60
	7/13/06	27.55	27.95	0.50
	8/14/06	28.22	28.99	0.77

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-11 Continued	12/15/06	29.39	31.65	2.26
	1/8/07	31.15	31.32	0.17
	2/9/07	29.08	29.25	0.17
	11/20/07	32.25	32.30	0.05
	6/5/08	NM	NM	0.85
	9/26/08	33.72	34.13	0.41
	1/22/09	34.10	34.55	0.45
	4/16/09	32.87	32.95	0.08
	7/23/09	33.17	34.17	1.00
	9/18/09	33.19	34.00	0.81
EP-12	5/4/06	26.70	26.72	0.02
	5/11/06	26.61	26.65	0.04
	6/6/06	27.11	27.42	0.31
	6/27/06	27.42	27.70	0.28
	7/13/06	27.63	27.88	0.25
	8/14/06	28.37	28.49	0.12
	12/15/06	29.70	30.40	0.70
	1/8/07	30.09	30.10	0.01
	2/9/07	29.02	29.04	0.02
	11/20/07	31.90	32.20	0.30
	6/5/08	NM	NM	1.00
	9/28/08	--	33.51	--
	1/22/09	33.60	33.87	0.27
	4/16/09	32.52	33.73	1.21
	7/23/09	31.80	33.03	1.23
	9/18/09	31.80	32.90	1.10
EP-13	5/4/06	--	30.62	ND
	5/11/06	--	30.81	ND
	6/6/06	--	31.03	ND
	6/27/06	--	31.32	ND
	7/13/06	--	31.40	ND
	8/14/06	--	32.30	ND
	12/15/06	--	33.69	ND
	1/8/07	--	33.22	ND
	2/9/07	--	32.45	ND
	11/20/07	--	36.20	ND
	6/5/08	NM	NM	ND
	9/28/08	NM	NM	ND
	1/22/09	--	37.27	ND
	4/16/09	--	36.40	ND
	7/23/09	NM	NM	ND
	9/18/09	--	36.80	ND

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-14	7/13/06	--	27.88	ND
	8/14/06	--	27.89	ND
	12/15/06	--	29.47	ND
	1/8/07	--	29.31	ND
	2/9/07	--	29.02	ND
	11/20/07	--	32.20	ND
	6/5/08	NM	NM	ND
	9/28/08	--	33.60	TRACE
	1/22/09	--	34.00	ND
	4/16/09	--	32.60	ND
	7/23/09	NM	NM	ND
	9/18/09	--	33.01	ND
EP-15	7/13/06	--	27.92	ND
	8/14/06	--	28.39	ND
	12/15/06	--	30.00	ND
	1/8/07	--	29.45	ND
	2/9/07	--	29.12	ND
	11/20/07	--	32.70	ND
	6/5/08	NM	NM	ND
	9/28/08	NM	NM	ND
	1/22/09	--	33.73	ND
	4/16/09	--	32.27	ND
	7/23/09	NM	NM	ND
	9/18/09	--	32.60	ND
EP-16	7/13/06	27.75	27.95	0.20
	8/14/06	28.40	28.62	0.22
	12/15/06	29.92	30.35	0.43
	1/8/07	--	30.11	ND
	2/9/07	29.22	29.23	0.01
	11/20/07	32.30	32.40	0.10
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
	1/22/09	33.90	34.02	0.12
	4/16/09	33.04	33.18	0.14
	7/23/09	32.31	32.36	0.05
	9/18/09	32.30	32.31	0.01
EP-17	7/13/06	--	28.22	ND
	8/14/06	--	28.50	ND
	12/15/06	--	30.04	ND
	1/8/07	--	29.65	ND
	2/9/07	--	29.57	ND
	11/20/07	--	32.17	ND

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-17 Continued	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
	1/22/09	--	33.78	ND
	4/16/09	32.80	33.57	0.77
	7/23/09	32.13	32.92	0.79
	9/18/09	32.15	32.80	0.65
EP-18	7/13/06	27.99	28.24	0.25
	8/14/06	28.19	29.00	0.81
	12/15/06	29.50	31.25	1.75
	1/8/07	30.77	30.97	0.20
	2/9/07	29.08	29.33	0.25
	11/20/07	31.41	32.00	0.59
	6/5/08	NM	NM	0.75
	9/28/08	--	32.73	--
	1/22/09	--	32.75	ND
	4/16/09	--	32.73	ND
	7/23/09	NM	NM	ND
	9/18/09	--	33.10	ND
EP-19	7/13/06	--	28.31	ND
	8/14/06	--	28.43	ND
	12/15/06	--	29.92	ND
	1/8/07	--	29.77	ND
	2/9/07	--	29.43	ND
	11/20/07	--	32.15	ND
	6/5/08	NM	NM	0.09
	9/28/08	NM	NM	ND
	1/22/09	--	34.01	ND
	4/16/09	--	32.84	ND
	7/23/09	NM	NM	ND
	9/18/09	33.10	33.20	0.10
EP-20	1/8/07	--	30.09	ND
	2/9/07	29.68	30.17	0.49
	11/20/07	32.40	32.50	0.10
	6/5/08	NM	NM	0.20
	9/28/08	--	32.47	--
	1/22/09	--	32.49	ND
	4/16/09	--	32.59	ND
	7/23/09	32.60	32.62	0.02
	9/18/09	--	32.64	ND
EP-21	1/8/07	--	30.02	ND
	2/9/07	--	29.57	ND
	11/20/07	--	32.55	ND

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-21 Continued	6/5/08	NM	NM	ND
	9/28/08	NM	NM	ND
	1/22/09	--	34.47	ND
	7/23/09	32.46	32.49	0.03
	9/18/09	32.47	32.48	0.01
EP-22	1/8/07	--	30.01	ND
	2/9/07	--	29.07	ND
	11/20/07	--	32.65	ND
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
	1/22/09	--	34.21	ND
	4/16/09	32.68	32.73	0.05
	7/23/09	31.73	31.78	0.05
	9/18/09	31.72	31.75	0.03
EP-23	1/8/07	--	30.12	ND
	2/9/07	27.94	27.99	0.05
	11/20/07	32.00	32.12	0.12
	6/5/08	NM	NM	ND
	9/28/08	--	32.80	--
	1/22/09	--	32.76	ND
	4/16/09	31.00	31.09	0.09
	7/23/09	31.43	31.45	0.02
	9/18/09	31.40	31.45	0.05
EP-24	1/8/07	29.89	30.19	0.30
	2/9/07	29.33	29.68	0.35
	11/20/07	31.91	32.10	0.19
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
	1/22/09	31.86	32.03	0.17
	4/16/09	--	DRY	--
	7/23/09	--	DRY	--
	9/18/09	--	DRY	--
EP-25	1/8/07	--	30.14	ND
	2/9/07	--	27.88	ND
	11/20/07	--	31.70	ND
	6/5/08	NM	NM	ND
	9/28/08	33.32	33.33	0.01
	1/22/09	--	33.00	ND
	4/16/09	32.14	32.59	0.45
	7/23/09	31.08	31.91	0.83
	9/18/09	31.09	31.79	0.70

Notes: 1) ND = None Detected
2) NM = Not Measured

DISPOSAL MANIFESTS

1334

MATERIAL MANIFEST

JBR Environmental Services
P. O. Box 4098
Spartanburg, SC 29305

Manifest Document No. I-07231689

Page of

Job No. I-07231689

Emergency Phone Number: (864) 583-2717

GENERATOR INFORMATION

Name: EnviroSouth

US EPA ID No.

Street Address: 519 E. N. 7st St. Seneca SC

Mailing Address: 3440 Augusta rd. Greenville SC 29605

Phone No.: 230-4417

Contact: Brendan Brodie

DESCRIPTION OF MATERIALS

	HM	USDOT Proper Shipping Name (Complete All Items for Hazardous Materials)	Hazard Class	UN/NA ID No.	Packing Group	Containers Qty	Containers Type	Total Quantity	Unit Wt./Vol.
a.		Non Hazardous liquid NOS						300	GAL.
b.									2502 lbs.
c.								1.25	TONS

ADDITIONAL INFORMATION		ERG No.	JBR Profile Code	Facility Use
a.	Contact water		JS 0908145	Aqueous Waste Disposal
b.				
c.				

GENERATORS CERTIFICATION

This is to certify that the above -described materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. I further certify that none of the materials described above are a hazardous waste as defined by EPA 40 CFR Part 261 or any applicable state law, and unless specifically identified above, the materials contain less than 1,000 ppm total halogens and do not contain quantifiable levels (2 ppm) of PCBs as defined by EPA 40 CFR Parts 279 and 761.

Printed/Typed Name: Brendan m Brodie | Signature: Brendan m Brodie | Mo./Day/Yr.: 7/23/09

TRANSPORTER INFORMATION

Transporter: JBR Environmental Services

Address: 210 Alice Street, Spartanburg, SC 29303

Transporter or EPA ID No.: SCR000004358 | Unit No.: 17

Phone: 864-583-2717

I hereby acknowledge receipt of the above-described materials for transport from the generator site listed above.

Signature: Jeffrey S. Wear | Shipment Date: 7.23.09

I hereby acknowledge that the above-described materials were received from the generator site and were transported to the facility listed below.

Signature: Jeff Wear | Delivery Date: 7.23.09

FACILITY INFORMATION

Facility: JBR Environmental Services

Address: 210 Alice Street, Spartanburg, SC 29303

Facility or EPA ID No.: SCR000004358

Phone: 864-583-2717

Contact: Rex Russell

I hereby acknowledge receipt of the materials covered by this manifest except for any discrepancy noted below.

Signature: Mark Richardson | Receipt Date: 7/23/09

	Discrepancies	Routing Codes	Handling Methods.
a.		WM3219	
b.			
c.			

Original - Facility Retain **COPY 2 - Return to Generator** **COPY 3 - Transporter Retain** **COPY 4 - Generator Retain**

MATERIAL MANIFEST

JBR Environmental Services
P. O. Box 4098
Spartanburg, SC 29305

Emergency Phone Number: (864) 583-2717

Manifest Document No. I-09183544

Page of

Job No. I-09183544

GENERATOR INFORMATION

Name: Envirosouth

US EPA ID No.

Street Address: 519 East North 1st Street Seneca, SC

Mailing Address

Phone No. 864-230-4417

Contact: Brandon Rodie

DESCRIPTION OF MATERIALS

	HM	USDOT Proper Shipping Name (Complete All Items for Hazardous Materials)	Hazard Class	UN/NA ID No.	Packing Group	Containers Qty	Containers Type	Total Quantity	Unit Wt./Vol.
a.		Non Regulated, Liquids				1	VT	400	GAL.
b.									
c.								1.67	TONS

ADDITIONAL INFORMATION		ERG No.	JBR Profile Code	Facility Use
a.	Contact Water		~~08-0301137~~ ~~SC 0001132~~	Approved for Disposal
b.				
c.				

GENERATORS CERTIFICATION

This is to certify that the above -described materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. I further certify that none of the materials described above are a hazardous waste as defined by EPA 40 CFR Part 261 or any applicable state law, and unless specifically identified above, the materials contain less than 1,000 ppm total halogens and do not contain quantifiable levels (2 ppm) of PCBs as defined by EPA 40 CFR Parts 279 and 761.

Printed/Typed Name: Brendan Rodie | Signature: Brendan Rodie | Mo./Day/Yr: 9-19-08

TRANSPORTER INFORMATION

Transporter: JBR Environmental Services

Address: 210 Alice Street, Spartanburg, SC 29303

Transporter or EPA ID No.: SCR000004358 | Unit No.: 16

Phone: 864-583-2717

I hereby acknowledge receipt of the above-described materials for transport from the generator site listed above.

Signature: Rodney Rose | Shipment Date: 9/19/08

I hereby acknowledge that the above-described materials were received from the generator site and were transported to the facility listed below.

Signature: Rodney Rose | Delivery Date: 9/19/08

FACILITY INFORMATION

Facility: JBR Environmental Services

Address: 210 Alice Street, Spartanburg, SC 29303

Facility or EPA ID No.: SCR000004358

Phone: 864-583-2717

Contact: Rex Russell

I hereby acknowledge receipt of the materials covered by this manifest except for any discrepancy noted below.

Signature: Mark A Schuckraft | Receipt Date: 9/19/08

	Discrepancies	Routing Codes	Handling Methods
a.	1,000 3219		
b.			
c.			

Original - Facility Retain **COPY 2 - Return to Generator** **COPY 3 - Transporter Retain** **COPY 4 - Generator Retain**

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

OCT 30 2009

MR BRANDON M BRODIE PG
ENVIROSOUTH ENVIRONMENTAL CONSULTANTS
3440 AUGUSTA RD
GREENVILLE SC 29605

Re: CASE report review
Former Red Diamond Oil Company, 519 East North 1st Street, Seneca, SC
UST Permit #14324; CA #25430
Bid #IFB-28949-10/4/05-EMW; PO #605692
Release reported December 30, 1991
Corrective Action System Evaluation (CASE) report received October 21, 2009
Oconee County

Dear Mr. Brodie:

The Underground Storage Tank (UST) Management Division has reviewed the referenced CASE report documenting activities conducted from April to September 2009. The Division concurs with your free-phase product reduction calculation of 95.50%.

The next CASE report documenting activities from September to December 2009 is due on or before **February 1, 2010**. On all correspondence regarding this site, please reference UST Permit #14324. If you have any questions, feel free to contact me by telephone at (803) 896-6398, by fax at (803) 896-6245, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Geologist/Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

UST DOCKET 14766

JPP/jpp
14324.12

cc: Betty Latham, 2 Stratton Place, Greenville, SC 29615-4217
Technical file

DHEC/UST/JPP/102909

ENVIROSOUTH
Environmental Consultants

UST
FEB 1 2 2010
PROGRAM

UST
DOCKET
16tch

February 10, 2010

Mr. Joel Padgett
SCDHEC
Bureau of Land and Waste Management
UST Program
2600 Bull Street
Columbia, South Carolina 29201

Re: Former Red Diamond
519 East North 1st Street
Seneca, South Carolina
SCDHEC ID #14324
EnviroSouth Job No. 1334

Dear Mr. Padgett:

EnviroSouth, Inc. is pleased to provide the SCDHEC UST Program with the remediation and groundwater monitoring report for the Former Red Diamond site in Seneca, South Carolina.

EnviroSouth appreciates the opportunity to be of service to the SCDHEC UST Program. If you have comments or questions concerning the attached report, please do not hesitate to call.

Sincerely,

EnviroSouth, Inc.

Brendan M. Brodie, P.G.
Project Hydrogeologist
S.C. Registration No. 2252

BMB/td

phone: 864.236.9010 • fax: 864.236.9097
3440 Augusta Road • Greenville, SC 29605 • www.envirosouth.com

Prepared for:

South Carolina Department of Health and Environmental Control
(SCDHEC)
Underground Storage Tank (UST) Program
2600 Bull Street
Columbia, South Carolina 29201

Attn: Mr. Joel Padgett

GROUNDWATER MONITORING REPORT

FORMER RED DIAMOND
519 EAST NORTH 1st STREET
SENECA, SOUTH CAROLINA

UST PERMIT #14324

Job No. 1334

Prepared by:

EnviroSouth, Inc.
3440 Augusta Road
Greenville, South Carolina 29605
SCDHEC Certification No. 257

February 10, 2010

INTRODUCTION

EnviroSouth has completed groundwater gauging and remediation services at the Former Red Diamond facility (UST Permit #14324) facility located in Seneca, South Carolina. The purpose of the gauging event was to evaluate the current water levels and thickness of free-phase petroleum in various monitoring wells and extraction points.

This report includes a description of the field/remediation services, along with our current findings, conclusions, and recommendations.

METHODS and FINDINGS

Groundwater Elevation and Movement

Water level measurements in all monitoring wells and extraction points were last recorded by EnviroSouth with a hydrocarbon sensitive electronic interface probe on December 3, 2009. The water levels and free-product thicknesses in the extraction point wells were also recorded on July 23, 2009. The interface probe was decontaminated prior to and between each measurement to prevent cross-contamination between wells. The water table aquifer occurs under unconfined conditions underlying the site at depths ranging from 26 to 38 feet below land surface. Free product was detected in monitoring well MW-1 at a thickness of 0.10 feet and MW-4 at a thickness of 0.51 feet. The TOC elevations, water level measurements, and ground water elevation data recorded to date are included on Table 1.

A map of extraction point locations is included as Figure 1.

PRODUCT BAILING

Since the last report, EnviroSouth has conducted monthly product bailing. Bailed product has been collected and stored in two 55-gallon drums onsite. Approximately 70 gallons of free-product has been collected to date.

VACUUM ENHANCED FLUID RECOVERY

A Vacuum Enhanced Fluid Recovery (VEFR) event was performed on December 3, 2009. Free-product and water was removed from all extraction points containing free-product. A total of 580 gallons of fluid was extracted. The disposal manifests are included in the appendix.

FREE-PRODUCT THICKNESS REDUCTION

Based on the free-product thickness reduction calculation, the free-product reduction at the site is 95.5 percent. The initial cumulative free-product thickness equals 6.97 feet and the SSTL free-product thickness equals 0.03 feet. The initial mass above the SSTL is 6.94 feet. The subsequent free-product thickness for the December 3, 2009 gauging event is 0.61 feet.

$$\text{Free-Product Thickness Reduction} = \frac{(M-N)}{(M)} = \frac{(6.94 - 0.61)}{6.94} = 0.912*100 = 91.2\% \text{ Reduction}$$

CONCLUSIONS

EnviroSouth plans to continue bailing and VEFR events until product thickness readings are less than 0.01 foot in all affected monitoring wells. If necessary, additional extraction points may be installed to enhance the rate of site clean-up.

EnviroSouth, Inc.

Brendan M. Brodie, P.G.
Project Hydrogeologist
S.C. Registration No. 2252

BMB/td

APPENDICES

FIGURES

FIGURE 1 – Extraction Point Locations

TABLES

TABLE 1 - Groundwater Elevation Data
TABLE 2 - Product Thickness Data

DISPOSAL MANIFESTS

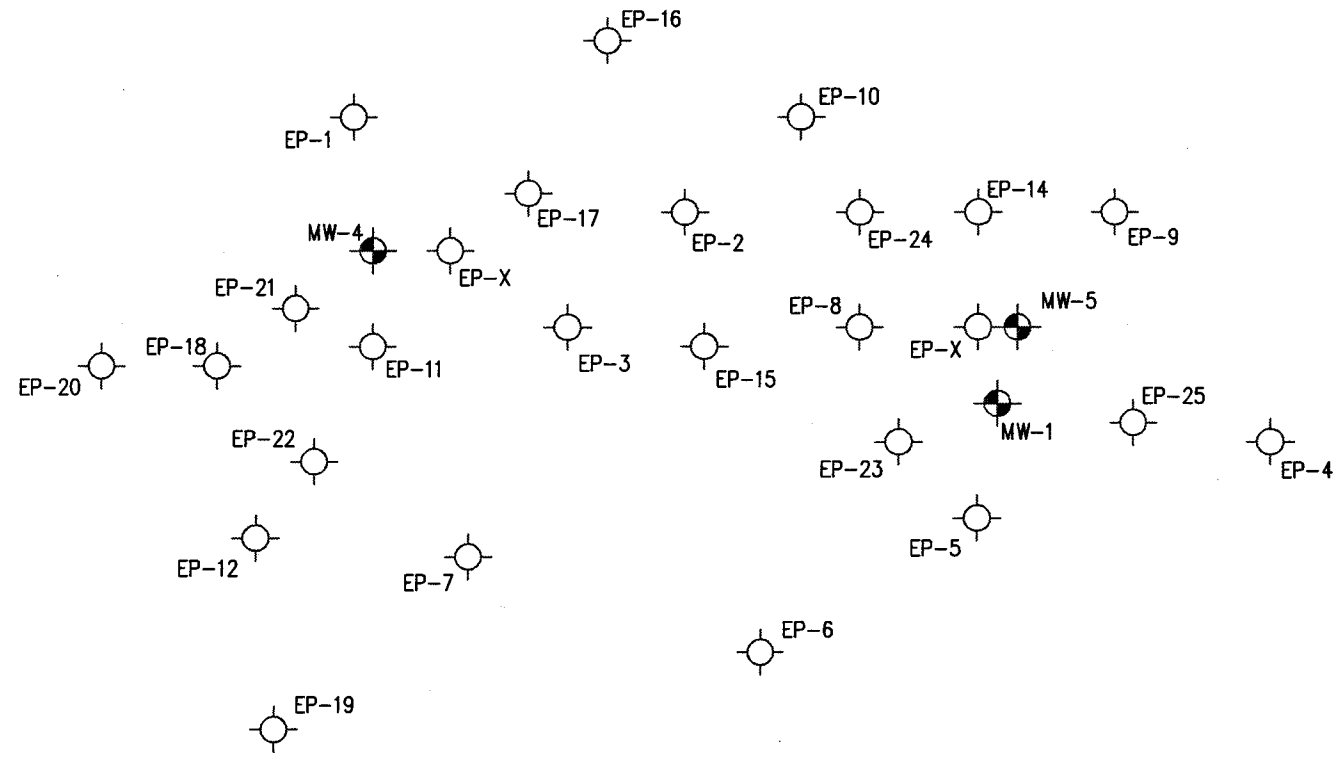
FIGURE

EXPLANATION

MW-5 MONITORING WELL

EP-5 EXTRACTION POINT WELL

EAST NORTH 1ST STREET



VACANT BUILDING

TRI-CITY LAUNDRY

10 0 10 20

SCALE: 1" = 10'±

10/12/09	DRAWN BY DF	CHECKED BY BMB	SCALE 1"=10'±	JOB NO. 1334	FIGURE 1

ENVIROSOUTH Environmental Consultants

EXTRACTION POINT LOCATIONS

FORMER RED DIAMOND
519 EAST NORTH 1ST STREET
SENECA, SC
SDHEC UST ID #14324

TABLES

TABLE 1

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-1	4/18/03	98.32	29.07	33.27	4.20	65.05
	10/26/05		23.37	27.51	4.14	73.52
	5/4/06		25.64	26.71	1.07	72.41
	5/11/06		26.75	26.87	0.12	71.54
	6/6/06		26.26	26.40	0.14	72.03
	8/14/06		28.25	28.50	0.25	70.01
	2/9/07		27.74	28.22	0.48	70.46
	11/20/07		31.75	31.95	0.20	66.52
	6/5/08		32.00	32.15	0.15	66.28
	9/26/08		33.50	33.53	0.03	64.81
	1/22/09		32.93	33.10	0.17	65.35
	4/16/09		31.80	31.97	0.17	66.48
	9/18/09		32.25	32.35	0.10	66.05
	12/3/09		31.39	31.49	0.10	65.89
MW-2	4/18/05	98.60	--	29.20	ND	69.40
	10/26/05		--	26.00	ND	72.60
	5/4/06		--	27.38	ND	71.22
	8/14/06		--	29.26	ND	69.34
	2/9/07		--	29.02	ND	69.58
	11/20/07		--	33.10	ND	65.50
	6/5/08		--	33.30	ND	65.30
	9/26/08		--	34.71	ND	63.89
	1/22/09		--	34.70	ND	63.90
	4/16/09		--	33.72	ND	64.88
	9/18/09		--	34.12	ND	64.48
	12/3/09		--	33.23	ND	65.37
MW-3	4/18/03	97.92	--	27.93	ND	69.99
	10/26/05		--	24.85	ND	73.07
	5/4/06		--	26.16	ND	71.76
	8/14/06		--	28.09	ND	69.83
	2/9/07		--	27.85	ND	70.07
	11/20/07		--	32.10	ND	65.82
	6/5/08		--	32.28	ND	65.64
	9/26/08		--	33.74	ND	64.18
	1/22/09		--	33.50	ND	64.42
	4/16/09		--	32.48	ND	65.44
	9/18/09		--	32.87	ND	65.05
	12/3/09		--	31.99	ND	65.93

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-4	4/18/03	99.07	38.29	34.43	3.86	64.64
	10/26/05		24.75	27.61	2.86	73.61
	5/4/06		26.60	27.17	0.57	72.33
	6/6/06		27.27	27.28	0.01	71.79
	8/14/06		--	28.45	ND	70.62
	2/9/07		--	29.15	ND	69.92
	11/20/07		32.47	32.48	0.01	66.60
	6/5/08		32.40	34.72	2.32	66.09
	9/26/08		33.96	34.02	0.06	65.10
	1/22/09		34.20	34.46	0.26	64.81
	4/16/09		32.74	33.51	0.77	66.14
	9/18/09		33.20	33.41	0.21	65.82
	12/3/09		32.15	32.66	0.51	66.01
MW-5	4/18/03	98.03	--	27.67	ND	70.36
	10/26/05		--	24.57	ND	73.46
	5/4/06		--	25.82	ND	72.21
	8/14/06		--	26.24	ND	71.79
	2/9/07		--	26.14	ND	71.89
	11/20/07		--	31.25	ND	66.78
	6/5/08		--	31.47	ND	66.56
	9/26/08		--	32.92	ND	65.11
	1/22/09		--	33.21	ND	64.82
	4/16/09		--	32.29	ND	65.74
	9/18/09		--	32.68	ND	65.35
	12/3/09		--	31.90	ND	66.13
MW-6	4/18/03	103.06	--	32.20	ND	70.86
	10/26/05		--	30.38	ND	72.68
MW-7	4/18/03	99.30	--	32.30	ND	67.25
	10/26/05		--	28.52	ND	70.78
	5/4/06		--	30.10	ND	69.20
	8/14/06		--	31.33	ND	67.97
	2/9/07		--	31.19	ND	68.11
	11/20/07		--	35.01	ND	64.29
	6/5/08		--	35.19	ND	64.11
	9/26/08		--	36.62	ND	62.68
	1/22/09		--	36.66	ND	62.64
	4/16/09		--	35.67	ND	63.63
	9/18/09		--	36.00	ND	63.30
	12/3/09		--	35.28	ND	64.02

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-8	4/18/03	102.13	--	37.88	ND	64.25
	10/26/05		--	35.18	ND	66.95
	5/4/06		--	36.47	ND	65.66
	8/14/06		--	37.05	ND	65.08
	2/9/07		--	36.88	ND	65.25
	11/20/07		--	40.93	ND	61.20
	6/5/08		--	41.11	ND	61.02
	9/26/08		--	42.60	ND	59.53
	1/22/09		--	42.64	ND	59.49
	4/16/09		--	41.60	ND	60.53
	9/18/09		--	41.99	ND	60.14
MW-9	4/18/03	104.97	--	38.90	ND	66.07
	10/26/05		--	35.70	ND	69.27
	5/4/06		--	36.70	ND	68.27
	8/14/06		--	37.77	ND	67.20
	2/9/07		--	37.52	ND	67.45
	11/20/07		--	41.60	ND	63.37
	6/5/08		--	41.82	ND	63.15
	9/26/08		--	43.19	ND	61.78
	1/22/09		--	43.24	ND	61.73
	4/16/09		--	42.29	ND	62.68
	9/18/09		--	42.68	ND	62.29
	12/3/09		--	41.22	ND	63.25
MW-10	4/18/03	104.50	--	39.70	ND	64.80
	10/26/05		--	36.52	ND	67.98
	5/4/06		--	38.00	ND	66.50
	8/14/06		--	39.14	ND	65.36
	2/9/07		--	38.97	ND	65.53
	11/20/07		--	42.99	ND	61.51
	6/5/08		--	43.10	ND	61.40
	9/26/08		--	44.63	ND	59.87
	1/22/09		--	44.67	ND	59.83
	4/16/09		--	43.70	ND	60.80
	9/18/09		--	44.10	ND	60.40
	12/3/09		--	43.33	ND	61.17

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-11	4/18/03	102.92	--	41.10	ND	61.82
	10/26/05		Missing	Missing	--	--
	5/4/06		--	35.89	ND	67.03
	8/14/06		--	36.98	ND	65.94
	2/9/07		--	36.69	ND	66.23
	11/20/07		--	40.02	ND	62.90
	6/5/08		--	40.20	ND	62.72
	9/26/08		--	41.73	ND	61.19
	1/22/09		--	41.80	ND	61.12
	4/16/09		--	40.94	ND	61.98
	9/18/09		--	41.36	ND	61.56
	12/3/09		--	40.51	ND	62.41
MW-12	4/18/03	99.12	--	33.91	ND	65.21
	10/26/05		--	29.24	ND	69.88
	5/4/06		--	29.40	ND	69.72
	8/14/06		--	30.90	ND	68.22
	2/9/07		--	30.77	ND	68.35
	11/20/07		--	33.55	ND	65.57
	6/5/08		--	33.77	ND	65.35
	9/26/08		--	35.21	ND	63.91
	1/22/09		--	36.61	ND	62.51
	4/16/09		--	35.72	ND	63.40
	9/18/09		--	35.99	ND	63.13
	12/3/09		--	35.20	ND	63.92
MW-13	4/18/03	99.41	32.25	33.39	0.57	66.02
	10/26/05		29.58	29.60	0.02	69.83
	5/4/06		--	30.90	ND	68.51
	6/6/06		--	31.35	ND	68.06
	8/14/06		--	32.55	ND	66.86
	2/9/07		--	32.39	ND	67.02
	11/20/07		--	36.20	ND	63.21
	6/5/08		--	36.17	ND	63.24
	9/26/08		--	37.68	ND	61.73
	1/22/09		--	37.73	ND	61.68
	4/16/09		--	37.70	ND	61.71
	9/18/09		--	38.11	ND	61.30
	12/3/09		--	37.29	ND	62.12
MW-14	4/18/03	97.12	--	28.50	ND	68.62
	10/26/05		--	25.80	ND	71.32
MW-15	4/18/05	92.56	--	28.68	ND	63.88
	10/26/05		--	23.42	ND	69.14

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-16	4/18/03	86.29	--	18.65	ND	67.64
	10/26/05		--	13.20	ND	73.09
MW-17	4/18/03	93.98	--	23.41	ND	70.57
	10/26/05		--	20.89	ND	73.09
	5/4/06		--	26.90	ND	67.08
	8/14/06		--	28.06	ND	65.92
	2/9/07		--	27.91	ND	66.07
	11/20/07		--	30.99	ND	62.99
	6/5/08		--	31.09	ND	62.89
	9/26/08		--	32.59	ND	61.39
	1/22/09		--	32.61	ND	61.37
	4/16/09		--	31.59	ND	62.39
	9/18/09		--	31.93	ND	62.05
	12/3/09		--	31.16	ND	62.82
MW-19	4/18/03	99.58	--	33.35	ND	66.23
	10/26/05		--	30.33	ND	69.25
	5/4/06		--	31.75	ND	67.83
	8/14/06		--	32.91	ND	66.67
	2/9/07		--	32.74	ND	66.84
	11/20/07		--	35.06	ND	64.52
	6/5/08		--	35.26	ND	64.32
	9/26/08		--	36.71	ND	62.87
	1/22/09		--	36.74	ND	62.84
	4/16/09		--	35.80	ND	63.78
	9/18/09		--	36.18	ND	63.40
	12/3/09		--	36.49	ND	63.37
MW-20	4/18/03	99.86	--	33.63	ND	66.23
	5/4/06		--	32.35	ND	67.51
	8/14/06		--	33.88	ND	65.98
	2/9/07		--	33.65	ND	66.21
	11/20/07		--	36.21	ND	63.65
	6/5/08		--	36.40	ND	63.46
	9/26/08		--	37.88	ND	61.98
	1/22/09		--	37.89	ND	61.97
	4/16/09		--	37.00	ND	62.86
	9/18/09		--	37.39	ND	62.47
	12/3/09			36.49	ND	63.37

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-21	4/18/03	99.67	--	37.28	ND	62.39
MW-22	4/18/03	89.60	--	29.20	ND	60.40
	5/4/06		--	29.74	ND	59.86
	8/14/06		--	30.99	ND	58.61
	2/9/07		--	30.78	ND	58.82
	11/20/07		--	34.92	ND	54.68
	6/5/08		--	35.21	ND	54.39
	9/26/08		--	36.73	ND	52.87
	1/22/09		--	36.75	ND	52.85
	4/16/09		--	35.83	ND	53.77
	9/18/09		--	36.18	ND	53.42
	12/3/09		--	35.42	ND	54.18

Notes: 1) ND = None Detected
2) NM = Not Measured

TABLE 2

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-1	2/20/06	--	26.76	ND
	5/4/06	--	27.10	ND
	5/11/06	--	27.03	ND
	6/6/06	--	27.48	ND
	6/27/06	--	27.82	ND
	7/13/06	--	27.96	ND
	8/14/06	--	28.74	ND
	12/15/06	--	30.31	ND
	1/8/07	--	30.12	ND
	2/9/07	--	30.08	ND
	11/20/07	--	DRY	--
	6/5/08	--	DRY	--
	9/26/08	--	DRY	--
	1/22/09	--	34.18	ND
	4/16/09	--	33.04	ND
	7/23/09	--	32.59	ND
	9/18/09	--	32.61	ND
	12/3/09	--	31.03	ND
EP-2	2/20/06	26.20	27.11	0.91
	5/4/06	26.48	28.60	2.12
	5/11/06	26.70	27.65	0.95
	6/6/06	27.02	28.89	1.87
	6/27/06	27.44	28.88	1.44
	7/13/06	27.60	28.80	1.20
	8/14/06	28.25	29.95	1.70
	12/15/06	29.68	31.70	2.02
	1/8/07	30.72	31.22	0.50
	2/9/07	28.98	30.22	1.24
	11/20/07	32.15	32.41	0.26
	6/5/08	--	DRY	--
	9/26/08	32.97	32.98	0.01
	1/22/09	--	DRY	--
	4/16/09	--	DRY	--
	7/23/09	32.44	32.48	0.04
	9/18/09	32.43	32.44	0.01
	12/3/09	--	31.35	ND

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-3	2/20/06	25.90	27.47	1.57
	5/4/06	26.24	28.66	2.42
	5/11/06	26.65	27.20	0.55
	6/6/06	27.00	28.51	1.51
	6/27/06	27.37	28.59	1.22
	7/13/06	27.51	28.51	1.00
	8/14/06	28.21	29.41	1.20
	12/15/06	29.90	30.30	0.40
	1/8/07	30.20	30.27	0.07
	2/9/07	29.06	29.30	0.24
	11/20/07	--	DRY	--
	6/5/08	--	DRY	--
	9/26/08	--	DRY	--
	1/22/09	--	DRY	--
	4/16/09	--	DRY	--
	7/23/09	32.25	32.27	0.02
	9/18/09	32.26	32.27	0.01
	12/3/09	--	31.39	ND
EP-4	5/4/06	--	25.80	ND
	5/11/06	--	25.76	ND
	6/6/06	--	26.29	ND
	6/27/06	--	26.56	ND
	7/13/06	--	26.79	ND
	8/14/06	--	27.45	ND
	12/15/06	28.90	29.00	0.10
	1/8/07	28.88	28.89	0.01
	2/9/07	--	27.85	ND
	11/20/07	--	31.70	ND
	6/5/08	NM	NM	0.1
	9/26/08	--	DRY	--
	1/22/09	--	32.60	ND
	4/16/09	32.42	32.64	0.22
	7/23/09	NM	NM	ND
	9/18/09	NM	NM	NM
	12/3/09	NM	NM	NM

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-5	5/4/06	--	25.80	ND
	5/11/06	--	25.78	ND
	6/6/06	--	26.30	ND
	6/27/06	--	26.60	ND
	7/13/06	--	26.76	ND
	8/14/06	--	27.47	ND
	12/15/06	28.76	28.95	0.19
	1/8/07	--	28.69	ND
	2/9/07	--	27.68	ND
	11/20/07	--	32.40	ND
	6/5/08	NM	NM	0.15
	9/26/08	--	DRY	--
	1/22/09	--	32.79	ND
	4/16/09	31.04	31.26	0.22
	7/23/09	31.18	31.47	0.29
	9/18/09	31.19	31.43	0.24
	12/3/09	30.33	30.53	0.20
EP-6	5/4/06	26.05	26.08	0.03
	5/11/06	--	26.05	ND
	6/6/06	26.45	26.59	0.14
	6/27/06	26.81	27.00	0.19
	7/13/06	26.94	27.04	0.10
	8/14/06	28.71	28.95	0.24
	12/15/06	29.04	29.15	0.11
	1/8/07	--	28.98	ND
	2/9/07	27.91	27.96	0.05
	11/20/07	--	DRY	--
	6/5/08	NM	NM	ND
	9/26/08	--	DRY	--
	1/22/09	--	32.56	ND
	4/16/09	31.26	31.94	0.68
	7/23/09	31.22	31.83	0.61
	9/18/09	31.24	31.70	0.46
	12/3/09	30.40	30.59	0.19

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-7	5/4/06	--	26.54	ND
	5/11/06	--	26.49	ND
	6/6/06	27.04	27.08	0.04
	6/27/06	--	27.30	ND
	7/13/06	--	27.44	ND
	8/14/06	28.21	28.37	0.16
	12/15/06	29.60	29.68	0.08
	1/8/07	--	29.45	ND
	2/9/07	28.63	28.64	0.01
	11/20/07	--	DRY	--
	6/5/08	--	DRY	--
	9/26/08	--	DRY	--
	1/22/09	--	32.75	ND
	4/16/09	32.37	32.55	0.18
	7/23/09	31.93	32.07	0.14
	9/18/09	31.95	32.05	0.10
	12/3/09	31.06	31.11	0.05
EP-8	5/4/06	25.87	25.99	0.12
	5/11/06	--	25.83	ND
	6/6/06	26.30	26.59	0.29
	6/27/06	26.50	26.59	0.09
	7/13/06	26.61	26.71	0.10
	8/14/06	27.47	27.85	0.38
	12/15/06	28.85	29.40	0.55
	1/8/07	28.50	28.65	0.15
	11/20/07	32.00	32.77	0.77
	6/5/08	--	MISSING	--
	9/26/08	--	MISSING	--
	1/22/09	--	33.10	ND
	4/16/09	31.55	31.62	0.07
	7/23/09	31.28	31.53	0.25
	9/18/09	31.30	31.50	0.20
	12/3/09	30.53	30.87	0.34

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-9	5/4/06	25.42	26.22	0.80
	5/11/06	25.54	25.70	0.16
	6/6/06	25.80	27.01	1.21
	6/27/06	26.36	26.70	0.34
	7/13/06	26.52	26.77	0.25
	8/14/06	27.01	28.12	1.11
	12/15/06	28.75	29.08	0.33
	1/8/07	28.86	28.87	0.01
	2/9/07	27.77	28.67	0.90
	11/20/07	--	31.42	ND
	6/5/08	NM	NM	0.02
	9/26/08	32.94	32.95	0.01
	1/22/09	--	34.40	ND
	4/16/09	--	31.61	ND
	7/23/09	NM	NM	ND
	9/18/09	--	32.00	ND
	12/3/09	NM	ND	NM
EP-10	5/4/06	26.47	27.99	1.52
	5/11/06	26.50	27.49	0.99
	6/6/06	26.84	28.80	1.96
	6/27/06	27.24	28.80	1.56
	7/13/06	27.36	28.86	1.50
	8/14/06	27.99	30.00	2.01
	12/15/06	29.54	31.55	2.01
	1/8/07	30.74	31.14	0.40
	2/9/07	29.02	29.58	0.56
	11/20/07	33.00	33.80	0.80
	6/5/08	NM	NM	1.30
	9/26/08	--	DRY	--
	1/22/09	34.20	34.59	0.39
	4/16/09	32.64	33.83	1.19
	7/23/09	32.10	33.03	0.93
	9/18/09	32.15	33.00	0.85
	12/3/09	31.26	31.67	0.41
EP-11	5/4/06	27.34	26.36	0.98
	5/11/06	26.63	26.80	0.17
	6/6/06	26.97	28.05	1.08
	6/27/06	27.40	28.00	0.60
	7/13/06	27.55	27.95	0.50
	8/14/06	28.22	28.99	0.77

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-11 Continued	12/15/06	29.39	31.65	2.26
	1/8/07	31.15	31.32	0.17
	2/9/07	29.08	29.25	0.17
	11/20/07	32.25	32.30	0.05
	6/5/08	NM	NM	0.85
	9/26/08	33.72	34.13	0.41
	1/22/09	34.10	34.55	0.45
	4/16/09	32.87	32.95	0.08
	7/23/09	33.17	34.17	1.00
	9/18/09	33.19	34.00	0.81
	12/3/09	32.29	32.62	0.33
EP-12	5/4/06	26.70	26.72	0.02
	5/11/06	26.61	26.65	0.04
	6/6/06	27.11	27.42	0.31
	6/27/06	27.42	27.70	0.28
	7/13/06	27.63	27.88	0.25
	8/14/06	28.37	28.49	0.12
	12/15/06	29.70	30.40	0.70
	1/8/07	30.09	30.10	0.01
	2/9/07	29.02	29.04	0.02
	11/20/07	31.90	32.20	0.30
	6/5/08	NM	NM	1.00
	9/28/08	--	33.51	--
	1/22/09	33.60	33.87	0.27
	4/16/09	32.52	33.73	1.21
	7/23/09	31.80	33.03	1.23
	9/18/09	31.80	32.90	1.10
	12/3/09	31.04	31.95	0.91
EP-13	5/4/06	--	30.62	ND
	5/11/06	--	30.81	ND
	6/6/06	--	31.03	ND
	6/27/06	--	31.32	ND
	7/13/06	--	31.40	ND
	8/14/06	--	32.30	ND
	12/15/06	--	33.69	ND
	1/8/07	--	33.22	ND
	2/9/07	--	32.45	ND
	11/20/07	--	36.20	ND
	6/5/08	NM	NM	ND
	9/28/08	NM	NM	ND
	1/22/09	--	37.27	ND
	4/16/09	--	36.40	ND

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-13 Continued	7/23/09	NM	NM	ND
	9/18/09	--	36.80	ND
	12/3/09	NM	NM	NM
EP-14	7/13/06	--	27.88	ND
	8/14/06	--	27.89	ND
	12/15/06	--	29.47	ND
	1/8/07	--	29.31	ND
	2/9/07	--	29.02	ND
	11/20/07	--	32.20	ND
	6/5/08	NM	NM	NM
	9/28/08	--	33.60	TRACE
	1/22/09	--	34.00	ND
	4/16/09	--	32.60	ND
	7/23/09	NM	NM	ND
	9/18/09	--	33.01	NM
	12/3/09	NM	NM	NM
EP-15	7/13/06	--	27.92	ND
	8/14/06	--	28.39	ND
	12/15/06	--	30.00	ND
	1/8/07	--	29.45	ND
	2/9/07	--	29.12	ND
	11/20/07	--	32.70	ND
	6/5/08	NM	NM	NM
	9/28/08	NM	NM	NM
	1/22/09	--	33.73	ND
	4/16/09	--	32.27	ND
	7/23/09	NM	NM	NM
	9/18/09	--	32.60	ND
	12/3/09	NM	NM	NM
EP-16	7/13/06	27.75	27.95	0.20
	8/14/06	28.40	28.62	0.22
	12/15/06	29.92	30.35	0.43
	1/8/07	--	30.11	ND
	2/9/07	29.22	29.23	0.01
	11/20/07	32.30	32.40	0.10
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
	1/22/09	33.90	34.02	0.12
	4/16/09	33.04	33.18	0.14
	7/23/09	32.31	32.36	0.05
	9/18/09	32.30	32.31	0.01
	12/3/09	--	31.47	ND

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-17	7/13//06	--	28.22	ND
	8/14/06	--	28.50	ND
	12/15/06	--	30.04	ND
	1/8/07	--	29.65	ND
	2/9/07	--	29.57	ND
	11/20/07	--	32.17	ND
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
	1/22/09	--	33.78	ND
	4/16/09	32.80	33.57	0.77
	7/23/09	32.13	32.92	0.79
	9/18/09	32.15	32.80	0.65
	12/3/09	31.32	31.69	0.37
EP-18	7/13/06	27.99	28.24	0.25
	8/14/06	28.19	29.00	0.81
	12/15/06	29.50	31.25	1.75
	1/8/07	30.77	30.97	0.20
	2/9/07	29.08	29.33	0.25
	11/20/07	31.41	32.00	0.59
	6/5/08	NM	NM	0.75
	9/28/08	--	32.73	--
	1/22/09	--	32.75	ND
	4/16/09	--	32.73	ND
	7/23/09	NM	NM	ND
	9/18/09	--	33.10	ND
	12/3/09	31.31	31.59	0.28
EP-19	7/13/06	--	28.31	ND
	8/14/06	--	28.43	ND
	12/15/06	--	29.92	ND
	1/8/07	--	29.77	ND
	2/9/07	--	29.43	ND
	11/20/07	--	32.15	ND
	6/5/08	NM	NM	0.09
	9/28/08	NM	NM	ND
	1/22/09	--	34.01	ND
	4/16/09	--	32.84	ND
	7/23/09	NM	NM	ND
	9/18/09	33.10	33.20	0.10
	12/3/09	32.23	32.45	0.22

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-20	1/8/07	--	30.09	ND
	2/9/07	29.68	30.17	0.49
	11/20/07	32.40	32.50	0.10
	6/5/08	NM	NM	0.20
	9/28/08	--	32.47	--
	1/22/09	--	32.49	ND
	4/16/09	--	32.59	ND
	7/23/09	32.60	32.62	0.02
	9/18/09	--	32.64	ND
	12/3/09	--	32.01	ND
EP-21	1/8/07	--	30.02	ND
	2/9/07	--	29.57	ND
	11/20/07	--	32.55	ND
	6/5/08	NM	NM	ND
	9/28/08	NM	NM	ND
	1/22/09	--	34.47	ND
	7/23/09	32.46	32.49	0.03
	9/18/09	32.47	32.48	0.01
	12/3/09	--	31.65	ND
EP-22	1/8/07	--	30.01	ND
	2/9/07	--	29.07	ND
	11/20/07	--	32.65	ND
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
	1/22/09	--	34.21	ND
	4/16/09	32.68	32.73	0.05
	7/23/09	31.73	31.78	0.05
	9/18/09	31.72	31.75	0.03
	12/3/09	30.99	31.47	0.48
EP-23	1/8/07	--	30.12	ND
	2/9/07	27.94	27.99	0.05
	11/20/07	32.00	32.12	0.12
	6/5/08	NM	NM	ND
	9/28/08	--	32.80	--
	1/22/09	--	32.76	ND
	4/16/09	31.00	31.09	0.09
	7/23/09	31.43	31.45	0.02
	9/18/09	31.40	31.45	0.05
	12/3/09	29.18	29.32	0.14

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-24	1/8/07	29.89	30.19	0.30
	2/9/07	29.33	29.68	0.35
	11/20/07	31.91	32.10	0.19
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
	1/22/09	31.86	32.03	0.17
	4/16/09	--	DRY	--
	7/23/09	--	DRY	--
	9/18/09	--	DRY	--
	12/3/09	31.17	31.75	0.58
EP-25	1/8/07	--	30.14	ND
	2/9/07	--	27.88	ND
	11/20/07	--	31.70	ND
	6/5/08	NM	NM	ND
	9/28/08	33.32	33.33	0.01
	1/22/09	--	33.00	ND
	4/16/09	32.14	32.59	0.45
	7/23/09	31.08	31.91	0.83
	9/18/09	31.09	31.79	0.70
	12/3/09	29.71	30.13	0.42

Notes: 1) ND = None Detected
2) NM = Not Measured

DISPOSAL MANIFESTS

1334

MATERIAL MANIFEST

JBR Environmental Services
P. O. Box 4098
Spartanburg, SC 29305

Emergency Phone Number: (864) 583-2717

Manifest Document No. I-1203939

Page of

Job No. I-1203939

GENERATOR INFORMATION

Name: EnviroSouth

US EPA ID No.

Street Address	Mailing Address	Phone No.
SR E. ND. 1st St. Seneca SC	3440 Augusta rd. Greenville SC 29605	230-4417

Contact: Brendan Brodie

DESCRIPTION OF MATERIALS

	HM	USDOT Proper Shipping Name (Complete All Items for Hazardous Materials)	Hazard Class	UN/NA ID No.	Packing Group	Containers Qty	Containers Type	Total Quantity	Unit Wt./Vol.
a.		Non Hazardous Liquid NOS				1	VT	52,200	
b.								4840	lbs
c.								2.42	TON

ADDITIONAL INFORMATION		ERG No.	JBR Profile Code	Facility Use
a.	Contact Water		JB-100141	PH 6.56
b.				
c.				

GENERATORS CERTIFICATION

This is to certify that the above -described materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. I further certify that none of the materials described above are a hazardous waste as defined by EPA 40 CFR Part 261 or any applicable state law, and unless specifically identified above, the materials contain less than 1,000 ppm total halogens and do not contain quantifiable levels (2 ppm) of PCBs as defined by EPA 40 CFR Parts 279 and 761.

Printed/Typed Name: Brendan M Brodie

Signature:

Mo./Day/Yr.: 12-3-2009

TRANSPORTER INFORMATION

Transporter: JBR Environmental Services

Address: 210 Alice Street, Spartanburg, SC 29303

Transporter or EPA ID No.: SCR000004358

Unit No.: #17

Phone: 864-583-2717

I hereby acknowledge receipt of the above-described materials for transport from the generator site listed above.

Signature: Antoi Dow Shipment Date 12-3-09

I hereby acknowledge that the above-described materials were received from the generator site and were transported to the facility listed below.

Signature: Antoi Dow Delivery Date 12-3-09

FACILITY INFORMATION

Facility: JBR Environmental Services

Address: 210 Alice Street, Spartanburg, SC 29303

Facility or EPA ID No.: SCR000004358

Phone: 864-583-2717

Contact: Rex Russell

I hereby acknowledge receipt of the materials covered by this manifest except for any discrepancy noted below.

Signature: Rochesa Glen Receipt Date 12/3/09

	Discrepancies	Routing Codes	Handling Methods.
a.			
b.			
c.			

Original - Facility Retain **COPY 2 - Return to Generator** **COPY 3 - Transporter Retain** **COPY 4 - Generator Retain**

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

MAR 03 2010

16tech UST DOCKET

MR BRANDON M BRODIE PG
ENVIROSOUTH ENVIRONMENTAL CONSULTANTS
3440 AUGUSTA RD
GREENVILLE SC 29605

Re: CASE report review
Former Red Diamond Oil Company, 519 East North 1st Street, Seneca, SC
UST Permit #14324; CA #25430
Bid #IFB-28949-10/4/05-EMW; PO #605692
Release reported December 30, 1991
Corrective Action System Evaluation (CASE) report received February 12, 2010
Oconee County

Dear Mr. Brodie:

The Underground Storage Tank (UST) Management Division has reviewed the referenced CASE report documenting activities conducted in December 2009. The Division concurs with your free-phase product reduction calculation of 91.21%.

The next CASE report for the January 2010 to March 2009 quarterly monitoring period due on or before **May 1, 2010**. On all correspondence regarding this site, please reference UST Permit #14324. If you have any questions, feel free to contact me by telephone at (803) 896-6398, by fax at (803) 896-6245, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

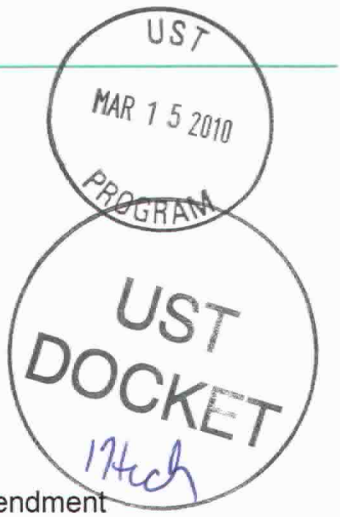
Joel P. Padgett, P.G., Geologist/Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

JPP/jpp
14324.13

cc: Betty Latham, 2 Stratton Place, Greenville, SC 29615-4217
Technical file

DHEC/UST/JPP/030210

ENVIROSOUTH
Environmental Consultants



March 11, 2010

SCDHEC
Bureau of Land and Waste Management
UST Program
2600 Bull Street
Columbia, South Carolina 29201

Attention: Mr. Joel Padgett

Re: Remediation Amendment
Former Red Diamond
(SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334
EnviroSouth UCC-0257

Dear Mr. Padgett:

EnviroSouth, Inc. is pleased to provide the SCDHEC UST Program with the following amended remediation plan for the Former Red Diamond site in Seneca, South Carolina. Although much progress has been made in reducing product levels at the site, persistent product levels have remained in certain wells wells as remediation continues (VEFR, bailing). Typical product thickness of a few hundredths to 0.5-feet is common. This proposed plan will allow constant product removal at a low rate.

BACKGROUND

In the past, we have had some success with solar powered vents attached to the top of wells that contain small thicknesses of product. The vents pull a small volume of air into the screen thereby increasing the volatilization of product in the well and venting it to the atmosphere. One drawback was that we could not determine if there was air flow occurring immediately above the product layer

SOLAR, IN-WELL PRODUCT VOLITLIZATION / VENTING

Our proposed method involves the use of solar cells/batteries for power, air pumps, and air diffusion stones for delivery of atmospheric air to or just above the product layer. The wells will have an 8 to 10-feet tall stack that will keep surface runoff out of the well and a 180-degree fitting that will keep rainwater out of the well. A small-diameter plastic tube attached to the air pump will enter the well and emit atmospheric air through a diffusion stone into the product layer at a rate of up to .5 cfm. The flow of air into and then out of the well will increase volatilization of the product and vent it to the atmosphere. The improvement over the previous solar venting described above is that we will have control over delivery of the air to the product layer or just above it. We have tested the system at our office and the results were promising. An 8-inch product layer was removed from a test well at a maximum rate of approximately ¼-inch per hour.

phone: 864.236.9010 • fax: 864.236.9097
3440 Augusta Road • Greenville, SC 29605 • www.envirosouth.com

The system will be installed in 12 existing extraction wells as shown on the diagram. The system will be contained in a fenced compound. A permit to construct the fence will be required by the City of Seneca. EnviroSouth will also contact the property owner with an explanation of the system and fencing. I have included tables of the product thicknesses as well as a diagram of the system and site. We would like to implement this system with your permission as soon as possible. We will also submit the UIC permit to Chris Wargo as well.

EnviroSouth appreciates the opportunity to be of service to the SCDHEC UST Program. If you have comments or questions concerning the plan, please do not hesitate to call.

Sincerely,

EnviroSouth, Inc.

Brendan M. Brodie, P.G.
Principal Geologist
EnviroSouth, Inc.

Thomas F. Donn, P.G.
Principal Geologist
EnviroSouth, Inc.

BMB/BB

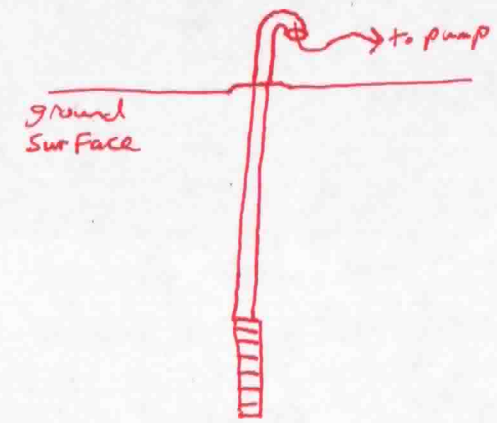
cc:Chris Wargo, UIC, SCDHEC

EXPLANATION

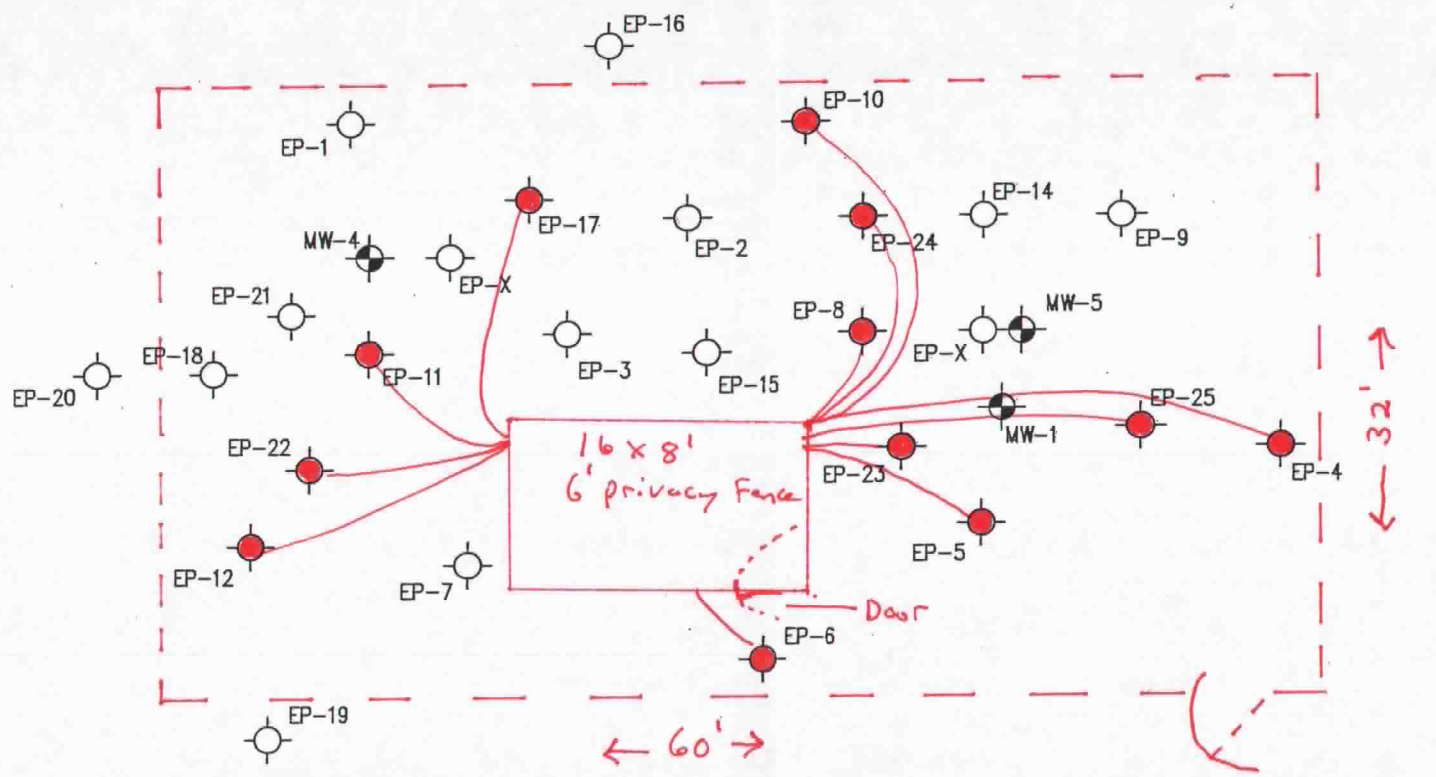
MW-5 — MONITORING WELL

EP-5 — EXTRACTION POINT WELL

well with air flow



EAST NORTH 1ST STREET



VACANT BUILDING

TRI-CITY LAUNDRY

--- 4' chain link fence

10 0 10 20

SCALE: 1" = 10'±

07/14/2008	DRAWN BY DF	CHECKED BY BMB	SCALE 1"=10'±	JOB NO. 1334	FIGURE 1

ENVIROSOUTH Environmental Consultants

EXTRACTION POINT LOCATIONS

FORMER RED DIAMOND
519 EAST NORTH 1ST STREET
SENECA, SC
SDHEC UST ID #14324

TABLE 2

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-1	2/20/06	--	26.76	ND
	5/4/06	--	27.10	ND
	5/11/06	--	27.03	ND
	6/6/06	--	27.48	ND
	6/27/06	--	27.82	ND
	7/13/06	--	27.96	ND
	8/14/06	--	28.74	ND
	12/15/06	--	30.31	ND
	1/8/07	--	30.12	ND
	2/9/07	--	30.08	ND
	11/20/07	--	DRY	--
	6/5/08	--	DRY	--
	9/26/08	--	DRY	--
	1/22/09	--	34.18	ND
	4/16/09	--	33.04	ND
	7/23/09	--	32.59	ND
	9/18/09	--	32.61	ND
	12/3/09	--	31.03	ND
EP-2	2/20/06	26.20	27.11	0.91
	5/4/06	26.48	28.60	2.12
	5/11/06	26.70	27.65	0.95
	6/6/06	27.02	28.89	1.87
	6/27/06	27.44	28.88	1.44
	7/13/06	27.60	28.80	1.20
	8/14/06	28.25	29.95	1.70
	12/15/06	29.68	31.70	2.02
	1/8/07	30.72	31.22	0.50
	2/9/07	28.98	30.22	1.24
	11/20/07	32.15	32.41	0.26
	6/5/08	--	DRY	--
	9/26/08	32.97	32.98	0.01
	1/22/09	--	DRY	--
	4/16/09	--	DRY	--
	7/23/09	32.44	32.48	0.04
	9/18/09	32.43	32.44	0.01
	12/3/09	--	31.35	ND

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-3	2/20/06	25.90	27.47	1.57
	5/4/06	26.24	28.66	2.42
	5/11/06	26.65	27.20	0.55
	6/6/06	27.00	28.51	1.51
	6/27/06	27.37	28.59	1.22
	7/13/06	27.51	28.51	1.00
	8/14/06	28.21	29.41	1.20
	12/15/06	29.90	30.30	0.40
	1/8/07	30.20	30.27	0.07
	2/9/07	29.06	29.30	0.24
	11/20/07	--	DRY	--
	6/5/08	--	DRY	--
	9/26/08	--	DRY	--
	1/22/09	--	DRY	--
	4/16/09	--	DRY	--
	7/23/09	32.25	32.27	0.02
	9/18/09	32.26	32.27	0.01
	12/3/09	--	31.39	ND
EP-4	5/4/06	--	25.80	ND
	5/11/06	--	25.76	ND
	6/6/06	--	26.29	ND
	6/27/06	--	26.56	ND
	7/13/06	--	26.79	ND
	8/14/06	--	27.45	ND
	12/15/06	28.90	29.00	0.10
	1/8/07	28.88	28.89	0.01
	2/9/07	--	27.85	ND
	11/20/07	--	31.70	ND
	6/5/08	NM	NM	0.1
	9/26/08	--	DRY	--
	1/22/09	--	32.60	ND
	4/16/09	32.42	32.64	0.22
	7/23/09	NM	NM	ND
	9/18/09	NM	NM	NM
	12/3/09	NM	NM	NM

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-5	5/4/06	--	25.80	ND
	5/11/06	--	25.78	ND
	6/6/06	--	26.30	ND
	6/27/06	--	26.60	ND
	7/13/06	--	26.76	ND
	8/14/06	--	27.47	ND
	12/15/06	28.76	28.95	0.19
	1/8/07	--	28.69	ND
	2/9/07	--	27.68	ND
	11/20/07	--	32.40	ND
	6/5/08	NM	NM	0.15
	9/26/08	--	DRY	--
	1/22/09	--	32.79	ND
	4/16/09	31.04	31.26	0.22
	7/23/09	31.18	31.47	0.29
	9/18/09	31.19	31.43	0.24
	12/3/09	30.33	30.53	0.20
EP-6	5/4/06	26.05	26.08	0.03
	5/11/06	--	26.05	ND
	6/6/06	26.45	26.59	0.14
	6/27/06	26.81	27.00	0.19
	7/13/06	26.94	27.04	0.10
	8/14/06	28.71	28.95	0.24
	12/15/06	29.04	29.15	0.11
	1/8/07	--	28.98	ND
	2/9/07	27.91	27.96	0.05
	11/20/07	--	DRY	--
	6/5/08	NM	NM	ND
	9/26/08	--	DRY	--
	1/22/09	--	32.56	ND
	4/16/09	31.26	31.94	0.68
	7/23/09	31.22	31.83	0.61
	9/18/09	31.24	31.70	0.46
	12/3/09	30.40	30.59	0.19

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-7	5/4/06	--	26.54	ND
	5/11/06	--	26.49	ND
	6/6/06	27.04	27.08	0.04
	6/27/06	--	27.30	ND
	7/13/06	--	27.44	ND
	8/14/06	28.21	28.37	0.16
	12/15/06	29.60	29.68	0.08
	1/8/07	--	29.45	ND
	2/9/07	28.63	28.64	0.01
	11/20/07	--	DRY	--
	6/5/08	--	DRY	--
	9/26/08	--	DRY	--
	1/22/09	--	32.75	ND
	4/16/09	32.37	32.55	0.18
	7/23/09	31.93	32.07	0.14
	9/18/09	31.95	32.05	0.10
	12/3/09	31.06	31.11	0.05
EP-8	5/4/06	25.87	25.99	0.12
	5/11/06	--	25.83	ND
	6/6/06	26.30	26.59	0.29
	6/27/06	26.50	26.59	0.09
	7/13/06	26.61	26.71	0.10
	8/14/06	27.47	27.85	0.38
	12/15/06	28.85	29.40	0.55
	1/8/07	28.50	28.65	0.15
	11/20/07	32.00	32.77	0.77
	6/5/08	--	MISSING	--
	9/26/08	--	MISSING	--
	1/22/09	--	33.10	ND
	4/16/09	31.55	31.62	0.07
	7/23/09	31.28	31.53	0.25
	9/18/09	31.30	31.50	0.20
	12/3/09	30.53	30.87	0.34

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-9	5/4/06	25.42	26.22	0.80
	5/11/06	25.54	25.70	0.16
	6/6/06	25.80	27.01	1.21
	6/27/06	26.36	26.70	0.34
	7/13/06	26.52	26.77	0.25
	8/14/06	27.01	28.12	1.11
	12/15/06	28.75	29.08	0.33
	1/8/07	28.86	28.87	0.01
	2/9/07	27.77	28.67	0.90
	11/20/07	--	31.42	ND
	6/5/08	NM	NM	0.02
	9/26/08	32.94	32.95	0.01
	1/22/09	--	34.40	ND
	4/16/09	--	31.61	ND
	7/23/09	NM	NM	ND
	9/18/09	--	32.00	ND
	12/3/09	NM	ND	NM
EP-10	5/4/06	26.47	27.99	1.52
	5/11/06	26.50	27.49	0.99
	6/6/06	26.84	28.80	1.96
	6/27/06	27.24	28.80	1.56
	7/13/06	27.36	28.86	1.50
	8/14/06	27.99	30.00	2.01
	12/15/06	29.54	31.55	2.01
	1/8/07	30.74	31.14	0.40
	2/9/07	29.02	29.58	0.56
	11/20/07	33.00	33.80	0.80
	6/5/08	NM	NM	1.30
	9/26/08	--	DRY	--
	1/22/09	34.20	34.59	0.39
	4/16/09	32.64	33.83	1.19
	7/23/09	32.10	33.03	0.93
	9/18/09	32.15	33.00	0.85
	12/3/09	31.26	31.67	0.41
EP-11	5/4/06	27.34	26.36	0.98
	5/11/06	26.63	26.80	0.17
	6/6/06	26.97	28.05	1.08
	6/27/06	27.40	28.00	0.60
	7/13/06	27.55	27.95	0.50
	8/14/06	28.22	28.99	0.77

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-11 Continued	12/15/06	29.39	31.65	2.26
	1/8/07	31.15	31.32	0.17
	2/9/07	29.08	29.25	0.17
	11/20/07	32.25	32.30	0.05
	6/5/08	NM	NM	0.85
	9/26/08	33.72	34.13	0.41
	1/22/09	34.10	34.55	0.45
	4/16/09	32.87	32.95	0.08
	7/23/09	33.17	34.17	1.00
	9/18/09	33.19	34.00	0.81
	12/3/09	32.29	32.62	0.33
EP-12	5/4/06	26.70	26.72	0.02
	5/11/06	26.61	26.65	0.04
	6/6/06	27.11	27.42	0.31
	6/27/06	27.42	27.70	0.28
	7/13/06	27.63	27.88	0.25
	8/14/06	28.37	28.49	0.12
	12/15/06	29.70	30.40	0.70
	1/8/07	30.09	30.10	0.01
	2/9/07	29.02	29.04	0.02
	11/20/07	31.90	32.20	0.30
	6/5/08	NM	NM	1.00
	9/28/08	--	33.51	--
	1/22/09	33.60	33.87	0.27
	4/16/09	32.52	33.73	1.21
	7/23/09	31.80	33.03	1.23
	9/18/09	31.80	32.90	1.10
	12/3/09	31.04	31.95	0.91
EP-13	5/4/06	--	30.62	ND
	5/11/06	--	30.81	ND
	6/6/06	--	31.03	ND
	6/27/06	--	31.32	ND
	7/13/06	--	31.40	ND
	8/14/06	--	32.30	ND
	12/15/06	--	33.69	ND
	1/8/07	--	33.22	ND
	2/9/07	--	32.45	ND
	11/20/07	--	36.20	ND
	6/5/08	NM	NM	ND
	9/28/08	NM	NM	ND
	1/22/09	--	37.27	ND
	4/16/09	--	36.40	ND

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-13 Continued	7/23/09	NM	NM	ND
	9/18/09	--	36.80	ND
	12/3/09	NM	NM	NM
EP-14	7/13/06	--	27.88	ND
	8/14/06	--	27.89	ND
	12/15/06	--	29.47	ND
	1/8/07	--	29.31	ND
	2/9/07	--	29.02	ND
	11/20/07	--	32.20	ND
	6/5/08	NM	NM	NM
	9/28/08	--	33.60	TRACE
	1/22/09	--	34.00	ND
	4/16/09	--	32.60	ND
	7/23/09	NM	NM	ND
	9/18/09	--	33.01	NM
	12/3/09	NM	NM	NM
EP-15	7/13/06	--	27.92	ND
	8/14/06	--	28.39	ND
	12/15/06	--	30.00	ND
	1/8/07	--	29.45	ND
	2/9/07	--	29.12	ND
	11/20/07	--	32.70	ND
	6/5/08	NM	NM	NM
	9/28/08	NM	NM	NM
	1/22/09	--	33.73	ND
	4/16/09	--	32.27	ND
	7/23/09	NM	NM	NM
	9/18/09	--	32.60	ND
	12/3/09	NM	NM	NM
EP-16	7/13/06	27.75	27.95	0.20
	8/14/06	28.40	28.62	0.22
	12/15/06	29.92	30.35	0.43
	1/8/07	--	30.11	ND
	2/9/07	29.22	29.23	0.01
	11/20/07	32.30	32.40	0.10
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
	1/22/09	33.90	34.02	0.12
	4/16/09	33.04	33.18	0.14
	7/23/09	32.31	32.36	0.05
	9/18/09	32.30	32.31	0.01
	12/3/09	--	31.47	ND

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-17	7/13//06	--	28.22	ND
	8/14/06	--	28.50	ND
	12/15/06	--	30.04	ND
	1/8/07	--	29.65	ND
	2/9/07	--	29.57	ND
	11/20/07	--	32.17	ND
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
	1/22/09	--	33.78	ND
	4/16/09	32.80	33.57	0.77
	7/23/09	32.13	32.92	0.79
	9/18/09	32.15	32.80	0.65
	12/3/09	31.32	31.69	0.37
EP-18	7/13/06	27.99	28.24	0.25
	8/14/06	28.19	29.00	0.81
	12/15/06	29.50	31.25	1.75
	1/8/07	30.77	30.97	0.20
	2/9/07	29.08	29.33	0.25
	11/20/07	31.41	32.00	0.59
	6/5/08	NM	NM	0.75
	9/28/08	--	32.73	--
	1/22/09	--	32.75	ND
	4/16/09	--	32.73	ND
	7/23/09	NM	NM	ND
	9/18/09	--	33.10	ND
	12/3/09	31.31	31.59	0.28
EP-19	7/13/06	--	28.31	ND
	8/14/06	--	28.43	ND
	12/15/06	--	29.92	ND
	1/8/07	--	29.77	ND
	2/9/07	--	29.43	ND
	11/20/07	--	32.15	ND
	6/5/08	NM	NM	0.09
	9/28/08	NM	NM	ND
	1/22/09	--	34.01	ND
	4/16/09	--	32.84	ND
	7/23/09	NM	NM	ND
	9/18/09	33.10	33.20	0.10
	12/3/09	32.23	32.45	0.22

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-20	1/8/07	--	30.09	ND
	2/9/07	29.68	30.17	0.49
	11/20/07	32.40	32.50	0.10
	6/5/08	NM	NM	0.20
	9/28/08	--	32.47	--
	1/22/09	--	32.49	ND
	4/16/09	--	32.59	ND
	7/23/09	32.60	32.62	0.02
	9/18/09	--	32.64	ND
	12/3/09	--	32.01	ND
EP-21	1/8/07	--	30.02	ND
	2/9/07	--	29.57	ND
	11/20/07	--	32.55	ND
	6/5/08	NM	NM	ND
	9/28/08	NM	NM	ND
	1/22/09	--	34.47	ND
	7/23/09	32.46	32.49	0.03
	9/18/09	32.47	32.48	0.01
	12/3/09	--	31.65	ND
EP-22	1/8/07	--	30.01	ND
	2/9/07	--	29.07	ND
	11/20/07	--	32.65	ND
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
	1/22/09	--	34.21	ND
	4/16/09	32.68	32.73	0.05
	7/23/09	31.73	31.78	0.05
	9/18/09	31.72	31.75	0.03
	12/3/09	30.99	31.47	0.48
EP-23	1/8/07	--	30.12	ND
	2/9/07	27.94	27.99	0.05
	11/20/07	32.00	32.12	0.12
	6/5/08	NM	NM	ND
	9/28/08	--	32.80	--
	1/22/09	--	32.76	ND
	4/16/09	31.00	31.09	0.09
	7/23/09	31.43	31.45	0.02
	9/18/09	31.40	31.45	0.05
	12/3/09	29.18	29.32	0.14

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-24	1/8/07	29.89	30.19	0.30
	2/9/07	29.33	29.68	0.35
	11/20/07	31.91	32.10	0.19
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
	1/22/09	31.86	32.03	0.17
	4/16/09	--	DRY	--
	7/23/09	--	DRY	--
	9/18/09	--	DRY	--
	12/3/09	31.17	31.75	0.58
EP-25	1/8/07	--	30.14	ND
	2/9/07	--	27.88	ND
	11/20/07	--	31.70	ND
	6/5/08	NM	NM	ND
	9/28/08	33.32	33.33	0.01
	1/22/09	--	33.00	ND
	4/16/09	32.14	32.59	0.45
	7/23/09	31.08	31.91	0.83
	9/18/09	31.09	31.79	0.70
	12/3/09	29.71	30.13	0.42

Notes: 1) ND = None Detected
2) NM = Not Measured

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C. Earl Hunter, Commissioner
Promoting and protecting the health of the public and the environment.

MAR 28 2010

MR BRANDON M BRODIE PG
ENVIROSOUTH ENVIRONMENTAL CONSULTANTS
3440 AUGUSTA RD
GREENVILLE SC 29605

Re: Public notice for Corrective Action Plan (CAP) Addendum
Former Red Diamond Oil Company, 519 East North 1st Street, Seneca, SC
UST Permit #14324; CA #25430
Bid #IFB-28949-10/4/05-EMW; PO #605692
Release reported December 30, 1991
CAP Addendum received March 15, 2010
Oconee County

Dear Mr. Brodie:

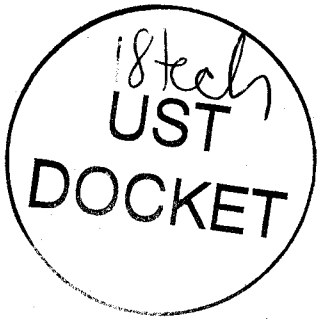
The Underground Storage Tank (UST) Management Division has received the referenced Corrective Action Plan (CAP) Addendum that proposes solar-powered, in-well air injection and venting to promote product volatilization. The Division notes that EnviroSouth has forwarded a copy of the Addendum and an Underground Injection Control (UIC) Permit application to the Bureau of Water for review and approval.

As required by the South Carolina Underground Storage Tank Control Regulations R.61-92, Section 280.67, public notice for the proposed corrective action addendum will be posted at the facility and at locations that afford the general public an opportunity for review and comment. The notice period is two weeks commencing April 2, 2010. A copy of the notice is enclosed for your records. Please note that EnviroSouth may not implement the CAP Addendum prior to receiving notification to proceed from the Division. You will be informed of any comments or concerns generated as a result of the public notice.

On all correspondence regarding this site, please reference UST Permit #14324. If you have any questions regarding this correspondence, feel free to contact me by telephone at (803) 896-6398, by fax at (803) 896-6245, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Geologist/Hydrologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management



JPP/jpp
14324.14

enc: Public notice

cc: Betty Latham, 2 Stratton Place, Greenville, SC 29615-4217 (w/enc)
Chris Wargo, Bureau of Water (w/enc)
Technical file (w/enc)

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South Carolina Department of Health and Environmental Control

PUBLIC NOTICE

Notice #: 14324-2 Permit #: 14324
Date: April 2, 2010

This notice is to inform the public that the S. C. Department of Health and Environmental Control (SCDHEC) is taking comments on a Corrective Action Plan (CAP) Addendum. The CAP Addendum addresses cleanup of free-phase product, groundwater contamination, and soil contamination at the facility listed below. The free-phase product and contamination originated from an underground storage tank (UST) petroleum release at this facility.

FACILITY: Former Red Diamond, 519 East North 1st Street, Seneca, SC

APPLICANT: Ms. Betty Latham (Trustee), 2 Stratton Place, Greenville, SC

SUMMARY OF CAP ADDENDUM: EnviroSouth proposes to use solar-powered air injection and venting to enhance volatilization of sub-surface, free-phase product. The injection/venting units will use existing free-phase product recovery wells at the facility.

PUBLIC COMMENT PERIOD DEADLINE: The **deadline** for submitting written comments is **April 16, 2010**. Any interested person(s) may submit written comments concerning the cleanup to the SCDHEC 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, SCDHEC will hold a public hearing.

Joel P. Padgett, P.G.
SCDHEC- UST Management Division
2600 Bull Street
Columbia SC 29201
803-896-6398

CONTACT INFORMATION: For additional information, please call the Project Manager listed above. To view a copy of the CAP Addendum, contact the SCDHEC 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.

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APR 21 2010

MR BRANDON M BRODIE PG
ENVIROSOUTH ENVIRONMENTAL CONSULTANTS
3440 AUGUSTA RD
GREENVILLE SC 29605

Re: Corrective Action Plan (CAP) Addendum notice to proceed
Former Red Diamond Oil Company, 519 East North 1st Street, Seneca, SC
UST Permit #14324; CA #25430
Bid #IFB-28949-10/4/05-EMW; PO #605692
Release reported December 30, 1991
CAP Addendum received March 15, 2010
Oconee County

Dear Mr. Brodie:

The Underground Storage Tank (UST) Management Division has not received any comments concerning the referenced Corrective Action Plan (CAP) Addendum that proposes solar-powered, in-well air injection and venting to promote product volatilization. Accordingly, EnviroSouth may proceed with implementation of the Addendum. The necessary Bureau of Water Underground Injection Control (UIC) Permits are enclosed. As stated in correspondence to EnviroSouth dated March 3, 2010, the next CASE report for the January 2010 to March 2010 quarterly monitoring period is due on or before **May 1, 2010**.

On all correspondence regarding this site, please reference UST Permit #14324. If you have any questions regarding this correspondence, feel free to contact me by telephone at (803) 896-6398, by fax at (803) 896-6245, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Geologist/Hydrologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

JPP/jpp
14324.15

enc: UIC Permit to Construct
UIC Permit to Operate

cc: Betty Latham, 2 Stratton Place, Greenville, SC 29615-4217 (w/o enc)
Chris Wargo, Bureau of Water (w/o enc)
Technical file (w/enc)

DHEC/UST/JPP/042110

UST DOCKET 1970

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Coleman F. Buckhouse, MD

April 6, 2010



(BOW-GWMGMT-CAW)
Mr. Brendan Brodie
EnviroSouth, Inc.
3440 Augusta Rd.
Greenville, SC 29605

Re: Underground Injection Control Permit #SCHE03020237
Former Red Diamond Site
Oconee County

Dear Mr. Brodie:

Enclosed is a Permit to Construct for twelve (12) Class VA-I injection wells at the Former Red Diamond Site, Oconee County as requested in the permit application received March 19, 2010.

Notice of Appeal Procedure

This decision of the S.C. Department of Health and Environmental Control (Department) becomes the final agency decision 15 days after notice of the decision has been mailed to the applicant or respondent, unless a written request for final review is filed with the Department by the applicant, permittee, licensee, or affected person.

An applicant, permittee, licensee, or affected person who wishes to appeal this decision must file a written request for final review with the Clerk of the Board at the following address or by facsimile at 803-898-3323.

Clerk of the Board
SC DHEC
2600 Bull Street
Columbia, SC 29201

The request for final review should include the following:
- the grounds on which the Department's decision is challenged and the specific changes sought in the decision
- a statement of any significant issues or factors the Board should consider in deciding how to handle the matter
- a copy of the Department's decision or action under review

In order to be timely, a request for final review must be received by the Clerk of the Board within 15 days after notice of the decision has been mailed to the applicant or respondent. If the 15th day occurs on a weekend or State holiday, the request is due to be received by the Clerk of the Board on the next working day. The request for final review must be received by the Clerk of the Board by 5:00 p.m. on the date it is due.

If a timely request for final review is filed with the Clerk of the Board, the Clerk will provide additional information regarding procedures.

The Board of Health and Environmental Control has 60 days from the date of receipt of a request for final review to conduct a final review conference. The conference may be conducted by the Board, its designee, or a committee of three members of the Board appointed by the chair.

If a final review conference is not conducted within 60 days, the Department decision becomes the final agency decision, and a party may request a contested case hearing before the Administrative Law Court within 30 days after the deadline for the final review conference.

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
Ground Water Management Section
Bureau of Water

cc: Joel Padgett, SCDHEC-BLWM-USTP

BOARD:
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Coleman F. Buckhouse, MD

WATER MONITORING ASSESSMENT & PROTECTION DIVISION

Injection Well Construction Permit
for
Class II, III, and V.A. Injection Well(s)

Permit #SCHE03020237

Date Issued: April 6, 2010
Date Expired: April 6, 2011

For (Operator): EnviroSouth, Inc.

In accordance with provisions of Title 48, Chapter 1, South Carolina Code of Laws, 1976, as amended, permission is granted for construction of twelve (12) Class VA-I injection wells with a true diameter of two (2) inches, and a total depth of approximately thirty-five (35) feet located at Former Red Diamond, Oconee 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).

Rob Devlin, Manager
GroundWater Management Section
Bureau of Water

STATEMENT OF BASIS - UIC DRAFT PERMIT #SCHE03020237

In accordance with the South Carolina Underground Injection Control Regulations, Section R61-87.13(J), this Statement of Basis has been prepared for the Former Red Diamond Site Underground Injection Control permit application received March 19, 2010.

Ownership of the proposed injection wells is EnviroSouth, Inc., 3440 Augusta Rd., Greenville, SC 29605. The permit (UIC SCHE03020237) is for the construction of twelve (12) injection wells for a corrective action system at the Former Red Diamond Site. The intent of the injection wells is to to inject ambient air into the subsurface to remediate contaminated groundwater as described in the cleanup plan dated March 15, 2010. 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.

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Coleman F. Buckhouse, MD

April 6, 2010

(BOW-GWMGMT-CAW)
Mr. Brendan Brodie
EnviroSouth, Inc.
3440 Augusta Rd.
Greenville, SC 29605

Re: Underground Injection Control Permit #SCHE03020237
Former Red Diamond Site
Oconee County

Dear Mr. Brodie:

Enclosed is a Permit to Operate twelve (12) Class VA-I (Aquifer Remediation) injection wells at the Former Red Diamond Site, Oconee County, SC.

Notice of Appeal Procedure

This decision of the S.C. Department of Health and Environmental Control (Department) becomes the final agency decision 15 days after notice of the decision has been mailed to the applicant or respondent, unless a written request for final review is filed with the Department by the applicant, permittee, licensee, or affected person.

An applicant, permittee, licensee, or affected person who wishes to appeal this decision must file a written request for final review with the Clerk of the Board at the following address or by facsimile at 803-898-3323.

Clerk of the Board
SC DHEC
2600 Bull Street
Columbia, SC 29201

The request for final review should include the following:

- the grounds on which the Department's decision is challenged and the specific changes sought in the decision
- a statement of any significant issues or factors the Board should consider in deciding how to handle the matter
- a copy of the Department's decision or action under review

In order to be timely, a request for final review must be received by the Clerk of the Board within 15 days after notice of the decision has been mailed to the applicant or respondent. If the 15th day occurs on a weekend or State holiday, the request is due to be received by the Clerk of the Board on the next working day. The request for final review must be received by the Clerk of the Board by 5:00 p.m. on the date it is due.

If a timely request for final review is filed with the Clerk of the Board, the Clerk will provide additional information regarding procedures.

The Board of Health and Environmental Control has 60 days from the date of receipt of a request for final review to conduct a final review conference. The conference may be conducted by the Board, its designee, or a committee of three members of the Board appointed by the chair.

If a final review conference is not conducted within 60 days, the Department decision becomes the final agency decision, and a party may request a contested case hearing before the Administrative Law Court within 30 days after the deadline for the final review conference.

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 Management Section
Bureau of Water

cc: Joel Padgett, SCDHEC-BLWM-USTP

BOARD:
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Chairman

Edwin H. Cooper, III
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WATER MONITORING ASSESSMENT & PROTECTION DIVISION

Injection Well Operating Approval

for

Class II, III, and V.A. Injection Well(s)

Permit #SCHE03020237 Date of Issue: April 6, 2010

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 twelve (12) Class VA-I (Aquifer Remediation) injection wells, authorization is granted to EnviroSouth, Inc. to operate twelve (12) Class VA-I (Aquifer Remediation) injection wells located at the Former Red Diamond Site, Oconee County, SC, and are subject to the attached provisos noted for the operator.

The Class VA-I injection wells are two (2) inches in diameter and approximately thirty-five (35) 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: April 6, 2013

Date April 6, 2010

Rob Devlin, Manager
Groundwater Management Section
Bureau of Water

Provisions to the Injection Well Operating Approval
for
Underground Injection Well Permit #SCHE03020237
Former Red Diamond
Oconee County, S.C.
April 6, 2010

1) Construction of new or abandonment of existing wells must be reported to the Department within thirty (30) days of completion.

2) Only ambient air as described in the corrective action plan may be injected into the subsurface at the twelve (12) Class VA-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.

ENVIROSOUTH
Environmental Consultants

UST
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PROGRAM

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October 13, 2010

Mr. Joel Padgett
SCDHEC
Bureau of Land and Waste Management
UST Program
2600 Bull Street
Columbia, South Carolina 29201

Re: Former Red Diamond
519 East North 1st Street
Seneca, South Carolina
SCDHEC ID #14324
EnviroSouth Job No. 1334

Dear Mr. Padgett:

EnviroSouth, Inc. is pleased to provide the SCDHEC UST Program with the remediation and groundwater monitoring report for the Former Red Diamond site in Seneca, South Carolina.

EnviroSouth appreciates the opportunity to be of service to the SCDHEC UST Program. If you have comments or questions concerning the attached report, please do not hesitate to call.

Sincerely,

EnviroSouth, Inc.

Brendan M. Brodie, P.G.
Project Hydrogeologist
S.C. Registration No. 2252

BMB/td

phone: 864.236.9010 • fax: 864.236.9097
3440 Augusta Road • Greenville, SC 29605 • www.envirosouth.com

Prepared for:

South Carolina Department of Health and Environmental Control
(SCDHEC)
Underground Storage Tank (UST) Program
2600 Bull Street
Columbia, South Carolina 29201

Attn: Mr. Joel Padgett

GROUNDWATER MONITORING REPORT

FORMER RED DIAMOND
519 EAST NORTH 1st STREET
SENECA, SOUTH CAROLINA

UST PERMIT #14324

Job No. 1334

Prepared by:

EnviroSouth, Inc.
3440 Augusta Road
Greenville, South Carolina 29605
SCDHEC Certification No. 257

October 13, 2010

INTRODUCTION

EnviroSouth has completed groundwater gauging and remediation services at the Former Red Diamond facility (UST Permit #14324) facility located in Seneca, South Carolina. The purpose of the gauging event was to evaluate the current water levels and thickness of free-phase petroleum in various monitoring wells and extraction points.

This report includes a description of the field/remediation services, along with our current findings, conclusions, and recommendations.

METHODS and FINDINGS

Groundwater Elevation and Movement

Water level measurements in all monitoring wells and extraction points were last recorded by EnviroSouth with a hydrocarbon sensitive electronic interface probe on September 22, 2010. The water levels and free-product thicknesses in the extraction point wells were also recorded on July 23, 2009. The interface probe was decontaminated prior to and between each measurement to prevent cross-contamination between wells. The water table aquifer occurs under unconfined conditions underlying the site at depths ranging from 26 to 38 feet below land surface. Free product was detected in monitoring well MW-1 at a thickness of 0.13 feet and MW-4 at a thickness of 0.43 feet. The TOC elevations, water level measurements, and ground water elevation data recorded to date are included on Table 1.

A map of extraction point locations is included as Figure 1.

PRODUCT BAILING

Since the last report, EnviroSouth has conducted monthly product bailing. Bailed product has been collected and stored in two 55-gallon drums onsite. Approximately 85 gallons of free-product has been collected to date.

FREE-PRODUCT THICKNESS REDUCTION

Based on the free-product thickness reduction calculation, the free-product reduction at the site is 95.5 percent. The initial cumulative free-product thickness equals 6.97 feet and the SSTL free-product thickness equals 0.03 feet. The initial mass above the SSTL is 6.94 feet. The subsequent free-product thickness for the September 22, 2010 gauging event is 0.56 feet.

$$\text{Free-Product Thickness Reduction} = \frac{(M-N)}{(M)} = \frac{(6.94 - 0.56)}{6.94} = 0.919 = 92\% \text{ Reduction}$$

CONCLUSIONS

EnviroSouth plans to continue bailing and VEFR events until product thickness readings are less than 0.01 foot in all affected monitoring wells. Additionally, the solar powered vent wells will soon be in operation.

EnviroSouth, Inc.

Brendan M. Brodie, P.G.
Project Hydrogeologist
S.C. Registration No. 2252

BMB/td

APPENDICES

FIGURES

FIGURE 1 – Extraction Point Locations

TABLES

TABLE 1 - Groundwater Elevation Data
TABLE 2 - Product Thickness Data

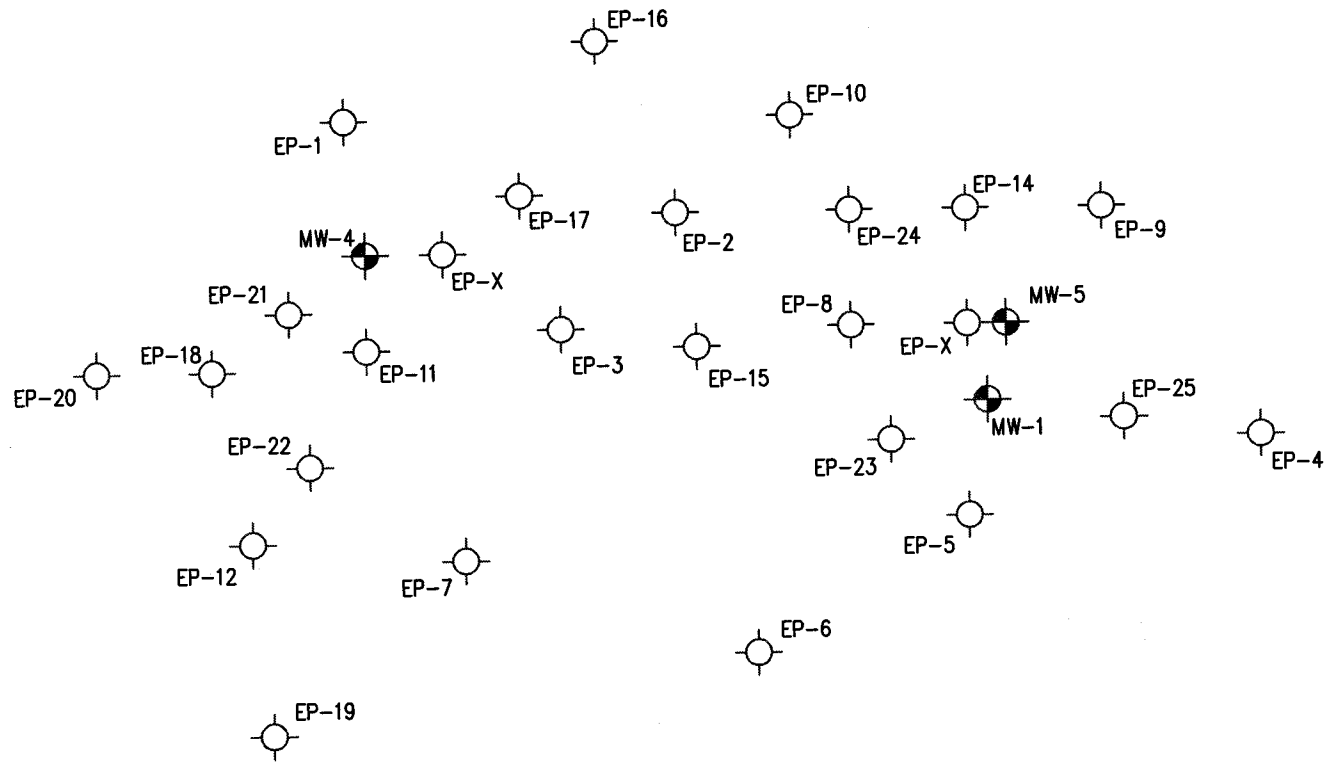
FIGURE

EXPLANATION

MW-5 — MONITORING WELL

EP-5 — EXTRACTION POINT WELL

EAST NORTH 1ST STREET



VACANT BUILDING

TRI-CITY LAUNDRY

10 0 10 20

SCALE: 1' = 10'±

10/14/10	DRAWN BY DF	CHECKED BY BMB	SCALE 1"=10'±	JOB NO. 1334	FIGURE 1

ENVIROSOUTH Environmental Consultants

EXTRACTION POINT LOCATIONS

FORMER RED DIAMOND
519 EAST NORTH 1ST STREET
SENECA, SC
SDHEC UST ID #14324

TABLES

TABLE 1

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-1	4/18/03	98.32	29.07	33.27	4.20	65.05
	10/26/05		23.37	27.51	4.14	73.52
	5/4/06		25.64	26.71	1.07	72.41
	5/11/06		26.75	26.87	0.12	71.54
	6/6/06		26.26	26.40	0.14	72.03
	8/14/06		28.25	28.50	0.25	70.01
	2/9/07		27.74	28.22	0.48	70.46
	11/20/07		31.75	31.95	0.20	66.52
	6/5/08		32.00	32.15	0.15	66.28
	9/26/08		33.50	33.53	0.03	64.81
	1/22/09		32.93	33.10	0.17	65.35
	4/16/09		31.80	31.97	0.17	66.48
	9/18/09		32.25	32.35	0.10	66.05
	12/3/09		31.39	31.49	0.10	65.89
	4/17/10		31.41	31.49	0.08	66.89
	9/22/10		32.20	32.33	0.13	66.09
MW-2	4/18/05	98.60	--	29.20	ND	69.40
	10/26/05		--	26.00	ND	72.60
	5/4/06		--	27.38	ND	71.22
	8/14/06		--	29.26	ND	69.34
	2/9/07		--	29.02	ND	69.58
	11/20/07		--	33.10	ND	65.50
	6/5/08		--	33.30	ND	65.30
	9/26/08		--	34.71	ND	63.89
	1/22/09		--	34.70	ND	63.90
	4/16/09		--	33.72	ND	64.88
	9/18/09		--	34.12	ND	64.48
	12/3/09		--	33.23	ND	65.37
	4/17/10		--	33.26	ND	65.34
	9/22/10		--	34.30	ND	64.30
MW-3	4/18/03	97.92	--	27.93	ND	69.99
	10/26/05		--	24.85	ND	73.07
	5/4/06		--	26.16	ND	71.76
	8/14/06		--	28.09	ND	69.83
	2/9/07		--	27.85	ND	70.07
	11/20/07		--	32.10	ND	65.82
	6/5/08		--	32.28	ND	65.64
	9/26/08		--	33.74	ND	64.18
	1/22/09		--	33.50	ND	64.42
	4/16/09		--	32.48	ND	65.44
	9/18/09		--	32.87	ND	65.05
	12/3/09		--	31.99	ND	65.93
	4/17/10		--	32.00	ND	65.92
	9/22/10		--	33.18	ND	64.74

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-4	4/18/03	99.07	38.29	34.43	3.86	64.64
	10/26/05		24.75	27.61	2.86	73.61
	5/4/06		26.60	27.17	0.57	72.33
	6/6/06		27.27	27.28	0.01	71.79
	8/14/06		--	28.45	ND	70.62
	2/9/07		--	29.15	ND	69.92
	11/20/07		32.47	32.48	0.01	66.60
	6/5/08		32.40	34.72	2.32	66.09
	9/26/08		33.96	34.02	0.06	65.10
	1/22/09		34.20	34.46	0.26	64.81
	4/16/09		32.74	33.51	0.77	66.14
	9/18/09		33.20	33.41	0.21	65.82
	12/3/09		32.15	32.66	0.51	66.01
	4/17/10		32.20	32.68	0.48	66.76
	9/22/10		33.37	33.90	0.43	65.50
MW-5	4/18/03	98.03	--	27.67	ND	70.36
	10/26/05		--	24.57	ND	73.46
	5/4/06		--	25.82	ND	72.21
	8/14/06		--	26.24	ND	71.79
	2/9/07		--	26.14	ND	71.89
	11/20/07		--	31.25	ND	66.78
	6/5/08		--	31.47	ND	66.56
	9/26/08		--	32.92	ND	65.11
	1/22/09		--	33.21	ND	64.82
	4/16/09		--	32.29	ND	65.74
	9/18/09		--	32.68	ND	65.35
	12/3/09		--	31.90	ND	66.13
	4/17/10		--	31.98	ND	66.05
	9/22/10		--	33.01	ND	65.02

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-6	4/18/03	103.06	--	32.20	ND	70.86
	10/26/05		--	30.38	ND	72.68
MW-7	4/18/03	99.30	--	32.30	ND	67.25
	10/26/05		--	28.52	ND	70.78
	5/4/06		--	30.10	ND	69.20
	8/14/06		--	31.33	ND	67.97
	2/9/07		--	31.19	ND	68.11
	11/20/07		--	35.01	ND	64.29
	6/5/08		--	35.19	ND	64.11
	9/26/08		--	36.62	ND	62.68
	1/22/09		--	36.66	ND	62.64
	4/16/09		--	35.67	ND	63.63
	9/18/09		--	36.00	ND	63.30
	12/3/09		--	35.28	ND	64.02
	4/17/10		--	35.31	ND	63.99
	9/22/10		--	36.70	ND	62.60
MW-8	4/18/03	102.13	--	37.88	ND	64.25
	10/26/05		--	35.18	ND	66.95
	5/4/06		--	36.47	ND	65.66
	8/14/06		--	37.05	ND	65.08
	2/9/07		--	36.88	ND	65.25
	11/20/07		--	40.93	ND	61.20
	6/5/08		--	41.11	ND	61.02
	9/26/08		--	42.60	ND	59.53
	1/22/09		--	42.64	ND	59.49
	4/16/09		--	41.60	ND	60.53
	9/18/09		--	41.99	ND	60.14
	4/17/10		--	42.03	ND	60.10
	9/22/10		--	43.18	ND	58.95
MW-9	4/18/03	104.97	--	38.90	ND	66.07
	10/26/05		--	35.70	ND	69.27
	5/4/06		--	36.70	ND	68.27
	8/14/06		--	37.77	ND	67.20
	2/9/07		--	37.52	ND	67.45
	11/20/07		--	41.60	ND	63.37
	6/5/08		--	41.82	ND	63.15
	9/26/08		--	43.19	ND	61.78
	1/22/09		--	43.24	ND	61.73
	4/16/09		--	42.29	ND	62.68
	9/18/09		--	42.68	ND	62.29
	12/3/09		--	41.22	ND	63.25
	4/17/10		--	41.23	ND	63.74
	9/22/10		--	42.34	ND	62.63

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-10	4/18/03	104.50	--	39.70	ND	64.80
	10/26/05		--	36.52	ND	67.98
	5/4/06		--	38.00	ND	66.50
	8/14/06		--	39.14	ND	65.36
	2/9/07		--	38.97	ND	65.53
	11/20/07		--	42.99	ND	61.51
	6/5/08		--	43.10	ND	61.40
	9/26/08		--	44.63	ND	59.87
	1/22/09		--	44.67	ND	59.83
	4/16/09		--	43.70	ND	60.80
	9/18/09		--	44.10	ND	60.40
	12/3/09		--	43.33	ND	61.17
	4/17/10		--	43.37	ND	61.13
	9/22/10		--	44.51	ND	59.99
MW-11	4/18/03	102.92	--	41.10	ND	61.82
	10/26/05		Missing	Missing	--	--
	5/4/06		--	35.89	ND	67.03
	8/14/06		--	36.98	ND	65.94
	2/9/07		--	36.69	ND	66.23
	11/20/07		--	40.02	ND	62.90
	6/5/08		--	40.20	ND	62.72
	9/26/08		--	41.73	ND	61.19
	1/22/09		--	41.80	ND	61.12
	4/16/09		--	40.94	ND	61.98
	9/18/09		--	41.36	ND	61.56
	12/3/09		--	40.51	ND	62.41
	4/17/10		--	40.60	ND	62.32
	9/22/10		--	41.80	ND	61.12
MW-12	4/18/03	99.12	--	33.91	ND	65.21
	10/26/05		--	29.24	ND	69.88
	5/4/06		--	29.40	ND	69.72
	8/14/06		--	30.90	ND	68.22
	2/9/07		--	30.77	ND	68.35
	11/20/07		--	33.55	ND	65.57
	6/5/08		--	33.77	ND	65.35
	9/26/08		--	35.21	ND	63.91
	1/22/09		--	36.61	ND	62.51
	4/16/09		--	35.72	ND	63.40
	9/18/09		--	35.99	ND	63.13
	12/3/09		--	35.20	ND	63.92
	4/17/10		--	35.22	ND	63.90
	9/22/10		--	36.31	ND	62.81

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-13	4/18/03	99.41	32.25	33.39	0.57	66.02
	10/26/05		29.58	29.60	0.02	69.83
	5/4/06		--	30.90	ND	68.51
	6/6/06		--	31.35	ND	68.06
	8/14/06		--	32.55	ND	66.86
	2/9/07		--	32.39	ND	67.02
	11/20/07		--	36.20	ND	63.21
	6/5/08		--	36.17	ND	63.24
	9/26/08		--	37.68	ND	61.73
	1/22/09		--	37.73	ND	61.68
	4/16/09		--	37.70	ND	61.71
	9/18/09		--	38.11	ND	61.30
	12/3/09		--	37.29	ND	62.12
	4/17/10		--	37.28	ND	62.13
	9/22/10		--	38.31	ND	61.10
MW-14	4/18/03	97.12	--	28.50	ND	68.62
	10/26/05		--	25.80	ND	71.32
MW-15	4/18/05	92.56	--	28.68	ND	63.88
	10/26/05		--	23.42	ND	69.14
MW-16	4/18/03	86.29	--	18.65	ND	67.64
	10/26/05		--	13.20	ND	73.09
MW-17	4/18/03	93.98	--	23.41	ND	70.57
	10/26/05		--	20.89	ND	73.09
	5/4/06		--	26.90	ND	67.08
	8/14/06		--	28.06	ND	65.92
	2/9/07		--	27.91	ND	66.07
	11/20/07		--	30.99	ND	62.99
	6/5/08		--	31.09	ND	62.89
	9/26/08		--	32.59	ND	61.39
	1/22/09		--	32.61	ND	61.37
	4/16/09		--	31.59	ND	62.39
	9/18/09		--	31.93	ND	62.05
	12/3/09		--	31.16	ND	62.82
	4/17/10		--	31.17	ND	62.81
	9/22/10		--	32.21	ND	61.77

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-19	4/18/03	99.58	--	33.35	ND	66.23
	10/26/05		--	30.33	ND	69.25
	5/4/06		--	31.75	ND	67.83
	8/14/06		--	32.91	ND	66.67
	2/9/07		--	32.74	ND	66.84
	11/20/07		--	35.06	ND	64.52
	6/5/08		--	35.26	ND	64.32
	9/26/08		--	36.71	ND	62.87
	1/22/09		--	36.74	ND	62.84
	4/16/09		--	35.80	ND	63.78
	9/18/09		--	36.18	ND	63.40
	12/3/09		--	36.49	ND	63.37
	4/17/10		--	36.50	ND	63.08
	9/22/10		--	37.70	ND	61.88
MW-20	4/18/03	99.86	--	33.63	ND	66.23
	5/4/06		--	32.35	ND	67.51
	8/14/06		--	33.88	ND	65.98
	2/9/07		--	33.65	ND	66.21
	11/20/07		--	36.21	ND	63.65
	6/5/08		--	36.40	ND	63.46
	9/26/08		--	37.88	ND	61.98
	1/22/09		--	37.89	ND	61.97
	4/16/09		--	37.00	ND	62.86
	9/18/09		--	37.39	ND	62.47
	12/3/09		--	36.49	ND	63.30
	4/17/10		--	36.52	ND	63.34
	9/22/10		--	32.69	ND	62.17
MW-21	4/18/03	99.67	--	37.28	ND	62.39
MW-22	4/18/03	89.60	--	29.20	ND	60.40
	5/4/06		--	29.74	ND	59.86
	8/14/06		--	30.99	ND	58.61
	2/9/07		--	30.78	ND	58.82
	11/20/07		--	34.92	ND	54.68
	6/5/08		--	35.21	ND	54.39
	9/26/08		--	36.73	ND	52.87
	1/22/09		--	36.75	ND	52.85
	4/16/09		--	35.83	ND	53.77
	9/18/09		--	36.18	ND	53.42
	12/3/09		--	35.42	ND	54.18
	4/17/10		--	35.43	ND	54.17
	9/22/10		--	36.42	ND	53.18

Notes: 1) ND = None Detected
2) NM = Not Measured

TABLE 2

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-1	2/20/06	--	26.76	ND
	5/4/06	--	27.10	ND
	5/11/06	--	27.03	ND
	6/6/06	--	27.48	ND
	6/27/06	--	27.82	ND
	7/13/06	--	27.96	ND
	8/14/06	--	28.74	ND
	12/15/06	--	30.31	ND
	1/8/07	--	30.12	ND
	2/9/07	--	30.08	ND
	11/20/07	--	DRY	--
	6/5/08	--	DRY	--
	9/26/08	--	DRY	--
	1/22/09	--	34.18	ND
	4/16/09	--	33.04	ND
	7/23/09	--	32.59	ND
	9/18/09	--	32.61	ND
	12/3/09	--	31.03	ND
	4/17/10	--	31.00	ND
	9/22/10	--	32.10	ND
EP-2	2/20/06	26.20	27.11	0.91
	5/4/06	26.48	28.60	2.12
	5/11/06	26.70	27.65	0.95
	6/6/06	27.02	28.89	1.87
	6/27/06	27.44	28.88	1.44
	7/13/06	27.60	28.80	1.20
	8/14/06	28.25	29.95	1.70
	12/15/06	29.68	31.70	2.02
	1/8/07	30.72	31.22	0.50
	2/9/07	28.98	30.22	1.24
	11/20/07	32.15	32.41	0.26
	6/5/08	--	DRY	--
	9/26/08	32.97	32.98	0.01
	1/22/09	--	DRY	--
	4/16/09	--	DRY	--
	7/23/09	32.44	32.48	0.04
	9/18/09	32.43	32.44	0.01
	12/3/09	--	31.35	ND
	4/17/10	--	31.37	ND
	9/22/10	32.40	32.43	0.03

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-3	2/20/06	25.90	27.47	1.57
	5/4/06	26.24	28.66	2.42
	5/11/06	26.65	27.20	0.55
	6/6/06	27.00	28.51	1.51
	6/27/06	27.37	28.59	1.22
	7/13/06	27.51	28.51	1.00
	8/14/06	28.21	29.41	1.20
	12/15/06	29.90	30.30	0.40
	1/8/07	30.20	30.27	0.07
	2/9/07	29.06	29.30	0.24
	11/20/07	--	DRY	--
	6/5/08	--	DRY	--
	9/26/08	--	DRY	--
	1/22/09	--	DRY	--
	4/16/09	--	DRY	--
	7/23/09	32.25	32.27	0.02
	9/18/09	32.26	32.27	0.01
	12/3/09	--	31.39	ND
	4/17/10	31.39	31.40	0.01
	9/22/10	32.35	32.40	0.05
EP-4	5/4/06	--	25.80	ND
	5/11/06	--	25.76	ND
	6/6/06	--	26.29	ND
	6/27/06	--	26.56	ND
	7/13/06	--	26.79	ND
	8/14/06	--	27.45	ND
	12/15/06	28.90	29.00	0.10
	1/8/07	28.88	28.89	0.01
	2/9/07	--	27.85	ND
	11/20/07	--	31.70	ND
	6/5/08	NM	NM	0.1
	9/26/08	--	DRY	--
	1/22/09	--	32.60	ND
	4/16/09	32.42	32.64	0.22
	7/23/09	NM	NM	ND
	9/18/09	NM	NM	NM
	12/3/09	NM	NM	NM
	4/17/10	NM	NM	NM
	9/22/10	NM	NM	NM

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-5	5/4/06	--	25.80	ND
	5/11/06	--	25.78	ND
	6/6/06	--	26.30	ND
	6/27/06	--	26.60	ND
	7/13/06	--	26.76	ND
	8/14/06	--	27.47	ND
	12/15/06	28.76	28.95	0.19
	1/8/07	--	28.69	ND
	2/9/07	--	27.68	ND
	11/20/07	--	32.40	ND
	6/5/08	NM	NM	0.15
	9/26/08	--	DRY	--
	1/22/09	--	32.79	ND
	4/16/09	31.04	31.26	0.22
	7/23/09	31.18	31.47	0.29
	9/18/09	31.19	31.43	0.24
	12/3/09	30.33	30.53	0.20
	4/17/10	30.30	30.51	0.21
	9/22/10	31.40	31.71	0.31
EP-6	5/4/06	26.05	26.08	0.03
	5/11/06	--	26.05	ND
	6/6/06	26.45	26.59	0.14
	6/27/06	26.81	27.00	0.19
	7/13/06	26.94	27.04	0.10
	8/14/06	28.71	28.95	0.24
	12/15/06	29.04	29.15	0.11
	1/8/07	--	28.98	ND
	2/9/07	27.91	27.96	0.05
	11/20/07	--	DRY	--
	6/5/08	NM	NM	ND
	9/26/08	--	DRY	--
	1/22/09	--	32.56	ND
	4/16/09	31.26	31.94	0.68
	7/23/09	31.22	31.83	0.61
	9/18/09	31.24	31.70	0.46
	12/3/09	30.40	30.59	0.19
	4/17/10	30.42	30.60	0.08
	9/22/10	31.50	31.70	0.20

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-7	5/4/06	--	26.54	ND
	5/11/06	--	26.49	ND
	6/6/06	27.04	27.08	0.04
	6/27/06	--	27.30	ND
	7/13/06	--	27.44	ND
	8/14/06	28.21	28.37	0.16
	12/15/06	29.60	29.68	0.08
	1/8/07	--	29.45	ND
	2/9/07	28.63	28.64	0.01
	11/20/07	--	DRY	--
	6/5/08	--	DRY	--
	9/26/08	--	DRY	--
	1/22/09	--	32.75	ND
	4/16/09	32.37	32.55	0.18
	7/23/09	31.93	32.07	0.14
	9/18/09	31.95	32.05	0.10
	12/3/09	31.06	31.11	0.05
	4/17/10	36.00	31.20	0.20
	9/22/10	32.02	32.09	0.08
EP-8	5/4/06	25.87	25.99	0.12
	5/11/06	--	25.83	ND
	6/6/06	26.30	26.59	0.29
	6/27/06	26.50	26.59	0.09
	7/13/06	26.61	26.71	0.10
	8/14/06	27.47	27.85	0.38
	12/15/06	28.85	29.40	0.55
	1/8/07	28.50	28.65	0.15
	11/20/07	32.00	32.77	0.77
	6/5/08	--	MISSING	--
	9/26/08	--	MISSING	--
	1/22/09	--	33.10	ND
	4/16/09	31.55	31.62	0.07
	7/23/09	31.28	31.53	0.25
	9/18/09	31.30	31.50	0.20
	12/3/09	30.53	30.87	0.34
	4/17/10	30.50	30.81	0.31
	9/22/10	31.60	31.72	0.12

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-9	5/4/06	25.42	26.22	0.80
	5/11/06	25.54	25.70	0.16
	6/6/06	25.80	27.01	1.21
	6/27/06	26.36	26.70	0.34
	7/13/06	26.52	26.77	0.25
	8/14/06	27.01	28.12	1.11
	12/15/06	28.75	29.08	0.33
	1/8/07	28.86	28.87	0.01
	2/9/07	27.77	28.67	0.90
	11/20/07	--	31.42	ND
	6/5/08	NM	NM	0.02
	9/26/08	32.94	32.95	0.01
	1/22/09	--	34.40	ND
	4/16/09	--	31.61	ND
	7/23/09	NM	NM	ND
	9/18/09	--	32.00	ND
	12/3/09	NM	ND	NM
	4/17/10	31.02	31.03	0.01
	9/22/10	32.10	32.12	0.02
EP-10	5/4/06	26.47	27.99	1.52
	5/11/06	26.50	27.49	0.99
	6/6/06	26.84	28.80	1.96
	6/27/06	27.24	28.80	1.56
	7/13/06	27.36	28.86	1.50
	8/14/06	27.99	30.00	2.01
	12/15/06	29.54	31.55	2.01
	1/8/07	30.74	31.14	0.40
	2/9/07	29.02	29.58	0.56
	11/20/07	33.00	33.80	0.80
	6/5/08	NM	NM	1.30
	9/26/08	--	DRY	--
	1/22/09	34.20	34.59	0.39
	4/16/09	32.64	33.83	1.19
	7/23/09	32.10	33.03	0.93
	9/18/09	32.15	33.00	0.85
	12/3/09	31.26	31.67	0.41
	4/17/10	31.67	31.90	0.23
	9/22/10	32.36	32.56	0.20

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-11	5/4/06	27.34	26.36	0.98
	5/11/06	26.63	26.80	0.17
	6/6/06	26.97	28.05	1.08
	6/27/06	27.40	28.00	0.60
	7/13/06	27.55	27.95	0.50
	8/14/06	28.22	28.99	0.77
	12/15/06	29.39	31.65	2.26
	1/8/07	31.15	31.32	0.17
	2/9/07	29.08	29.25	0.17
	11/20/07	32.25	32.30	0.05
	6/5/08	NM	NM	0.85
	9/26/08	33.72	34.13	0.41
	1/22/09	34.10	34.55	0.45
	4/16/09	32.87	32.95	0.08
	7/23/09	33.17	34.17	1.00
	9/18/09	33.19	34.00	0.81
	12/3/09	32.29	32.62	0.33
	4/17/10	32.28	32.60	0.32
	9/22/10	33.40	33.61	0.21
EP-12	5/4/06	26.70	26.72	0.02
	5/11/06	26.61	26.65	0.04
	6/6/06	27.11	27.42	0.31
	6/27/06	27.42	27.70	0.28
	7/13/06	27.63	27.88	0.25
	8/14/06	28.37	28.49	0.12
	12/15/06	29.70	30.40	0.70
	1/8/07	30.09	30.10	0.01
	2/9/07	29.02	29.04	0.02
	11/20/07	31.90	32.20	0.30
	6/5/08	NM	NM	1.00
	9/28/08	--	33.51	--
	1/22/09	33.60	33.87	0.27
	4/16/09	32.52	33.73	1.21
	7/23/09	31.80	33.03	1.23
	9/18/09	31.80	32.90	1.10
	12/3/09	31.04	31.95	0.91
	4/17/10	31.09	31.80	0.91
	9/22/10	32.02	33.01	0.99

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-13	5/4/06	--	30.62	ND
	5/11/06	--	30.81	ND
	6/6/06	--	31.03	ND
	6/27/06	--	31.32	ND
	7/13/06	--	31.40	ND
	8/14/06	--	32.30	ND
	12/15/06	--	33.69	ND
	1/8/07	--	33.22	ND
	2/9/07	--	32.45	ND
	11/20/07	--	36.20	ND
	6/5/08	NM	NM	ND
	9/28/08	NM	NM	ND
	1/22/09	--	37.27	ND
	4/16/09	--	36.40	ND
	7/23/09	NM	NM	ND
	9/18/09	--	36.80	ND
	12/3/09	NM	NM	NM
	4/17/10	NM	NM	NM
	9/22/10	NM	NM	NM
EP-14	7/13/06	--	27.88	ND
	8/14/06	--	27.89	ND
	12/15/06	--	29.47	ND
	1/8/07	--	29.31	ND
	2/9/07	--	29.02	ND
	11/20/07	--	32.20	ND
	6/5/08	NM	NM	NM
	9/28/08	--	33.60	TRACE
	1/22/09	--	34.00	ND
	4/16/09	--	32.60	ND
	7/23/09	NM	NM	ND
	9/18/09	--	33.01	NM
	12/3/09	NM	NM	NM
	4/17/10	NM	NM	NM
	9/22/10	NM	NM	NM
EP-15	7/13/06	--	27.92	ND
	8/14/06	--	28.39	ND
	12/15/06	--	30.00	ND
	1/8/07	--	29.45	ND
	2/9/07	--	29.12	ND
	11/20/07	--	32.70	ND
	6/5/08	NM	NM	NM
	9/28/08	NM	NM	NM

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-15 continued	1/22/09	--	33.73	ND
	4/16/09	--	32.27	ND
	7/23/09	NM	NM	NM
	9/18/09	--	32.60	ND
	12/3/09	NM	NM	NM
	4/17/10	NM	NM	NM
	9/22/10	NM	NM	NM
EP-16	7/13/06	27.75	27.95	0.20
	8/14/06	28.40	28.62	0.22
	12/15/06	29.92	30.35	0.43
	1/8/07	--	30.11	ND
	2/9/07	29.22	29.23	0.01
	11/20/07	32.30	32.40	0.10
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
	1/22/09	33.90	34.02	0.12
	4/16/09	33.04	33.18	0.14
	7/23/09	32.31	32.36	0.05
	9/18/09	32.30	32.31	0.01
	12/3/09	--	31.47	ND
	4/17/10	31.48	31.49	0.01
	9/22/10	32.50	32.52	0.02
EP-17	7/13//06	--	28.22	ND
	8/14/06	--	28.50	ND
	12/15/06	--	30.04	ND
	1/8/07	--	29.65	ND
	2/9/07	--	29.57	ND
	11/20/07	--	32.17	ND
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
	1/22/09	--	33.78	ND
	4/16/09	32.80	33.57	0.77
	7/23/09	32.13	32.92	0.79
	9/18/09	32.15	32.80	0.65
	12/3/09	31.32	31.69	0.37
	4/17/10	31.30	31.60	0.30
	9/22/10	32.28	32.40	0.12

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-18	7/13/06	27.99	28.24	0.25
	8/14/06	28.19	29.00	0.81
	12/15/06	29.50	31.25	1.75
	1/8/07	30.77	30.97	0.20
	2/9/07	29.08	29.33	0.25
	11/20/07	31.41	32.00	0.59
	6/5/08	NM	NM	0.75
	9/28/08	--	32.73	--
	1/22/09	--	32.75	ND
	4/16/09	--	32.73	ND
	7/23/09	NM	NM	ND
	9/18/09	--	33.10	ND
	12/3/09	31.31	31.59	0.28
	4/17/10	31.30	31.50	0.20
	9/22/10	32.38	32.51	0.13
EP-19	7/13/06	--	28.31	ND
	8/14/06	--	28.43	ND
	12/15/06	--	29.92	ND
	1/8/07	--	29.77	ND
	2/9/07	--	29.43	ND
	11/20/07	--	32.15	ND
	6/5/08	NM	NM	0.09
	9/28/08	NM	NM	ND
	1/22/09	--	34.01	ND
	4/16/09	--	32.84	ND
	7/23/09	NM	NM	ND
	9/18/09	33.10	33.20	0.10
	12/3/09	32.23	32.45	0.22
	4/17/10	32.23	32.33	0.10
	9/22/10	33.26	33.29	0.03

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-20	1/8/07	--	30.09	ND
	2/9/07	29.68	30.17	0.49
	11/20/07	32.40	32.50	0.10
	6/5/08	NM	NM	0.20
	9/28/08	--	32.47	--
	1/22/09	--	32.49	ND
	4/16/09	--	32.59	ND
	7/23/09	32.60	32.62	0.02
	9/18/09	--	32.64	ND
	12/3/09	--	32.01	ND
	4/17/10	--	32.00	ND
	9/22/10	--	33.09	ND
EP-21	1/8/07	--	30.02	ND
	2/9/07	--	29.57	ND
	11/20/07	--	32.55	ND
	6/5/08	NM	NM	ND
	9/28/08	NM	NM	ND
	1/22/09	--	34.47	ND
	7/23/09	32.46	32.49	0.03
	9/18/09	32.47	32.48	0.01
	12/3/09	--	31.65	ND
	4/17/10	--	31.67	ND
	9/22/10	32.60	32.61	0.01
EP-22	1/8/07	--	30.01	ND
	2/9/07	--	29.07	ND
	11/20/07	--	32.65	ND
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
	1/22/09	--	34.21	ND
	4/16/09	32.68	32.73	0.05
	7/23/09	31.73	31.78	0.05
	9/18/09	31.72	31.75	0.03
	12/3/09	30.99	31.47	0.48
	4/17/10	30.98	31.35	0.36
	9/22/10	32.02	32.40	0.38

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-23	1/8/07	--	30.12	ND
	2/9/07	27.94	27.99	0.05
	11/20/07	32.00	32.12	0.12
	6/5/08	NM	NM	ND
	9/28/08	--	32.80	--
	1/22/09	--	32.76	ND
	4/16/09	31.00	31.09	0.09
	7/23/09	31.43	31.45	0.02
	9/18/09	31.40	31.45	0.05
	12/3/09	29.18	29.32	0.14
	4/17/10	29.19	29.29	0.10
	9/22/10	30.15	30.18	0.03
EP-24	1/8/07	29.89	30.19	0.30
	2/9/07	29.33	29.68	0.35
	11/20/07	31.91	32.10	0.19
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
	1/22/09	31.86	32.03	0.17
	4/16/09	--	DRY	--
	7/23/09	--	DRY	--
	9/18/09	--	DRY	--
	12/3/09	31.17	31.75	0.58
	4/17/10	31.18	31.70	0.52
	9/22/10	--	DRU	--
EP-25	1/8/07	--	30.14	ND
	2/9/07	--	27.88	ND
	11/20/07	--	31.70	ND
	6/5/08	NM	NM	ND
	9/28/08	33.32	33.33	0.01
	1/22/09	--	33.00	ND
	4/16/09	32.14	32.59	0.45
	7/23/09	31.08	31.91	0.83
	9/18/09	31.09	31.79	0.70
	12/3/09	29.71	30.13	0.42
	4/17/10	29.77	30.10	0.33
	9/22/1	30.90	31.23	0.33

Notes: 1) ND = None Detected
2) NM = Not Measured

D H E C
PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner
Promoting and protecting the health of the public and the environment.

MR BRANDON M BRODIE PG
ENVIROSOUTH ENVIRONMENTAL CONSULTANTS
3440 AUGUSTA RD
GREENVILLE SC 29605

OCT 25 2010

Re: CASE report review
Former Red Diamond Oil Company, 519 East North 1st Street, Seneca, SC
UST Permit #14324; CA #25430
Bid #IFB-28949-10/4/05-EMW; PO #605692
Release reported December 30, 1991
CASE report received October 15, 2010
Oconee County

Dear Mr. Brodie:

The Underground Storage Tank (UST) Management Division has reviewed the referenced report. Based upon the current data, the Division concurs with your free-phase product reduction calculation of 91.93%.

The Division notes that the referenced report documents two gauging events conducted on April 17, 2010 and September 22, 2010. The gauging will satisfy the corrective action monitoring requirements for the April 2010-June 2010 and July 2010-September 2010 quarters. However, since no report documenting a gauging event for the January 2010-March 2010 quarter has been received, this quarter has been entered into the database as report not received. Please be aware that corrective action reports must be submitted on a quarterly basis unless otherwise approved by the Division.

The next CASE report documenting activities conducted during the October 2010-December 2010 quarterly monitoring period is due on or before **February 1, 2011**. On all correspondence regarding this site, please reference UST Permit #11672. If you have any questions regarding this correspondence, feel free to contact me by telephone at (803) 896-6398, by fax at (803) 896-6245, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Geologist/Hydrologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

UST
DOCKET
21 T

JPP/jpp
14324.16

cc: Betty Latham, 2 Stratton Place, Greenville, SC 29615-4217 (w/enc)
Technical file (w/o enc)

DHEC/UST/JPP/102010

ENVIROSOUTH
Environmental Consultants

February 28, 2011



Mr. Joel Padgett
SCDHEC
Bureau of Land and Waste Management
UST Program
2600 Bull Street
Columbia, South Carolina 29201

Re: Former Red Diamond
519 East North 1st Street
Seneca, South Carolina
SCDHEC ID #14324
EnviroSouth Job No. 1334

Dear Mr. Padgett:

EnviroSouth, Inc. is pleased to provide the SCDHEC UST Program with the remediation and groundwater monitoring report for the Former Red Diamond site in Seneca, South Carolina.

EnviroSouth appreciates the opportunity to be of service to the SCDHEC UST Program. If you have comments or questions concerning the attached report, please do not hesitate to call.

Sincerely,

EnviroSouth, Inc.

Brendan M. Brodie, P.G.
Project Hydrogeologist
S.C. Registration No. 2252

BMB/df

Enclosure

cc: Mr. Chris Wargo, UIC, SCDHEC



phone: 864.236.9010 • fax: 864.236.9097
3440 Augusta Road • Greenville, SC 29605 • www.envirosouth.com

Prepared for:

South Carolina Department of Health and Environmental Control
(SCDHEC)
Underground Storage Tank (UST) Program
2600 Bull Street
Columbia, South Carolina 29201

Attn: Mr. Joel Padgett

GROUNDWATER MONITORING REPORT

FORMER RED DIAMOND
519 EAST NORTH 1st STREET
SENECA, SOUTH CAROLINA

UST PERMIT #14324

Job No. 1334

Prepared by:

EnviroSouth, Inc.
3440 Augusta Road
Greenville, South Carolina 29605
SCDHEC Certification No. 257

February 28, 2011

INTRODUCTION

EnviroSouth has completed groundwater gauging and remediation services at the Former Red Diamond facility (UST Permit #14324) facility located in Seneca, South Carolina. The purpose of the gauging event was to evaluate the current water levels and thickness of free-phase petroleum in various monitoring wells and extraction points.

This report includes a description of the field/remediation services, along with our current findings, conclusions, and recommendations.

METHODS and FINDINGS

Groundwater Elevation and Movement

Water level measurements in all monitoring wells and extraction points were last recorded by EnviroSouth with a hydrocarbon sensitive electronic interface probe on February 10, 2011. The interface probe was decontaminated prior to and between each measurement to prevent cross-contamination between wells. The water table aquifer occurs under unconfined conditions underlying the site at depths ranging from 26 to 38 feet below land surface. Free product was detected in monitoring well MW-1 at a thickness of 0.50 feet and MW-4 at a thickness of 0.81 feet. The TOC elevations, water level measurements, and ground water elevation data recorded to date are included on Table 1.

A map of extraction point locations is included as Figure 1.

PRODUCT BAILING

Since the last report, EnviroSouth has conducted monthly product bailing. Bailed product has been collected and stored in two 55-gallon drums onsite. Approximately 56 gallons of free-product has been collected to date.

VACUUM ENHANCED FLUID RECOVERY

A Vacuum Enhanced Fluid Recovery (VEFR) event was performed on February 10, 2011. Free-product and water was removed from all extraction points containing free-product. A total of 245 gallons of fluid was extracted. The disposal manifest is included in the appendix.

SOLAR, IN-WELL PRODUCT VOLITIZATION/VENTING

The solar remediation system was installed on February 16, 2011. The system uses solar cells/batteries for power, air pumps, and air diffusion stones for delivery of atmospheric air to or just above the product layer. The wells have a 3-feet tall stack that will keep surface runoff out of the well and a 180-degree fitting that will keep rainwater out of the well. A small-diameter plastic tube attached to the air pump enters the well and emits atmospheric air through a diffusion stone into the product layer at a rate of up to .5 cfm. The flow of air into and then out of the well increases volatilization of the product and vents it to the atmosphere.

The system has been installed in 16 existing extraction wells. The system is contained by a fenced compound.

FREE-PRODUCT THICKNESS REDUCTION

Based on the free-product thickness reduction calculation, the free-product reduction at the site is 95.5 percent. The initial cumulative free-product thickness equals 6.97 feet and the SSTL free-product thickness equals 0.03 feet. The initial mass above the SSTL is 6.94 feet. The subsequent free-product thickness for the February 10, 2011 gauging event is 1.31 feet.

$$\text{Free-Product Thickness Reduction} = \frac{(M-N)}{(M)} = \frac{(6.94 - 1.31)}{6.94} = 0.8112*100 = 81\% \text{ Reduction}$$

CONCLUSIONS

The solar powered vent wells are in operation and we will be monitoring product thickness monthly in the affected wells.

EnviroSouth, Inc.

Brendan M. Brodie, P.G.
Project Hydrogeologist
S.C. Registration No. 2252

BMB/df

cc: Mr. Chris Wargo, UIC, SCDHEC

APPENDICES

FIGURES

FIGURE 1 – Extraction Point Locations

TABLES

TABLE 1 - Groundwater Elevation Data
TABLE 2 - Product Thickness Data

DISPOSAL MANIFEST

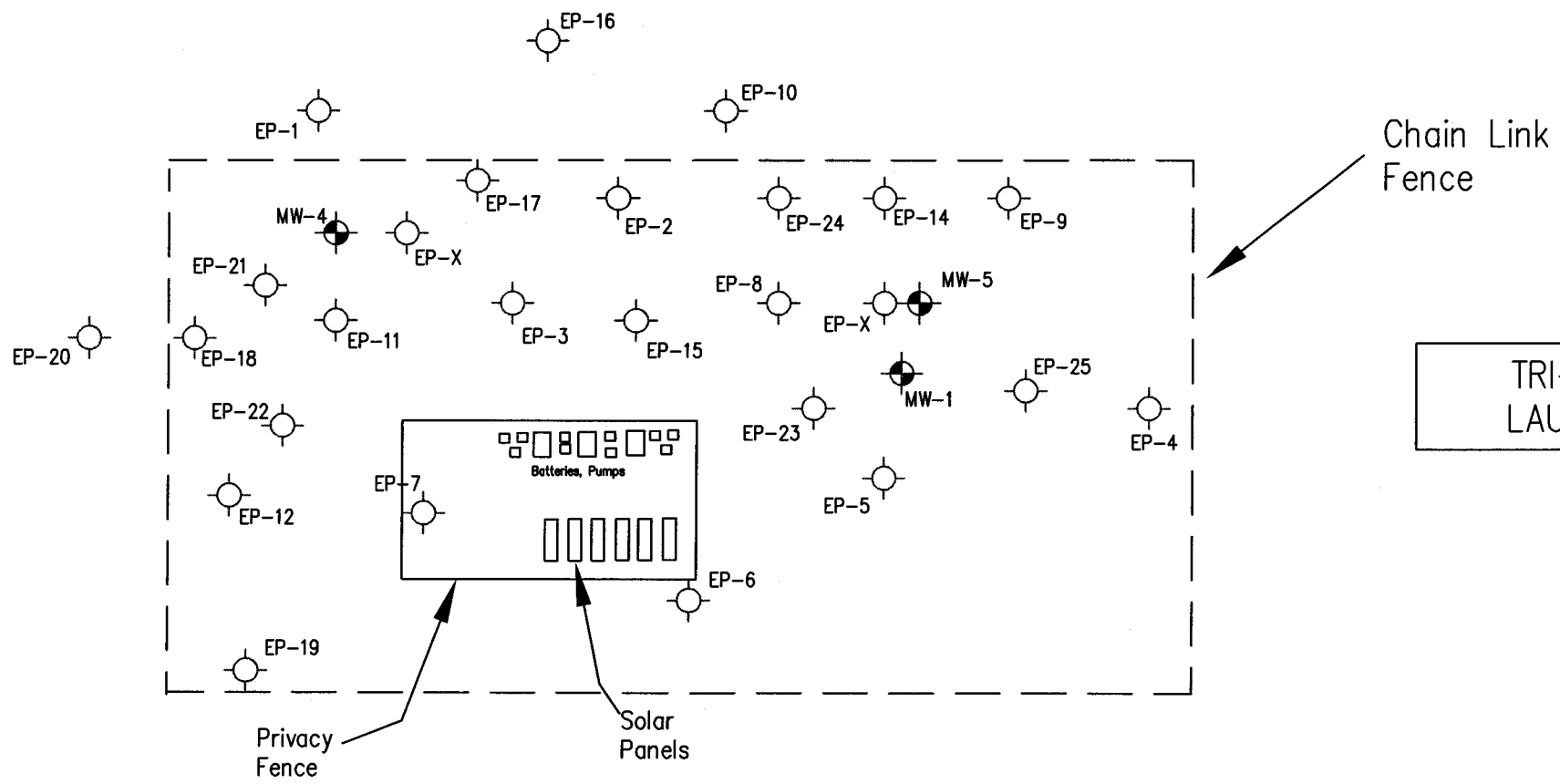
FIGURE

EXPLANATION

MW-5 — MONITORING WELL

EP-5 — EXTRACTION POINT WELL

EAST NORTH 1ST STREET



VACANT BUILDING

TRI-CITY LAUNDRY

10 0 10 20

SCALE: 1" = 10'±

10/14/10	DRAWN BY DF	CHECKED BY BMB	SCALE 1"=10'±	JOB NO. 1334	FIGURE 1

ENVIROSOUTH Environmental Consultants

EXTRACTION POINT LOCATIONS

FORMER RED DIAMOND
519 EAST NORTH 1ST STREET
SENECA, SC
SDHEC UST ID #14324

TABLES

TABLE 1

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-1	4/18/03	98.32	29.07	33.27	4.20	65.05
	10/26/05		23.37	27.51	4.14	73.52
	5/4/06		25.64	26.71	1.07	72.41
	5/11/06		26.75	26.87	0.12	71.54
	6/6/06		26.26	26.40	0.14	72.03
	8/14/06		28.25	28.50	0.25	70.01
	2/9/07		27.74	28.22	0.48	70.46
	11/20/07		31.75	31.95	0.20	66.52
	6/5/08		32.00	32.15	0.15	66.28
	9/26/08		33.50	33.53	0.03	64.81
	1/22/09		32.93	33.10	0.17	65.35
	4/16/09		31.80	31.97	0.17	66.48
	9/18/09		32.25	32.35	0.10	66.05
	12/3/09		31.39	31.49	0.10	65.89
	4/17/10		31.41	31.49	0.08	66.89
	9/22/10		32.20	32.33	0.13	66.09
	2/10/11		29.50	30.00	0.50	67.95
MW-2	6/5/08	98.60	--	33.30	ND	65.30
	9/26/08		--	34.71	ND	63.89
	1/22/09		--	34.70	ND	63.90
	4/16/09		--	33.72	ND	64.88
	9/18/09		--	34.12	ND	64.48
	12/3/09		--	33.23	ND	65.37
	4/17/10		--	33.26	ND	65.34
	9/22/10		--	34.30	ND	64.30
	2/10/11		--	32.42	ND	66.18
MW-3	6/5/08	97.92	--	32.28	ND	65.64
	9/26/08		--	33.74	ND	64.18
	1/22/09		--	33.50	ND	64.42
	4/16/09		--	32.48	ND	65.44
	9/18/09		--	32.87	ND	65.05
	12/3/09		--	31.99	ND	65.93
	4/17/10		--	32.00	ND	65.92
	9/22/10		--	33.18	ND	64.74
	2/10/11		--	31.60	ND	66.32

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-4	4/18/03	99.07	38.29	34.43	3.86	64.64
	10/26/05		24.75	27.61	2.86	73.61
	5/4/06		26.60	27.17	0.57	72.33
	6/6/06		27.27	27.28	0.01	71.79
	8/14/06		--	28.45	ND	70.62
	2/9/07		--	29.15	ND	69.92
	11/20/07		32.47	32.48	0.01	66.60
	6/5/08		32.40	34.72	2.32	66.09
	9/26/08		33.96	34.02	0.06	65.10
	1/22/09		34.20	34.46	0.26	64.81
	4/16/09		32.74	33.51	0.77	66.14
	9/18/09		33.20	33.41	0.21	65.82
	12/3/09		32.15	32.66	0.51	66.01
	4/17/10		32.20	32.68	0.48	66.76
	9/22/10		33.37	33.90	0.43	65.50
	2/10/11		31.10	31.91	0.81	66.55
MW-5	6/5/08	98.03	--	31.47	ND	66.56
	9/26/08		--	32.92	ND	65.11
	1/22/09		--	33.21	ND	64.82
	4/16/09		--	32.29	ND	65.74
	9/18/09		--	32.68	ND	65.35
	12/3/09		--	31.90	ND	66.13
	4/17/10		--	31.98	ND	66.05
	9/22/10		--	33.01	ND	65.02
	2/10/11		--	31.11	ND	66.92
MW-7	6/5/08	99.30	--	35.19	ND	64.11
	9/26/08		--	36.62	ND	62.68
	1/22/09		--	36.66	ND	62.64
	4/16/09		--	35.67	ND	63.63
	9/18/09		--	36.00	ND	63.30
	12/3/09		--	35.28	ND	64.02
	4/17/10		--	35.31	ND	63.99
	9/22/10		--	36.70	ND	62.60
	2/10/11		--	34.62	ND	64.68
MW-8	6/5/08	102.13	--	41.11	ND	61.02
	9/26/08		--	42.60	ND	59.53
	1/22/09		--	42.64	ND	59.49
	4/16/09		--	41.60	ND	60.53
	9/18/09		--	41.99	ND	60.14
	4/17/10		--	42.03	ND	60.10
	9/22/10		--	43.18	ND	58.95
	2/10/11		--	41.19	ND	60.94

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-9	6/5/08	104.97	--	41.82	ND	63.15
	9/26/08		--	43.19	ND	61.78
	1/22/09		--	43.24	ND	61.73
	4/16/09		--	42.29	ND	62.68
	9/18/09		--	42.68	ND	62.29
	12/3/09		--	41.22	ND	63.25
	4/17/10		--	41.23	ND	63.74
	9/22/10		--	42.34	ND	62.63
	2/10/11		--	40.45	ND	64.52
MW-10	6/5/08	104.50	--	43.10	ND	61.40
	9/26/08		--	44.63	ND	59.87
	1/22/09		--	44.67	ND	59.83
	4/16/09		--	43.70	ND	60.80
	9/18/09		--	44.10	ND	60.40
	12/3/09		--	43.33	ND	61.17
	4/17/10		--	43.37	ND	61.13
	9/22/10		--	44.51	ND	59.99
	2/10/11		--	42.12	ND	61.88
MW-11	6/5/08	102.92	--	40.20	ND	62.72
	9/26/08		--	41.73	ND	61.19
	1/22/09		--	41.80	ND	61.12
	4/16/09		--	40.94	ND	61.98
	9/18/09		--	41.36	ND	61.56
	12/3/09		--	40.51	ND	62.41
	4/17/10		--	40.60	ND	62.32
	9/22/10		--	41.80	ND	61.12
	2/10/11		--	40.01	ND	62.91
MW-12	6/5/08	99.12	--	33.77	ND	65.35
	9/26/08		--	35.21	ND	63.91
	1/22/09		--	36.61	ND	62.51
	4/16/09		--	35.72	ND	63.40
	9/18/09		--	35.99	ND	63.13
	12/3/09		--	35.20	ND	63.92
	4/17/10		--	35.22	ND	63.90
	9/22/10		--	36.31	ND	62.81
	2/10/11		--	34.35	ND	64.77

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-13	6/5/08	99.41	--	36.17	ND	63.24
	9/26/08		--	37.68	ND	61.73
	1/22/09		--	37.73	ND	61.68
	4/16/09		--	37.70	ND	61.71
	9/18/09		--	38.11	ND	61.30
	12/3/09		--	37.29	ND	62.12
	4/17/10		--	37.28	ND	62.13
	9/22/10		--	38.31	ND	61.10
	2/10/11		--	36.27	ND	63.14
MW-17	6/5/08	93.98	--	31.09	ND	62.89
	9/26/08		--	32.59	ND	61.39
	1/22/09		--	32.61	ND	61.37
	4/16/09		--	31.59	ND	62.39
	9/18/09		--	31.93	ND	62.05
	12/3/09		--	31.16	ND	62.82
	4/17/10		--	31.17	ND	62.81
	9/22/10		--	32.21	ND	61.77
	2/10/11		--	30.19	ND	63.79
MW-19	6/5/08	99.58	--	35.26	ND	64.32
	9/26/08		--	36.71	ND	62.87
	1/22/09		--	36.74	ND	62.84
	4/16/09		--	35.80	ND	63.78
	9/18/09		--	36.18	ND	63.40
	12/3/09		--	36.49	ND	63.37
	4/17/10		--	36.50	ND	63.08
	9/22/10		--	37.70	ND	61.88
	2/10/11		--	35.62	ND	63.96
MW-20	6/5/08	99.86	--	36.40	ND	63.46
	9/26/08		--	37.88	ND	61.98
	1/22/09		--	37.89	ND	61.97
	4/16/09		--	37.00	ND	62.86
	9/18/09		--	37.39	ND	62.47
	12/3/09		--	36.49	ND	63.30
	4/17/10		--	36.52	ND	63.34
	9/22/10		--	32.69	ND	62.17
	2/10/11		--	30.41	ND	69.45

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-22	6/5/08	89.60	--	35.21	ND	54.39
	9/26/08		--	36.73	ND	52.87
	1/22/09		--	36.75	ND	52.85
	4/16/09		--	35.83	ND	53.77
	9/18/09		--	36.18	ND	53.42
	12/3/09		--	35.42	ND	54.18
	4/17/10		--	35.43	ND	54.17
	9/22/10		--	36.42	ND	53.18
	2/10/11		--	34.41	ND	55.19

Notes: *1) ND = None Detected*
2) NM = Not Measured

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TABLE 2

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-1	2/9/07	--	30.08	ND
	11/20/07	--	DRY	--
	6/5/08	--	DRY	--
	9/26/08	--	DRY	--
	1/22/09	--	34.18	ND
	4/16/09	--	33.04	ND
	7/23/09	--	32.59	ND
	9/18/09	--	32.61	ND
	12/3/09	--	31.03	ND
	4/17/10	--	31.00	ND
	9/22/10	--	32.10	ND
	2/10/11	--	31.37	ND
EP-2	2/9/07	28.98	30.22	1.24
	11/20/07	32.15	32.41	0.26
	6/5/08	--	DRY	--
	9/26/08	32.97	32.98	0.01
	1/22/09	--	DRY	--
	4/16/09	--	DRY	--
	7/23/09	32.44	32.48	0.04
	9/18/09	32.43	32.44	0.01
	12/3/09	--	31.35	ND
	4/17/10	--	31.37	ND
	9/22/10	32.40	32.43	0.03
	2/10/11	30.89	31.60	0.71
EP-3	2/9/07	29.06	29.30	0.24
	11/20/07	--	DRY	--
	6/5/08	--	DRY	--
	9/26/08	--	DRY	--
	1/22/09	--	DRY	--
	4/16/09	--	DRY	--
	7/23/09	32.25	32.27	0.02
	9/18/09	32.26	32.27	0.01
	12/3/09	--	31.39	ND
	4/17/10	31.39	31.40	0.01
	9/22/10	32.35	32.40	0.05
	2/10/11	30.70	31.26	0.56

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-4	2/9/07	--	27.85	ND
	11/20/07	--	31.70	ND
	6/5/08	NM	NM	0.1
	9/26/08	--	DRY	--
	1/22/09	--	32.60	ND
	4/16/09	32.42	32.64	0.22
	7/23/09	NM	NM	ND
	9/18/09	NM	NM	NM
	12/3/09	NM	NM	NM
	4/17/10	NM	NM	NM
	9/22/10	NM	NM	NM
	2/10/11	30.0	30.21	0.21
EP-5	2/9/07	--	27.68	ND
	11/20/07	--	32.40	ND
	6/5/08	NM	NM	0.15
	9/26/08	--	DRY	--
	1/22/09	--	32.79	ND
	4/16/09	31.04	31.26	0.22
	7/23/09	31.18	31.47	0.29
	9/18/09	31.19	31.43	0.24
	12/3/09	30.33	30.53	0.20
	4/17/10	30.30	30.51	0.21
	9/22/10	31.40	31.71	0.31
	2/10/11	29.15	29.22	0.07
EP-6	2/9/07	27.91	27.96	0.05
	11/20/07	--	DRY	--
	6/5/08	NM	NM	ND
	9/26/08	--	DRY	--
	1/22/09	--	32.56	ND
	4/16/09	31.26	31.94	0.68
	7/23/09	31.22	31.83	0.61
	9/18/09	31.24	31.70	0.46
	12/3/09	30.40	30.59	0.19
	4/17/10	30.42	30.60	0.08
	9/22/10	31.50	31.70	0.20
	2/10/11	NM	NM	NM

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-7	2/9/07	28.63	28.64	0.01
	11/20/07	--	DRY	--
	6/5/08	--	DRY	--
	9/26/08	--	DRY	--
	1/22/09	--	32.75	ND
	4/16/09	32.37	32.55	0.18
	7/23/09	31.93	32.07	0.14
	9/18/09	31.95	32.05	0.10
	12/3/09	31.06	31.11	0.05
	4/17/10	36.00	31.20	0.20
	9/22/10	32.02	32.09	0.08
	2/10/11	30.62	30.70	0.08
EP-8	11/20/07	32.00	32.77	0.77
	6/5/08	--	MISSING	--
	9/26/08	--	MISSING	--
	1/22/09	--	33.10	ND
	4/16/09	31.55	31.62	0.07
	7/23/09	31.28	31.53	0.25
	9/18/09	31.30	31.50	0.20
	12/3/09	30.53	30.87	0.34
	4/17/10	30.50	30.81	0.31
	9/22/10	31.60	31.72	0.12
	2/10/11	29.80	30.21	0.38
EP-9	2/9/07	27.77	28.67	0.90
	11/20/07	--	31.42	ND
	6/5/08	NM	NM	0.02
	9/26/08	32.94	32.95	0.01
	1/22/09	--	34.40	ND
	4/16/09	--	31.61	ND
	7/23/09	NM	NM	ND
	9/18/09	--	32.00	ND
	12/3/09	NM	ND	NM
	4/17/10	31.02	31.03	0.01
	9/22/10	32.10	32.12	0.02
	2/10/11	--	31.13	ND

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-10	2/9/07	29.02	29.58	0.56
	11/20/07	33.00	33.80	0.80
	6/5/08	NM	NM	1.30
	9/26/08	--	DRY	--
	1/22/09	34.20	34.59	0.39
	4/16/09	32.64	33.83	1.19
	7/23/09	32.10	33.03	0.93
	9/18/09	32.15	33.00	0.85
	12/3/09	31.26	31.67	0.41
	4/17/10	31.67	31.90	0.23
	9/22/10	32.36	32.56	0.20
	2/10/11	31.15	31.53	0.38
EP-11	2/9/07	29.08	29.25	0.17
	11/20/07	32.25	32.30	0.05
	6/5/08	NM	NM	0.85
	9/26/08	33.72	34.13	0.41
	1/22/09	34.10	34.55	0.45
	4/16/09	32.87	32.95	0.08
	7/23/09	33.17	34.17	1.00
	9/18/09	33.19	34.00	0.81
	12/3/09	32.29	32.62	0.33
	4/17/10	32.28	32.60	0.32
	9/22/10	33.40	33.61	0.21
	2/11/10	30.34	31.40	1.06
EP-12	2/9/07	29.02	29.04	0.02
	11/20/07	31.90	32.20	0.30
	6/5/08	NM	NM	1.00
	9/28/08	--	33.51	--
	1/22/09	33.60	33.87	0.27
	4/16/09	32.52	33.73	1.21
	7/23/09	31.80	33.03	1.23
	9/18/09	31.80	32.90	1.10
	12/3/09	31.04	31.95	0.91
	4/17/10	31.09	31.80	0.91
	9/22/10	32.02	33.01	0.99
	2/11/10	30.78	31.70	0.92

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-13	2/9/07	--	32.45	ND
	11/20/07	--	36.20	ND
	6/5/08	NM	NM	ND
	9/28/08	NM	NM	ND
	1/22/09	--	37.27	ND
	4/16/09	--	36.40	ND
	7/23/09	NM	NM	ND
	9/18/09	--	36.80	ND
	12/3/09	NM	NM	NM
	4/17/10	NM	NM	NM
	9/22/10	NM	NM	NM
	2/10/11	--	32.13	ND
EP-14	2/9/07	--	29.02	ND
	11/20/07	--	32.20	ND
	6/5/08	NM	NM	NM
	9/28/08	--	33.60	TRACE
	1/22/09	--	34.00	ND
	4/16/09	--	32.60	ND
	7/23/09	NM	NM	ND
	9/18/09	--	33.01	NM
	12/3/09	NM	NM	NM
	4/17/10	NM	NM	NM
	9/22/10	NM	NM	NM
	2/10/11	MN	MN	MN
EP-15	2/9/07	--	29.12	ND
	11/20/07	--	32.70	ND
	6/5/08	NM	NM	NM
	9/28/08	NM	NM	NM
	1/22/09	--	33.73	ND
	4/16/09	--	32.27	ND
	7/23/09	NM	NM	NM
	9/18/09	--	32.60	ND
	12/3/09	NM	NM	NM
	4/17/10	NM	NM	NM
	9/22/10	NM	NM	NM
	2/10/11	NM	NM	NM

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-16	2/9/07	29.22	29.23	0.01
	11/20/07	32.30	32.40	0.10
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
	1/22/09	33.90	34.02	0.12
	4/16/09	33.04	33.18	0.14
	7/23/09	32.31	32.36	0.05
	9/18/09	32.30	32.31	0.01
	12/3/09	--	31.47	ND
	4/17/10	31.48	31.49	0.01
	9/22/10	32.50	32.52	0.02
	2/10/11	30.99	31.60	0.61
EP-17	2/9/07	--	29.57	ND
	11/20/07	--	32.17	ND
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
	1/22/09	--	33.78	ND
	4/16/09	32.80	33.57	0.77
	7/23/09	32.13	32.92	0.79
	9/18/09	32.15	32.80	0.65
	12/3/09	31.32	31.69	0.37
	4/17/10	31.30	31.60	0.30
	9/22/10	32.28	32.40	0.12
	2/10/11	30.87	31.66	0.79
EP-18	2/9/07	29.08	29.33	0.25
	11/20/07	31.41	32.00	0.59
	6/5/08	NM	NM	0.75
	9/28/08	--	32.73	--
	1/22/09	--	32.75	ND
	4/16/09	--	32.73	ND
	7/23/09	NM	NM	ND
	9/18/09	--	33.10	ND
	12/3/09	31.31	31.59	0.28
	4/17/10	31.30	31.50	0.20
	9/22/10	32.38	32.51	0.13
	2/10/11	30.98	30.99	0.01

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-19	2/9/07	--	29.43	ND
	11/20/07	--	32.15	ND
	6/5/08	NM	NM	0.09
	9/28/08	NM	NM	ND
	1/22/09	--	34.01	ND
	4/16/09	--	32.84	ND
	7/23/09	NM	NM	ND
	9/18/09	33.10	33.20	0.10
	12/3/09	32.23	32.45	0.22
	4/17/10	32.23	32.33	0.10
	9/22/10	33.26	33.29	0.03
	2/10/11	30.95	31.90	0.95
EP-20	2/9/07	29.68	30.17	0.49
	11/20/07	32.40	32.50	0.10
	6/5/08	NM	NM	0.20
	9/28/08	--	32.47	--
	1/22/09	--	32.49	ND
	4/16/09	--	32.59	ND
	7/23/09	32.60	32.62	0.02
	9/18/09	--	32.64	ND
	12/3/09	--	32.01	ND
	4/17/10	--	32.00	ND
	9/22/10	--	33.09	ND
	2/10/11	31.25	31.93	0.68
EP-21	2/9/07	--	29.57	ND
	11/20/07	--	32.55	ND
	6/5/08	NM	NM	ND
	9/28/08	NM	NM	ND
	1/22/09	--	34.47	ND
	7/23/09	32.46	32.49	0.03
	9/18/09	32.47	32.48	0.01
	12/3/09	--	31.65	ND
	4/17/10	--	31.67	ND
	9/22/10	32.60	32.61	0.01
	2/10/11	--	31.35	ND

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-22	2/9/07	--	29.07	ND
	11/20/07	--	32.65	ND
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
	1/22/09	--	34.21	ND
	4/16/09	32.68	32.73	0.05
	7/23/09	31.73	31.78	0.05
	9/18/09	31.72	31.75	0.03
	12/3/09	30.99	31.47	0.48
	4/17/10	30.98	31.35	0.36
	9/22/10	32.02	32.40	0.38
	2/10/11	NM	NM	NM
EP-23	2/9/07	27.94	27.99	0.05
	11/20/07	32.00	32.12	0.12
	6/5/08	NM	NM	ND
	9/28/08	--	32.80	--
	1/22/09	--	32.76	ND
	4/16/09	31.00	31.09	0.09
	7/23/09	31.43	31.45	0.02
	9/18/09	31.40	31.45	0.05
	12/3/09	29.18	29.32	0.14
	4/17/10	29.19	29.29	0.10
	9/22/10	30.15	30.18	0.03
	2/11/10	29.98	30.00	0.02
EP-24	2/9/07	29.33	29.68	0.35
	11/20/07	31.91	32.10	0.19
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
	1/22/09	31.86	32.03	0.17
	4/16/09	--	DRY	--
	7/23/09	--	DRY	--
	9/18/09	--	DRY	--
	12/3/09	31.17	31.75	0.58
	4/17/10	31.18	31.70	0.52
	9/22/10	--	DRY	--
	2/10/11	NM	NM	NM

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-25	2/9/07	--	27.88	ND
	11/20/07	--	31.70	ND
	6/5/08	NM	NM	ND
	9/28/08	33.32	33.33	0.01
	1/22/09	--	33.00	ND
	4/16/09	32.14	32.59	0.45
	7/23/09	31.08	31.91	0.83
	9/18/09	31.09	31.79	0.70
	12/3/09	29.71	30.13	0.42
	4/17/10	29.77	30.10	0.33
	9/22/10	30.90	31.23	0.33
	2/10/11	29.71	30.02	0.31

Notes: 1) ND = None Detected
2) NM = Not Measured

DISPOSAL MANIFEST

MATERIAL MANIFEST

JBR ENVIRONMENTAL SERVICES
P.O.BOX 4098
SPARTANBURG, SC 29305
Emergency Phone Number: (864)583-2717

Manifest Document No. I-02100180
Page of
Job No. I-02100180

GENERATOR INFORMATION

Name: EnviroSouth
US EPA ID No.

Street Address	Mailing Address	Phone No. / Contact
Vacant Lot On 1st Street Seneca	3440 Augusta Rd Greenville S.C. 29605	846-230-4417 Brendan

DESCRIPTION OF MATERIALS

	HM	USDOT Proper Shipping Name (Complete All Items for Hazardous Materials)	Hazard Class	UN/NA ID No.	Packing Group	Containers Qty	Containers type	Total Quantity	Unit Wt./Vol.
									49400
a.		Non Hazardous Liquid NOS				Qty	type		47360
b.						1	VT	49,400	2040 LBS
c.									1.02 TONS

ADDITIONAL INFORMATION		ERG No.	JBR Profile Code	Facility Use	
a.	Contact Water		JE-020167	DISPOSAL	245 gallons
b.					8.345 lb/gallon
c.					

GENERATORS CERTIFICATION

This is to certify that the above – described materials are properly classified, described, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. I further certify that none of the materials described above are a hazardous waste as defined by EPA 40 CFR Part 261 or any applicable state law, and unless specifically identified above, the materials contain less than 1,000 ppm total halogens and do not contain quantifiable levels (2 ppm) of PCBs as defined by EPA 40 CFR Parts 279 and 761.

Printed/Typed Name	Signature	Mo./Day/Yr.
Brendan Brotz		2-10-11

TRANSPORTER INFORMATION

Transporter: JBR
Address: 210 Alice Street, Spartanburg, SC 29303
Transporter or EPA ID No.: SCR00004358
Unit No.: #17
Phone: 864-583-2717

I hereby acknowledge receipt of the above-described materials for transport from the generator site listed above.
Signature: Shipment Date: 2-10-11

I hereby acknowledge that the above-described materials were received from the generator site and were transported to the facility listed below.
Signature: Delivery Date: 2-10-11

FACILITY INFORMATION

Facility: JBR Environmental Services
Address: 210 Alice Street, Spartanburg, SC 29303
Facility or EPA ID No.: SCR00004358
Phone: 864-583-2717
Contact: Rex Russell

I do hereby acknowledge receipt of the materials covered by this manifest except for any discrepancy noted below.
Signature: Receipt Date: 2-10-11

Discrepancies	Routing Codes	Handling Methods
a.	WM3219	
b.		
c.		

White - Facility Retain ● Light Yellow - Return to Generator ● Pink - Transporter Retain ● Orange- Generator Retain

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

MAR 04 2011

MR BRENDAN M BRODIE PG
ENVIROSOUTH ENVIRONMENTAL CONSULTANTS
3440 AUGUSTA RD
GREENVILLE SC 29605

23tech
UST
DOCKET

Re: CASE report review
Former Red Diamond Oil Company, 519 East North 1st Street, Seneca, SC
UST Permit #14324; CA #25430
Bid #IFB-28949-10/4/05-EMW; PO #605692
Release reported December 30, 1991
CASE report received March 2, 2011
Oconee County

Dear Mr. Brodie:

The Underground Storage Tank (UST) Management Division has reviewed the referenced report. Based upon the current data, the Division concurs with your free-phase product reduction calculation of 81.12%.

The Division notes that the referenced report documents a gauging event conducted on February 10, 2011. The gauging event will satisfy corrective action monitoring requirements for the January 2011-March 2011 quarter. However, no report documenting a gauging event for the October 2010-December 2010 quarter has been received. Accordingly, this quarter has been entered into the database as report not received. Please be aware that corrective action reports must be submitted on a quarterly basis unless otherwise approved by the Division.

The next CASE report documenting activities conducted during the April 2011-June 2011 quarterly monitoring period is due on or before **August 1, 2011.** On all correspondence regarding this site, please reference UST Permit #14324. If you have any questions regarding this correspondence, feel free to contact me by telephone at (803) 896-6398, by fax at (803) 896-6245, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Geologist/Hydrologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

JPP/jpp
14324.17

cc: Betty Latham, 2 Stratton Place, Greenville, SC 29615-4217 (w/enc)
Technical file (w/o enc)

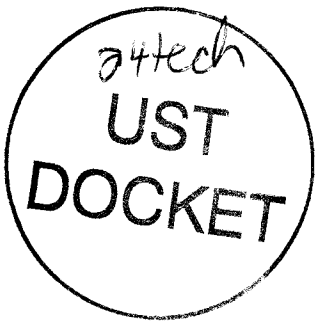
DHEC/UST/JPP/030311

ENVIROSOUTH
Environmental Consultants

July 8, 2011



Mr. Joel Padgett
SCDHEC
Bureau of Land and Waste Management
UST Program
2600 Bull Street
Columbia, South Carolina 29201



Re: Former Red Diamond
519 East North 1st Street
Seneca, South Carolina
SCDHEC ID #14324
EnviroSouth Job No. 1334

Dear Mr. Padgett:

EnviroSouth, Inc. is pleased to provide the SCDHEC UST Program with the remediation and groundwater monitoring report for the Former Red Diamond site in Seneca, South Carolina.

EnviroSouth appreciates the opportunity to be of service to the SCDHEC UST Program. If you have comments or questions concerning the attached report, please do not hesitate to call.

Sincerely,

EnviroSouth, Inc.

Brendan M. Brodie, P.G.
Project Hydrogeologist
S.C. Registration No. 2252

BMB/df

Enclosure

cc: Mr. Chris Wargo, UIC, SCDHEC

phone: 864.236.9010 • fax: 864.236.9097
3440 Augusta Road • Greenville, SC 29605 • www.envirosouth.com

Prepared for:

South Carolina Department of Health and Environmental Control
(SCDHEC)
Underground Storage Tank (UST) Program
2600 Bull Street
Columbia, South Carolina 29201

Attn: Mr. Joel Padgett

GROUNDWATER MONITORING REPORT

FORMER RED DIAMOND
519 EAST NORTH 1st STREET
SENECA, SOUTH CAROLINA

UST PERMIT #14324

Job No. 1334

Prepared by:

EnviroSouth, Inc.
3440 Augusta Road
Greenville, South Carolina 29605
SCDHEC Certification No. 257

July 8, 2011

INTRODUCTION

EnviroSouth has completed groundwater gauging and remediation services at the Former Red Diamond facility (UST Permit #14324) facility located in Seneca, South Carolina. The purpose of the gauging event was to evaluate the current water levels and thickness of free-phase petroleum in various monitoring wells and extraction points.

This report includes a description of the field/remediation services, along with our current findings, conclusions, and recommendations.

METHODS and FINDINGS

Groundwater Elevation and Movement

Water level measurements in all monitoring wells and extraction points were last recorded by EnviroSouth with a hydrocarbon sensitive electronic interface probe on June 29, 2011. The interface probe was decontaminated prior to and between each measurement to prevent cross-contamination between wells. The water table aquifer occurs under unconfined conditions underlying the site at depths ranging from 27 to 41 feet below land surface. Free product was detected in monitoring well MW-1 at a thickness of 0.07 feet. The TOC elevations, water level measurements, and ground water elevation data recorded to date are included on Table 1.

A map of extraction point locations is included as Figure 1.

SOLAR, IN-WELL PRODUCT VOLITIZATION/VENTING

The solar remediation system was installed on February 16, 2011. The system uses solar cells/batteries for power, air pumps, and air diffusion stones for delivery of atmospheric air to or just above the product layer. The wells have a 3-feet tall stack that will keep surface runoff out of the well and a 180-degree fitting that will keep rainwater out of the well. A small-diameter plastic tube attached to the air pump enters the well and emits atmospheric air through a diffusion stone into the product layer at a rate of up to .5 cfm. The flow of air into and then out of the well increases volatilization of the product and vents it to the atmosphere.

The system has been installed in 18 existing extraction wells. The system is contained by a fenced compound.

On May 30th, 2011 the system was shut down for evaluation of product thicknesses. The system was restarted on June 29, 2011.

FREE-PRODUCT THICKNESS REDUCTION

Based on the free-product thickness reduction calculation, the free-product reduction at the site is 99 percent. The initial cumulative free-product thickness equals 6.97 feet and the SSTL free-product thickness equals 0.03 feet. The initial mass above the SSTL is 6.94 feet. The subsequent free-product thickness for the February 10, 2011 gauging event is 0.07 feet.

Free-Product Thickness Reduction = $\frac{(M-N)}{(M)} = \frac{(6.94 - 0.07)}{6.94} = 0.98992*100 = 99\%$ Reduction

CONCLUSIONS

The solar powered vent wells are in operation and we will be monitoring product thickness in the affected wells.

EnviroSouth, Inc.

Brendan M. Brodie, P.G.
Project Hydrogeologist
S.C. Registration No. 2252

BMB/df

cc: Mr. Chris Wargo, UIC, SCDHEC

APPENDICES

FIGURES

FIGURE 1 – Extraction Point Locations

TABLES

TABLE 1 - Groundwater Elevation Data
TABLE 2 - Product Thickness Data

FIGURE

EXPLANATION

MW-5 — MONITORING WELL

EP-5 — EXTRACTION POINT WELL

EAST NORTH 1ST STREET

EMPTY PARCEL

TRI-CITY LAUNDRY

Chain Link Fence

EP-16
EP-1
EP-10
EP-17
EP-2
EP-24
EP-14
EP-9
MW-4
EP-X
EP-21
EP-8
MW-5
EP-X
EP-20
EP-18
EP-11
EP-3
EP-15
EP-23
MW-1
EP-25
EP-4
EP-22
Batteries, Pumps
EP-7
EP-12
EP-5
GATE
EP-6
EP-19
GATE
Privacy Fence
Solar Panels

10 0 10 20

SCALE: 1" = 10'±

10/14/10	DRAWN BY DF	CHECKED BY BMB	SCALE 1"=10'±	JOB NO. 1334	FIGURE 1

ENVIROSOUTH Environmental Consultants

EXTRACTION POINT LOCATIONS

FORMER RED DIAMOND
519 EAST NORTH 1ST STREET
SENECA, SC
SDHEC UST ID #14324

TABLES

TABLE 1

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-1	4/18/03	98.32	29.07	33.27	4.20	65.05
	10/26/05		23.37	27.51	4.14	73.52
	5/4/06		25.64	26.71	1.07	72.41
	5/11/06		26.75	26.87	0.12	71.54
	6/6/06		26.26	26.40	0.14	72.03
	8/14/06		28.25	28.50	0.25	70.01
	2/9/07		27.74	28.22	0.48	70.46
	11/20/07		31.75	31.95	0.20	66.52
	6/5/08		32.00	32.15	0.15	66.28
	9/26/08		33.50	33.53	0.03	64.81
	1/22/09		32.93	33.10	0.17	65.35
	4/16/09		31.80	31.97	0.17	66.48
	9/18/09		32.25	32.35	0.10	66.05
	12/3/09		31.39	31.49	0.10	65.89
	4/17/10		31.41	31.49	0.08	66.89
	9/22/10		32.20	32.33	0.13	66.09
	2/10/11		29.50	30.00	0.50	67.95
	6/29/11		32.80	32.87	0.07	65.40
MW-2	6/5/08	98.60	--	33.30	ND	65.30
	9/26/08		--	34.71	ND	63.89
	1/22/09		--	34.70	ND	63.90
	4/16/09		--	33.72	ND	64.88
	9/18/09		--	34.12	ND	64.48
	12/3/09		--	33.23	ND	65.37
	4/17/10		--	33.26	ND	65.34
	9/22/10		--	34.30	ND	64.30
	2/10/11		--	32.42	ND	66.18
	6/29/11		--	33.89	ND	64.71
MW-3	6/5/08	97.92	--	32.28	ND	65.64
	9/26/08		--	33.74	ND	64.18
	1/22/09		--	33.50	ND	64.42
	4/16/09		--	32.48	ND	65.44
	9/18/09		--	32.87	ND	65.05
	12/3/09		--	31.99	ND	65.93
	4/17/10		--	32.00	ND	65.92
	9/22/10		--	33.18	ND	64.74
	2/10/11		--	31.60	ND	66.32
	6/29/11		--	32.81	ND	65.11

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-4	4/18/03	99.07	38.29	34.43	3.86	64.64
	10/26/05		24.75	27.61	2.86	73.61
	5/4/06		26.60	27.17	0.57	72.33
	6/6/06		27.27	27.28	0.01	71.79
	8/14/06		--	28.45	ND	70.62
	2/9/07		--	29.15	ND	69.92
	11/20/07		32.47	32.48	0.01	66.60
	6/5/08		32.40	34.72	2.32	66.09
	9/26/08		33.96	34.02	0.06	65.10
	1/22/09		34.20	34.46	0.26	64.81
	4/16/09		32.74	33.51	0.77	66.14
	9/18/09		33.20	33.41	0.21	65.82
	12/3/09		32.15	32.66	0.51	66.01
	4/17/10		32.20	32.68	0.48	66.76
	9/22/10		33.37	33.90	0.43	65.50
	2/10/11		31.10	31.91	0.81	66.55
	6/29/11		--	33.69	ND	65.38
MW-5	6/5/08	98.03	--	31.47	ND	66.56
	9/26/08		--	32.92	ND	65.11
	1/22/09		--	33.21	ND	64.82
	4/16/09		--	32.29	ND	65.74
	9/18/09		--	32.68	ND	65.35
	12/3/09		--	31.90	ND	66.13
	4/17/10		--	31.98	ND	66.05
	9/22/10		--	33.01	ND	65.02
	2/10/11		--	31.11	ND	66.92
	6/29/11		--	32.63	ND	65.40
MW-7	6/5/08	99.30	--	35.19	ND	64.11
	9/26/08		--	36.62	ND	62.68
	1/22/09		--	36.66	ND	62.64
	4/16/09		--	35.67	ND	63.63
	9/18/09		--	36.00	ND	63.30
	12/3/09		--	35.28	ND	64.02
	4/17/10		--	35.31	ND	63.99
	9/22/10		--	36.70	ND	62.60
	2/10/11		--	34.62	ND	64.68
	6/29/11		--	35.88	ND	63.42

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-8	6/5/08	102.13	--	41.11	ND	61.02
	9/26/08		--	42.60	ND	59.53
	1/22/09		--	42.64	ND	59.49
	4/16/09		--	41.60	ND	60.53
	9/18/09		--	41.99	ND	60.14
	4/17/10		--	42.03	ND	60.10
	9/22/10		--	43.18	ND	58.95
	2/10/11		--	41.19	ND	60.94
	6/29/11		--	42.33	ND	59.80
MW-9	6/5/08	104.97	--	41.82	ND	63.15
	9/26/08		--	43.19	ND	61.78
	1/22/09		--	43.24	ND	61.73
	4/16/09		--	42.29	ND	62.68
	9/18/09		--	42.68	ND	62.29
	12/3/09		--	41.22	ND	63.25
	4/17/10		--	41.23	ND	63.74
	9/22/10		--	42.34	ND	62.63
	2/10/11		--	40.45	ND	64.52
	6/29/11		--	41.91	ND	63.06
MW-10	6/5/08	104.50	--	43.10	ND	61.40
	9/26/08		--	44.63	ND	59.87
	1/22/09		--	44.67	ND	59.83
	4/16/09		--	43.70	ND	60.80
	9/18/09		--	44.10	ND	60.40
	12/3/09		--	43.33	ND	61.17
	4/17/10		--	43.37	ND	61.13
	9/22/10		--	44.51	ND	59.99
	2/10/11		--	42.12	ND	61.88
	6/29/11		--	42.72	ND	61.78
MW-11	6/5/08	102.92	--	40.20	ND	62.72
	9/26/08		--	41.73	ND	61.19
	1/22/09		--	41.80	ND	61.12
	4/16/09		--	40.94	ND	61.98
	9/18/09		--	41.36	ND	61.56
	12/3/09		--	40.51	ND	62.41
	4/17/10		--	40.60	ND	62.32
	9/22/10		--	41.80	ND	61.12
	2/10/11		--	40.01	ND	62.91
	6/29/11		--	41.31	ND	61.61

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-12	6/5/08	99.12	--	33.77	ND	65.35
	9/26/08		--	35.21	ND	63.91
	1/22/09		--	36.61	ND	62.51
	4/16/09		--	35.72	ND	63.40
	9/18/09		--	35.99	ND	63.13
	12/3/09		--	35.20	ND	63.92
	4/17/10		--	35.22	ND	63.90
	9/22/10		--	36.31	ND	62.81
	2/10/11		--	34.35	ND	64.77
	6/29/11		--	35.74	ND	63.38
MW-13	6/5/08	99.41	--	36.17	ND	63.24
	9/26/08		--	37.68	ND	61.73
	1/22/09		--	37.73	ND	61.68
	4/16/09		--	37.70	ND	61.71
	9/18/09		--	38.11	ND	61.30
	12/3/09		--	37.29	ND	62.12
	4/17/10		--	37.28	ND	62.13
	9/22/10		--	38.31	ND	61.10
	2/10/11		--	36.27	ND	63.14
	6/29/11		--	37.80	ND	61.61
MW-17	6/5/08	93.98	--	31.09	ND	62.89
	9/26/08		--	32.59	ND	61.39
	1/22/09		--	32.61	ND	61.37
	4/16/09		--	31.59	ND	62.39
	9/18/09		--	31.93	ND	62.05
	12/3/09		--	31.16	ND	62.82
	4/17/10		--	31.17	ND	62.81
	9/22/10		--	32.21	ND	61.77
	2/10/11		--	30.19	ND	63.79
	6/29/11		--	31.42	ND	62.56
MW-19	6/5/08	99.58	--	35.26	ND	64.32
	9/26/08		--	36.71	ND	62.87
	1/22/09		--	36.74	ND	62.84
	4/16/09		--	35.80	ND	63.78
	9/18/09		--	36.18	ND	63.40
	12/3/09		--	36.49	ND	63.37
	4/17/10		--	36.50	ND	63.08
	9/22/10		--	37.70	ND	61.88
	2/10/11		--	35.62	ND	63.96
	6/29/11		--	37.01	ND	62.57

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-20	6/5/08	99.86	--	36.40	ND	63.46
	9/26/08		--	37.88	ND	61.98
	1/22/09		--	37.89	ND	61.97
	4/16/09		--	37.00	ND	62.86
	9/18/09		--	37.39	ND	62.47
	12/3/09		--	36.49	ND	63.30
	4/17/10		--	36.52	ND	63.34
	9/22/10		--	32.69	ND	62.17
	2/10/11		--	30.41	ND	69.45
	6/29/11		--	31.86	ND	68.00
MW-22	6/5/08	89.60	--	35.21	ND	54.39
	9/26/08		--	36.73	ND	52.87
	1/22/09		--	36.75	ND	52.85
	4/16/09		--	35.83	ND	53.77
	9/18/09		--	36.18	ND	53.42
	12/3/09		--	35.42	ND	54.18
	4/17/10		--	35.43	ND	54.17
	9/22/10		--	36.42	ND	53.18
	2/10/11		--	34.41	ND	55.19
	6/29/11		--	35.75	ND	53.85

Notes: *1) ND = None Detected*
2) NM = Not Measured

TABLE 2

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-1	2/9/07	--	30.08	ND
	11/20/07	--	DRY	--
	6/5/08	--	DRY	--
	9/26/08	--	DRY	--
	1/22/09	--	34.18	ND
	4/16/09	--	33.04	ND
	7/23/09	--	32.59	ND
	9/18/09	--	32.61	ND
	12/3/09	--	31.03	ND
	4/17/10	--	31.00	ND
	9/22/10	--	32.10	ND
	2/10/11	--	31.37	ND
	6/29/11	--	30.50	ND
EP-2	2/9/07	28.98	30.22	1.24
	11/20/07	32.15	32.41	0.26
	6/5/08	--	DRY	--
	9/26/08	32.97	32.98	0.01
	1/22/09	--	DRY	--
	4/16/09	--	DRY	--
	7/23/09	32.44	32.48	0.04
	9/18/09	32.43	32.44	0.01
	12/3/09	--	31.35	ND
	4/17/10	--	31.37	ND
	9/22/10	32.40	32.43	0.03
	2/10/11	30.89	31.60	0.71
	6/29/11	33.73	34.87	1.14
EP-3	2/9/07	29.06	29.30	0.24
	11/20/07	--	DRY	--
	6/5/08	--	DRY	--
	9/26/08	--	DRY	--
	1/22/09	--	DRY	--
	4/16/09	--	DRY	--
	7/23/09	32.25	32.27	0.02
	9/18/09	32.26	32.27	0.01
	12/3/09	--	31.39	ND
	4/17/10	31.39	31.40	0.01
	9/22/10	32.35	32.40	0.05
	2/10/11	30.70	31.26	0.56

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-4	2/9/07	--	27.85	ND
	11/20/07	--	31.70	ND
	6/5/08	NM	NM	0.1
	9/26/08	--	DRY	--
	1/22/09	--	32.60	ND
	4/16/09	32.42	32.64	0.22
	7/23/09	NM	NM	ND
	9/18/09	NM	NM	NM
	12/3/09	NM	NM	NM
	4/17/10	NM	NM	NM
	9/22/10	NM	NM	NM
	2/10/11	30.0	30.21	0.21
	6/29/11	--	30.80	ND
EP-5	2/9/07	--	27.68	ND
	11/20/07	--	32.40	ND
	6/5/08	NM	NM	0.15
	9/26/08	--	DRY	--
	1/22/09	--	32.79	ND
	4/16/09	31.04	31.26	0.22
	7/23/09	31.18	31.47	0.29
	9/18/09	31.19	31.43	0.24
	12/3/09	30.33	30.53	0.20
	4/17/10	30.30	30.51	0.21
	9/22/10	31.40	31.71	0.31
	2/10/11	29.15	29.22	0.07
	6/29/11	29.34	29.36	0.02
EP-6	2/9/07	27.91	27.96	0.05
	11/20/07	--	DRY	--
	6/5/08	NM	NM	ND
	9/26/08	--	DRY	--
	1/22/09	--	32.56	ND
	4/16/09	31.26	31.94	0.68
	7/23/09	31.22	31.83	0.61
	9/18/09	31.24	31.70	0.46
	12/3/09	30.40	30.59	0.19
	4/17/10	30.42	30.60	0.08
	9/22/10	31.50	31.70	0.20
	2/10/11	NM	NM	NM
	6/29/11	32.49	32.75	0.26

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-7	2/9/07	28.63	28.64	0.01
	11/20/07	--	DRY	--
	6/5/08	--	DRY	--
	9/26/08	--	DRY	--
	1/22/09	--	32.75	ND
	4/16/09	32.37	32.55	0.18
	7/23/09	31.93	32.07	0.14
	9/18/09	31.95	32.05	0.10
	12/3/09	31.06	31.11	0.05
	4/17/10	36.00	31.20	0.20
	9/22/10	32.02	32.09	0.08
	2/10/11	30.62	30.70	0.08
	6/29/11	--	33.57	ND
EP-8	11/20/07	32.00	32.77	0.77
	6/5/08	--	MISSING	--
	9/26/08	--	MISSING	--
	1/22/09	--	33.10	ND
	4/16/09	31.55	31.62	0.07
	7/23/09	31.28	31.53	0.25
	9/18/09	31.30	31.50	0.20
	12/3/09	30.53	30.87	0.34
	4/17/10	30.50	30.81	0.31
	9/22/10	31.60	31.72	0.12
	2/10/11	29.80	30.21	0.38
	6/29/11	32.99	33.33	0.34
EP-9	2/9/07	27.77	28.67	0.90
	11/20/07	--	31.42	ND
	6/5/08	NM	NM	0.02
	9/26/08	32.94	32.95	0.01
	1/22/09	--	34.40	ND
	4/16/09	--	31.61	ND
	7/23/09	NM	NM	ND
	9/18/09	--	32.00	ND
	12/3/09	NM	ND	NM
	4/17/10	31.02	31.03	0.01
	9/22/10	32.10	32.12	0.02
	2/10/11	--	31.13	ND
	6/29/11	29.03	29.93	0.50

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-10	2/9/07	29.02	29.58	0.56
	11/20/07	33.00	33.80	0.80
	6/5/08	NM	NM	1.30
	9/26/08	--	DRY	--
	1/22/09	34.20	34.59	0.39
	4/16/09	32.64	33.83	1.19
	7/23/09	32.10	33.03	0.93
	9/18/09	32.15	33.00	0.85
	12/3/09	31.26	31.67	0.41
	4/17/10	31.67	31.90	0.23
	9/22/10	32.36	32.56	0.20
	2/10/11	31.15	31.53	0.38
	6/29/11	31.85	32.75	0.90
EP-11	2/9/07	29.08	29.25	0.17
	11/20/07	32.25	32.30	0.05
	6/5/08	NM	NM	0.85
	9/26/08	33.72	34.13	0.41
	1/22/09	34.10	34.55	0.45
	4/16/09	32.87	32.95	0.08
	7/23/09	33.17	34.17	1.00
	9/18/09	33.19	34.00	0.81
	12/3/09	32.29	32.62	0.33
	4/17/10	32.28	32.60	0.32
	9/22/10	33.40	33.61	0.21
	2/11/10	30.34	31.40	1.06
	6/29/11	--	33.80	ND
EP-12	2/9/07	29.02	29.04	0.02
	11/20/07	31.90	32.20	0.30
	6/5/08	NM	NM	1.00
	9/28/08	--	33.51	--
	1/22/09	33.60	33.87	0.27
	4/16/09	32.52	33.73	1.21
	7/23/09	31.80	33.03	1.23
	9/18/09	31.80	32.90	1.10
	12/3/09	31.04	31.95	0.91
	4/17/10	31.09	31.80	0.91
	9/22/10	32.02	33.01	0.99
	2/11/10	30.78	31.70	0.92
	6/29/11	33.55	33.82	0.27

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-13	2/9/07	--	32.45	ND
	11/20/07	--	36.20	ND
	6/5/08	NM	NM	ND
	9/28/08	NM	NM	ND
	1/22/09	--	37.27	ND
	4/16/09	--	36.40	ND
	7/23/09	NM	NM	ND
	9/18/09	--	36.80	ND
	12/3/09	NM	NM	NM
	4/17/10	NM	NM	NM
	9/22/10	NM	NM	NM
	2/10/11	--	32.13	ND
	6/29/11	--	33.25	ND
EP-14	2/9/07	--	29.02	ND
	11/20/07	--	32.20	ND
	6/5/08	NM	NM	NM
	9/28/08	--	33.60	TRACE
	1/22/09	--	34.00	ND
	4/16/09	--	32.60	ND
	7/23/09	NM	NM	ND
	9/18/09	--	33.01	NM
	12/3/09	NM	NM	NM
	4/17/10	NM	NM	NM
	9/22/10	NM	NM	NM
	2/10/11	MN	MN	MN
	6/29/11	--	30.12	ND
EP-15	2/9/07	--	29.12	ND
	11/20/07	--	32.70	ND
	6/5/08	NM	NM	NM
	9/28/08	NM	NM	NM
	1/22/09	--	33.73	ND
	4/16/09	--	32.27	ND
	7/23/09	NM	NM	NM
	9/18/09	--	32.60	ND
	12/3/09	NM	NM	NM
	4/17/10	NM	NM	NM
	9/22/10	NM	NM	NM
	2/10/11	NM	NM	NM
	6/29/11	33.42	33.72	0.30

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-16	2/9/07	29.22	29.23	0.01
	11/20/07	32.30	32.40	0.10
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
	1/22/09	33.90	34.02	0.12
	4/16/09	33.04	33.18	0.14
	7/23/09	32.31	32.36	0.05
	9/18/09	32.30	32.31	0.01
	12/3/09	--	31.47	ND
	4/17/10	31.48	31.49	0.01
	9/22/10	32.50	32.52	0.02
	2/10/11	30.99	31.60	0.61
	6/29/11	30.72	31.03	0.31
EP-17	2/9/07	--	29.57	ND
	11/20/07	--	32.17	ND
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
	1/22/09	--	33.78	ND
	4/16/09	32.80	33.57	0.77
	7/23/09	32.13	32.92	0.79
	9/18/09	32.15	32.80	0.65
	12/3/09	31.32	31.69	0.37
	4/17/10	31.30	31.60	0.30
	9/22/10	32.28	32.40	0.12
	2/10/11	30.87	31.66	0.79
	6/29/11	33.63	34.31	0.68
EP-18	2/9/07	29.08	29.33	0.25
	11/20/07	31.41	32.00	0.59
	6/5/08	NM	NM	0.75
	9/28/08	--	32.73	--
	1/22/09	--	32.75	ND
	4/16/09	--	32.73	ND
	7/23/09	NM	NM	ND
	9/18/09	--	33.10	ND
	12/3/09	31.31	31.59	0.28
	4/17/10	31.30	31.50	0.20
	9/22/10	32.38	32.51	0.13
	2/10/11	30.98	30.99	0.01
	6/29/11	--	33.91	ND

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-19	2/9/07	--	29.43	ND
	11/20/07	--	32.15	ND
	6/5/08	NM	NM	0.09
	9/28/08	NM	NM	ND
	1/22/09	--	34.01	ND
	4/16/09	--	32.84	ND
	7/23/09	NM	NM	ND
	9/18/09	33.10	33.20	0.10
	12/3/09	32.23	32.45	0.22
	4/17/10	32.23	32.33	0.10
	9/22/10	33.26	33.29	0.03
	2/10/11	30.95	31.90	0.95
	6/29/11	33.55	33.97	0.42
EP-20	2/9/07	29.68	30.17	0.49
	11/20/07	32.40	32.50	0.10
	6/5/08	NM	NM	0.20
	9/28/08	--	32.47	--
	1/22/09	--	32.49	ND
	4/16/09	--	32.59	ND
	7/23/09	32.60	32.62	0.02
	9/18/09	--	32.64	ND
	12/3/09	--	32.01	ND
	4/17/10	--	32.00	ND
	9/22/10	--	33.09	ND
	2/10/11	31.25	31.93	0.68
	6/29/11	--	30.80	ND
EP-21	2/9/07	--	29.57	ND
	11/20/07	--	32.55	ND
	6/5/08	NM	NM	ND
	9/28/08	NM	NM	ND
	1/22/09	--	34.47	ND
	7/23/09	32.46	32.49	0.03
	9/18/09	32.47	32.48	0.01
	12/3/09	--	31.65	ND
	4/17/10	--	31.67	ND
	9/22/10	32.60	32.61	0.01
	2/10/11	--	31.35	ND
	6/29/11	--	30.50	ND

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-22	2/9/07	--	29.07	ND
	11/20/07	--	32.65	ND
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
	1/22/09	--	34.21	ND
	4/16/09	32.68	32.73	0.05
	7/23/09	31.73	31.78	0.05
	9/18/09	31.72	31.75	0.03
	12/3/09	30.99	31.47	0.48
	4/17/10	30.98	31.35	0.36
	9/22/10	32.02	32.40	0.38
	2/10/11	NM	NM	NM
	6/29/11	33.30	33.91	0.61
EP-23	2/9/07	27.94	27.99	0.05
	11/20/07	32.00	32.12	0.12
	6/5/08	NM	NM	ND
	9/28/08	--	32.80	--
	1/22/09	--	32.76	ND
	4/16/09	31.00	31.09	0.09
	7/23/09	31.43	31.45	0.02
	9/18/09	31.40	31.45	0.05
	12/3/09	29.18	29.32	0.14
	4/17/10	29.19	29.29	0.10
	9/22/10	30.15	30.18	0.03
	2/11/10	29.98	30.00	0.02
	6/29/11	32.66	32.68	0.02
EP-24	2/9/07	29.33	29.68	0.35
	11/20/07	31.91	32.10	0.19
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
	1/22/09	31.86	32.03	0.17
	4/16/09	--	DRY	--
	7/23/09	--	DRY	--
	9/18/09	--	DRY	--
	12/3/09	31.17	31.75	0.58
	4/17/10	31.18	31.70	0.52
	9/22/10	--	DRY	--
	2/10/11	NM	NM	NM
	6/29/11	33.74	33.93	0.19

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-25	2/9/07	--	27.88	ND
	11/20/07	--	31.70	ND
	6/5/08	NM	NM	ND
	9/28/08	33.32	33.33	0.01
	1/22/09	--	33.00	ND
	4/16/09	32.14	32.59	0.45
	7/23/09	31.08	31.91	0.83
	9/18/09	31.09	31.79	0.70
	12/3/09	29.71	30.13	0.42
	4/17/10	29.77	30.10	0.33
	9/22/10	30.90	31.23	0.33
	2/10/11	29.71	30.02	0.31
	6/29/11	32.75	32.76	0.01

Notes: 1) ND = None Detected
2) NM = Not Measured

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

JUL 18 2011

25 rec'd UST DOCKET

MR BRENDAN M BRODIE PG
ENVIROSOUTH ENVIRONMENTAL CONSULTANTS
3440 AUGUSTA RD
GREENVILLE SC 29605

Re: CASE report review
Former Red Diamond Oil Company, 519 East North 1st Street, Seneca, SC
UST Permit #14324; CA #25430
Bid #IFB-28949-10/4/05-EMW; PO #605692
Release reported December 30, 1991
CASE report received July 12, 2011
Oconee County

Dear Mr. Brodie:

The Underground Storage Tank (UST) Management Division has reviewed the referenced report. Based upon the current data, the Division calculates a free-phase product (FPP) reduction of 98.99%.

The Division commends EnviroSouth for aggressively pursuing site remediation with an alternate technology (solar powered in-well venting). Application of this technology has resulted in an 11.87% FPP reduction since the last gauging event conducted on February 11, 2011.

The next CASE report documenting activities conducted during the July 2011-September 2011 quarterly monitoring period is due on or before **November 1, 2011**. On all correspondence regarding this site, please reference UST Permit #14324. If you have any questions regarding this correspondence, feel free to contact me by telephone at (803) 896-6398, by fax at (803) 896-6245, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Geologist/Hydrologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

JPP/jpp
14324.18

cc: Betty Latham, 2 Stratton Place, Greenville, SC 29615-4217 (w/enc)
Technical file (w/o enc)

ENVIROSOUTH
Environmental Consultants

February 8, 2012



Mr. Joel Padgett
SCDHEC
Bureau of Land and Waste Management
UST Program
2600 Bull Street
Columbia, South Carolina 29201



Re: Former Red Diamond
519 East North 1st Street
Seneca, South Carolina
SCDHEC ID #14324
EnviroSouth Job No. 1334

Dear Mr. Padgett:

EnviroSouth, Inc. is pleased to provide the SCDHEC UST Program with the remediation and groundwater monitoring report for the Former Red Diamond site in Seneca, South Carolina.

EnviroSouth appreciates the opportunity to be of service to the SCDHEC UST Program. If you have comments or questions concerning the attached report, please do not hesitate to call.

Sincerely,

EnviroSouth, Inc.

Brendan M. Brodie, P.G.
Project Hydrogeologist
S.C. Registration No. 2252

BMB/df

Enclosure

cc: Mr. Chris Wargo, UIC, SCDHEC

phone: 864.236.9010 • fax: 864.236.9097
3440 Augusta Road • Greenville, SC 29605 • www.envirosouth.com

Prepared for:

South Carolina Department of Health and Environmental Control
(SCDHEC)
Underground Storage Tank (UST) Program
2600 Bull Street
Columbia, South Carolina 29201

Attn: Mr. Joel Padgett

GROUNDWATER MONITORING REPORT

FORMER RED DIAMOND
519 EAST NORTH 1st STREET
SENECA, SOUTH CAROLINA

UST PERMIT #14324

Job No. 1334

Prepared by:

EnviroSouth, Inc.
3440 Augusta Road
Greenville, South Carolina 29605
SCDHEC Certification No. 257

February 8,2012

INTRODUCTION

EnviroSouth has completed groundwater gauging and remediation services at the Former Red Diamond facility (UST Permit #14324) facility located in Seneca, South Carolina. The purpose of the gauging event was to evaluate the current water levels and thickness of free-phase petroleum in various monitoring wells and extraction points.

This report includes a description of the field/remediation services, along with our current findings, conclusions, and recommendations.

METHODS and FINDINGS

Groundwater Elevation and Movement

Water level measurements in all monitoring wells and extraction points were last recorded by EnviroSouth with a hydrocarbon sensitive electronic interface probe on December 30, 2011. The interface probe was decontaminated prior to and between each measurement to prevent cross-contamination between wells. The water table aquifer occurs under unconfined conditions underlying the site at depths ranging from 31.96 to 42.48 feet below land surface. Free product was not detected in of the monitoring wells. The TOC elevations, water level measurements, and ground water elevation data recorded to date are included on Table 1. Water levels and free-product thicknesses were also measured in the extraction wells. That data is presented in table 2.

A map of extraction point locations is included as Figure 1.

SOLAR, IN-WELL PRODUCT VOLITIZATION/VENTING

The solar remediation system was installed on February 16, 2011. The system uses solar cells/batteries for power, air pumps, and air diffusion stones for delivery of atmospheric air to or just above the product layer. The wells have a 3-feet tall stack that will keep surface runoff out of the well and a 180-degree fitting that will keep rainwater out of the well. A small-diameter plastic tube attached to the air pump enters the well and emits atmospheric air through a diffusion stone into the product layer at a rate of up to .5 cfm. The flow of air into and then out of the well increases volatilization of the product and vents it to the atmosphere.

The system has been installed in 18 existing extraction wells. The system is contained by a fenced compound.

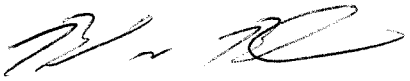
FREE-PRODUCT THICKNESS REDUCTION

Free product is now absent in all monitoring wells. Free-product has been historically measured in twenty-three (23) extraction point wells and two (2) monitoring wells. Free-product is now present in ten (10) extraction point wells at reduced thicknesses.

CONCLUSIONS

The solar powered vent wells are in operation and we will be monitoring product thickness in the affected wells. We plan to run the system until all free-product is absent from the extraction point wells.

EnviroSouth, Inc.



Brendan M. Brodie, P.G.
Project Hydrogeologist
S.C. Registration No. 2252

BMB/df

cc: Mr. Chris Wargo, UIC, SCDHEC

APPENDICES

FIGURES

FIGURE 1 – Extraction Point Locations

TABLES

TABLE 1 - Groundwater Elevation Data
TABLE 2 - Product Thickness Data

FIGURE

EXPLANATION

MW-5 — MONITORING WELL

EP-5 — EXTRACTION POINT WELL

EAST NORTH 1ST STREET

EMPTY PARCEL

TRI-CITY LAUNDRY

Chain Link Fence

EP-16
EP-1
EP-10
EP-17
EP-2
EP-24
EP-14
EP-9
MW-4
EP-X
EP-21
EP-8
MW-5
EP-X
EP-20
EP-18
EP-11
EP-3
EP-15
EP-23
MW-1
EP-25
EP-4
EP-22
EP-5
Batteries, Pumps
EP-7
EP-12
GATE
EP-6
EP-19
GATE
Privacy Fence
Solar Panels

10 0 10 20

SCALE: 1" = 10'±

10/14/10	DRAWN BY DF	CHECKED BY BMB	SCALE 1"=10'±	JOB NO. 1334	FIGURE 1

ENVIROSOUTH Environmental Consultants

EXTRACTION POINT LOCATIONS

FORMER RED DIAMOND
519 EAST NORTH 1ST STREET
SENECA, SC
SDHEC UST ID #14324

TABLES

TABLE 1

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-1	4/18/03	98.32	29.07	33.27	4.20	65.05
	10/26/05		23.37	27.51	4.14	73.52
	5/4/06		25.64	26.71	1.07	72.41
	5/11/06		26.75	26.87	0.12	71.54
	6/6/06		26.26	26.40	0.14	72.03
	8/14/06		28.25	28.50	0.25	70.01
	2/9/07		27.74	28.22	0.48	70.46
	11/20/07		31.75	31.95	0.20	66.52
	6/5/08		32.00	32.15	0.15	66.28
	9/26/08		33.50	33.53	0.03	64.81
	1/22/09		32.93	33.10	0.17	65.35
	4/16/09		31.80	31.97	0.17	66.48
	9/18/09		32.25	32.35	0.10	66.05
	12/3/09		31.39	31.49	0.10	65.89
	4/17/10		31.41	31.49	0.08	66.89
	9/22/10		32.20	32.33	0.13	66.09
	2/10/11		29.50	30.00	0.50	67.95
	6/29/11		32.80	32.87	0.07	65.40
	12/30/11		--	33.19	ND	65.13
MW-2	6/5/08	98.60	--	33.30	ND	65.30
	9/26/08		--	34.71	ND	63.89
	1/22/09		--	34.70	ND	63.90
	4/16/09		--	33.72	ND	64.88
	9/18/09		--	34.12	ND	64.48
	12/3/09		--	33.23	ND	65.37
	4/17/10		--	33.26	ND	65.34
	9/22/10		--	34.30	ND	64.30
	2/10/11		--	32.42	ND	66.18
	6/29/11		--	33.89	ND	64.71
	12/30/11		--	34.08	ND	64.52
MW-3	6/5/08	97.92	--	32.28	ND	65.64
	9/26/08		--	33.74	ND	64.18
	1/22/09		--	33.50	ND	64.42
	4/16/09		--	32.48	ND	65.44
	9/18/09		--	32.87	ND	65.05
	12/3/09		--	31.99	ND	65.93
	4/17/10		--	32.00	ND	65.92
	9/22/10		--	33.18	ND	64.74
	2/10/11		--	31.60	ND	66.32
	6/29/11		--	32.81	ND	65.11
	12/30/11		--	33.10	ND	64.82

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-4	4/18/03	99.07	38.29	34.43	3.86	64.64
	10/26/05		24.75	27.61	2.86	73.61
	5/4/06		26.60	27.17	0.57	72.33
	6/6/06		27.27	27.28	0.01	71.79
	8/14/06		--	28.45	ND	70.62
	2/9/07		--	29.15	ND	69.92
	11/20/07		32.47	32.48	0.01	66.60
	6/5/08		32.40	34.72	2.32	66.09
	9/26/08		33.96	34.02	0.06	65.10
	1/22/09		34.20	34.46	0.26	64.81
	4/16/09		32.74	33.51	0.77	66.14
	9/18/09		33.20	33.41	0.21	65.82
	12/3/09		32.15	32.66	0.51	66.01
	4/17/10		32.20	32.68	0.48	66.76
	9/22/10		33.37	33.90	0.43	65.50
	2/10/11		31.10	31.91	0.81	66.55
	6/29/11		--	33.69	ND	65.38
	12/30/11		--	34.83	ND	64.24
MW-5	6/5/08	98.03	--	31.47	ND	66.56
	9/26/08		--	32.92	ND	65.11
	1/22/09		--	33.21	ND	64.82
	4/16/09		--	32.29	ND	65.74
	9/18/09		--	32.68	ND	65.35
	12/3/09		--	31.90	ND	66.13
	4/17/10		--	31.98	ND	66.05
	9/22/10		--	33.01	ND	65.02
	2/10/11		--	31.11	ND	66.92
	6/29/11		--	32.63	ND	65.40
	12/30/11		--	32.79	ND	65.24
MW-7	6/5/08	99.30	--	35.19	ND	64.11
	9/26/08		--	36.62	ND	62.68
	1/22/09		--	36.66	ND	62.64
	4/16/09		--	35.67	ND	63.63
	9/18/09		--	36.00	ND	63.30
	12/3/09		--	35.28	ND	64.02
	4/17/10		--	35.31	ND	63.99
	9/22/10		--	36.70	ND	62.60
	2/10/11		--	34.62	ND	64.68
	6/29/11		--	35.88	ND	63.42
	12/30/11		--	35.99	ND	63.31

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-8	6/5/08	102.13	--	41.11	ND	61.02
	9/26/08		--	42.60	ND	59.53
	1/22/09		--	42.64	ND	59.49
	4/16/09		--	41.60	ND	60.53
	9/18/09		--	41.99	ND	60.14
	4/17/10		--	42.03	ND	60.10
	9/22/10		--	43.18	ND	58.95
	2/10/11		--	41.19	ND	60.94
	6/29/11		--	42.33	ND	59.80
	12/30/11		--	42.48	ND	59.65
MW-9	6/5/08	104.97	--	41.82	ND	63.15
	9/26/08		--	43.19	ND	61.78
	1/22/09		--	43.24	ND	61.73
	4/16/09		--	42.29	ND	62.68
	9/18/09		--	42.68	ND	62.29
	12/3/09		--	41.22	ND	63.25
	4/17/10		--	41.23	ND	63.74
	9/22/10		--	42.34	ND	62.63
	2/10/11		--	40.45	ND	64.52
	6/29/11		--	41.91	ND	63.06
	12/30/11		--	42.17	ND	62.80
MW-10	6/5/08	104.50	--	43.10	ND	61.40
	9/26/08		--	44.63	ND	59.87
	1/22/09		--	44.67	ND	59.83
	4/16/09		--	43.70	ND	60.80
	9/18/09		--	44.10	ND	60.40
	12/3/09		--	43.33	ND	61.17
	4/17/10		--	43.37	ND	61.13
	9/22/10		--	44.51	ND	59.99
	2/10/11		--	42.12	ND	61.88
	6/29/11		--	42.72	ND	61.78
	12/30/11		--	42.90	ND	61.60
MW-11	6/5/08	102.92	--	40.20	ND	62.72
	9/26/08		--	41.73	ND	61.19
	1/22/09		--	41.80	ND	61.12
	4/16/09		--	40.94	ND	61.98
	9/18/09		--	41.36	ND	61.56
	12/3/09		--	40.51	ND	62.41
	4/17/10		--	40.60	ND	62.32
	9/22/10		--	41.80	ND	61.12
	2/10/11		--	40.01	ND	62.91
	6/29/11		--	41.31	ND	61.61
	12/30/11		--	41.47	ND	61.45

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-12	6/5/08	99.12	--	33.77	ND	65.35
	9/26/08		--	35.21	ND	63.91
	1/22/09		--	36.61	ND	62.51
	4/16/09		--	35.72	ND	63.40
	9/18/09		--	35.99	ND	63.13
	12/3/09		--	35.20	ND	63.92
	4/17/10		--	35.22	ND	63.90
	9/22/10		--	36.31	ND	62.81
	2/10/11		--	34.35	ND	64.77
	6/29/11		--	35.74	ND	63.38
	12/30/11		--	35.93	ND	63.19
MW-13	6/5/08	99.41	--	36.17	ND	63.24
	9/26/08		--	37.68	ND	61.73
	1/22/09		--	37.73	ND	61.68
	4/16/09		--	37.70	ND	61.71
	9/18/09		--	38.11	ND	61.30
	12/3/09		--	37.29	ND	62.12
	4/17/10		--	37.28	ND	62.13
	9/22/10		--	38.31	ND	61.10
	2/10/11		--	36.27	ND	63.14
	6/29/11		--	37.80	ND	61.61
	12/30/11		--	35.71	ND	63.70
MW-17	6/5/08	93.98	--	31.09	ND	62.89
	9/26/08		--	32.59	ND	61.39
	1/22/09		--	32.61	ND	61.37
	4/16/09		--	31.59	ND	62.39
	9/18/09		--	31.93	ND	62.05
	12/3/09		--	31.16	ND	62.82
	4/17/10		--	31.17	ND	62.81
	9/22/10		--	32.21	ND	61.77
	2/10/11		--	30.19	ND	63.79
	6/29/11		--	31.42	ND	62.56
	12/30/11		--	31.58	ND	62.40
MW-19	6/5/08	99.58	--	35.26	ND	64.32
	9/26/08		--	36.71	ND	62.87
	1/22/09		--	36.74	ND	62.84
	4/16/09		--	35.80	ND	63.78
	9/18/09		--	36.18	ND	63.40
	12/3/09		--	36.49	ND	63.37
	4/17/10		--	36.50	ND	63.08
	9/22/10		--	37.70	ND	61.88
	2/10/11		--	35.62	ND	63.96
	6/29/11		--	37.01	ND	62.57
	12/30/11		--	36.44	ND	63.14

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-20	6/5/08	99.86	--	36.40	ND	63.46
	9/26/08		--	37.88	ND	61.98
	1/22/09		--	37.89	ND	61.97
	4/16/09		--	37.00	ND	62.86
	9/18/09		--	37.39	ND	62.47
	12/3/09		--	36.49	ND	63.30
	4/17/10		--	36.52	ND	63.34
	9/22/10		--	32.69	ND	62.17
	2/10/11		--	30.41	ND	69.45
	6/29/11		--	31.86	ND	68.00
	12/30/11		--	31.96	ND	67.90
MW-22	6/5/08	89.60	--	35.21	ND	54.39
	9/26/08		--	36.73	ND	52.87
	1/22/09		--	36.75	ND	52.85
	4/16/09		--	35.83	ND	53.77
	9/18/09		--	36.18	ND	53.42
	12/3/09		--	35.42	ND	54.18
	4/17/10		--	35.43	ND	54.17
	9/22/10		--	36.42	ND	53.18
	2/10/11		--	34.41	ND	55.19
	6/29/11		--	35.75	ND	53.85
	12/30/11		--	35.88	ND	53.72

Notes: *1) ND = None Detected*
2) NM = Not Measured

TABLE 2

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-1	2/9/07	--	30.08	ND
	11/20/07	--	DRY	--
	6/5/08	--	DRY	--
	9/26/08	--	DRY	--
	1/22/09	--	34.18	ND
	4/16/09	--	33.04	ND
	7/23/09	--	32.59	ND
	9/18/09	--	32.61	ND
	12/3/09	--	31.03	ND
	4/17/10	--	31.00	ND
	9/22/10	--	32.10	ND
	2/10/11	--	31.37	ND
	6/29/11	--	30.50	ND
	12/30/11	--	30.71	ND
EP-2	2/9/07	28.98	30.22	1.24
	11/20/07	32.15	32.41	0.26
	6/5/08	--	DRY	--
	9/26/08	32.97	32.98	0.01
	1/22/09	--	DRY	--
	4/16/09	--	DRY	--
	7/23/09	32.44	32.48	0.04
	9/18/09	32.43	32.44	0.01
	12/3/09	--	31.35	ND
	4/17/10	--	31.37	ND
	9/22/10	32.40	32.43	0.03
	2/10/11	30.89	31.60	0.71
	6/29/11	33.73	34.87	1.14
	12/30/11	34.80	35.10	0.30
EP-3	2/9/07	29.06	29.30	0.24
	11/20/07	--	DRY	--
	6/5/08	--	DRY	--
	9/26/08	--	DRY	--
	1/22/09	--	DRY	--
	4/16/09	--	DRY	--
	7/23/09	32.25	32.27	0.02
	9/18/09	32.26	32.27	0.01
	12/3/09	--	31.39	ND
	4/17/10	31.39	31.40	0.01
	9/22/10	32.35	32.40	0.05
	2/10/11	30.70	31.26	0.56

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-4	2/9/07	--	27.85	ND
	11/20/07	--	31.70	ND
	6/5/08	NM	NM	0.1
	9/26/08	--	DRY	--
	1/22/09	--	32.60	ND
	4/16/09	32.42	32.64	0.22
	7/23/09	NM	NM	ND
	9/18/09	NM	NM	NM
	12/3/09	NM	NM	NM
	4/17/10	NM	NM	NM
	9/22/10	NM	NM	NM
	2/10/11	30.0	30.21	0.21
	6/29/11	--	30.80	ND
	12/30/11	--	31.54	ND
EP-5	2/9/07	--	27.68	ND
	11/20/07	--	32.40	ND
	6/5/08	NM	NM	0.15
	9/26/08	--	DRY	--
	1/22/09	--	32.79	ND
	4/16/09	31.04	31.26	0.22
	7/23/09	31.18	31.47	0.29
	9/18/09	31.19	31.43	0.24
	12/3/09	30.33	30.53	0.20
	4/17/10	30.30	30.51	0.21
	9/22/10	31.40	31.71	0.31
	2/10/11	29.15	29.22	0.07
	6/29/11	29.34	29.36	0.02
EP-6	2/9/07	27.91	27.96	0.05
	11/20/07	--	DRY	--
	6/5/08	NM	NM	ND
	9/26/08	--	DRY	--
	1/22/09	--	32.56	ND
	4/16/09	31.26	31.94	0.68
	7/23/09	31.22	31.83	0.61
	9/18/09	31.24	31.70	0.46
	12/3/09	30.40	30.59	0.19
	4/17/10	30.42	30.60	0.08
	9/22/10	31.50	31.70	0.20
	2/10/11	NM	NM	NM
	6/29/11	32.49	32.75	0.26
	12/30/11	--	32.81	ND

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-7	2/9/07	28.63	28.64	0.01
	11/20/07	--	DRY	--
	6/5/08	--	DRY	--
	9/26/08	--	DRY	--
	1/22/09	--	32.75	ND
	4/16/09	32.37	32.55	0.18
	7/23/09	31.93	32.07	0.14
	9/18/09	31.95	32.05	0.10
	12/3/09	31.06	31.11	0.05
	4/17/10	36.00	31.20	0.20
	9/22/10	32.02	32.09	0.08
	2/10/11	30.62	30.70	0.08
	6/29/11	--	33.57	ND
	12/30/11	--	33.80	ND
EP-8	11/20/07	32.00	32.77	0.77
	6/5/08	--	MISSING	--
	9/26/08	--	MISSING	--
	1/22/09	--	33.10	ND
	4/16/09	31.55	31.62	0.07
	7/23/09	31.28	31.53	0.25
	9/18/09	31.30	31.50	0.20
	12/3/09	30.53	30.87	0.34
	4/17/10	30.50	30.81	0.31
	9/22/10	31.60	31.72	0.12
	2/10/11	29.80	30.21	0.38
	6/29/11	32.99	33.33	0.34
	12/30/11	33.57	33.58	0.01
EP-9	2/9/07	27.77	28.67	0.90
	11/20/07	--	31.42	ND
	6/5/08	NM	NM	0.02
	9/26/08	32.94	32.95	0.01
	1/22/09	--	34.40	ND
	4/16/09	--	31.61	ND
	7/23/09	NM	NM	ND
	9/18/09	--	32.00	ND
	12/3/09	NM	ND	NM
	4/17/10	31.02	31.03	0.01
	9/22/10	32.10	32.12	0.02
	2/10/11	--	31.13	ND
	6/29/11	29.03	29.93	0.50

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-10	2/9/07	29.02	29.58	0.56
	11/20/07	33.00	33.80	0.80
	6/5/08	NM	NM	1.30
	9/26/08	--	DRY	--
	1/22/09	34.20	34.59	0.39
	4/16/09	32.64	33.83	1.19
	7/23/09	32.10	33.03	0.93
	9/18/09	32.15	33.00	0.85
	12/3/09	31.26	31.67	0.41
	4/17/10	31.67	31.90	0.23
	9/22/10	32.36	32.56	0.20
	2/10/11	31.15	31.53	0.38
	6/29/11	31.85	32.75	0.90
	12/30/11	33.33	33.35	0.02
EP-11	2/9/07	29.08	29.25	0.17
	11/20/07	32.25	32.30	0.05
	6/5/08	NM	NM	0.85
	9/26/08	33.72	34.13	0.41
	1/22/09	34.10	34.55	0.45
	4/16/09	32.87	32.95	0.08
	7/23/09	33.17	34.17	1.00
	9/18/09	33.19	34.00	0.81
	12/3/09	32.29	32.62	0.33
	4/17/10	32.28	32.60	0.32
	9/22/10	33.40	33.61	0.21
	2/11/10	30.34	31.40	1.06
	6/29/11	--	33.80	ND
	12/30/11	--	34.90	ND
EP-12	2/9/07	29.02	29.04	0.02
	11/20/07	31.90	32.20	0.30
	6/5/08	NM	NM	1.00
	9/28/08	--	33.51	--
	1/22/09	33.60	33.87	0.27
	4/16/09	32.52	33.73	1.21
	7/23/09	31.80	33.03	1.23
	9/18/09	31.80	32.90	1.10
	12/3/09	31.04	31.95	0.91
	4/17/10	31.09	31.80	0.91
	9/22/10	32.02	33.01	0.99
	2/11/10	30.78	31.70	0.92
	6/29/11	33.55	33.82	0.27
	12/30/11	34.39	34.59	0.20

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-13	2/9/07	--	32.45	ND
	11/20/07	--	36.20	ND
	6/5/08	NM	NM	ND
	9/28/08	NM	NM	ND
	1/22/09	--	37.27	ND
	4/16/09	--	36.40	ND
	7/23/09	NM	NM	ND
	9/18/09	--	36.80	ND
	12/3/09	NM	NM	NM
	4/17/10	NM	NM	NM
	9/22/10	NM	NM	NM
	2/10/11	--	32.13	ND
	6/29/11	--	33.25	ND
EP-14	2/9/07	--	29.02	ND
	11/20/07	--	32.20	ND
	6/5/08	NM	NM	NM
	9/28/08	--	33.60	TRACE
	1/22/09	--	34.00	ND
	4/16/09	--	32.60	ND
	7/23/09	NM	NM	ND
	9/18/09	--	33.01	NM
	12/3/09	NM	NM	NM
	4/17/10	NM	NM	NM
	9/22/10	NM	NM	NM
	2/10/11	MN	MN	MN
	6/29/11	--	30.12	ND
EP-15	2/9/07	--	29.12	ND
	11/20/07	--	32.70	ND
	6/5/08	NM	NM	NM
	9/28/08	NM	NM	NM
	1/22/09	--	33.73	ND
	4/16/09	--	32.27	ND
	7/23/09	NM	NM	NM
	9/18/09	--	32.60	ND
	12/3/09	NM	NM	NM
	4/17/10	NM	NM	NM
	9/22/10	NM	NM	NM
	2/10/11	NM	NM	NM
	6/29/11	33.42	33.72	0.30
	12/30/11	--	34.18	ND

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-16	2/9/07	29.22	29.23	0.01
	11/20/07	32.30	32.40	0.10
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
	1/22/09	33.90	34.02	0.12
	4/16/09	33.04	33.18	0.14
	7/23/09	32.31	32.36	0.05
	9/18/09	32.30	32.31	0.01
	12/3/09	--	31.47	ND
	4/17/10	31.48	31.49	0.01
	9/22/10	32.50	32.52	0.02
	2/10/11	30.99	31.60	0.61
	6/29/11	30.72	31.03	0.31
	12/30/11	--	31.39	ND
EP-17	2/9/07	--	29.57	ND
	11/20/07	--	32.17	ND
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
	1/22/09	--	33.78	ND
	4/16/09	32.80	33.57	0.77
	7/23/09	32.13	32.92	0.79
	9/18/09	32.15	32.80	0.65
	12/3/09	31.32	31.69	0.37
	4/17/10	31.30	31.60	0.30
	9/22/10	32.28	32.40	0.12
	2/10/11	30.87	31.66	0.79
	6/29/11	33.63	34.31	0.68
	12/30/11	34.83	35.32	0.52
EP-18	2/9/07	29.08	29.33	0.25
	11/20/07	31.41	32.00	0.59
	6/5/08	NM	NM	0.75
	9/28/08	--	32.73	--
	1/22/09	--	32.75	ND
	4/16/09	--	32.73	ND
	7/23/09	NM	NM	ND
	9/18/09	--	33.10	ND
	12/3/09	31.31	31.59	0.28
	4/17/10	31.30	31.50	0.20
	9/22/10	32.38	32.51	0.13
	2/10/11	30.98	30.99	0.01
	6/29/11	--	33.91	ND
	12/30/11	--	35.10	ND

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-19	2/9/07	--	29.43	ND
	11/20/07	--	32.15	ND
	6/5/08	NM	NM	0.09
	9/28/08	NM	NM	ND
	1/22/09	--	34.01	ND
	4/16/09	--	32.84	ND
	7/23/09	NM	NM	ND
	9/18/09	33.10	33.20	0.10
	12/3/09	32.23	32.45	0.22
	4/17/10	32.23	32.33	0.10
	9/22/10	33.26	33.29	0.03
	2/10/11	30.95	31.90	0.95
	6/29/11	33.55	33.97	0.42
	12/30/11	--	34.78	ND
EP-20	2/9/07	29.68	30.17	0.49
	11/20/07	32.40	32.50	0.10
	6/5/08	NM	NM	0.20
	9/28/08	--	32.47	--
	1/22/09	--	32.49	ND
	4/16/09	--	32.59	ND
	7/23/09	32.60	32.62	0.02
	9/18/09	--	32.64	ND
	12/3/09	--	32.01	ND
	4/17/10	--	32.00	ND
	9/22/10	--	33.09	ND
	2/10/11	31.25	31.93	0.68
	6/29/11	--	30.80	ND
	12/30/11	--	32.38	ND
EP-21	2/9/07	--	29.57	ND
	11/20/07	--	32.55	ND
	6/5/08	NM	NM	ND
	9/28/08	NM	NM	ND
	1/22/09	--	34.47	ND
	7/23/09	32.46	32.49	0.03
	9/18/09	32.47	32.48	0.01
	12/3/09	--	31.65	ND
	4/17/10	--	31.67	ND
	9/22/10	32.60	32.61	0.01
	2/10/11	--	31.35	ND
	6/29/11	--	30.50	ND

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-22	2/9/07	--	29.07	ND
	11/20/07	--	32.65	ND
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
	1/22/09	--	34.21	ND
	4/16/09	32.68	32.73	0.05
	7/23/09	31.73	31.78	0.05
	9/18/09	31.72	31.75	0.03
	12/3/09	30.99	31.47	0.48
	4/17/10	30.98	31.35	0.36
	9/22/10	32.02	32.40	0.38
	2/10/11	NM	NM	NM
	6/29/11	33.30	33.91	0.61
	12/30/11	--	34.45	ND
EP-23	2/9/07	27.94	27.99	0.05
	11/20/07	32.00	32.12	0.12
	6/5/08	NM	NM	ND
	9/28/08	--	32.80	--
	1/22/09	--	32.76	ND
	4/16/09	31.00	31.09	0.09
	7/23/09	31.43	31.45	0.02
	9/18/09	31.40	31.45	0.05
	12/3/09	29.18	29.32	0.14
	4/17/10	29.19	29.29	0.10
	9/22/10	30.15	30.18	0.03
	2/11/10	29.98	30.00	0.02
	6/29/11	32.66	32.68	0.02
	12/30/11	32.76	32.86	0.10
EP-24	2/9/07	29.33	29.68	0.35
	11/20/07	31.91	32.10	0.19
	6/5/08	--	DRY	--
	9/28/08	--	DRY	--
	1/22/09	31.86	32.03	0.17
	4/16/09	--	DRY	--
	7/23/09	--	DRY	--
	9/18/09	--	DRY	--
	12/3/09	31.17	31.75	0.58
	4/17/10	31.18	31.70	0.52
	9/22/10	--	DRY	--
	2/10/11	NM	NM	NM
	6/29/11	33.74	33.93	0.19
	12/30/11	34.59	34.65	0.06

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-25	2/9/07	--	27.88	ND
	11/20/07	--	31.70	ND
	6/5/08	NM	NM	ND
	9/28/08	33.32	33.33	0.01
	1/22/09	--	33.00	ND
	4/16/09	32.14	32.59	0.45
	7/23/09	31.08	31.91	0.83
	9/18/09	31.09	31.79	0.70
	12/3/09	29.71	30.13	0.42
	4/17/10	29.77	30.10	0.33
	9/22/10	30.90	31.23	0.33
	2/10/11	29.71	30.02	0.31
	6/29/11	32.75	32.76	0.01
	12/30/11	--	33.31	ND

Notes: 1) ND = None Detected
2) NM = Not Measured

D H E C
PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner
Promoting and protecting the health of the public and the environment.

FEB 15 2012



MR BRENDAN M BRODIE PG
ENVIROSOUTH ENVIRONMENTAL CONSULTANTS
3440 AUGUSTA RD
GREENVILLE SC 29605

Re: CASE report review
Former Red Diamond Oil Company, 519 East North 1st Street, Seneca, SC
UST Permit #14324; CA #25430
Bid #IFB-28949-10/4/05-EMW; PO #605692
Release reported December 30, 1991
CASE report received February 14, 2012
Oconee County

Dear Mr. Brodie:

The Underground Storage Tank (UST) Management Division has reviewed the referenced report. Based upon the current data, the Division concurs with your free-phase product reduction calculation of 100% in the SSTL wells (FP still remains in extraction points).

The Division notes that the referenced report documents a gauging event conducted on December 31, 2011. The gauging event will satisfy corrective action monitoring requirements for the October 2011-December 2011 quarter. However, no report documenting a gauging event for the July 2011-September 2011 quarter has been received. Accordingly, this quarter has been entered into the database as report not received. Please be aware that corrective action reports must be submitted on a quarterly basis unless otherwise approved by the Division.

The next CASE report documenting activities conducted during the January 2012-March 2012 quarterly monitoring period is due on or before **May 1, 2012**. On all correspondence regarding this site, please reference UST Permit #14324. If you have any questions regarding this correspondence, feel free to contact me by telephone at (803) 896-6398, by fax at (803) 896-6245, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Geologist/Hydrologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

JPP/jpp
14324.19

cc: Betty Latham, 2 Stratton Place, Greenville, SC 29615-4217 (w/enc)
Technical file (w/o enc)

DHEC/UST/JPP/021512

ENVIROSOUTH
Environmental Consultants



May 30, 2012



Mr. Joel Padgett
SCDHEC
Bureau of Land and Waste Management
UST Program
2600 Bull Street
Columbia, South Carolina 29201

Re: Former Red Diamond
519 East North 1st Street
Seneca, South Carolina
SCDHEC ID #14324
EnviroSouth Job No. 1334

Dear Mr. Padgett:

EnviroSouth, Inc. is pleased to provide the SCDHEC UST Program with the remediation and groundwater monitoring report for the Former Red Diamond site in Seneca, South Carolina.

EnviroSouth appreciates the opportunity to be of service to the SCDHEC UST Program. If you have comments or questions concerning the attached report, please do not hesitate to call.

Sincerely,

EnviroSouth, Inc.

Brendan M. Brodie, P.G.
Project Hydrogeologist
S.C. Registration No. 2252

BMB/df

Enclosure

cc: Mr. Chris Wargo, UIC, SCDHEC

phone: 864.236.9010 • fax: 864.236.9097
3440 Augusta Road • Greenville, SC 29605 • www.envirosouth.com

Prepared for:

South Carolina Department of Health and Environmental Control
(SCDHEC)
Underground Storage Tank (UST) Program
2600 Bull Street
Columbia, South Carolina 29201

Attn: Mr. Joel Padgett

GROUNDWATER MONITORING REPORT

FORMER RED DIAMOND
519 EAST NORTH 1st STREET
SENECA, SOUTH CAROLINA

UST PERMIT #14324

Job No. 1334

Prepared by:

EnviroSouth, Inc.
3440 Augusta Road
Greenville, South Carolina 29605
SCDHEC Certification No. 257

May 30, 2012

INTRODUCTION

EnviroSouth has completed groundwater gauging and remediation services at the Former Red Diamond facility (UST Permit #14324) facility located in Seneca, South Carolina. The purpose of the gauging event was to evaluate the current water levels and thickness of free-phase petroleum in various monitoring wells and extraction points.

This report includes a description of the field/remediation services, along with our current findings, conclusions, and recommendations.

METHODS and FINDINGS

Groundwater Elevation and Movement

Water level measurements in all monitoring wells and extraction points were last recorded by EnviroSouth with a hydrocarbon sensitive electronic interface probe on March 12, 2012. The interface probe was decontaminated prior to and between each measurement to prevent cross-contamination between wells. The water table aquifer occurs under unconfined conditions underlying the site at depths ranging from 29.82 to 35.27 feet below land surface. Free product was not detected in of the monitoring wells. The TOC elevations, water level measurements, and ground water elevation data recorded to date are included on Table 1. Water levels and free-product thicknesses were also measured in the extraction wells. That data is presented in table 2.

A map of extraction point locations is included as Figure 1.

SOLAR, IN-WELL PRODUCT VOLITIZATION/VENTING

The solar remediation system was installed on February 16, 2011. The system uses solar cells/batteries for power, air pumps, and air diffusion stones for delivery of atmospheric air to or just above the product layer. The wells have a 3-feet tall stack that will keep surface runoff out of the well and a 180-degree fitting that will keep rainwater out of the well. A small-diameter plastic tube attached to the air pump enters the well and emits atmospheric air through a diffusion stone into the product layer at a rate of up to .5 cfm. The flow of air into and then out of the well increases volatilization of the product and vents it to the atmosphere.

The system has been installed in 18 existing extraction wells. The system is contained by a fenced compound.

FREE-PRODUCT THICKNESS REDUCTION

Free product is now absent in all monitoring wells. Free-product has been historically measured in twenty-three (23) extraction point wells and two (2) monitoring wells. Free-product is now present in eight (8) extraction point wells at reduced thicknesses.

CONCLUSIONS

The solar powered vent wells are in operation and we will be monitoring product thickness in the affected wells. We plan to run the system until all free-product is absent from the extraction point wells.

EnviroSouth, Inc.

Brendan M. Brodie, P.G.
Project Hydrogeologist
S.C. Registration No. 2252

BMB/df

cc: Mr. Chris Wargo, UIC, SCDHEC

APPENDICES

FIGURES

FIGURE 1 – Extraction Point Locations

TABLES

TABLE 1 - Groundwater Elevation Data
TABLE 2 - Product Thickness Data

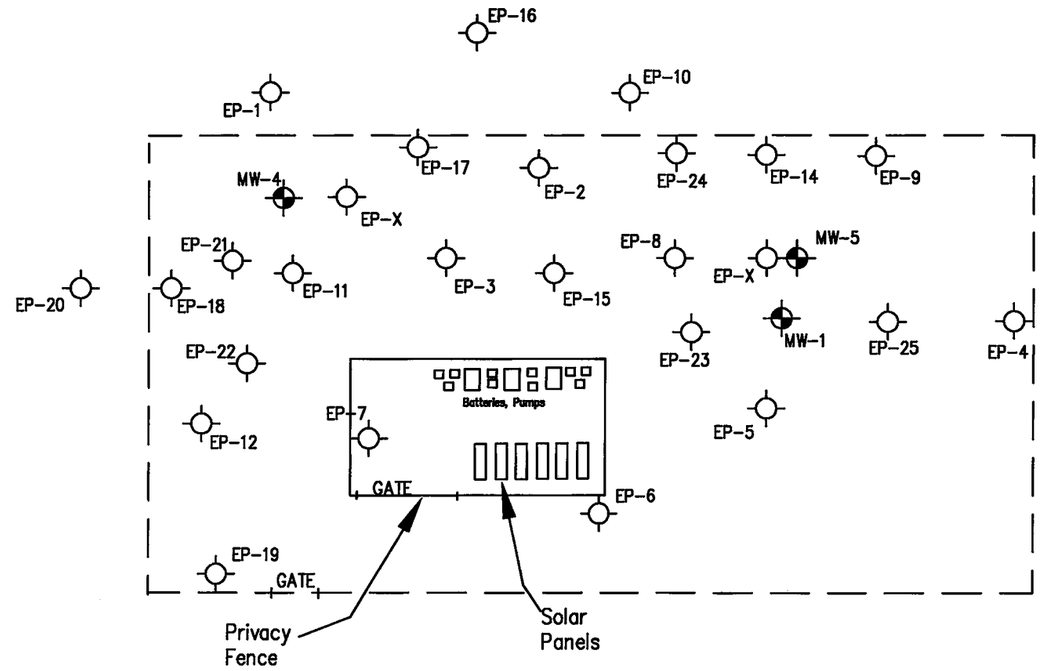
FIGURE

EXPLANATION

MW–5 MONITORING WELL

EP–5 EXTRACTION POINT WELL

EAST NORTH 1ST STREET



EMPTY PARCEL

TRI–CITY LAUNDRY

10 0 10 20

SCALE: 1" = 10'±

10/14/10	DRAWN BY DF	CHECKED BY BMB	SCALE 1"=10'±	JOB NO. 1334	FIGURE 1

ENVIROSOUTH Environmental Consultants

EXTRACTION POINT LOCATIONS

FORMER RED DIAMOND
519 EAST NORTH 1ST STREET
SENECA, SC
SDHEC UST ID #14324

TABLES

TABLE 1

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-1	4/18/03	98.32	29.07	33.27	4.20	65.05
	10/26/05		23.37	27.51	4.14	73.52
	5/4/06		25.64	26.71	1.07	72.41
	5/11/06		26.75	26.87	0.12	71.54
	6/6/06		26.26	26.40	0.14	72.03
	8/14/06		28.25	28.50	0.25	70.01
	2/9/07		27.74	28.22	0.48	70.46
	11/20/07		31.75	31.95	0.20	66.52
	6/5/08		32.00	32.15	0.15	66.28
	9/26/08		33.50	33.53	0.03	64.81
	1/22/09		32.93	33.10	0.17	65.35
	4/16/09		31.80	31.97	0.17	66.48
	9/18/09		32.25	32.35	0.10	66.05
	12/3/09		31.39	31.49	0.10	65.89
	4/17/10		31.41	31.49	0.08	66.89
	9/22/10		32.20	32.33	0.13	66.09
	2/10/11		29.50	30.00	0.50	67.95
	6/29/11		32.80	32.87	0.07	65.40
	12/30/11		–	33.19	ND	65.13
	03/12/12		–	33.21	ND	65.11
MW-2	6/5/08	98.60	–	33.30	ND	65.30
	9/26/08		–	34.71	ND	63.89
	1/22/09		–	34.70	ND	63.90
	4/16/09		–	33.72	ND	64.88
	9/18/09		–	34.12	ND	64.48
	12/3/09		–	33.23	ND	65.37
	4/17/10		–	33.26	ND	65.34
	9/22/10		–	34.30	ND	64.30
	2/10/11		–	32.42	ND	66.18
	6/29/11		–	33.89	ND	64.71
	12/30/11		–	34.08	ND	64.52
	03/12/12		–	34.07	ND	64.53
MW-3	6/5/08	97.92	–	32.28	ND	65.64
	9/26/08		–	33.74	ND	64.18
	1/22/09		–	33.50	ND	64.42
	4/16/09		–	32.48	ND	65.44
	9/18/09		–	32.87	ND	65.05
	12/3/09		–	31.99	ND	65.93
	4/17/10		–	32.00	ND	65.92
	9/22/10		–	33.18	ND	64.74
	2/10/11		–	31.60	ND	66.32
	6/29/11		–	32.81	ND	65.11
	12/30/11		–	33.10	ND	64.82
	03/12/12		–	33.11	ND	64.81

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-4	4/18/03	99.07	38.29	34.43	3.86	64.64
	10/26/05		24.75	27.61	2.86	73.61
	5/4/06		26.60	27.17	0.57	72.33
	6/6/06		27.27	27.28	0.01	71.79
	8/14/06		–	28.45	ND	70.62
	2/9/07		–	29.15	ND	69.92
	11/20/07		32.47	32.48	0.01	66.60
	6/5/08		32.40	34.72	2.32	66.09
	9/26/08		33.96	34.02	0.06	65.10
	1/22/09		34.20	34.46	0.26	64.81
	4/16/09		32.74	33.51	0.77	66.14
	9/18/09		33.20	33.41	0.21	65.82
	12/3/09		32.15	32.66	0.51	66.01
	4/17/10		32.20	32.68	0.48	66.76
	9/22/10		33.37	33.90	0.43	65.50
	2/10/11		31.10	31.91	0.81	66.55
	6/29/11		–	33.69	ND	65.38
	12/30/11		–	34.83	ND	64.24
	03/12/12		–	34.85	ND	64.22
MW-5	6/5/08	98.03	–	31.47	ND	66.56
	9/26/08		–	32.92	ND	65.11
	1/22/09		–	33.21	ND	64.82
	4/16/09		–	32.29	ND	65.74
	9/18/09		–	32.68	ND	65.35
	12/3/09		–	31.90	ND	66.13
	4/17/10		–	31.98	ND	66.05
	9/22/10		–	33.01	ND	65.02
	2/10/11		–	31.11	ND	66.92
	6/29/11		–	32.63	ND	65.40
	12/30/11		–	32.79	ND	65.24
	03/12/12		–	32.77	ND	65.26
MW-7	6/5/08	99.30	–	35.19	ND	64.11
	9/26/08		–	36.62	ND	62.68
	1/22/09		–	36.66	ND	62.64
	4/16/09		–	35.67	ND	63.63
	9/18/09		–	36.00	ND	63.30
	12/3/09		–	35.28	ND	64.02
	4/17/10		–	35.31	ND	63.99
	9/22/10		–	36.70	ND	62.60
	2/10/11		–	34.62	ND	64.68
	6/29/11		–	35.88	ND	63.42
	12/30/11		–	35.99	ND	63.31
	03/12/12		–	35.97	ND	63.33

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-8	6/5/08	102.13	–	41.11	ND	61.02
	9/26/08		–	42.60	ND	59.53
	1/22/09		–	42.64	ND	59.49
	4/16/09		–	41.60	ND	60.53
	9/18/09		–	41.99	ND	60.14
	4/17/10		–	42.03	ND	60.10
	9/22/10		–	43.18	ND	58.95
	2/10/11		–	41.19	ND	60.94
	6/29/11		–	42.33	ND	59.80
	12/30/11		–	42.48	ND	59.65
	03/12/12		–	42.49	ND	59.64
MW-9	6/5/08	104.97	–	41.82	ND	63.15
	9/26/08		–	43.19	ND	61.78
	1/22/09		–	43.24	ND	61.73
	4/16/09		–	42.29	ND	62.68
	9/18/09		–	42.68	ND	62.29
	12/3/09		–	41.22	ND	63.25
	4/17/10		–	41.23	ND	63.74
	9/22/10		–	42.34	ND	62.63
	2/10/11		–	40.45	ND	64.52
	6/29/11		–	41.91	ND	63.06
	12/30/11		–	42.17	ND	62.80
	03/12/12		–	42.18	ND	62.79
MW-10	6/5/08	104.50	–	43.10	ND	61.40
	9/26/08		–	44.63	ND	59.87
	1/22/09		–	44.67	ND	59.83
	4/16/09		–	43.70	ND	60.80
	9/18/09		–	44.10	ND	60.40
	12/3/09		–	43.33	ND	61.17
	4/17/10		–	43.37	ND	61.13
	9/22/10		–	44.51	ND	59.99
	2/10/11		–	42.12	ND	61.88
	6/29/11		–	42.72	ND	61.78
	12/30/11		–	42.90	ND	61.60
	03/12/12		–	42.89	ND	61.61
MW-11	6/5/08	102.92	–	40.20	ND	62.72
	9/26/08		–	41.73	ND	61.19
	1/22/09		–	41.80	ND	61.12
	4/16/09		–	40.94	ND	61.98
	9/18/09		–	41.36	ND	61.56
	12/3/09		–	40.51	ND	62.41
	4/17/10		–	40.60	ND	62.32
	9/22/10		–	41.80	ND	61.12
	2/10/11		–	40.01	ND	62.91
	6/29/11		–	41.31	ND	61.61
	12/30/11		–	41.47	ND	61.45
	03/12/12		–	41.46	ND	61.46

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-12	6/5/08	99.12	–	33.77	ND	65.35
	9/26/08		–	35.21	ND	63.91
	1/22/09		–	36.61	ND	62.51
	4/16/09		–	35.72	ND	63.40
	9/18/09		–	35.99	ND	63.13
	12/3/09		–	35.20	ND	63.92
	4/17/10		–	35.22	ND	63.90
	9/22/10		–	36.31	ND	62.81
	2/10/11		–	34.35	ND	64.77
	6/29/11		–	35.74	ND	63.38
	12/30/11		–	35.93	ND	63.19
	03/12/12		–	35.94	ND	63.18
MW-13	6/5/08	99.41	–	36.17	ND	63.24
	9/26/08		–	37.68	ND	61.73
	1/22/09		–	37.73	ND	61.68
	4/16/09		–	37.70	ND	61.71
	9/18/09		–	38.11	ND	61.30
	12/3/09		–	37.29	ND	62.12
	4/17/10		–	37.28	ND	62.13
	9/22/10		–	38.31	ND	61.10
	2/10/11		–	36.27	ND	63.14
	6/29/11		–	37.80	ND	61.61
	12/30/11		–	35.71	ND	63.70
	03/12/12		–	35.72	ND	63.69
MW-17	6/5/08	93.98	–	31.09	ND	62.89
	9/26/08		–	32.59	ND	61.39
	1/22/09		–	32.61	ND	61.37
	4/16/09		–	31.59	ND	62.39
	9/18/09		–	31.93	ND	62.05
	12/3/09		–	31.16	ND	62.82
	4/17/10		–	31.17	ND	62.81
	9/22/10		–	32.21	ND	61.77
	2/10/11		–	30.19	ND	63.79
	6/29/11		–	31.42	ND	62.56
	12/30/11		–	31.58	ND	62.40
	03/12/12		–	31.59	ND	62.39
MW-19	6/5/08	99.58	–	35.26	ND	64.32
	9/26/08		–	36.71	ND	62.87
	1/22/09		–	36.74	ND	62.84
	4/16/09		–	35.80	ND	63.78
	9/18/09		–	36.18	ND	63.40
	12/3/09		–	36.49	ND	63.37
	4/17/10		–	36.50	ND	63.08
	9/22/10		–	37.70	ND	61.88
	2/10/11		–	35.62	ND	63.96
	6/29/11		–	37.01	ND	62.57
	12/30/11		–	36.44	ND	63.14
	03/12/12		–	36.46	ND	63.12

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-20	6/5/08	99.86	–	36.40	ND	63.46
	9/26/08		–	37.88	ND	61.98
	1/22/09		–	37.89	ND	61.97
	4/16/09		–	37.00	ND	62.86
	9/18/09		–	37.39	ND	62.47
	12/3/09		–	36.49	ND	63.30
	4/17/10		–	36.52	ND	63.34
	9/22/10		–	32.69	ND	62.17
	2/10/11		–	30.41	ND	69.45
	6/29/11		–	31.86	ND	68.00
	12/30/11		–	31.96	ND	67.90
	03/12/12		–	31.97	ND	67.89
MW-22	6/5/08	89.60	–	35.21	ND	54.39
	9/26/08		–	36.73	ND	52.87
	1/22/09		–	36.75	ND	52.85
	4/16/09		–	35.83	ND	53.77
	9/18/09		–	36.18	ND	53.42
	12/3/09		–	35.42	ND	54.18
	4/17/10		–	35.43	ND	54.17
	9/22/10		–	36.42	ND	53.18
	2/10/11		–	34.41	ND	55.19
	6/29/11		–	35.75	ND	53.85
	12/30/11		–	35.88	ND	53.72
	03/12/12		–	35.87	ND	53.73

Notes: 1) ND = None Detected
2) NM = Not Measured

TABLE 2

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-1	2/9/07	–	30.08	ND
	11/20/07	–	DRY	–
	6/5/08	–	DRY	–
	9/26/08	–	DRY	–
	1/22/09	–	34.18	ND
	4/16/09	–	33.04	ND
	7/23/09	–	32.59	ND
	9/18/09	–	32.61	ND
	12/3/09	–	31.03	ND
	4/17/10	–	31.00	ND
	9/22/10	–	32.10	ND
	2/10/11	–	31.37	ND
	6/29/11	–	30.50	ND
	12/30/11	–	30.71	ND
	3/12/12	–	30.72	ND
EP-2	2/9/07	28.98	30.22	1.24
	11/20/07	32.15	32.41	0.26
	6/5/08	–	DRY	–
	9/26/08	32.97	32.98	0.01
	1/22/09	–	DRY	–
	4/16/09	–	DRY	–
	7/23/09	32.44	32.48	0.04
	9/18/09	32.43	32.44	0.01
	12/3/09	–	31.35	ND
	4/17/10	–	31.37	ND
	9/22/10	32.40	32.43	0.03
	2/10/11	30.89	31.60	0.71
	6/29/11	33.73	34.87	1.14
	12/30/11	34.80	35.10	0.30
	3/12/12	34.83	35.68	0.21
EP-3	2/9/07	29.06	29.30	0.24
	11/20/07	–	DRY	–
	6/5/08	–	DRY	–
	9/26/08	–	DRY	–
	1/22/09	–	DRY	–
	4/16/09	–	DRY	–
	7/23/09	32.25	32.27	0.02
	9/18/09	32.26	32.27	0.01
	12/3/09	–	31.39	ND
	4/17/10	31.39	31.40	0.01
	9/22/10	32.35	32.40	0.05
	2/10/11	30.70	31.26	0.56
	3/12/12	30.66	31.09	0.43

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-4	2/9/07	–	27.85	ND
	11/20/07	–	31.70	ND
	6/5/08	NM	NM	0.1
	9/26/08	–	DRY	–
	1/22/09	–	32.60	ND
	4/16/09	32.42	32.64	0.22
	7/23/09	NM	NM	ND
	9/18/09	NM	NM	NM
	12/3/09	NM	NM	NM
	4/17/10	NM	NM	NM
	9/22/10	NM	NM	NM
	2/10/11	30.0	30.21	0.21
	6/29/11	–	30.80	ND
	12/30/11	–	31.54	ND
	3/12/12	–	31.52	ND
EP-5	2/9/07	–	27.68	ND
	11/20/07	–	32.40	ND
	6/5/08	NM	NM	0.15
	9/26/08	–	DRY	–
	1/22/09	–	32.79	ND
	4/16/09	31.04	31.26	0.22
	7/23/09	31.18	31.47	0.29
	9/18/09	31.19	31.43	0.24
	12/3/09	30.33	30.53	0.20
	4/17/10	30.30	30.51	0.21
	9/22/10	31.40	31.71	0.31
	2/10/11	29.15	29.22	0.07
	6/29/11	29.34	29.36	0.02
	3/12/12	29.36	29.37	0.01
EP-6	2/9/07	27.91	27.96	0.05
	11/20/07	–	DRY	–
	6/5/08	NM	NM	ND
	9/26/08	–	DRY	–
	1/22/09	–	32.56	ND
	4/16/09	31.26	31.94	0.68
	7/23/09	31.22	31.83	0.61
	9/18/09	31.24	31.70	0.46
	12/3/09	30.40	30.59	0.19
	4/17/10	30.42	30.60	0.08
	9/22/10	31.50	31.70	0.20
	2/10/11	NM	NM	NM
	6/29/11	32.49	32.75	0.26
	12/30/11	–	32.81	ND
	3/12/12	–	32.83	ND

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-7	2/9/07	28.63	28.64	0.01
	11/20/07	–	DRY	–
	6/5/08	–	DRY	–
	9/26/08	–	DRY	–
	1/22/09	–	32.75	ND
	4/16/09	32.37	32.55	0.18
	7/23/09	31.93	32.07	0.14
	9/18/09	31.95	32.05	0.10
	12/3/09	31.06	31.11	0.05
	4/17/10	36.00	31.20	0.20
	9/22/10	32.02	32.09	0.08
	2/10/11	30.62	30.70	0.08
	6/29/11	–	33.57	ND
	12/30/11	–	33.80	ND
	3/12/12	–	33.84	ND
EP-8	11/20/07	32.00	32.77	0.77
	6/5/08	–	MISSING	–
	9/26/08	–	MISSING	–
	1/22/09	–	33.10	ND
	4/16/09	31.55	31.62	0.07
	7/23/09	31.28	31.53	0.25
	9/18/09	31.30	31.50	0.20
	12/3/09	30.53	30.87	0.34
	4/17/10	30.50	30.81	0.31
	9/22/10	31.60	31.72	0.12
	2/10/11	29.80	30.21	0.38
	6/29/11	32.99	33.33	0.34
	12/30/11	33.57	33.58	0.01
	3/12/12	–	33.59	ND
EP-9	2/9/07	27.77	28.67	0.90
	11/20/07	–	31.42	ND
	6/5/08	NM	NM	0.02
	9/26/08	32.94	32.95	0.01
	1/22/09	–	34.40	ND
	4/16/09	–	31.61	ND
	7/23/09	NM	NM	ND
	9/18/09	–	32.00	ND
	12/3/09	NM	ND	NM
	4/17/10	31.02	31.03	0.01
	9/22/10	32.10	32.12	0.02
	2/10/11	–	31.13	ND
	6/29/11	29.03	29.93	0.50
	3/12/12	29.60	29.82	0.22

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-10	2/9/07	29.02	29.58	0.56
	11/20/07	33.00	33.80	0.80
	6/5/08	NM	NM	1.30
	9/26/08	–	DRY	–
	1/22/09	34.20	34.59	0.39
	4/16/09	32.64	33.83	1.19
	7/23/09	32.10	33.03	0.93
	9/18/09	32.15	33.00	0.85
	12/3/09	31.26	31.67	0.41
	4/17/10	31.67	31.90	0.23
	9/22/10	32.36	32.56	0.20
	2/10/11	31.15	31.53	0.38
	6/29/11	31.85	32.75	0.90
	12/30/11	33.33	33.35	0.02
	3/12/12	–	33.37	ND
EP-11	2/9/07	29.08	29.25	0.17
	11/20/07	32.25	32.30	0.05
	6/5/08	NM	NM	0.85
	9/26/08	33.72	34.13	0.41
	1/22/09	34.10	34.55	0.45
	4/16/09	32.87	32.95	0.08
	7/23/09	33.17	34.17	1.00
	9/18/09	33.19	34.00	0.81
	12/3/09	32.29	32.62	0.33
	4/17/10	32.28	32.60	0.32
	9/22/10	33.40	33.61	0.21
	2/11/10	30.34	31.40	1.06
	6/29/11	–	33.80	ND
	12/30/11	–	34.90	ND
	3/12/12	–	34.41	ND
EP-12	2/9/07	29.02	29.04	0.02
	11/20/07	31.90	32.20	0.30
	6/5/08	NM	NM	1.00
	9/28/08	–	33.51	–
	1/22/09	33.60	33.87	0.27
	4/16/09	32.52	33.73	1.21
	7/23/09	31.80	33.03	1.23
	9/18/09	31.80	32.90	1.10
	12/3/09	31.04	31.95	0.91
	4/17/10	31.09	31.80	0.91
	9/22/10	32.02	33.01	0.99
	2/11/10	30.78	31.70	0.92
	6/29/11	33.55	33.82	0.27
	12/30/11	34.39	34.59	0.20
	3/12/12	34.38	34.56	0.18

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-13	2/9/07	–	32.45	ND
	11/20/07	–	36.20	ND
	6/5/08	NM	NM	ND
	9/28/08	NM	NM	ND
	1/22/09	–	37.27	ND
	4/16/09	–	36.40	ND
	7/23/09	NM	NM	ND
	9/18/09	–	36.80	ND
	12/3/09	NM	NM	NM
	4/17/10	NM	NM	NM
	9/22/10	NM	NM	NM
	2/10/11	–	32.13	ND
	6/29/11	–	33.25	ND
	3/12/12	–	33.27	ND
EP-14	2/9/07	–	29.02	ND
	11/20/07	–	32.20	ND
	6/5/08	NM	NM	NM
	9/28/08	–	33.60	TRACE
	1/22/09	–	34.00	ND
	4/16/09	–	32.60	ND
	7/23/09	NM	NM	ND
	9/18/09	–	33.01	NM
	12/3/09	NM	NM	NM
	4/17/10	NM	NM	NM
	9/22/10	NM	NM	NM
	2/10/11	MN	MN	MN
	6/29/11	–	30.12	ND
	3/12/12	–	30.13	ND
EP-15	2/9/07	–	29.12	ND
	11/20/07	–	32.70	ND
	6/5/08	NM	NM	NM
	9/28/08	NM	NM	NM
	1/22/09	–	33.73	ND
	4/16/09	–	32.27	ND
	7/23/09	NM	NM	NM
	9/18/09	–	32.60	ND
	12/3/09	NM	NM	NM
	4/17/10	NM	NM	NM
	9/22/10	NM	NM	NM
	2/10/11	NM	NM	NM
	6/29/11	33.42	33.72	0.30
	12/30/11	–	34.18	ND
	3/12/12	–	34.14	ND

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-16	2/9/07	29.22	29.23	0.01
	11/20/07	32.30	32.40	0.10
	6/5/08	–	DRY	–
	9/28/08	–	DRY	–
	1/22/09	33.90	34.02	0.12
	4/16/09	33.04	33.18	0.14
	7/23/09	32.31	32.36	0.05
	9/18/09	32.30	32.31	0.01
	12/3/09	–	31.47	ND
	4/17/10	31.48	31.49	0.01
	9/22/10	32.50	32.52	0.02
	2/10/11	30.99	31.60	0.61
	6/29/11	30.72	31.03	0.31
	12/30/11	–	31.39	ND
	3/12/12	–	31.41	ND
EP-17	2/9/07	–	29.57	ND
	11/20/07	–	32.17	ND
	6/5/08	–	DRY	–
	9/28/08	–	DRY	–
	1/22/09	–	33.78	ND
	4/16/09	32.80	33.57	0.77
	7/23/09	32.13	32.92	0.79
	9/18/09	32.15	32.80	0.65
	12/3/09	31.32	31.69	0.37
	4/17/10	31.30	31.60	0.30
	9/22/10	32.28	32.40	0.12
	2/10/11	30.87	31.66	0.79
	6/29/11	33.63	34.31	0.68
	12/30/11	34.83	35.32	0.52
	3/12/12	34.90	35.27	0.37
EP-18	2/9/07	29.08	29.33	0.25
	11/20/07	31.41	32.00	0.59
	6/5/08	NM	NM	0.75
	9/28/08	–	32.73	–
	1/22/09	–	32.75	ND
	4/16/09	–	32.73	ND
	7/23/09	NM	NM	ND
	9/18/09	–	33.10	ND
	12/3/09	31.31	31.59	0.28
	4/17/10	31.30	31.50	0.20
	9/22/10	32.38	32.51	0.13
	2/10/11	30.98	30.99	0.01
	6/29/11	–	33.91	ND
	12/30/11	–	35.10	ND
	3/12/12	–	35.08	ND

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-19	2/9/07	–	29.43	ND
	11/20/07	–	32.15	ND
	6/5/08	NM	NM	0.09
	9/28/08	NM	NM	ND
	1/22/09	–	34.01	ND
	4/16/09	–	32.84	ND
	7/23/09	NM	NM	ND
	9/18/09	33.10	33.20	0.10
	12/3/09	32.23	32.45	0.22
	4/17/10	32.23	32.33	0.10
	9/22/10	33.26	33.29	0.03
	2/10/11	30.95	31.90	0.95
	6/29/11	33.55	33.97	0.42
	12/30/11	–	34.78	ND
	3/12/12	–	34.76	ND
EP-20	2/9/07	29.68	30.17	0.49
	11/20/07	32.40	32.50	0.10
	6/5/08	NM	NM	0.20
	9/28/08	–	32.47	–
	1/22/09	–	32.49	ND
	4/16/09	–	32.59	ND
	7/23/09	32.60	32.62	0.02
	9/18/09	–	32.64	ND
	12/3/09	–	32.01	ND
	4/17/10	–	32.00	ND
	9/22/10	–	33.09	ND
	2/10/11	31.25	31.93	0.68
	6/29/11	–	30.80	ND
	12/30/11	–	32.38	ND
	3/12/12	–	32.37	ND
EP-21	2/9/07	–	29.57	ND
	11/20/07	–	32.55	ND
	6/5/08	NM	NM	ND
	9/28/08	NM	NM	ND
	1/22/09	–	34.47	ND
	7/23/09	32.46	32.49	0.03
	9/18/09	32.47	32.48	0.01
	12/3/09	–	31.65	ND
	4/17/10	–	31.67	ND
	9/22/10	32.60	32.61	0.01
	2/10/11	–	31.35	ND
	6/29/11	–	30.50	ND
	3/12/12	–	30.53	ND

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-22	2/9/07	–	29.07	ND
	11/20/07	–	32.65	ND
	6/5/08	–	DRY	–
	9/28/08	–	DRY	–
	1/22/09	–	34.21	ND
	4/16/09	32.68	32.73	0.05
	7/23/09	31.73	31.78	0.05
	9/18/09	31.72	31.75	0.03
	12/3/09	30.99	31.47	0.48
	4/17/10	30.98	31.35	0.36
	9/22/10	32.02	32.40	0.38
	2/10/11	NM	NM	NM
	6/29/11	33.30	33.91	0.61
	12/30/11	–	34.45	ND
	3/12/12	–	34.49	ND
EP-23	2/9/07	27.94	27.99	0.05
	11/20/07	32.00	32.12	0.12
	6/5/08	NM	NM	ND
	9/28/08	–	32.80	–
	1/22/09	–	32.76	ND
	4/16/09	31.00	31.09	0.09
	7/23/09	31.43	31.45	0.02
	9/18/09	31.40	31.45	0.05
	12/3/09	29.18	29.32	0.14
	4/17/10	29.19	29.29	0.10
	9/22/10	30.15	30.18	0.03
	2/11/10	29.98	30.00	0.02
	6/29/11	32.66	32.68	0.02
	12/30/11	32.76	32.86	0.10
	3/12/12	32.79	32.81	0.03
EP-24	2/9/07	29.33	29.68	0.35
	11/20/07	31.91	32.10	0.19
	6/5/08	–	DRY	–
	9/28/08	–	DRY	–
	1/22/09	31.86	32.03	0.17
	4/16/09	–	DRY	–
	7/23/09	–	DRY	–
	9/18/09	–	DRY	–
	12/3/09	31.17	31.75	0.58
	4/17/10	31.18	31.70	0.52
	9/22/10	–	DRY	–
	2/10/11	NM	NM	NM
	6/29/11	33.74	33.93	0.19
	12/30/11	34.59	34.65	0.06
	3/12/12	34.60	34.62	0.02

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-25	2/9/07	--	27.88	ND
	11/20/07	--	31.70	ND
	6/5/08	NM	NM	ND
	9/28/08	33.32	33.33	0.01
	1/22/09	--	33.00	ND
	4/16/09	32.14	32.59	0.45
	7/23/09	31.08	31.91	0.83
	9/18/09	31.09	31.79	0.70
	12/3/09	29.71	30.13	0.42
	4/17/10	29.77	30.10	0.33
	9/22/10	30.90	31.23	0.33
	2/10/11	29.71	30.02	0.31
	6/29/11	32.75	32.76	0.01
	12/30/11	--	33.31	ND
	3/12/12	--	33.29	ND

Notes: 1) ND = None Detected
2) NM = Not Measured

D H E C
PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment



MR BRENDAN M BRODIE PG
ENVIROSOUTH ENVIRONMENTAL CONSULTANTS
3440 AUGUSTA RD
GREENVILLE SC 29605

JUN 2 9 2012

Re: CASE report review
Former Red Diamond Oil Company, 519 East North 1st Street, Seneca, SC
UST Permit #14324; CA #25430
Bid #IFB-28949-10/4/05-EMW; PO #605692
Release reported December 30, 1991
CASE report received May 31, 2012
Oconee County

Dear Mr. Brodie:

The Underground Storage Tank (UST) Management Division has reviewed the referenced report. Based upon the current data, the Division concurs with your free-phase product reduction calculation of 100% in the SSTL wells (FP still remains in extraction points).

The next CASE report documenting activities conducted during the April 2012-June 2012 quarterly monitoring period is due on or before **August 1, 2012**. On all correspondence regarding this site, please reference UST Permit #14324. If you have any questions regarding this correspondence, feel free to contact me by telephone at (803) 896-6398, by fax at (803) 896-6245, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Geologist/Hydrologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

JPP/jpp
14324.20

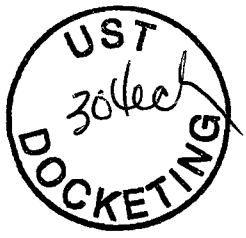
cc: Betty Latham, 2 Stratton Place, Greenville, SC 29615-4217 (w/enc)
Technical file (w/o enc)

DHEC/UST/JPP/062812

ENVIROSOUTH
Environmental Consultants

August 16, 2012





Mr. Joel Padgett
SCDHEC
Bureau of Land and Waste Management
UST Program
2600 Bull Street
Columbia, South Carolina 29201

Re: Former Red Diamond
519 East North 1st Street
Seneca, South Carolina
SCDHEC ID #14324
EnviroSouth Job No. 1334

Dear Mr. Padgett:

EnviroSouth, Inc. is pleased to provide the SCDHEC UST Program with the remediation and groundwater monitoring report for the Former Red Diamond site in Seneca, South Carolina.

EnviroSouth appreciates the opportunity to be of service to the SCDHEC UST Program. If you have comments or questions concerning the attached report, please do not hesitate to call.

Sincerely,

EnviroSouth, Inc.

Brendan M. Brodie, P.G.
Project Hydrogeologist
S.C. Registration No. 2252

BMB/df

Enclosure

cc: Mr. Chris Wargo, UIC, SCDHEC

phone: 864.236.9010 • fax: 864.236.9097
3440 Augusta Road • Greenville, SC 29605 • www.envirosouth.com

Prepared for:

South Carolina Department of Health and Environmental Control
(SCDHEC)
Underground Storage Tank (UST) Program
2600 Bull Street
Columbia, South Carolina 29201

Attn: Mr. Joel Padgett

GROUNDWATER MONITORING REPORT

FORMER RED DIAMOND
519 EAST NORTH 1st STREET
SENECA, SOUTH CAROLINA

UST PERMIT #14324

Job No. 1334

Prepared by:

EnviroSouth, Inc.
3440 Augusta Road
Greenville, South Carolina 29605
SCDHEC Certification No. 257

August 16, 2012

INTRODUCTION

EnviroSouth has completed groundwater gauging and remediation services at the Former Red Diamond facility (UST Permit #14324) facility located in Seneca, South Carolina. The purpose of the gauging event was to evaluate the current water levels and thickness of free-phase petroleum in various monitoring wells and extraction points.

This report includes a description of the field/remediation services, along with our current findings, conclusions, and recommendations.

METHODS and FINDINGS

Groundwater Elevation and Movement

Water level measurements in all monitoring wells and extraction points were last recorded by EnviroSouth with a hydrocarbon sensitive electronic interface probe on July 4, 2012. The interface probe was decontaminated prior to and between each measurement to prevent cross-contamination between wells. The water table aquifer occurs under unconfined conditions underlying the site at depths ranging from 29.92 to 35.47 feet below land surface. Free product was not detected in of the monitoring wells. The TOC elevations, water level measurements, and ground water elevation data recorded to date are included on Table 1. Water levels and free-product thicknesses were also measured in the extraction wells. That data is presented in table 2.

A map of extraction point locations is included as Figure 1.

SOLAR, IN-WELL PRODUCT VOLITIZATION/VENTING

The solar remediation system was installed on February 16, 2011. The system uses solar cells/batteries for power, air pumps, and air diffusion stones for delivery of atmospheric air to or just above the product layer. The wells have a 3-feet tall stack that will keep surface runoff out of the well and a 180-degree fitting that will keep rainwater out of the well. A small-diameter plastic tube attached to the air pump enters the well and emits atmospheric air through a diffusion stone into the product layer at a rate of up to .5 cfm. The flow of air into and then out of the well increases volatilization of the product and vents it to the atmosphere.

The system has been installed in 18 existing extraction wells. The system is contained by a fenced compound.

FREE-PRODUCT THICKNESS REDUCTION

Free product is now absent in all monitoring wells. Free-product has been historically measured in twenty-three (23) extraction point wells and two (2) monitoring wells. Free-product is now present in nine (9) extraction point wells at reduced thicknesses.

CONCLUSIONS

The solar powered vent wells are in operation and we will be monitoring product thickness in the affected wells. We plan to run the system until all free-product is absent from the extraction point wells.

EnviroSouth, Inc.

Brendan M. Brodie, P.G.
Project Hydrogeologist
S.C. Registration No. 2252

BMB/df

cc: Mr. Chris Wargo, UIC, SCDHEC

APPENDICES

FIGURES

FIGURE 1 – Extraction Point Locations

TABLES

TABLE 1 - Groundwater Elevation Data
TABLE 2 - Product Thickness Data

FIGURE

EXPLANATION

MW-5 — MONITORING WELL

EP-5 — EXTRACTION POINT WELL

EAST NORTH 1ST STREET

EMPTY PARCEL

TRI-CITY LAUNDRY

Chain Link Fence

EP-16
EP-10
EP-1
EP-17
EP-2
EP-24
EP-14
EP-9
MW-4
EP-X
EP-21
EP-8
MW-5
EP-X
EP-20
EP-18
EP-11
EP-3
EP-15
EP-23
MW-1
EP-25
EP-4
EP-22
Batteries, Pumps
EP-7
EP-5
EP-12
GATE
EP-6
EP-19
GATE

Privacy Fence

Solar Panels

10 0 10 20

SCALE: 1" = 10'±

10/14/10	DRAWN BY DF	CHECKED BY BMB	SCALE 1"=10'±	JOB NO. 1334	FIGURE 1

ENVIROSOUTH Environmental Consultants

EXTRACTION POINT LOCATIONS

FORMER RED DIAMOND
519 EAST NORTH 1ST STREET
SENECA, SC
SDHEC UST ID #14324

TABLES

TABLE 1

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-1	4/18/03	98.32	29.07	33.27	4.20	65.05
	10/26/05		23.37	27.51	4.14	73.52
	5/4/06		25.64	26.71	1.07	72.41
	5/11/06		26.75	26.87	0.12	71.54
	6/6/06		26.26	26.40	0.14	72.03
	8/14/06		28.25	28.50	0.25	70.01
	2/9/07		27.74	28.22	0.48	70.46
	11/20/07		31.75	31.95	0.20	66.52
	6/5/08		32.00	32.15	0.15	66.28
	9/26/08		33.50	33.53	0.03	64.81
	1/22/09		32.93	33.10	0.17	65.35
	4/16/09		31.80	31.97	0.17	66.48
	9/18/09		32.25	32.35	0.10	66.05
	12/3/09		31.39	31.49	0.10	65.89
	4/17/10		31.41	31.49	0.08	66.89
	9/22/10		32.20	32.33	0.13	66.09
	2/10/11		29.50	30.00	0.50	67.95
	6/29/11		32.80	32.87	0.07	65.40
	12/30/11		–	33.19	ND	65.13
	03/12/12		–	33.21	ND	65.11
	07/04/12		–	33.43	ND	64.89
MW-2	6/5/08	98.60	–	33.30	ND	65.30
	9/26/08		–	34.71	ND	63.89
	1/22/09		–	34.70	ND	63.90
	4/16/09		–	33.72	ND	64.88
	9/18/09		–	34.12	ND	64.48
	12/3/09		–	33.23	ND	65.37
	4/17/10		–	33.26	ND	65.34
	9/22/10		–	34.30	ND	64.30
	2/10/11		–	32.42	ND	66.18
	6/29/11		–	33.89	ND	64.71
	12/30/11		–	34.08	ND	64.52
	03/12/12		–	34.07	ND	64.53
	07/04/12		–	34.36	ND	64.24
MW-3	6/5/08	97.92	–	32.28	ND	65.64
	9/26/08		–	33.74	ND	64.18
	1/22/09		–	33.50	ND	64.42
	4/16/09		–	32.48	ND	65.44
	9/18/09		–	32.87	ND	65.05
	12/3/09		–	31.99	ND	65.93
	4/17/10		–	32.00	ND	65.92
	9/22/10		–	33.18	ND	64.74
	2/10/11		–	31.60	ND	66.32
	6/29/11		–	32.81	ND	65.11
	12/30/11		–	33.10	ND	64.82
	03/12/12		–	33.11	ND	64.81
	07/04/12		–	33.39	ND	64.53

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-4	4/18/03	99.07	38.29	34.43	3.86	64.64
	10/26/05		24.75	27.61	2.86	73.61
	5/4/06		26.60	27.17	0.57	72.33
	6/6/06		27.27	27.28	0.01	71.79
	8/14/06		--	28.45	ND	70.62
	2/9/07		--	29.15	ND	69.92
	11/20/07		32.47	32.48	0.01	66.60
	6/5/08		32.40	34.72	2.32	66.09
	9/26/08		33.96	34.02	0.06	65.10
	1/22/09		34.20	34.46	0.26	64.81
	4/16/09		32.74	33.51	0.77	66.14
	9/18/09		33.20	33.41	0.21	65.82
	12/3/09		32.15	32.66	0.51	66.01
	4/17/10		32.20	32.68	0.48	66.76
	9/22/10		33.37	33.90	0.43	65.50
	2/10/11		31.10	31.91	0.81	66.55
	6/29/11		--	33.69	ND	65.38
	12/30/11		--	34.83	ND	64.24
	03/12/12		--	34.85	ND	64.22
	07/04/12		--	34.99	ND	64.08
MW-5	6/5/08	98.03	--	31.47	ND	66.56
	9/26/08		--	32.92	ND	65.11
	1/22/09		--	33.21	ND	64.82
	4/16/09		--	32.29	ND	65.74
	9/18/09		--	32.68	ND	65.35
	12/3/09		--	31.90	ND	66.13
	4/17/10		--	31.98	ND	66.05
	9/22/10		--	33.01	ND	65.02
	2/10/11		--	31.11	ND	66.92
	6/29/11		--	32.63	ND	65.40
	12/30/11		--	32.79	ND	65.24
	03/12/12		--	32.77	ND	65.26
	07/04/12		--	32.95	ND	65.08
MW-7	6/5/08	99.30	--	35.19	ND	64.11
	9/26/08		--	36.62	ND	62.68
	1/22/09		--	36.66	ND	62.64
	4/16/09		--	35.67	ND	63.63
	9/18/09		--	36.00	ND	63.30
	12/3/09		--	35.28	ND	64.02
	4/17/10		--	35.31	ND	63.99
	9/22/10		--	36.70	ND	62.60
	2/10/11		--	34.62	ND	64.68
	6/29/11		--	35.88	ND	63.42
	12/30/11		--	35.99	ND	63.31
	03/12/12		--	35.97	ND	63.33
	07/04/12		--	36.22	ND	63.08

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-8	6/5/08	102.13	--	41.11	ND	61.02
	9/26/08		--	42.60	ND	59.53
	1/22/09		--	42.64	ND	59.49
	4/16/09		--	41.60	ND	60.53
	9/18/09		--	41.99	ND	60.14
	4/17/10		--	42.03	ND	60.10
	9/22/10		--	43.18	ND	58.95
	2/10/11		--	41.19	ND	60.94
	6/29/11		--	42.33	ND	59.80
	12/30/11		--	42.48	ND	59.65
	03/12/12		--	42.49	ND	59.64
	07/04/12		--	42.66	ND	59.47
MW-9	6/5/08	104.97	--	41.82	ND	63.15
	9/26/08		--	43.19	ND	61.78
	1/22/09		--	43.24	ND	61.73
	4/16/09		--	42.29	ND	62.68
	9/18/09		--	42.68	ND	62.29
	12/3/09		--	41.22	ND	63.25
	4/17/10		--	41.23	ND	63.74
	9/22/10		--	42.34	ND	62.63
	2/10/11		--	40.45	ND	64.52
	6/29/11		--	41.91	ND	63.06
	12/30/11		--	42.17	ND	62.80
	03/12/12		--	42.18	ND	62.79
	07/04/12		--	42.42	ND	62.55
MW-10	6/5/08	104.50	--	43.10	ND	61.40
	9/26/08		--	44.63	ND	59.87
	1/22/09		--	44.67	ND	59.83
	4/16/09		--	43.70	ND	60.80
	9/18/09		--	44.10	ND	60.40
	12/3/09		--	43.33	ND	61.17
	4/17/10		--	43.37	ND	61.13
	9/22/10		--	44.51	ND	59.99
	2/10/11		--	42.12	ND	61.88
	6/29/11		--	42.72	ND	61.78
	12/30/11		--	42.90	ND	61.60
	03/12/12		--	42.89	ND	61.61
	07/04/12		--	43.16	ND	61.34

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-11	6/5/08	102.92	--	40.20	ND	62.72
	9/26/08		--	41.73	ND	61.19
	1/22/09		--	41.80	ND	61.12
	4/16/09		--	40.94	ND	61.98
	9/18/09		--	41.36	ND	61.56
	12/3/09		--	40.51	ND	62.41
	4/17/10		--	40.60	ND	62.32
	9/22/10		--	41.80	ND	61.12
	2/10/11		--	40.01	ND	62.91
	6/29/11		--	41.31	ND	61.61
	12/30/11		--	41.47	ND	61.45
	03/12/12		--	41.46	ND	61.46
	07/04/12		--	41.71	ND	61.21
MW-12	6/5/08	99.12	--	33.77	ND	65.35
	9/26/08		--	35.21	ND	63.91
	1/22/09		--	36.61	ND	62.51
	4/16/09		--	35.72	ND	63.40
	9/18/09		--	35.99	ND	63.13
	12/3/09		--	35.20	ND	63.92
	4/17/10		--	35.22	ND	63.90
	9/22/10		--	36.31	ND	62.81
	2/10/11		--	34.35	ND	64.77
	6/29/11		--	35.74	ND	63.38
	12/30/11		--	35.93	ND	63.19
	03/12/12		--	35.94	ND	63.18
	07/04/12		--	36.19	ND	62.93
MW-13	6/5/08	99.41	--	36.17	ND	63.24
	9/26/08		--	37.68	ND	61.73
	1/22/09		--	37.73	ND	61.68
	4/16/09		--	37.70	ND	61.71
	9/18/09		--	38.11	ND	61.30
	12/3/09		--	37.29	ND	62.12
	4/17/10		--	37.28	ND	62.13
	9/22/10		--	38.31	ND	61.10
	2/10/11		--	36.27	ND	63.14
	6/29/11		--	37.80	ND	61.61
	12/30/11		--	35.71	ND	63.70
	03/12/12		--	35.72	ND	63.69
	07/04/12		--	35.91	ND	63.50

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-17	6/5/08	93.98	--	31.09	ND	62.89
	9/26/08		--	32.59	ND	61.39
	1/22/09		--	32.61	ND	61.37
	4/16/09		--	31.59	ND	62.39
	9/18/09		--	31.93	ND	62.05
	12/3/09		--	31.16	ND	62.82
	4/17/10		--	31.17	ND	62.81
	9/22/10		--	32.21	ND	61.77
	2/10/11		--	30.19	ND	63.79
	6/29/11		--	31.42	ND	62.56
	12/30/11		--	31.58	ND	62.40
	03/12/12		--	31.59	ND	62.39
	07/04/12		--	31.82	ND	62.16
MW-19	6/5/08	99.58	--	35.26	ND	64.32
	9/26/08		--	36.71	ND	62.87
	1/22/09		--	36.74	ND	62.84
	4/16/09		--	35.80	ND	63.78
	9/18/09		--	36.18	ND	63.40
	12/3/09		--	36.49	ND	63.37
	4/17/10		--	36.50	ND	63.08
	9/22/10		--	37.70	ND	61.88
	2/10/11		--	35.62	ND	63.96
	6/29/11		--	37.01	ND	62.57
	12/30/11		--	36.44	ND	63.14
	03/12/12		--	36.46	ND	63.12
	07/04/12		--	36.71	ND	62.87
MW-20	6/5/08	99.86	--	36.40	ND	63.46
	9/26/08		--	37.88	ND	61.98
	1/22/09		--	37.89	ND	61.97
	4/16/09		--	37.00	ND	62.86
	9/18/09		--	37.39	ND	62.47
	12/3/09		--	36.49	ND	63.30
	4/17/10		--	36.52	ND	63.34
	9/22/10		--	32.69	ND	62.17
	2/10/11		--	30.41	ND	69.45
	6/29/11		--	31.86	ND	68.00
	12/30/11		--	31.96	ND	67.90
	03/12/12		--	31.97	ND	67.89
	07/04/12		--	32.23	ND	67.63

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-22	6/5/08	89.60	--	35.21	ND	54.39
	9/26/08		--	36.73	ND	52.87
	1/22/09		--	36.75	ND	52.85
	4/16/09		--	35.83	ND	53.77
	9/18/09		--	36.18	ND	53.42
	12/3/09		--	35.42	ND	54.18
	4/17/10		--	35.43	ND	54.17
	9/22/10		--	36.42	ND	53.18
	2/10/11		--	34.41	ND	55.19
	6/29/11		--	35.75	ND	53.85
	12/30/11		--	35.88	ND	53.72
	03/12/12		--	35.87	ND	53.73
	07/04/12		--	36.92	ND	52.68

Notes: 1) ND = None Detected
2) NM = Not Measured

TABLE 2

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-1	2/9/07	–	30.08	ND
	11/20/07	–	DRY	–
	6/5/08	–	DRY	–
	9/26/08	–	DRY	–
	1/22/09	–	34.18	ND
	4/16/09	–	33.04	ND
	7/23/09	–	32.59	ND
	9/18/09	–	32.61	ND
	12/3/09	–	31.03	ND
	4/17/10	–	31.00	ND
	9/22/10	–	32.10	ND
	2/10/11	–	31.37	ND
	6/29/11	–	30.50	ND
	12/30/11	–	30.71	ND
	3/12/12	–	30.72	ND
	7/4/12	–	30.89	ND
EP-2	2/9/07	28.98	30.22	1.24
	11/20/07	32.15	32.41	0.26
	6/5/08	–	DRY	–
	9/26/08	32.97	32.98	0.01
	1/22/09	–	DRY	–
	4/16/09	–	DRY	–
	7/23/09	32.44	32.48	0.04
	9/18/09	32.43	32.44	0.01
	12/3/09	–	31.35	ND
	4/17/10	–	31.37	ND
	9/22/10	32.40	32.43	0.03
	2/10/11	30.89	31.60	0.71
	6/29/11	33.73	34.87	1.14
	12/30/11	34.80	35.10	0.30
	3/12/12	34.83	35.68	0.21
	7/4/12	34.90	35.15	0.25
EP-3	2/9/07	29.06	29.30	0.24
	11/20/07	–	DRY	–
	6/5/08	–	DRY	–
	9/26/08	–	DRY	–
	1/22/09	–	DRY	–
	4/16/09	–	DRY	–
	7/23/09	32.25	32.27	0.02
	9/18/09	32.26	32.27	0.01
	12/3/09	–	31.39	ND
	4/17/10	31.39	31.40	0.01
	9/22/10	32.35	32.40	0.05
	2/10/11	30.70	31.26	0.56
	3/12/12	30.66	31.09	0.43
	7/4/12	30.81	31.20	0.39

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-4	2/9/07	–	27.85	ND
	11/20/07	–	31.70	ND
	6/5/08	NM	NM	0.1
	9/26/08	–	DRY	–
	1/22/09	–	32.60	ND
	4/16/09	32.42	32.64	0.22
	7/23/09	NM	NM	ND
	9/18/09	NM	NM	NM
	12/3/09	NM	NM	NM
	4/17/10	NM	NM	NM
	9/22/10	NM	NM	NM
	2/10/11	30.0	30.21	0.21
	6/29/11	–	30.80	ND
	12/30/11	–	31.54	ND
	3/12/12	–	31.52	ND
	7/4/12	–	31.68	ND
EP-5	2/9/07	–	27.68	ND
	11/20/07	–	32.40	ND
	6/5/08	NM	NM	0.15
	9/26/08	–	DRY	–
	1/22/09	–	32.79	ND
	4/16/09	31.04	31.26	0.22
	7/23/09	31.18	31.47	0.29
	9/18/09	31.19	31.43	0.24
	12/3/09	30.33	30.53	0.20
	4/17/10	30.30	30.51	0.21
	9/22/10	31.40	31.71	0.31
	2/10/11	29.15	29.22	0.07
	6/29/11	29.34	29.36	0.02
	3/12/12	29.36	29.37	0.01
	7/4/12	29.49	29.52	0.02
EP-6	2/9/07	27.91	27.96	0.05
	11/20/07	–	DRY	–
	6/5/08	NM	NM	ND
	9/26/08	–	DRY	–
	1/22/09	–	32.56	ND
	4/16/09	31.26	31.94	0.68
	7/23/09	31.22	31.83	0.61
	9/18/09	31.24	31.70	0.46
	12/3/09	30.40	30.59	0.19
	4/17/10	30.42	30.60	0.08
	9/22/10	31.50	31.70	0.20
	2/10/11	NM	NM	NM
	6/29/11	32.49	32.75	0.26
	12/30/11	–	32.81	ND
	3/12/12	–	32.83	ND
	7/4/12	–	32.99	ND

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-7	2/9/07	28.63	28.64	0.01
	11/20/07	–	DRY	–
	6/5/08	–	DRY	–
	9/26/08	–	DRY	–
	1/22/09	–	32.75	ND
	4/16/09	32.37	32.55	0.18
	7/23/09	31.93	32.07	0.14
	9/18/09	31.95	32.05	0.10
	12/3/09	31.06	31.11	0.05
	4/17/10	36.00	31.20	0.20
	9/22/10	32.02	32.09	0.08
	2/10/11	30.62	30.70	0.08
	6/29/11	–	33.57	ND
	12/30/11	–	33.80	ND
	3/12/12	–	33.84	ND
	7/4/12	–	33.94	ND
EP-8	11/20/07	32.00	32.77	0.77
	6/5/08	–	MISSING	–
	9/26/08	–	MISSING	–
	1/22/09	–	33.10	ND
	4/16/09	31.55	31.62	0.07
	7/23/09	31.28	31.53	0.25
	9/18/09	31.30	31.50	0.20
	12/3/09	30.53	30.87	0.34
	4/17/10	30.50	30.81	0.31
	9/22/10	31.60	31.72	0.12
	2/10/11	29.80	30.21	0.38
	6/29/11	32.99	33.33	0.34
	12/30/11	33.57	33.58	0.01
	3/12/12	–	33.59	ND
	7/4/12	–	33.73	ND
EP-9	2/9/07	27.77	28.67	0.90
	11/20/07	–	31.42	ND
	6/5/08	NM	NM	0.02
	9/26/08	32.94	32.95	0.01
	1/22/09	–	34.40	ND
	4/16/09	–	31.61	ND
	7/23/09	NM	NM	ND
	9/18/09	–	32.00	ND
	12/3/09	NM	ND	NM
	4/17/10	31.02	31.03	0.01
	9/22/10	32.10	32.12	0.02
	2/10/11	–	31.13	ND
	6/29/11	29.03	29.93	0.50
	3/12/12	29.60	29.82	0.22
	7/4/12	29.78	29.98	0.20

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-10	2/9/07	29.02	29.58	0.56
	11/20/07	33.00	33.80	0.80
	6/5/08	NM	NM	1.30
	9/26/08	–	DRY	–
	1/22/09	34.20	34.59	0.39
	4/16/09	32.64	33.83	1.19
	7/23/09	32.10	33.03	0.93
	9/18/09	32.15	33.00	0.85
	12/3/09	31.26	31.67	0.41
	4/17/10	31.67	31.90	0.23
	9/22/10	32.36	32.56	0.20
	2/10/11	31.15	31.53	0.38
	6/29/11	31.85	32.75	0.90
	12/30/11	33.33	33.35	0.02
	3/12/12	–	33.37	ND
	7/4/12	–	33.49	ND
EP-11	2/9/07	29.08	29.25	0.17
	11/20/07	32.25	32.30	0.05
	6/5/08	NM	NM	0.85
	9/26/08	33.72	34.13	0.41
	1/22/09	34.10	34.55	0.45
	4/16/09	32.87	32.95	0.08
	7/23/09	33.17	34.17	1.00
	9/18/09	33.19	34.00	0.81
	12/3/09	32.29	32.62	0.33
	4/17/10	32.28	32.60	0.32
	9/22/10	33.40	33.61	0.21
	2/11/10	30.34	31.40	1.06
	6/29/11	–	33.80	ND
	12/30/11	–	34.90	ND
	3/12/12	–	34.41	ND
	7/4/12	34.79	34.81	0.02
EP-12	2/9/07	29.02	29.04	0.02
	11/20/07	31.90	32.20	0.30
	6/5/08	NM	NM	1.00
	9/28/08	–	33.51	–
	1/22/09	33.60	33.87	0.27
	4/16/09	32.52	33.73	1.21
	7/23/09	31.80	33.03	1.23
	9/18/09	31.80	32.90	1.10
	12/3/09	31.04	31.95	0.91
	4/17/10	31.09	31.80	0.91
	9/22/10	32.02	33.01	0.99
	2/11/10	30.78	31.70	0.92
	6/29/11	33.55	33.82	0.27
	12/30/11	34.39	34.59	0.20
	3/12/12	34.38	34.56	0.18
	7/4/12	34.52	34.74	0.22

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-13	2/9/07	--	32.45	ND
	11/20/07	--	36.20	ND
	6/5/08	NM	NM	ND
	9/28/08	NM	NM	ND
	1/22/09	--	37.27	ND
	4/16/09	--	36.40	ND
	7/23/09	NM	NM	ND
	9/18/09	--	36.80	ND
	12/3/09	NM	NM	NM
	4/17/10	NM	NM	NM
	9/22/10	NM	NM	NM
	2/10/11	--	32.13	ND
	6/29/11	--	33.25	ND
	3/12/12	--	33.27	ND
	7/4/12	--	33.41	ND
EP-14	2/9/07	--	29.02	ND
	11/20/07	--	32.20	ND
	6/5/08	NM	NM	NM
	9/28/08	--	33.60	TRACE
	1/22/09	--	34.00	ND
	4/16/09	--	32.60	ND
	7/23/09	NM	NM	ND
	9/18/09	--	33.01	NM
	12/3/09	NM	NM	NM
	4/17/10	NM	NM	NM
	9/22/10	NM	NM	NM
	2/10/11	MN	MN	MN
	6/29/11	--	30.12	ND
	3/12/12	--	30.13	ND
	7/4/12	--	30.29	ND
EP-15	2/9/07	--	29.12	ND
	11/20/07	--	32.70	ND
	6/5/08	NM	NM	NM
	9/28/08	NM	NM	NM
	1/22/09	--	33.73	ND
	4/16/09	--	32.27	ND
	7/23/09	NM	NM	NM
	9/18/09	--	32.60	ND
	12/3/09	NM	NM	NM
	4/17/10	NM	NM	NM
	9/22/10	NM	NM	NM
	2/10/11	NM	NM	NM
	6/29/11	33.42	33.72	0.30
	12/30/11	--	34.18	ND
	3/12/12	--	34.14	ND
	7/4/12	--	34.30	ND

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-16	2/9/07	29.22	29.23	0.01
	11/20/07	32.30	32.40	0.10
	6/5/08	–	DRY	–
	9/28/08	–	DRY	–
	1/22/09	33.90	34.02	0.12
	4/16/09	33.04	33.18	0.14
	7/23/09	32.31	32.36	0.05
	9/18/09	32.30	32.31	0.01
	12/3/09	–	31.47	ND
	4/17/10	31.48	31.49	0.01
	9/22/10	32.50	32.52	0.02
	2/10/11	30.99	31.60	0.61
	6/29/11	30.72	31.03	0.31
	12/30/11	–	31.39	ND
	3/12/12	–	31.41	ND
	7/4/12	–	31.76	ND
EP-17	2/9/07	–	29.57	ND
	11/20/07	–	32.17	ND
	6/5/08	–	DRY	–
	9/28/08	–	DRY	–
	1/22/09	–	33.78	ND
	4/16/09	32.80	33.57	0.77
	7/23/09	32.13	32.92	0.79
	9/18/09	32.15	32.80	0.65
	12/3/09	31.32	31.69	0.37
	4/17/10	31.30	31.60	0.30
	9/22/10	32.28	32.40	0.12
	2/10/11	30.87	31.66	0.79
	6/29/11	33.63	34.31	0.68
	12/30/11	34.83	35.32	0.52
	3/12/12	34.90	35.27	0.37
	7/4/12	35.07	35.58	0.41
EP-18	2/9/07	29.08	29.33	0.25
	11/20/07	31.41	32.00	0.59
	6/5/08	NM	NM	0.75
	9/28/08	–	32.73	–
	1/22/09	–	32.75	ND
	4/16/09	–	32.73	ND
	7/23/09	NM	NM	ND
	9/18/09	–	33.10	ND
	12/3/09	31.31	31.59	0.28
	4/17/10	31.30	31.50	0.20
	9/22/10	32.38	32.51	0.13
	2/10/11	30.98	30.99	0.01
	6/29/11	–	33.91	ND
	12/30/11	–	35.10	ND
	3/12/12	–	35.08	ND
	7/4/12	35.25	35.27	0.02

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-19	2/9/07	–	29.43	ND
	11/20/07	–	32.15	ND
	6/5/08	NM	NM	0.09
	9/28/08	NM	NM	ND
	1/22/09	–	34.01	ND
	4/16/09	–	32.84	ND
	7/23/09	NM	NM	ND
	9/18/09	33.10	33.20	0.10
	12/3/09	32.23	32.45	0.22
	4/17/10	32.23	32.33	0.10
	9/22/10	33.26	33.29	0.03
	2/10/11	30.95	31.90	0.95
	6/29/11	33.55	33.97	0.42
	12/30/11	–	34.78	ND
	3/12/12	–	34.76	ND
	7/4/12	34.99	35.06	0.07
EP-20	2/9/07	29.68	30.17	0.49
	11/20/07	32.40	32.50	0.10
	6/5/08	NM	NM	0.20
	9/28/08	–	32.47	–
	1/22/09	–	32.49	ND
	4/16/09	–	32.59	ND
	7/23/09	32.60	32.62	0.02
	9/18/09	–	32.64	ND
	12/3/09	–	32.01	ND
	4/17/10	–	32.00	ND
	9/22/10	–	33.09	ND
	2/10/11	31.25	31.93	0.68
	6/29/11	–	30.80	ND
	12/30/11	–	32.38	ND
	3/12/12	–	32.37	ND
	7/4/12	–	32.50	ND
EP-21	2/9/07	–	29.57	ND
	11/20/07	–	32.55	ND
	6/5/08	NM	NM	ND
	9/28/08	NM	NM	ND
	1/22/09	–	34.47	ND
	7/23/09	32.46	32.49	0.03
	9/18/09	32.47	32.48	0.01
	12/3/09	–	31.65	ND
	4/17/10	–	31.67	ND
	9/22/10	32.60	32.61	0.01
	2/10/11	–	31.35	ND
	6/29/11	–	30.50	ND
	3/12/12	–	30.53	ND
	7/4/12	–	30.78	ND

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-22	2/9/07	–	29.07	ND
	11/20/07	–	32.65	ND
	6/5/08	–	DRY	–
	9/28/08	–	DRY	–
	1/22/09	–	34.21	ND
	4/16/09	32.68	32.73	0.05
	7/23/09	31.73	31.78	0.05
	9/18/09	31.72	31.75	0.03
	12/3/09	30.99	31.47	0.48
	4/17/10	30.98	31.35	0.36
	9/22/10	32.02	32.40	0.38
	2/10/11	NM	NM	NM
	6/29/11	33.30	33.91	0.61
	12/30/11	–	34.45	ND
	3/12/12	–	34.49	ND
	7/4/12	–	34.77	ND
EP-23	2/9/07	27.94	27.99	0.05
	11/20/07	32.00	32.12	0.12
	6/5/08	NM	NM	ND
	9/28/08	–	32.80	–
	1/22/09	–	32.76	ND
	4/16/09	31.00	31.09	0.09
	7/23/09	31.43	31.45	0.02
	9/18/09	31.40	31.45	0.05
	12/3/09	29.18	29.32	0.14
	4/17/10	29.19	29.29	0.10
	9/22/10	30.15	30.18	0.03
	2/11/10	29.98	30.00	0.02
	6/29/11	32.66	32.68	0.02
	12/30/11	32.76	32.86	0.10
	3/12/12	32.79	32.81	0.03
	7/4/12	33.02	33.03	0.01
EP-24	2/9/07	29.33	29.68	0.35
	11/20/07	31.91	32.10	0.19
	6/5/08	–	DRY	–
	9/28/08	–	DRY	–
	1/22/09	31.86	32.03	0.17
	4/16/09	–	DRY	–
	7/23/09	–	DRY	–
	9/18/09	–	DRY	–
	12/3/09	31.17	31.75	0.58
	4/17/10	31.18	31.70	0.52
	9/22/10	–	DRY	–
	2/10/11	NM	NM	NM
	6/29/11	33.74	33.93	0.19
	12/30/11	34.59	34.65	0.06
	3/12/12	34.60	34.62	0.02
	7/4/12	34.82	34.89	0.07

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-25	2/9/07	–	27.88	ND
	11/20/07	–	31.70	ND
	6/5/08	NM	NM	ND
	9/28/08	33.32	33.33	0.01
	1/22/09	–	33.00	ND
	4/16/09	32.14	32.59	0.45
	7/23/09	31.08	31.91	0.83
	9/18/09	31.09	31.79	0.70
	12/3/09	29.71	30.13	0.42
	4/17/10	29.77	30.10	0.33
	9/22/10	30.90	31.23	0.33
	2/10/11	29.71	30.02	0.31
	6/29/11	32.75	32.76	0.01
	12/30/11	–	33.31	ND
	3/12/12	–	33.29	ND
	7/4/12	–	33.65	ND

Notes: 1) ND = None Detected
2) NM = Not Measured

D H E C
PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

AUG 2 3 2012



MR BRENDAN M BRODIE PG
ENVIROSOUTH ENVIRONMENTAL CONSULTANTS
3440 AUGUSTA RD
GREENVILLE SC 29605

Re: CASE report review
Former Red Diamond Oil Company, 519 East North 1st Street, Seneca, SC
UST Permit #14324; CA #25430
Bid #IFB-28949-10/4/05-EMW; PO #605692
Release reported December 30, 1991
CASE report received August 20, 2012
Oconee County

Dear Mr. Brodie:

The Underground Storage Tank (UST) Management Division has reviewed the referenced report. Based upon the current data, the Division concurs with your free-phase product reduction calculation of 100% in the SSTL wells (FP still remains in extraction points).

The next CASE report documenting activities conducted during the July 2012-September 2012 quarterly monitoring period is due on or before **November 1, 2012**. On all correspondence regarding this site, please reference UST Permit #14324. If you have any questions regarding this correspondence, feel free to contact me by telephone at (803) 896-6398, by fax at (803) 896-6245, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Geologist/Hydrologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

JPP/jpp
14324.21

cc: Betty Latham, 2 Stratton Place, Greenville, SC 29615-4217 (w/enc)
Technical file (w/o enc)

DHEC/UST/JPP/082212

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment



CERTIFIED MAIL
91 7199 9991 7031 3719 2791

JAN 1 5 2013

MR THOMAS F DONN PG
ENVIROSOUTH ENVIRONMENTAL CONSULTANTS
3440 AUGUSTA RD
GREENVILLE SC 29605

Re: **Notice of Complaint**
Former Red Diamond Oil Company, 519 East North 1st Street, Seneca, SC
UST Permit #14324; CA #25430
Contract #IFB-28949-10/4/05-EMW; PO #605692
Release reported December 30, 1991
Correspondence from the UST Management Division to EnviroSouth dated August 23, 2012
Oconee County

Dear Mr. Donn:

In correspondence dated August 23, 2012, the Underground Storage Tank (UST) Management Division directed EnviroSouth Environmental Consultants to submit a quarterly corrective action system evaluation (CASE) for the Former Red Diamond Oil Company facility on or before November 1, 2012. To date, the requested CASE has not been received. Per the referenced contract, EnviroSouth is required to submit CASE reports on a quarterly schedule.

Please submit the requested CASE within 30 days of the date of this letter. Should you fail to submit the report by this date, the UST Management Division will consider declaring EnviroSouth to be in breach of the contract.

On all correspondence regarding this facility, please reference UST Permit #14324. If you have any questions regarding this correspondence, feel free to contact me by telephone at (803) 896-6398, by fax at (803) 896-6245, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

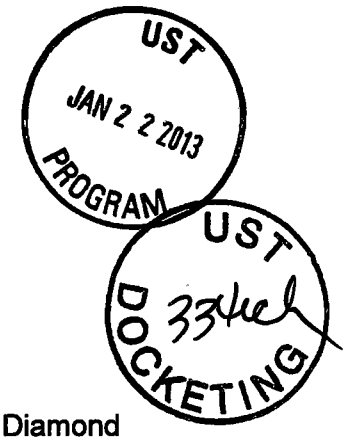
Joel P. Padgett, P.G., Geologist/Hydrologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

JPP/jpp
14324.22

enc: Correspondence to EnviroSouth from the UST Program dated February 16, 2007
cc: Betty Latham, 2 Stratton Place, Greenville, SC 29615-4217(w/enc)
DHEC/UST/JPP/011413

ENVIROSOUTH
Environmental Consultants

January 17, 2013



Mr. Joel Padgett
SCDHEC
Bureau of Land and Waste Management
UST Program
2600 Bull Street
Columbia, South Carolina 29201

Re: Former Red Diamond
519 East North 1st Street
Seneca, South Carolina
SCDHEC ID #14324
EnviroSouth Job No. 1334

Dear Mr. Padgett:

EnviroSouth, Inc. is pleased to provide the SCDHEC UST Program with the remediation and groundwater monitoring report for the Former Red Diamond site in Seneca, South Carolina.

EnviroSouth appreciates the opportunity to be of service to the SCDHEC UST Program. If you have comments or questions concerning the attached report, please do not hesitate to call.

Sincerely,

EnviroSouth, Inc.

Brendan M. Brodie, P.G.
Project Hydrogeologist
S.C. Registration No. 2252

BMB/df

Enclosure

cc: Mr. Chris Wargo, UIC, SCDHEC

phone: 864.236.9010 • fax: 864.236.9097
3440 Augusta Road • Greenville, SC 29605 • www.envirosouth.com

Prepared for:

South Carolina Department of Health and Environmental Control
(SCDHEC)
Underground Storage Tank (UST) Program
2600 Bull Street
Columbia, South Carolina 29201

Attn: Mr. Joel Padgett

GROUNDWATER MONITORING REPORT

FORMER RED DIAMOND
519 EAST NORTH 1st STREET
SENECA, SOUTH CAROLINA

UST PERMIT #14324

Job No. 1334

Prepared by:

EnviroSouth, Inc.
3440 Augusta Road
Greenville, South Carolina 29605
SCDHEC Certification No. 257

January 17, 2013

INTRODUCTION

EnviroSouth has completed groundwater gauging and remediation services at the Former Red Diamond facility (UST Permit #14324) facility located in Seneca, South Carolina. The purpose of the gauging event was to evaluate the current water levels and thickness of free-phase petroleum in various monitoring wells and extraction points.

This report includes a description of the field/remediation services, along with our current findings, conclusions, and recommendations.

METHODS and FINDINGS

Groundwater Elevation and Movement

Water level measurements in all monitoring wells and extraction points were last recorded by EnviroSouth with a hydrocarbon sensitive electronic interface probe on December 31, 2012. The interface probe was decontaminated prior to and between each measurement to prevent cross-contamination between wells. The water table aquifer occurs under unconfined conditions underlying the site at depths ranging from 29.07 to 36.70 feet below land surface. Free product was not detected in of the monitoring wells. The TOC elevations, water level measurements, and ground water elevation data recorded to date are included on Table 1. Water levels and free-product thicknesses were also measured in the extraction wells. That data is presented in table 2.

A map of extraction point locations is included as Figure 1.

SOLAR, IN-WELL PRODUCT VOLITIZATION/VENTING

The solar remediation system was installed on February 16, 2011. The system uses solar cells/batteries for power, air pumps, and air diffusion stones for delivery of atmospheric air to or just above the product layer. The wells have a 3-feet tall stack that will keep surface runoff out of the well and a 180-degree fitting that will keep rainwater out of the well. A small-diameter plastic tube attached to the air pump enters the well and emits atmospheric air through a diffusion stone into the product layer at a rate of up to .5 cfm. The flow of air into and then out of the well increases volatilization of the product and vents it to the atmosphere.

The system has been installed in 18 existing extraction wells. The system is contained by a fenced compound.

FREE-PRODUCT THICKNESS REDUCTION

Free product is now absent in all monitoring wells. Free-product has been historically measured in twenty-three (23) extraction point wells and two (2) monitoring wells. Free-product is now present in seven (7) extraction point wells at reduced thicknesses.

CONCLUSIONS

The solar powered vent wells are in operation and we will be monitoring product thickness in the affected wells. We plan to run the system until all free-product is absent from the extraction point wells.

EnviroSouth, Inc.



Brendan M. Brodie, P.G.
Project Hydrogeologist
S.C. Registration No. 2252

BMB/df

cc: Mr. Chris Wargo, UIC, SCDHEC

APPENDICES

FIGURES

FIGURE 1 – Extraction Point Locations

TABLES

TABLE 1 - Groundwater Elevation Data
TABLE 2 - Product Thickness Data

FIGURE

EXPLANATION

MW-5 — MONITORING WELL

EP-5 — EXTRACTION POINT WELL

EAST NORTH 1ST STREET

EMPTY PARCEL

TRI-CITY LAUNDRY

Chain Link Fence

EP-16, EP-1, EP-10, EP-17, EP-2, EP-24, EP-14, EP-9, MW-4, EP-X, EP-21, EP-8, MW-5, EP-X, EP-20, EP-18, EP-11, EP-3, EP-15, EP-23, MW-1, EP-25, EP-4, EP-22, EP-7, Batteries, Pumps, EP-12, EP-5, GATE, EP-6, EP-19, GATE

Privacy Fence

Solar Panels

10 0 10 20

SCALE: 1" = 10'±

10/14/10	DRAWN BY DF	CHECKED BY BMB	SCALE 1"=10'±	JOB NO. 1334	FIGURE 1

ENVIROSOUTH Environmental Consultants

EXTRACTION POINT LOCATIONS

FORMER RED DIAMOND
519 EAST NORTH 1ST STREET
SENECA, SC
SDHEC UST ID #14324

TABLES

TABLE 1

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-1	4/18/03	98.32	29.07	33.27	4.20	65.05
	10/26/05		23.37	27.51	4.14	73.52
	5/4/06		25.64	26.71	1.07	72.41
	5/11/06		26.75	26.87	0.12	71.54
	6/6/06		26.26	26.40	0.14	72.03
	8/14/06		28.25	28.50	0.25	70.01
	2/9/07		27.74	28.22	0.48	70.46
	11/20/07		31.75	31.95	0.20	66.52
	6/5/08		32.00	32.15	0.15	66.28
	9/26/08		33.50	33.53	0.03	64.81
	1/22/09		32.93	33.10	0.17	65.35
	4/16/09		31.80	31.97	0.17	66.48
	9/18/09		32.25	32.35	0.10	66.05
	12/3/09		31.39	31.49	0.10	65.89
	4/17/10		31.41	31.49	0.08	66.89
	9/22/10		32.20	32.33	0.13	66.09
	2/10/11		29.50	30.00	0.50	67.95
	6/29/11		32.80	32.87	0.07	65.40
	12/30/11		–	33.19	ND	65.13
	03/12/12		–	33.21	ND	65.11
	07/04/12		–	33.43	ND	64.89
	12/31/12		–	33.52	ND	64.80
MW-2	6/5/08	98.60	–	33.30	ND	65.30
	9/26/08		–	34.71	ND	63.89
	1/22/09		–	34.70	ND	63.90
	4/16/09		–	33.72	ND	64.88
	9/18/09		–	34.12	ND	64.48
	12/3/09		–	33.23	ND	65.37
	4/17/10		–	33.26	ND	65.34
	9/22/10		–	34.30	ND	64.30
	2/10/11		–	32.42	ND	66.18
	6/29/11		–	33.89	ND	64.71
	12/30/11		–	34.08	ND	64.52
	03/12/12		–	34.07	ND	64.53
	07/04/12		–	34.36	ND	64.24
	12/31/12		–	33.98	ND	64.62

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-3	6/5/08	97.92	–	32.28	ND	65.64
	9/26/08		–	33.74	ND	64.18
	1/22/09		–	33.50	ND	64.42
	4/16/09		–	32.48	ND	65.44
	9/18/09		–	32.87	ND	65.05
	12/3/09		–	31.99	ND	65.93
	4/17/10		–	32.00	ND	65.92
	9/22/10		–	33.18	ND	64.74
	2/10/11		–	31.60	ND	66.32
	6/29/11		–	32.81	ND	65.11
	12/30/11		–	33.10	ND	64.82
	03/12/12		–	33.11	ND	64.81
	07/04/12		–	33.39	ND	64.53
	12/31/12		–	32.86	ND	65.06
MW-4	4/18/03	99.07	38.29	34.43	3.86	64.64
	10/26/05		24.75	27.61	2.86	73.61
	5/4/06		26.60	27.17	0.57	72.33
	6/6/06		27.27	27.28	0.01	71.79
	8/14/06		–	28.45	ND	70.62
	2/9/07		–	29.15	ND	69.92
	11/20/07		32.47	32.48	0.01	66.60
	6/5/08		32.40	34.72	2.32	66.09
	9/26/08		33.96	34.02	0.06	65.10
	1/22/09		34.20	34.46	0.26	64.81
	4/16/09		32.74	33.51	0.77	66.14
	9/18/09		33.20	33.41	0.21	65.82
	12/3/09		32.15	32.66	0.51	66.01
	4/17/10		32.20	32.68	0.48	66.76
	9/22/10		33.37	33.90	0.43	65.50
	2/10/11		31.10	31.91	0.81	66.55
	6/29/11		–	33.69	ND	65.38
	12/30/11		–	34.83	ND	64.24
	03/12/12		–	34.85	ND	64.22
	07/04/12		–	34.99	ND	64.08
	12/31/12		–	34.84	ND	64.23
MW-5	6/5/08	98.03	–	31.47	ND	66.56
	9/26/08		–	32.92	ND	65.11
	1/22/09		–	33.21	ND	64.82
	4/16/09		–	32.29	ND	65.74
	9/18/09		–	32.68	ND	65.35
	12/3/09		–	31.90	ND	66.13
	4/17/10		–	31.98	ND	66.05
	9/22/10		–	33.01	ND	65.02
	2/10/11		–	31.11	ND	66.92
	6/29/11		–	32.63	ND	65.40
	12/30/11		–	32.79	ND	65.24
	03/12/12		–	32.77	ND	65.26
	07/04/12		–	32.95	ND	65.08
	12/31/12		–	33.01	ND	65.02

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-7	6/5/08	99.30	–	35.19	ND	64.11
	9/26/08		–	36.62	ND	62.68
	1/22/09		–	36.66	ND	62.64
	4/16/09		–	35.67	ND	63.63
	9/18/09		–	36.00	ND	63.30
	12/3/09		–	35.28	ND	64.02
	4/17/10		–	35.31	ND	63.99
	9/22/10		–	36.70	ND	62.60
	2/10/11		–	34.62	ND	64.68
	6/29/11		–	35.88	ND	63.42
	12/30/11		–	35.99	ND	63.31
	03/12/12		–	35.97	ND	63.33
	07/04/12		–	36.22	ND	63.08
	12/31/12	DESTROYED				
MW-8	6/5/08	102.13	–	41.11	ND	61.02
	9/26/08		–	42.60	ND	59.53
	1/22/09		–	42.64	ND	59.49
	4/16/09		–	41.60	ND	60.53
	9/18/09		–	41.99	ND	60.14
	4/17/10		–	42.03	ND	60.10
	9/22/10		–	43.18	ND	58.95
	2/10/11		–	41.19	ND	60.94
	6/29/11		–	42.33	ND	59.80
	12/30/11		–	42.48	ND	59.65
	03/12/12		–	42.49	ND	59.64
	07/04/12		–	42.66	ND	59.47
	12/31/12		–	41.70	ND	60.43
MW-9	6/5/08	104.97	–	41.82	ND	63.15
	9/26/08		–	43.19	ND	61.78
	1/22/09		–	43.24	ND	61.73
	4/16/09		–	42.29	ND	62.68
	9/18/09		–	42.68	ND	62.29
	12/3/09		–	41.22	ND	63.25
	4/17/10		–	41.23	ND	63.74
	9/22/10		–	42.34	ND	62.63
	2/10/11		–	40.45	ND	64.52
	6/29/11		–	41.91	ND	63.06
	12/30/11		–	42.17	ND	62.80
	03/12/12		–	42.18	ND	62.79
	07/04/12		–	42.42	ND	62.55
	12/31/12		–	44.94	ND	60.03

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-10	6/5/08	104.50	–	43.10	ND	61.40
	9/26/08		–	44.63	ND	59.87
	1/22/09		–	44.67	ND	59.83
	4/16/09		–	43.70	ND	60.80
	9/18/09		–	44.10	ND	60.40
	12/3/09		–	43.33	ND	61.17
	4/17/10		–	43.37	ND	61.13
	9/22/10		–	44.51	ND	59.99
	2/10/11		–	42.12	ND	61.88
	6/29/11		–	42.72	ND	61.78
	12/30/11		–	42.90	ND	61.60
	03/12/12		–	42.89	ND	61.61
	07/04/12		–	43.16	ND	61.34
	12/31/12		–	43.49	ND	61.01
MW-11	6/5/08	102.92	–	40.20	ND	62.72
	9/26/08		–	41.73	ND	61.19
	1/22/09		–	41.80	ND	61.12
	4/16/09		–	40.94	ND	61.98
	9/18/09		–	41.36	ND	61.56
	12/3/09		–	40.51	ND	62.41
	4/17/10		–	40.60	ND	62.32
	9/22/10		–	41.80	ND	61.12
	2/10/11		–	40.01	ND	62.91
	6/29/11		–	41.31	ND	61.61
	12/30/11		–	41.47	ND	61.45
	03/12/12		–	41.46	ND	61.46
	07/04/12		–	41.71	ND	61.21
	12/31/12	MISSING				
MW-12	6/5/08	99.12	–	33.77	ND	65.35
	9/26/08		–	35.21	ND	63.91
	1/22/09		–	36.61	ND	62.51
	4/16/09		–	35.72	ND	63.40
	9/18/09		–	35.99	ND	63.13
	12/3/09		–	35.20	ND	63.92
	4/17/10		–	35.22	ND	63.90
	9/22/10		–	36.31	ND	62.81
	2/10/11		–	34.35	ND	64.77
	6/29/11		–	35.74	ND	63.38
	12/30/11		–	35.93	ND	63.19
	03/12/12		–	35.94	ND	63.18
	07/04/12		–	36.19	ND	62.93
	12/31/12		–	36.70	ND	62.42

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-13	6/5/08	99.41	--	36.17	ND	63.24
	9/26/08		--	37.68	ND	61.73
	1/22/09		--	37.73	ND	61.68
	4/16/09		--	37.70	ND	61.71
	9/18/09		--	38.11	ND	61.30
	12/3/09		--	37.29	ND	62.12
	4/17/10		--	37.28	ND	62.13
	9/22/10		--	38.31	ND	61.10
	2/10/11		--	36.27	ND	63.14
	6/29/11		--	37.80	ND	61.61
	12/30/11		--	35.71	ND	63.70
	03/12/12		--	35.72	ND	63.69
	07/04/12		--	35.91	ND	63.50
	12/31/12		--	37.13	ND	62.28
MW-17	6/5/08	93.98	--	31.09	ND	62.89
	9/26/08		--	32.59	ND	61.39
	1/22/09		--	32.61	ND	61.37
	4/16/09		--	31.59	ND	62.39
	9/18/09		--	31.93	ND	62.05
	12/3/09		--	31.16	ND	62.82
	4/17/10		--	31.17	ND	62.81
	9/22/10		--	32.21	ND	61.77
	2/10/11		--	30.19	ND	63.79
	6/29/11		--	31.42	ND	62.56
	12/30/11		--	31.58	ND	62.40
	03/12/12		--	31.59	ND	62.39
	07/04/12		--	31.82	ND	62.16
	12/31/12		--	27.79	ND	66.19
MW-19	6/5/08	99.58	--	35.26	ND	64.32
	9/26/08		--	36.71	ND	62.87
	1/22/09		--	36.74	ND	62.84
	4/16/09		--	35.80	ND	63.78
	9/18/09		--	36.18	ND	63.40
	12/3/09		--	36.49	ND	63.37
	4/17/10		--	36.50	ND	63.08
	9/22/10		--	37.70	ND	61.88
	2/10/11		--	35.62	ND	63.96
	6/29/11		--	37.01	ND	62.57
	12/30/11		--	36.44	ND	63.14
	03/12/12		--	36.46	ND	63.12
	07/04/12		--	36.71	ND	62.87
	12/31/12		--	37.75	ND	61.83

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-20	6/5/08	99.86	--	36.40	ND	63.46
	9/26/08		--	37.88	ND	61.98
	1/22/09		--	37.89	ND	61.97
	4/16/09		--	37.00	ND	62.86
	9/18/09		--	37.39	ND	62.47
	12/3/09		--	36.49	ND	63.30
	4/17/10		--	36.52	ND	63.34
	9/22/10		--	32.69	ND	62.17
	2/10/11		--	30.41	ND	69.45
	6/29/11		--	31.86	ND	68.00
	12/30/11		--	31.96	ND	67.90
	03/12/12		--	31.97	ND	67.89
	07/04/12		--	32.23	ND	67.63
	12/31/12		--	37.00	ND	62.86
MW-22	6/5/08	89.60	--	35.21	ND	54.39
	9/26/08		--	36.73	ND	52.87
	1/22/09		--	36.75	ND	52.85
	4/16/09		--	35.83	ND	53.77
	9/18/09		--	36.18	ND	53.42
	12/3/09		--	35.42	ND	54.18
	4/17/10		--	35.43	ND	54.17
	9/22/10		--	36.42	ND	53.18
	2/10/11		--	34.41	ND	55.19
	6/29/11		--	35.75	ND	53.85
	12/30/11		--	35.88	ND	53.72
	03/12/12		--	35.87	ND	53.73
	07/04/12		--	36.92	ND	52.68
	12/31/12		--	32.72	ND	56.88

Notes: *1) ND = None Detected*
2) NM = Not Measured

TABLE 1

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-1	4/18/03	98.32	29.07	33.27	4.20	65.05
	10/26/05		23.37	27.51	4.14	73.52
	5/4/06		25.64	26.71	1.07	72.41
	5/11/06		26.75	26.87	0.12	71.54
	6/6/06		26.26	26.40	0.14	72.03
	8/14/06		28.25	28.50	0.25	70.01
	2/9/07		27.74	28.22	0.48	70.46
	11/20/07		31.75	31.95	0.20	66.52
	6/5/08		32.00	32.15	0.15	66.28
	9/26/08		33.50	33.53	0.03	64.81
	1/22/09		32.93	33.10	0.17	65.35
	4/16/09		31.80	31.97	0.17	66.48
	9/18/09		32.25	32.35	0.10	66.05
	12/3/09		31.39	31.49	0.10	65.89
	4/17/10		31.41	31.49	0.08	66.89
	9/22/10		32.20	32.33	0.13	66.09
	2/10/11		29.50	30.00	0.50	67.95
	6/29/11		32.80	32.87	0.07	65.40
	12/30/11		--	33.19	ND	65.13
	03/12/12		--	33.21	ND	65.11
	07/04/12		--	33.43	ND	64.89
	12/31/12		--	33.52	ND	64.80
MW-2	6/5/08	98.60	--	33.30	ND	65.30
	9/26/08		--	34.71	ND	63.89
	1/22/09		--	34.70	ND	63.90
	4/16/09		--	33.72	ND	64.88
	9/18/09		--	34.12	ND	64.48
	12/3/09		--	33.23	ND	65.37
	4/17/10		--	33.26	ND	65.34
	9/22/10		--	34.30	ND	64.30
	2/10/11		--	32.42	ND	66.18
	6/29/11		--	33.89	ND	64.71
	12/30/11		--	34.08	ND	64.52
	03/12/12		--	34.07	ND	64.53
	07/04/12		--	34.36	ND	64.24
	12/31/12		--	33.98	ND	64.62

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-3	6/5/08	97.92	–	32.28	ND	65.64
	9/26/08		–	33.74	ND	64.18
	1/22/09		–	33.50	ND	64.42
	4/16/09		–	32.48	ND	65.44
	9/18/09		–	32.87	ND	65.05
	12/3/09		–	31.99	ND	65.93
	4/17/10		–	32.00	ND	65.92
	9/22/10		–	33.18	ND	64.74
	2/10/11		–	31.60	ND	66.32
	6/29/11		–	32.81	ND	65.11
	12/30/11		–	33.10	ND	64.82
	03/12/12		–	33.11	ND	64.81
	07/04/12		–	33.39	ND	64.53
	12/31/12		–	32.86	ND	65.06
MW-4	4/18/03	99.07	38.29	34.43	3.86	64.64
	10/26/05		24.75	27.61	2.86	73.61
	5/4/06		26.60	27.17	0.57	72.33
	6/6/06		27.27	27.28	0.01	71.79
	8/14/06		–	28.45	ND	70.62
	2/9/07		–	29.15	ND	69.92
	11/20/07		32.47	32.48	0.01	66.60
	6/5/08		32.40	34.72	2.32	66.09
	9/26/08		33.96	34.02	0.06	65.10
	1/22/09		34.20	34.46	0.26	64.81
	4/16/09		32.74	33.51	0.77	66.14
	9/18/09		33.20	33.41	0.21	65.82
	12/3/09		32.15	32.66	0.51	66.01
	4/17/10		32.20	32.68	0.48	66.76
	9/22/10		33.37	33.90	0.43	65.50
	2/10/11		31.10	31.91	0.81	66.55
	6/29/11		–	33.69	ND	65.38
	12/30/11		–	34.83	ND	64.24
	03/12/12		–	34.85	ND	64.22
	07/04/12		–	34.99	ND	64.08
	12/31/12		–	34.84	ND	64.23
MW-5	6/5/08	98.03	–	31.47	ND	66.56
	9/26/08		–	32.92	ND	65.11
	1/22/09		–	33.21	ND	64.82
	4/16/09		–	32.29	ND	65.74
	9/18/09		–	32.68	ND	65.35
	12/3/09		–	31.90	ND	66.13
	4/17/10		–	31.98	ND	66.05
	9/22/10		–	33.01	ND	65.02
	2/10/11		–	31.11	ND	66.92
	6/29/11		–	32.63	ND	65.40
	12/30/11		–	32.79	ND	65.24
	03/12/12		–	32.77	ND	65.26
	07/04/12		–	32.95	ND	65.08
	12/31/12		–	33.01	ND	65.02

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-7	6/5/08	99.30	--	35.19	ND	64.11
	9/26/08		--	36.62	ND	62.68
	1/22/09		--	36.66	ND	62.64
	4/16/09		--	35.67	ND	63.63
	9/18/09		--	36.00	ND	63.30
	12/3/09		--	35.28	ND	64.02
	4/17/10		--	35.31	ND	63.99
	9/22/10		--	36.70	ND	62.60
	2/10/11		--	34.62	ND	64.68
	6/29/11		--	35.88	ND	63.42
	12/30/11		--	35.99	ND	63.31
	03/12/12		--	35.97	ND	63.33
	07/04/12		--	36.22	ND	63.08
	12/31/12	DESTROYED				
MW-8	6/5/08	102.13	--	41.11	ND	61.02
	9/26/08		--	42.60	ND	59.53
	1/22/09		--	42.64	ND	59.49
	4/16/09		--	41.60	ND	60.53
	9/18/09		--	41.99	ND	60.14
	4/17/10		--	42.03	ND	60.10
	9/22/10		--	43.18	ND	58.95
	2/10/11		--	41.19	ND	60.94
	6/29/11		--	42.33	ND	59.80
	12/30/11		--	42.48	ND	59.65
	03/12/12		--	42.49	ND	59.64
	07/04/12		--	42.66	ND	59.47
	12/31/12		--	41.70	ND	60.43
MW-9	6/5/08	104.97	--	41.82	ND	63.15
	9/26/08		--	43.19	ND	61.78
	1/22/09		--	43.24	ND	61.73
	4/16/09		--	42.29	ND	62.68
	9/18/09		--	42.68	ND	62.29
	12/3/09		--	41.22	ND	63.25
	4/17/10		--	41.23	ND	63.74
	9/22/10		--	42.34	ND	62.63
	2/10/11		--	40.45	ND	64.52
	6/29/11		--	41.91	ND	63.06
	12/30/11		--	42.17	ND	62.80
	03/12/12		--	42.18	ND	62.79
	07/04/12		--	42.42	ND	62.55
	12/31/12		--	44.94	ND	60.03

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-10	6/5/08	104.50	--	43.10	ND	61.40
	9/26/08		--	44.63	ND	59.87
	1/22/09		--	44.67	ND	59.83
	4/16/09		--	43.70	ND	60.80
	9/18/09		--	44.10	ND	60.40
	12/3/09		--	43.33	ND	61.17
	4/17/10		--	43.37	ND	61.13
	9/22/10		--	44.51	ND	59.99
	2/10/11		--	42.12	ND	61.88
	6/29/11		--	42.72	ND	61.78
	12/30/11		--	42.90	ND	61.60
	03/12/12		--	42.89	ND	61.61
	07/04/12		--	43.16	ND	61.34
	12/31/12		--	43.49	ND	61.01
MW-11	6/5/08	102.92	--	40.20	ND	62.72
	9/26/08		--	41.73	ND	61.19
	1/22/09		--	41.80	ND	61.12
	4/16/09		--	40.94	ND	61.98
	9/18/09		--	41.36	ND	61.56
	12/3/09		--	40.51	ND	62.41
	4/17/10		--	40.60	ND	62.32
	9/22/10		--	41.80	ND	61.12
	2/10/11		--	40.01	ND	62.91
	6/29/11		--	41.31	ND	61.61
	12/30/11		--	41.47	ND	61.45
	03/12/12		--	41.46	ND	61.46
	07/04/12		--	41.71	ND	61.21
	12/31/12	MISSING				
MW-12	6/5/08	99.12	--	33.77	ND	65.35
	9/26/08		--	35.21	ND	63.91
	1/22/09		--	36.61	ND	62.51
	4/16/09		--	35.72	ND	63.40
	9/18/09		--	35.99	ND	63.13
	12/3/09		--	35.20	ND	63.92
	4/17/10		--	35.22	ND	63.90
	9/22/10		--	36.31	ND	62.81
	2/10/11		--	34.35	ND	64.77
	6/29/11		--	35.74	ND	63.38
	12/30/11		--	35.93	ND	63.19
	03/12/12		--	35.94	ND	63.18
	07/04/12		--	36.19	ND	62.93
	12/31/12		--	36.70	ND	62.42

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-13	6/5/08	99.41	–	36.17	ND	63.24
	9/26/08		–	37.68	ND	61.73
	1/22/09		–	37.73	ND	61.68
	4/16/09		–	37.70	ND	61.71
	9/18/09		–	38.11	ND	61.30
	12/3/09		–	37.29	ND	62.12
	4/17/10		–	37.28	ND	62.13
	9/22/10		–	38.31	ND	61.10
	2/10/11		–	36.27	ND	63.14
	6/29/11		–	37.80	ND	61.61
	12/30/11		–	35.71	ND	63.70
	03/12/12		–	35.72	ND	63.69
	07/04/12		–	35.91	ND	63.50
	12/31/12		–	37.13	ND	62.28
MW-17	6/5/08	93.98	–	31.09	ND	62.89
	9/26/08		–	32.59	ND	61.39
	1/22/09		–	32.61	ND	61.37
	4/16/09		–	31.59	ND	62.39
	9/18/09		–	31.93	ND	62.05
	12/3/09		–	31.16	ND	62.82
	4/17/10		–	31.17	ND	62.81
	9/22/10		–	32.21	ND	61.77
	2/10/11		–	30.19	ND	63.79
	6/29/11		–	31.42	ND	62.56
	12/30/11		–	31.58	ND	62.40
	03/12/12		–	31.59	ND	62.39
	07/04/12		–	31.82	ND	62.16
	12/31/12		–	27.79	ND	66.19
MW-19	6/5/08	99.58	–	35.26	ND	64.32
	9/26/08		–	36.71	ND	62.87
	1/22/09		–	36.74	ND	62.84
	4/16/09		–	35.80	ND	63.78
	9/18/09		–	36.18	ND	63.40
	12/3/09		–	36.49	ND	63.37
	4/17/10		–	36.50	ND	63.08
	9/22/10		–	37.70	ND	61.88
	2/10/11		–	35.62	ND	63.96
	6/29/11		–	37.01	ND	62.57
	12/30/11		–	36.44	ND	63.14
	03/12/12		–	36.46	ND	63.12
	07/04/12		–	36.71	ND	62.87
	12/31/12		–	37.75	ND	61.83

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-20	6/5/08	99.86	--	36.40	ND	63.46
	9/26/08		--	37.88	ND	61.98
	1/22/09		--	37.89	ND	61.97
	4/16/09		--	37.00	ND	62.86
	9/18/09		--	37.39	ND	62.47
	12/3/09		--	36.49	ND	63.30
	4/17/10		--	36.52	ND	63.34
	9/22/10		--	32.69	ND	62.17
	2/10/11		--	30.41	ND	69.45
	6/29/11		--	31.86	ND	68.00
	12/30/11		--	31.96	ND	67.90
	03/12/12		--	31.97	ND	67.89
	07/04/12		--	32.23	ND	67.63
	12/31/12		--	37.00	ND	62.86
MW-22	6/5/08	89.60	--	35.21	ND	54.39
	9/26/08		--	36.73	ND	52.87
	1/22/09		--	36.75	ND	52.85
	4/16/09		--	35.83	ND	53.77
	9/18/09		--	36.18	ND	53.42
	12/3/09		--	35.42	ND	54.18
	4/17/10		--	35.43	ND	54.17
	9/22/10		--	36.42	ND	53.18
	2/10/11		--	34.41	ND	55.19
	6/29/11		--	35.75	ND	53.85
	12/30/11		--	35.88	ND	53.72
	03/12/12		--	35.87	ND	53.73
	07/04/12		--	36.92	ND	52.68
	12/31/12		--	32.72	ND	56.88

Notes: 1) ND = None Detected
2) NM = Not Measured

TABLE 2

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-1	2/9/07	–	30.08	ND
	11/20/07	–	DRY	–
	6/5/08	–	DRY	–
	9/26/08	–	DRY	–
	1/22/09	–	34.18	ND
	4/16/09	–	33.04	ND
	7/23/09	–	32.59	ND
	9/18/09	–	32.61	ND
	12/3/09	–	31.03	ND
	4/17/10	–	31.00	ND
	9/22/10	–	32.10	ND
	2/10/11	–	31.37	ND
	6/29/11	–	30.50	ND
	12/30/11	–	30.71	ND
	3/12/12	–	30.72	ND
	7/4/12	–	30.89	ND
	12/31/12	–	31.02	ND
EP-2	2/9/07	28.98	30.22	1.24
	11/20/07	32.15	32.41	0.26
	6/5/08	–	DRY	–
	9/26/08	32.97	32.98	0.01
	1/22/09	–	DRY	–
	4/16/09	–	DRY	–
	7/23/09	32.44	32.48	0.04
	9/18/09	32.43	32.44	0.01
	12/3/09	–	31.35	ND
	4/17/10	–	31.37	ND
	9/22/10	32.40	32.43	0.03
	2/10/11	30.89	31.60	0.71
	6/29/11	33.73	34.87	1.14
	12/30/11	34.80	35.10	0.30
	3/12/12	34.83	35.68	0.21
	7/4/12	34.90	35.15	0.25
	12/31/12	34.75	34.85	0.10
EP-3	2/9/07	29.06	29.30	0.24
	11/20/07	–	DRY	–
	6/5/08	–	DRY	–
	9/26/08	–	DRY	–
	1/22/09	–	DRY	–
	4/16/09	–	DRY	–
	7/23/09	32.25	32.27	0.02
	9/18/09	32.26	32.27	0.01
	12/3/09	–	31.39	ND

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-3 Continued	4/17/10	31.39	31.40	0.01
	9/22/10	32.35	32.40	0.05
	2/10/11	30.70	31.26	0.56
	3/12/12	30.66	31.09	0.43
	7/4/12	30.81	31.20	0.39
	12/31/12	30.83	30.94	0.11
EP-4	2/9/07	–	27.85	ND
	11/20/07	–	31.70	ND
	6/5/08	NM	NM	0.1
	9/26/08	–	DRY	–
	1/22/09	–	32.60	ND
	4/16/09	32.42	32.64	0.22
	7/23/09	NM	NM	ND
	9/18/09	NM	NM	NM
	12/3/09	NM	NM	NM
	4/17/10	NM	NM	NM
	9/22/10	NM	NM	NM
	2/10/11	30.0	30.21	0.21
	6/29/11	–	30.80	ND
	12/30/11	–	31.54	ND
	3/12/12	–	31.52	ND
	7/4/12	–	31.68	ND
	12/31/12	–	31.65	ND
EP-5	2/9/07	–	27.68	ND
	11/20/07	–	32.40	ND
	6/5/08	NM	NM	0.15
	9/26/08	–	DRY	–
	1/22/09	–	32.79	ND
	4/16/09	31.04	31.26	0.22
	7/23/09	31.18	31.47	0.29
	9/18/09	31.19	31.43	0.24
	12/3/09	30.33	30.53	0.20
	4/17/10	30.30	30.51	0.21
	9/22/10	31.40	31.71	0.31
	2/10/11	29.15	29.22	0.07
	6/29/11	29.34	29.36	0.02
	3/12/12	29.36	29.37	0.01
	7/4/12	29.49	29.52	0.02
	12/31/12	–	29.54	ND
EP-6	2/9/07	27.91	27.96	0.05
	11/20/07	–	DRY	–
	6/5/08	NM	NM	ND
	9/26/08	–	DRY	–
	1/22/09	–	32.56	ND
	4/16/09	31.26	31.94	0.68
	7/23/09	31.22	31.83	0.61
	9/18/09	31.24	31.70	0.46

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-6 Continued	12/3/09	30.40	30.59	0.19
	4/17/10	30.42	30.60	0.08
	9/22/10	31.50	31.70	0.20
	2/10/11	NM	NM	NM
	6/29/11	32.49	32.75	0.26
	12/30/11	–	32.81	ND
	3/12/12	–	32.83	ND
	7/4/12	–	32.99	ND
	12/31/12	–	33.41	ND
EP-7	2/9/07	28.63	28.64	0.01
	11/20/07	–	DRY	–
	6/5/08	–	DRY	–
	9/26/08	–	DRY	–
	1/22/09	–	32.75	ND
	4/16/09	32.37	32.55	0.18
	7/23/09	31.93	32.07	0.14
	9/18/09	31.95	32.05	0.10
	12/3/09	31.06	31.11	0.05
	4/17/10	36.00	31.20	0.20
	9/22/10	32.02	32.09	0.08
	2/10/11	30.62	30.70	0.08
	6/29/11	–	33.57	ND
	12/30/11	–	33.80	ND
	3/12/12	–	33.84	ND
	7/4/12	–	33.94	ND
	12/31/12	–	34.40	ND
EP-8	11/20/07	32.00	32.77	0.77
	6/5/08	–	MISSING	–
	9/26/08	–	MISSING	–
	1/22/09	–	33.10	ND
	4/16/09	31.55	31.62	0.07
	7/23/09	31.28	31.53	0.25
	9/18/09	31.30	31.50	0.20
	12/3/09	30.53	30.87	0.34
	4/17/10	30.50	30.81	0.31
	9/22/10	31.60	31.72	0.12
	2/10/11	29.80	30.21	0.38
	6/29/11	32.99	33.33	0.34
	12/30/11	33.57	33.58	0.01
	3/12/12	–	33.59	ND
	7/4/12	–	33.73	ND
	12/31/12	–	33.90	ND

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-9	2/9/07	27.77	28.67	0.90
	11/20/07	–	31.42	ND
	6/5/08	NM	NM	0.02
	9/26/08	32.94	32.95	0.01
	1/22/09	–	34.40	ND
	4/16/09	–	31.61	ND
	7/23/09	NM	NM	ND
	9/18/09	–	32.00	ND
	12/3/09	NM	ND	NM
	4/17/10	31.02	31.03	0.01
	9/22/10	32.10	32.12	0.02
	2/10/11	–	31.13	ND
	6/29/11	29.03	29.93	0.50
	3/12/12	29.60	29.82	0.22
	7/4/12	29.78	29.98	0.20
	12/31/12	29.82	29.86	0.04
EP-10	2/9/07	29.02	29.58	0.56
	11/20/07	33.00	33.80	0.80
	6/5/08	NM	NM	1.30
	9/26/08	–	DRY	–
	1/22/09	34.20	34.59	0.39
	4/16/09	32.64	33.83	1.19
	7/23/09	32.10	33.03	0.93
	9/18/09	32.15	33.00	0.85
	12/3/09	31.26	31.67	0.41
	4/17/10	31.67	31.90	0.23
	9/22/10	32.36	32.56	0.20
	2/10/11	31.15	31.53	0.38
	6/29/11	31.85	32.75	0.90
	12/30/11	33.33	33.35	0.02
	3/12/12	–	33.37	ND
	7/4/12	–	33.49	ND
	12/31/12	–	33.48	ND
EP-11	2/9/07	29.08	29.25	0.17
	11/20/07	32.25	32.30	0.05
	6/5/08	NM	NM	0.85
	9/26/08	33.72	34.13	0.41
	1/22/09	34.10	34.55	0.45
	4/16/09	32.87	32.95	0.08
	7/23/09	33.17	34.17	1.00
	9/18/09	33.19	34.00	0.81
	12/3/09	32.29	32.62	0.33
	4/17/10	32.28	32.60	0.32
	9/22/10	33.40	33.61	0.21
	2/11/10	30.34	31.40	1.06

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-11 Continued	6/29/11	–	33.80	ND
	12/30/11	–	34.90	ND
	3/12/12	–	34.41	ND
	7/4/12	34.79	34.81	0.02
	12/31/12	–	34.65	ND
EP-12	2/9/07	29.02	29.04	0.02
	11/20/07	31.90	32.20	0.30
	6/5/08	NM	NM	1.00
	9/28/08	–	33.51	–
	1/22/09	33.60	33.87	0.27
	4/16/09	32.52	33.73	1.21
	7/23/09	31.80	33.03	1.23
	9/18/09	31.80	32.90	1.10
	12/3/09	31.04	31.95	0.91
	4/17/10	31.09	31.80	0.91
	9/22/10	32.02	33.01	0.99
	2/11/10	30.78	31.70	0.92
	6/29/11	33.55	33.82	0.27
	12/30/11	34.39	34.59	0.20
	3/12/12	34.38	34.56	0.18
	7/4/12	34.52	34.74	0.22
	12/31/12	34.59	34.61	0.05
EP-13	2/9/07	–	32.45	ND
	11/20/07	–	36.20	ND
	6/5/08	NM	NM	ND
	9/28/08	NM	NM	ND
	1/22/09	–	37.27	ND
	4/16/09	–	36.40	ND
	7/23/09	NM	NM	ND
	9/18/09	–	36.80	ND
	12/3/09	NM	NM	NM
	4/17/10	NM	NM	NM
	9/22/10	NM	NM	NM
	2/10/11	–	32.13	ND
	6/29/11	–	33.25	ND
	3/12/12	–	33.27	ND
	7/4/12	–	33.41	ND
	12/31/12	–	33.43	ND
EP-14	2/9/07	–	29.02	ND
	11/20/07	–	32.20	ND
	6/5/08	NM	NM	NM
	9/28/08	–	33.60	TRACE
	1/22/09	–	34.00	ND
	4/16/09	–	32.60	ND
	7/23/09	NM	NM	ND
	9/18/09	–	33.01	NM
	12/3/09	NM	NM	NM

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-14 Continued	4/17/10	NM	NM	NM
	9/22/10	NM	NM	NM
	2/10/11	MN	MN	MN
	6/29/11	–	30.12	ND
	3/12/12	–	30.13	ND
	7/4/12	–	30.29	ND
	12/31/12	–	30.40	ND
EP-15	2/9/07	–	29.12	ND
	11/20/07	–	32.70	ND
	6/5/08	NM	NM	NM
	9/28/08	NM	NM	NM
	1/22/09	–	33.73	ND
	4/16/09	–	32.27	ND
	7/23/09	NM	NM	NM
	9/18/09	–	32.60	ND
	12/3/09	NM	NM	NM
	4/17/10	NM	NM	NM
	9/22/10	NM	NM	NM
	2/10/11	NM	NM	NM
	6/29/11	33.42	33.72	0.30
	12/30/11	–	34.18	ND
	3/12/12	–	34.14	ND
	7/4/12	–	34.30	ND
	12/31/12	–	34.40	ND
EP-16	2/9/07	29.22	29.23	0.01
	11/20/07	32.30	32.40	0.10
	6/5/08	–	DRY	–
	9/28/08	–	DRY	–
	1/22/09	33.90	34.02	0.12
	4/16/09	33.04	33.18	0.14
	7/23/09	32.31	32.36	0.05
	9/18/09	32.30	32.31	0.01
	12/3/09	–	31.47	ND
	4/17/10	31.48	31.49	0.01
	9/22/10	32.50	32.52	0.02
	2/10/11	30.99	31.60	0.61
	6/29/11	30.72	31.03	0.31
	12/30/11	–	31.39	ND
	3/12/12	–	31.41	ND
	7/4/12	–	31.76	ND
	12/31/12	–	31.60	ND
EP-17	2/9/07	–	29.57	ND
	11/20/07	–	32.17	ND
	6/5/08	–	DRY	–
	9/28/08	–	DRY	–
	1/22/09	–	33.78	ND
	4/16/09	32.80	33.57	0.77
	7/23/09	32.13	32.92	0.79

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-17 Continued	9/18/09	32.15	32.80	0.65
	12/3/09	31.32	31.69	0.37
	4/17/10	31.30	31.60	0.30
	9/22/10	32.28	32.40	0.12
	2/10/11	30.87	31.66	0.79
	6/29/11	33.63	34.31	0.68
	12/30/11	34.83	35.32	0.52
	3/12/12	34.90	35.27	0.37
	7/4/12	35.07	35.58	0.41
	12/31/12	34.41	34.63	0.22
EP-18	2/9/07	29.08	29.33	0.25
	11/20/07	31.41	32.00	0.59
	6/5/08	NM	NM	0.75
	9/28/08	–	32.73	–
	1/22/09	–	32.75	ND
	4/16/09	–	32.73	ND
	7/23/09	NM	NM	ND
	9/18/09	–	33.10	ND
	12/3/09	31.31	31.59	0.28
	4/17/10	31.30	31.50	0.20
	9/22/10	32.38	32.51	0.13
	2/10/11	30.98	30.99	0.01
	6/29/11	–	33.91	ND
	12/30/11	–	35.10	ND
	3/12/12	–	35.08	ND
	7/4/12	35.25	35.27	0.02
	12/31/12	–	34.76	ND
EP-19	2/9/07	–	29.43	ND
	11/20/07	–	32.15	ND
	6/5/08	NM	NM	0.09
	9/28/08	NM	NM	ND
	1/22/09	–	34.01	ND
	4/16/09	–	32.84	ND
	7/23/09	NM	NM	ND
	9/18/09	33.10	33.20	0.10
	12/3/09	32.23	32.45	0.22
	4/17/10	32.23	32.33	0.10
	9/22/10	33.26	33.29	0.03
	2/10/11	30.95	31.90	0.95
	6/29/11	33.55	33.97	0.42
	12/30/11	–	34.78	ND
	3/12/12	–	34.76	ND
	7/4/12	34.99	35.06	0.07
	12/31/12	34.61	34.62	0.01

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-20	2/9/07	29.68	30.17	0.49
	11/20/07	32.40	32.50	0.10
	6/5/08	NM	NM	0.20
	9/28/08	–	32.47	–
	1/22/09	–	32.49	ND
	4/16/09	–	32.59	ND
	7/23/09	32.60	32.62	0.02
	9/18/09	–	32.64	ND
	12/3/09	–	32.01	ND
	4/17/10	–	32.00	ND
	9/22/10	–	33.09	ND
	2/10/11	31.25	31.93	0.68
	6/29/11	–	30.80	ND
	12/30/11	–	32.38	ND
	3/12/12	–	32.37	ND
	7/4/12	–	32.50	ND
	12/31/12	–	31.60	ND
EP-21	2/9/07	–	29.57	ND
	11/20/07	–	32.55	ND
	6/5/08	NM	NM	ND
	9/28/08	NM	NM	ND
	1/22/09	–	34.47	ND
	7/23/09	32.46	32.49	0.03
	9/18/09	32.47	32.48	0.01
	12/3/09	–	31.65	ND
	4/17/10	–	31.67	ND
	9/22/10	32.60	32.61	0.01
	2/10/11	–	31.35	ND
	6/29/11	–	30.50	ND
	3/12/12	–	30.53	ND
	7/4/12	–	30.78	ND
	12/31/12	–	30.88	ND
EP-22	2/9/07	–	29.07	ND
	11/20/07	–	32.65	ND
	6/5/08	–	DRY	–
	9/28/08	–	DRY	–
	1/22/09	–	34.21	ND
	4/16/09	32.68	32.73	0.05
	7/23/09	31.73	31.78	0.05
	9/18/09	31.72	31.75	0.03
	12/3/09	30.99	31.47	0.48
	4/17/10	30.98	31.35	0.36
	9/22/10	32.02	32.40	0.38
	2/10/11	NM	NM	NM

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-22 Continued	6/29/11	33.30	33.91	0.61
	12/30/11	–	34.45	ND
	3/12/12	–	34.49	ND
	7/4/12	–	34.77	ND
	12/31/12	–	34.52	ND
EP-23	2/9/07	27.94	27.99	0.05
	11/20/07	32.00	32.12	0.12
	6/5/08	NM	NM	ND
	9/28/08	–	32.80	–
	1/22/09	–	32.76	ND
	4/16/09	31.00	31.09	0.09
	7/23/09	31.43	31.45	0.02
	9/18/09	31.40	31.45	0.05
	12/3/09	29.18	29.32	0.14
	4/17/10	29.19	29.29	0.10
	9/22/10	30.15	30.18	0.03
	2/11/10	29.98	30.00	0.02
	6/29/11	32.66	32.68	0.02
	12/30/11	32.76	32.86	0.10
	3/12/12	32.79	32.81	0.03
	7/4/12	33.02	33.03	0.01
	12/31/12	–	33.53	ND
EP-24	2/9/07	29.33	29.68	0.35
	11/20/07	31.91	32.10	0.19
	6/5/08	–	DRY	–
	9/28/08	–	DRY	–
	1/22/09	31.86	32.03	0.17
	4/16/09	–	DRY	–
	7/23/09	–	DRY	–
	9/18/09	–	DRY	–
	12/3/09	31.17	31.75	0.58
	4/17/10	31.18	31.70	0.52
	9/22/10	–	DRY	–
	2/10/11	NM	NM	NM
	6/29/11	33.74	33.93	0.19
	12/30/11	34.59	34.65	0.06
	3/12/12	34.60	34.62	0.02
	7/4/12	34.82	34.89	0.07
	12/31/12	34.52	34.53	0.01

TABLE 2 (Continued)

PRODUCT THICKNESS DATA

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-25	2/9/07	–	27.88	ND
	11/20/07	–	31.70	ND
	6/5/08	NM	NM	ND
	9/28/08	33.32	33.33	0.01
	1/22/09	–	33.00	ND
	4/16/09	32.14	32.59	0.45
	7/23/09	31.08	31.91	0.83
	9/18/09	31.09	31.79	0.70
	12/3/09	29.71	30.13	0.42
	4/17/10	29.77	30.10	0.33
	9/22/10	30.90	31.23	0.33
	2/10/11	29.71	30.02	0.31
	6/29/11	32.75	32.76	0.01
	12/30/11	–	33.31	ND
	3/12/12	–	33.29	ND
	7/4/12	–	33.65	ND
	12/31/12	–	33.59	ND

Notes: 1) ND = None Detected
2) NM = Not Measured

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment



FEB 05 2013

MR BRENDAN M BRODIE PG
ENVIROSOUTH ENVIRONMENTAL CONSULTANTS
3440 AUGUSTA RD
GREENVILLE SC 29605

Re: CASE report review
Former Red Diamond Oil Company, 519 East North 1st Street, Seneca, SC
UST Permit #14324; CA #25430
Bid #IFB-28949-10/4/05-EMW; PO #605692
Release reported December 30, 1991
CASE report received January 22, 2013
Oconee County

Dear Mr. Brodie:

The Underground Storage Tank (UST) Management Division has reviewed the referenced report. Based upon the current data, the Division concurs with your free-phase product reduction calculation of 100% in the SSTL wells (FP still remains in extraction points).

The Division notes that the referenced report documents a gauging event conducted on December31, 2012. The gauging event will satisfy corrective action monitoring requirements for the October 2012-December 2012 quarter. However, no report documenting a gauging event for the July 2012-September 2012 quarter has been received. Accordingly, this quarter has been entered into the database as report not received. Please be aware that corrective action reports must be submitted on a quarterly basis unless otherwise approved by the Division.

The next CASE report documenting activities conducted during the January 2013-March 2013 quarterly monitoring period is due on or before **May 1, 2013**. On all correspondence regarding this site, please reference UST Permit #14324. If you have any questions regarding this correspondence, feel free to contact me by telephone at (803) 896-6398, by fax at (803) 896-6245, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Geologist/Hydrologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

JPP/jpp
14324.23

cc: Betty Latham, 2 Stratton Place, Greenville, SC 29615-4217 (w/enc)
Technical file (w/o enc)

DHEC/UST/JPP/020513

D H E C
PROMOTE PROTECT PROSPER

Padgett, Joel P. <padgetjp@dhec.sc.gov>

Former Red Diamond, Seneca (#14324)

2 messages

Thomas Donn <tdonn@envirosouth.com> Tue, Apr 30, 2013 at 9:51 AM
To: "Joel P. Padgett" <Padgetjp@dhec.sc.gov>

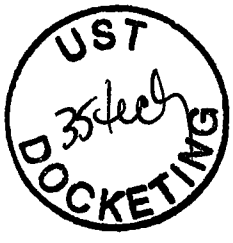
Joel,

With you approval, the quarterly report due tomorrow for this site will be 7 to 10 days late.

In order to finish this site off, we did 2 separate 24 hour AFVR events in January and February. After 30 days, I regauged the wells that previously contained product and found nothing. I just re-checked those wells yesterday and found 0.02 to 0.03 feet of product in MW-1 and 2 extraction points. So the 2 extended events worked great, but we're not quite there. I plan to do one more 8-hour event tomorrow or Thursday, then re-gauge next week.

Assuming that knocks out the last of the product, we can hopefully start the 30 day clock to re-check, then be able to start the verification period.

One way or another, we will have the report to you no later than next Friday (May 10).



Thanks,

Tom

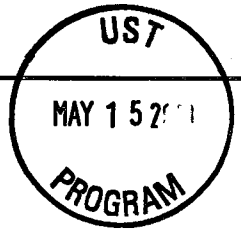
Thomas F. Donn, P.G.
EnviroSouth, Inc.
3440 Augusta Road
Greenville, SC 29605
ph: 864-236-9010
fx: 864-236-9097
cell: 864-230-4371

Padgett, Joel P. <padgetjp@dhec.sc.gov> Tue, Apr 30, 2013 at 11:27 AM
To: Thomas Donn <tdonn@envirosouth.com>

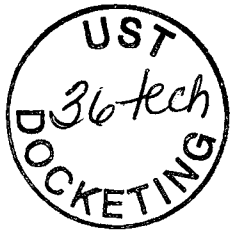
Tom-
I have reset the due date to May 15, 2013. I appreciate your dedication to get ACA finished at the site!
-Joel
[Quoted text hidden]
--
Joel P. Padgett, P.G.
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

Phone: (803) 896-6398
FAX: (803) 896-6245

ENVIROSOUTH
Environmental Consultants



May 10, 2013



Mr. Joel Padgett
SCDHEC
Bureau of Land and Waste Management
UST Management Division
2600 Bull Street
Columbia, South Carolina 29201

Re: Former Red Diamond
519 East North 1st Street
Seneca, South Carolina
SCDHEC ID #14324
EnviroSouth Job No. 1334

Dear Mr. Padgett:

EnviroSouth, Inc. is pleased to provide the SCDHEC UST Program with the remediation and groundwater monitoring report for the Former Red Diamond site in Seneca, South Carolina.

As indicated in the report, no free-product remains in any wells on the site. Based on this, we plan to re-gauge in 30 days to verify the absence of free-product and anticipate starting the 6-month verification monitoring period.

EnviroSouth appreciates the opportunity to be of service to the SCDHEC UST Program. If you have comments or questions concerning the attached report, please do not hesitate to call.

Sincerely,

EnviroSouth, Inc.

Thomas F Donn

Thomas F. Donn, P.G.
Senior Hydrogeologist
S.C. Registration No. 908

TFD/df

Enclosure

phone: 864.236.9010 • fax: 864.236.9097
3440 Augusta Road • Greenville, SC 29605 • www.envirosouth.com

Prepared for:

South Carolina Department of Health and Environmental Control
(SCDHEC)
Underground Storage Tank (UST) Program
2600 Bull Street
Columbia, South Carolina 29201

Attn: Mr. Joel Padgett

GROUNDWATER MONITORING REPORT

FORMER RED DIAMOND
519 EAST NORTH 1st STREET
SENECA, SOUTH CAROLINA

UST PERMIT #14324

Job No. 1334

Prepared by:

EnviroSouth, Inc.
3440 Augusta Road
Greenville, South Carolina 29605
SCDHEC Certification No. 257

May 10, 2013

INTRODUCTION

EnviroSouth has completed groundwater gauging and remediation services at the Former Red Diamond facility (UST Permit #14324) facility located in Seneca, South Carolina. The purpose of the gauging event was to evaluate the current water levels and thickness of free-phase petroleum in various monitoring wells and extraction points.

This report includes a description of the field/remediation services, along with our current findings, conclusions, and recommendations.

METHODS and FINDINGS

Groundwater Elevation and Movement

Water level measurements in all monitoring wells and extraction points were last recorded by EnviroSouth with a hydrocarbon sensitive electronic interface probe on May 8, 2013. The interface probe was decontaminated prior to and between each measurement to prevent cross-contamination between wells. The water table aquifer occurs under unconfined conditions underlying the site at depths ranging from approximately 26 to 33 feet below land surface. Free-product was not detected in any of the monitoring wells or extraction points. The TOC elevations, water level measurements, and ground water elevation data recorded to date are included on Table 1. Water levels and free-product thicknesses were also measured in the extraction wells. That data is presented in table 2.

A map of extraction point locations is included as Figure 1.

SOLAR, IN-WELL PRODUCT VOLITIZATION/VENTING

The solar remediation system was installed on February 16, 2011. The system uses solar cells/batteries for power, air pumps, and air diffusion stones for delivery of atmospheric air to or just above the product layer. The wells have a 3-feet tall stack that will keep surface runoff out of the well and a 180-degree fitting that will keep rainwater out of the well. A small-diameter plastic tube attached to the air pump enters the well and emits atmospheric air through a diffusion stone into the product layer at a rate of up to .5 cfm. The flow of air into and then out of the well increases volatilization of the product and vents it to the atmosphere.

The system has been installed in 18 existing extraction wells. The system is contained by a fenced compound. The system has not operated since March 2013.

AFVR EVENTS

Aggressive fluid/vapor recovery events were performed on three (3) dates since the December 2012 gauging event presented in the most recent report. Two (2) 24-hour AFVR events were conducted on January 30-31 and February 20, 2013, with vacuum applied to all wells that contained free-product during the December 31, 2012 gauging event. A third AFVR event was conducted on May 3, 2013 on three (3) extraction point wells found to contain between 0.02 to

0.03 feet of free-product during an interim site check on April 4, 2013.

FREE-PRODUCT THICKNESS REMOVAL FINDINGS

Free-product has been historically present in up to twenty-three (23) extraction point wells and two (2) monitoring wells. Free-product is now absent in all monitoring wells and extraction point wells.

CONCLUSIONS

Because no wells contain free-product, we proposed to re-gauge all wells on June 8, 2013. If no free-product is found, we anticipate commencement of the 6-month verification period.

EnviroSouth, Inc.

Thomas F. Donn

Thomas F. Donn, P.G.
Senior Hydrogeologist
S.C. Registration No. 908

TFD/df

APPENDICES

FIGURES

FIGURE 1 – Extraction Point Locations

TABLES

TABLE 1 - Groundwater Elevation Data
TABLE 2 - Product Thickness Data

FIGURE

EXPLANATION

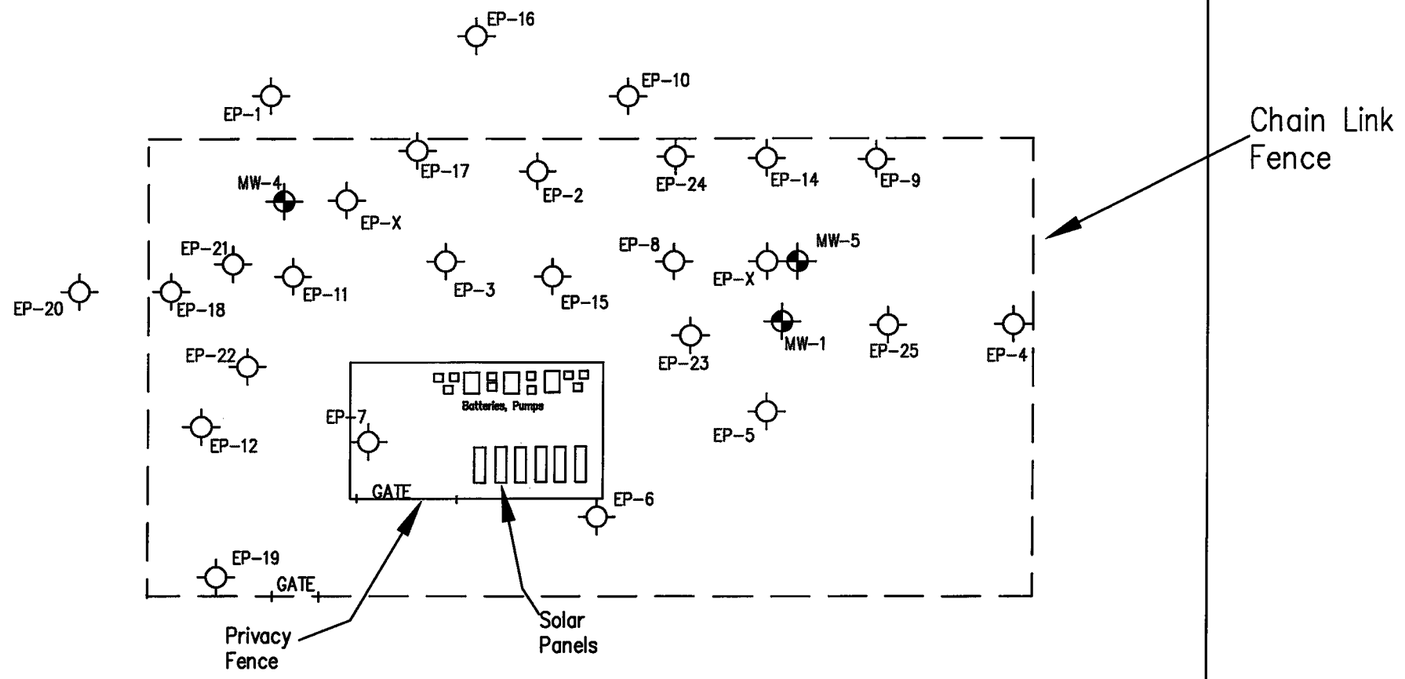
MW-5 — MONITORING WELL

EP-5 — EXTRACTION POINT WELL

EAST NORTH 1ST STREET

EMPTY PARCEL

TRI-CITY LAUNDRY



10 0 10 20

SCALE: 1" = 10'±

5/10/13	DRAWN BY DF	CHECKED BY TFD	SCALE 1"=10'±	JOB NO. 1334	FIGURE 1

ENVIROSOUTH Environmental Consultants

EXTRACTION POINT LOCATIONS

FORMER RED DIAMOND
519 EAST NORTH 1ST STREET
SENECA, SC
SDHEC UST ID #14324

TABLES

TABLE 1

GROUNDWATER ELEVATION DATA (Monitoring Wells)

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-1	4/18/03	98.32	29.07	33.27	4.20	65.05
	10/26/05		23.37	27.51	4.14	73.52
	5/4/06		25.64	26.71	1.07	72.41
	5/11/06		26.75	26.87	0.12	71.54
	6/6/06		26.26	26.40	0.14	72.03
	8/14/06		28.25	28.50	0.25	70.01
	2/9/07		27.74	28.22	0.48	70.46
	11/20/07		31.75	31.95	0.20	66.52
	6/5/08		32.00	32.15	0.15	66.28
	9/26/08		33.50	33.53	0.03	64.81
	1/22/09		32.93	33.10	0.17	65.35
	4/16/09		31.80	31.97	0.17	66.48
	9/18/09		32.25	32.35	0.10	66.05
	12/3/09		31.39	31.49	0.10	65.89
	4/17/10		31.41	31.49	0.08	66.89
	9/22/10		32.20	32.33	0.13	66.09
	2/10/11		29.50	30.00	0.50	67.95
	6/29/11		32.80	32.87	0.07	65.40
	12/30/11		–	33.19	ND	65.13
	03/12/12		–	33.21	ND	65.11
	07/04/12		–	33.43	ND	64.89
	12/31/12		–	33.52	ND	64.80
	5/8/13		–	29.47	ND	68.85
MW-2	6/5/08	98.60	–	33.30	ND	65.30
	9/26/08		–	34.71	ND	63.89
	1/22/09		–	34.70	ND	63.90
	4/16/09		–	33.72	ND	64.88
	9/18/09		–	34.12	ND	64.48
	12/3/09		–	33.23	ND	65.37
	4/17/10		–	33.26	ND	65.34
	9/22/10		–	34.30	ND	64.30
	2/10/11		–	32.42	ND	66.18
	6/29/11		–	33.89	ND	64.71
	12/30/11		–	34.08	ND	64.52
	03/12/12		–	34.07	ND	64.53
	07/04/12		–	34.36	ND	64.24
	12/31/12		–	33.98	ND	64.62
	5/8/13		–	31.20	ND	67.40

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA (Monitoring Wells)

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-3	6/5/08	97.92	--	32.28	ND	65.64
	9/26/08		--	33.74	ND	64.18
	1/22/09		--	33.50	ND	64.42
	4/16/09		--	32.48	ND	65.44
	9/18/09		--	32.87	ND	65.05
	12/3/09		--	31.99	ND	65.93
	4/17/10		--	32.00	ND	65.92
	9/22/10		--	33.18	ND	64.74
	2/10/11		--	31.60	ND	66.32
	6/29/11		--	32.81	ND	65.11
	12/30/11		--	33.10	ND	64.82
	03/12/12		--	33.11	ND	64.81
	07/04/12		--	33.39	ND	64.53
	12/31/12		--	32.86	ND	65.06
	5/8/13		--	29.91	ND	68.01
MW-4	4/18/03	99.07	38.29	34.43	3.86	64.64
	10/26/05		24.75	27.61	2.86	73.61
	5/4/06		26.60	27.17	0.57	72.33
	6/6/06		27.27	27.28	0.01	71.79
	8/14/06		--	28.45	ND	70.62
	2/9/07		--	29.15	ND	69.92
	11/20/07		32.47	32.48	0.01	66.60
	6/5/08		32.40	34.72	2.32	66.09
	9/26/08		33.96	34.02	0.06	65.10
	1/22/09		34.20	34.46	0.26	64.81
	4/16/09		32.74	33.51	0.77	66.14
	9/18/09		33.20	33.41	0.21	65.82
	12/3/09		32.15	32.66	0.51	66.01
	4/17/10		32.20	32.68	0.48	66.76
	9/22/10		33.37	33.90	0.43	65.50
	2/10/11		31.10	31.91	0.81	66.55
	6/29/11		--	33.69	ND	65.38
	12/30/11		--	34.83	ND	64.24
	03/12/12		--	34.85	ND	64.22
	07/04/12		--	34.99	ND	64.08
	12/31/12		--	34.84	ND	64.23
	5/8/13		--	30.69	ND	68.38

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA (Monitoring Wells)

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-5	6/5/08	98.03	--	31.47	ND	66.56
	9/26/08		--	32.92	ND	65.11
	1/22/09		--	33.21	ND	64.82
	4/16/09		--	32.29	ND	65.74
	9/18/09		--	32.68	ND	65.35
	12/3/09		--	31.90	ND	66.13
	4/17/10		--	31.98	ND	66.05
	9/22/10		--	33.01	ND	65.02
	2/10/11		--	31.11	ND	66.92
	6/29/11		--	32.63	ND	65.40
	12/30/11		--	32.79	ND	65.24
	03/12/12		--	32.77	ND	65.26
	07/04/12		--	32.95	ND	65.08
	12/31/12		--	33.01	ND	65.02
	5/8/13		--	30.69	ND	68.38
MW-7	6/5/08	99.30	--	35.19	ND	64.11
	9/26/08		--	36.62	ND	62.68
	1/22/09		--	36.66	ND	62.64
	4/16/09		--	35.67	ND	63.63
	9/18/09		--	36.00	ND	63.30
	12/3/09		--	35.28	ND	64.02
	4/17/10		--	35.31	ND	63.99
	9/22/10		--	36.70	ND	62.60
	2/10/11		--	34.62	ND	64.68
	6/29/11		--	35.88	ND	63.42
	12/30/11		--	35.99	ND	63.31
	03/12/12		--	35.97	ND	63.33
	07/04/12		--	36.22	ND	63.08
	12/31/12	DESTROYED				
MW-8	6/5/08	102.13	--	41.11	ND	61.02
	9/26/08		--	42.60	ND	59.53
	1/22/09		--	42.64	ND	59.49
	4/16/09		--	41.60	ND	60.53
	9/18/09		--	41.99	ND	60.14
	4/17/10		--	42.03	ND	60.10
	9/22/10		--	43.18	ND	58.95
	2/10/11		--	41.19	ND	60.94
	6/29/11		--	42.33	ND	59.80
	12/30/11		--	42.48	ND	59.65
	03/12/12		--	42.49	ND	59.64
	07/04/12		--	42.66	ND	59.47
	12/31/12		--	41.70	ND	60.43
	5/8/13		--	39.22	ND	32.91

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA (Monitoring Wells)

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-9	6/5/08	104.97	–	41.82	ND	63.15
	9/26/08		–	43.19	ND	61.78
	1/22/09		–	43.24	ND	61.73
	4/16/09		–	42.29	ND	62.68
	9/18/09		–	42.68	ND	62.29
	12/3/09		–	41.22	ND	63.25
	4/17/10		–	41.23	ND	63.74
	9/22/10		–	42.34	ND	62.63
	2/10/11		–	40.45	ND	64.52
	6/29/11		–	41.91	ND	63.06
	12/30/11		–	42.17	ND	62.80
	03/12/12		–	42.18	ND	62.79
	07/04/12		–	42.42	ND	62.55
	12/31/12		–	44.94	ND	60.03
	5/8/13		–	41.86	ND	63.11
MW-10	6/5/08	104.50	–	43.10	ND	61.40
	9/26/08		–	44.63	ND	59.87
	1/22/09		–	44.67	ND	59.83
	4/16/09		–	43.70	ND	60.80
	9/18/09		–	44.10	ND	60.40
	12/3/09		–	43.33	ND	61.17
	4/17/10		–	43.37	ND	61.13
	9/22/10		–	44.51	ND	59.99
	2/10/11		–	42.12	ND	61.88
	6/29/11		–	42.72	ND	61.78
	12/30/11		–	42.90	ND	61.60
	03/12/12		–	42.89	ND	61.61
	07/04/12		–	43.16	ND	61.34
	12/31/12		–	43.49	ND	61.01
	5/8/13		–	42.01	ND	62.49
MW-11	6/5/08	102.92	–	40.20	ND	62.72
	9/26/08		–	41.73	ND	61.19
	1/22/09		–	41.80	ND	61.12
	4/16/09		–	40.94	ND	61.98
	9/18/09		–	41.36	ND	61.56
	12/3/09		–	40.51	ND	62.41
	4/17/10		–	40.60	ND	62.32
	9/22/10		–	41.80	ND	61.12
	2/10/11		–	40.01	ND	62.91
	6/29/11		–	41.31	ND	61.61
	12/30/11		–	41.47	ND	61.45
	03/12/12		–	41.46	ND	61.46
	07/04/12		–	41.71	ND	61.21
	12/31/12	MISSING				

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA (Monitoring Wells)

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-12	6/5/08	99.12	–	33.77	ND	65.35
	9/26/08		–	35.21	ND	63.91
	1/22/09		–	36.61	ND	62.51
	4/16/09		–	35.72	ND	63.40
	9/18/09		–	35.99	ND	63.13
	12/3/09		–	35.20	ND	63.92
	4/17/10		–	35.22	ND	63.90
	9/22/10		–	36.31	ND	62.81
	2/10/11		–	34.35	ND	64.77
	6/29/11		–	35.74	ND	63.38
	12/30/11		–	35.93	ND	63.19
	03/12/12		–	35.94	ND	63.18
	07/04/12		–	36.19	ND	62.93
	12/31/12		–	36.70	ND	62.42
	5/8/13		–	34.23	ND	64.89
MW-13	6/5/08	99.41	–	36.17	ND	63.24
	9/26/08		–	37.68	ND	61.73
	1/22/09		–	37.73	ND	61.68
	4/16/09		–	37.70	ND	61.71
	9/18/09		–	38.11	ND	61.30
	12/3/09		–	37.29	ND	62.12
	4/17/10		–	37.28	ND	62.13
	9/22/10		–	38.31	ND	61.10
	2/10/11		–	36.27	ND	63.14
	6/29/11		–	37.80	ND	61.61
	12/30/11		–	35.71	ND	63.70
	03/12/12		–	35.72	ND	63.69
	07/04/12		–	35.91	ND	63.50
	12/31/12		–	37.13	ND	62.28
	5/5/13		–	26.11	ND	64.69
MW-17	6/5/08	93.98	–	31.09	ND	62.89
	9/26/08		–	32.59	ND	61.39
	1/22/09		–	32.61	ND	61.37
	4/16/09		–	31.59	ND	62.39
	9/18/09		–	31.93	ND	62.05
	12/3/09		–	31.16	ND	62.82
	4/17/10		–	31.17	ND	62.81
	9/22/10		–	32.21	ND	61.77
	2/10/11		–	30.19	ND	63.79
	6/29/11		–	31.42	ND	62.56
	12/30/11		–	31.58	ND	62.40
	03/12/12		–	31.59	ND	62.39
	07/04/12		–	31.82	ND	62.16
	12/31/12		–	27.79	ND	66.19
	5/8/13		–	26.11	ND	67.87

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA (Monitoring Wells)

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-19	6/5/08	99.58	--	35.26	ND	64.32
	9/26/08		--	36.71	ND	62.87
	1/22/09		--	36.74	ND	62.84
	4/16/09		--	35.80	ND	63.78
	9/18/09		--	36.18	ND	63.40
	12/3/09		--	36.49	ND	63.37
	4/17/10		--	36.50	ND	63.08
	9/22/10		--	37.70	ND	61.88
	2/10/11		--	35.62	ND	63.96
	6/29/11		--	37.01	ND	62.57
	12/30/11		--	36.44	ND	63.14
	03/12/12		--	36.46	ND	63.12
	07/04/12		--	36.71	ND	62.87
	12/31/12		--	37.75	ND	61.83
	5/8/13		--	35.51	ND	64.07
MW-20	6/5/08	99.86	--	36.40	ND	63.46
	9/26/08		--	37.88	ND	61.98
	1/22/09		--	37.89	ND	61.97
	4/16/09		--	37.00	ND	62.86
	9/18/09		--	37.39	ND	62.47
	12/3/09		--	36.49	ND	63.30
	4/17/10		--	36.52	ND	63.34
	9/22/10		--	32.69	ND	62.17
	2/10/11		--	30.41	ND	69.45
	6/29/11		--	31.86	ND	68.00
	12/30/11		--	31.96	ND	67.90
	03/12/12		--	31.97	ND	67.89
	07/04/12		--	32.23	ND	67.63
	12/31/12		--	37.00	ND	62.86
	5/8/13		--	33.21	ND	66.65
MW-22	6/5/08	89.60	--	35.21	ND	54.39
	9/26/08		--	36.73	ND	52.87
	1/22/09		--	36.75	ND	52.85
	4/16/09		--	35.83	ND	53.77
	9/18/09		--	36.18	ND	53.42
	12/3/09		--	35.42	ND	54.18
	4/17/10		--	35.43	ND	54.17
	9/22/10		--	36.42	ND	53.18
	2/10/11		--	34.41	ND	55.19
	6/29/11		--	35.75	ND	53.85
	12/30/11		--	35.88	ND	53.72
	03/12/12		--	35.87	ND	53.73
	07/04/12		--	36.92	ND	52.68
	12/31/12		--	32.72	ND	56.88
	5/8/13		--	30.89	ND	58.80

Notes: *1) ND = None Detected*
2) NM = Not Measured

TABLE 2

PRODUCT THICKNESS DATA (Extraction Wells)

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-1	2/9/07	–	30.08	ND
	11/20/07	–	DRY	–
	6/5/08	–	DRY	–
	9/26/08	–	DRY	–
	1/22/09	–	34.18	ND
	4/16/09	–	33.04	ND
	7/23/09	–	32.59	ND
	9/18/09	–	32.61	ND
	12/3/09	–	31.03	ND
	4/17/10	–	31.00	ND
	9/22/10	–	32.10	ND
	2/10/11	–	31.37	ND
	6/29/11	–	30.50	ND
	12/30/11	–	30.71	ND
	3/12/12	–	30.72	ND
	7/4/12	–	30.89	ND
	12/31/12	–	31.02	ND
	5/8/13	–	27.13	ND
EP-2	2/9/07	28.98	30.22	1.24
	11/20/07	32.15	32.41	0.26
	6/5/08	–	DRY	–
	9/26/08	32.97	32.98	0.01
	1/22/09	–	DRY	–
	4/16/09	–	DRY	–
	7/23/09	32.44	32.48	0.04
	9/18/09	32.43	32.44	0.01
	12/3/09	–	31.35	ND
	4/17/10	–	31.37	ND
	9/22/10	32.40	32.43	0.03
	2/10/11	30.89	31.60	0.71
	6/29/11	33.73	34.87	1.14
	12/30/11	34.80	35.10	0.30
	3/12/12	34.83	35.68	0.21
	7/4/12	34.90	35.15	0.25
	12/31/12	34.75	34.85	0.10
	5/8/13	–	30.88	ND
EP-3	2/9/07	29.06	29.30	0.24
	11/20/07	–	DRY	–
	6/5/08	–	DRY	–
	9/26/08	–	DRY	–
	1/22/09	–	DRY	–
	4/16/09	–	DRY	–
	7/23/09	32.25	32.27	0.02
	9/18/09	32.26	32.27	0.01
	12/3/09	–	31.39	ND

TABLE 2 (Continued)

PRODUCT THICKNESS DATA (Extraction Wells)

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-3 Continued	4/17/10	31.39	31.40	0.01
	9/22/10	32.35	32.40	0.05
	2/10/11	30.70	31.26	0.56
	3/12/12	30.66	31.09	0.43
	7/4/12	30.81	31.20	0.39
	12/31/12	30.83	30.94	0.11
	5/8/13	–	26.98	ND
EP-4	2/9/07	–	27.85	ND
	11/20/07	–	31.70	ND
	6/5/08	NM	NM	0.1
	9/26/08	–	DRY	–
	1/22/09	–	32.60	ND
	4/16/09	32.42	32.64	0.22
	7/23/09	NM	NM	ND
	9/18/09	NM	NM	NM
	12/3/09	NM	NM	NM
	4/17/10	NM	NM	NM
	9/22/10	NM	NM	NM
	2/10/11	30.0	30.21	0.21
	6/29/11	–	30.80	ND
	12/30/11	–	31.54	ND
	3/12/12	–	31.52	ND
	7/4/12	–	31.68	ND
	12/31/12	–	31.65	ND
	5/8/13	–	22.58	ND
EP-5	2/9/07	–	27.68	ND
	11/20/07	–	32.40	ND
	6/5/08	NM	NM	0.15
	9/26/08	–	DRY	–
	1/22/09	–	32.79	ND
	4/16/09	31.04	31.26	0.22
	7/23/09	31.18	31.47	0.29
	9/18/09	31.19	31.43	0.24
	12/3/09	30.33	30.53	0.20
	4/17/10	30.30	30.51	0.21
	9/22/10	31.40	31.71	0.31
	2/10/11	29.15	29.22	0.07
	6/29/11	29.34	29.36	0.02
	3/12/12	29.36	29.37	0.01
	7/4/12	29.49	29.52	0.02
	12/31/12	–	29.54	ND
	5/8/13	–	26.82	ND

TABLE 2 (Continued)

PRODUCT THICKNESS DATA (Extraction Wells)

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-6	2/9/07	27.91	27.96	0.05
	11/20/07	–	DRY	–
	6/5/08	NM	NM	ND
	9/26/08	–	DRY	–
	1/22/09	–	32.56	ND
	4/16/09	31.26	31.94	0.68
	7/23/09	31.22	31.83	0.61
	9/18/09	31.24	31.70	0.46
	12/3/09	30.40	30.59	0.19
	4/17/10	30.42	30.60	0.08
	9/22/10	31.50	31.70	0.20
	2/10/11	NM	NM	NM
	6/29/11	32.49	32.75	0.26
	12/30/11	–	32.81	ND
	3/12/12	–	32.83	ND
	7/4/12	–	32.99	ND
	12/31/12	–	33.41	ND
	5/8/13	–	29.40	ND
EP-7	2/9/07	28.63	28.64	0.01
	11/20/07	–	DRY	–
	6/5/08	–	DRY	–
	9/26/08	–	DRY	–
	1/22/09	–	32.75	ND
	4/16/09	32.37	32.55	0.18
	7/23/09	31.93	32.07	0.14
	9/18/09	31.95	32.05	0.10
	12/3/09	31.06	31.11	0.05
	4/17/10	36.00	31.20	0.20
	9/22/10	32.02	32.09	0.08
	2/10/11	30.62	30.70	0.08
	6/29/11	–	33.57	ND
	12/30/11	–	33.80	ND
	3/12/12	–	33.84	ND
	7/4/12	–	33.94	ND
	12/31/12	–	34.40	ND
	5/8/13	–	30.30	ND
EP-8	11/20/07	32.00	32.77	0.77
	6/5/08	–	MISSING	–
	9/26/08	–	MISSING	–
	1/22/09	–	33.10	ND
	4/16/09	31.55	31.62	0.07
	7/23/09	31.28	31.53	0.25
	9/18/09	31.30	31.50	0.20
	12/3/09	30.53	30.87	0.34
	4/17/10	30.50	30.81	0.31
	9/22/10	31.60	31.72	0.12
	2/10/11	29.80	30.21	0.38

TABLE 2 (Continued)

PRODUCT THICKNESS DATA (Extraction Wells)

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-8 Continued	6/29/11	32.99	33.33	0.34
	12/30/11	33.57	33.58	0.01
	3/12/12	–	33.59	ND
	7/4/12	–	33.73	ND
	12/31/12	–	33.90	ND
	5/8/13	–	29.99	ND
EP-9	2/9/07	27.77	28.67	0.90
	11/20/07	–	31.42	ND
	6/5/08	NM	NM	0.02
	9/26/08	32.94	32.95	0.01
	1/22/09	–	34.40	ND
	4/16/09	–	31.61	ND
	7/23/09	NM	NM	ND
	9/18/09	–	32.00	ND
	12/3/09	NM	ND	NM
	4/17/10	31.02	31.03	0.01
	9/22/10	32.10	32.12	0.02
	2/10/11	–	31.13	ND
	6/29/11	29.03	29.93	0.50
	3/12/12	29.60	29.82	0.22
	7/4/12	29.78	29.98	0.20
	12/31/12	29.82	29.86	0.04
	5/8/13	–	26.02	ND
EP-10	2/9/07	29.02	29.58	0.56
	11/20/07	33.00	33.80	0.80
	6/5/08	NM	NM	1.30
	9/26/08	–	DRY	–
	1/22/09	34.20	34.59	0.39
	4/16/09	32.64	33.83	1.19
	7/23/09	32.10	33.03	0.93
	9/18/09	32.15	33.00	0.85
	12/3/09	31.26	31.67	0.41
	4/17/10	31.67	31.90	0.23
	9/22/10	32.36	32.56	0.20
	2/10/11	31.15	31.53	0.38
	6/29/11	31.85	32.75	0.90
	12/30/11	33.33	33.35	0.02
	3/12/12	–	33.37	ND
	7/4/12	–	33.49	ND
	12/31/12	–	33.48	ND
	5/8/13	–	30.75	ND

TABLE 2 (Continued)

PRODUCT THICKNESS DATA (Extraction Wells)

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-11	2/9/07	29.08	29.25	0.17
	11/20/07	32.25	32.30	0.05
	6/5/08	NM	NM	0.85
	9/26/08	33.72	34.13	0.41
	1/22/09	34.10	34.55	0.45
	4/16/09	32.87	32.95	0.08
	7/23/09	33.17	34.17	1.00
	9/18/09	33.19	34.00	0.81
	12/3/09	32.29	32.62	0.33
	4/17/10	32.28	32.60	0.32
	9/22/10	33.40	33.61	0.21
	2/11/10	30.34	31.40	1.06
	6/29/11	–	33.80	ND
	12/30/11	–	34.90	ND
	3/12/12	–	34.41	ND
	7/4/12	34.79	34.81	0.02
	12/31/12	–	34.65	ND
	5/8/13	–	30.88	ND
EP-12	2/9/07	29.02	29.04	0.02
	11/20/07	31.90	32.20	0.30
	6/5/08	NM	NM	1.00
	9/28/08	–	33.51	–
	1/22/09	33.60	33.87	0.27
	4/16/09	32.52	33.73	1.21
	7/23/09	31.80	33.03	1.23
	9/18/09	31.80	32.90	1.10
	12/3/09	31.04	31.95	0.91
	4/17/10	31.09	31.80	0.91
	9/22/10	32.02	33.01	0.99
	2/11/10	30.78	31.70	0.92
	6/29/11	33.55	33.82	0.27
	12/30/11	34.39	34.59	0.20
	3/12/12	34.38	34.56	0.18
	7/4/12	34.52	34.74	0.22
	12/31/12	34.59	34.61	0.05
	5/8/13	–	30.73	ND
EP-13	2/9/07	–	32.45	ND
	11/20/07	–	36.20	ND
	6/5/08	NM	NM	ND
	9/28/08	NM	NM	ND
	1/22/09	–	37.27	ND
	4/16/09	–	36.40	ND
	7/23/09	NM	NM	ND
	9/18/09	–	36.80	ND
	12/3/09	NM	NM	NM
	4/17/10	NM	NM	NM
	9/22/10	NM	NM	NM

TABLE 2 (Continued)

PRODUCT THICKNESS DATA (Extraction Wells)

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-13 Continued	2/10/11	–	32.13	ND
	6/29/11	–	33.25	ND
	3/12/12	–	33.27	ND
	7/4/12	–	33.41	ND
	12/31/12	–	33.43	ND
	5/8/13	–	30.01	ND
EP-14	2/9/07	–	29.02	ND
	11/20/07	–	32.20	ND
	6/5/08	NM	NM	NM
	9/28/08	–	33.60	TRACE
	1/22/09	–	34.00	ND
	4/16/09	–	32.60	ND
	7/23/09	NM	NM	ND
	9/18/09	–	33.01	NM
	12/3/09	NM	NM	NM
	4/17/10	NM	NM	NM
	9/22/10	NM	NM	NM
	2/10/11	MN	MN	MN
	6/29/11	–	30.12	ND
	3/12/12	–	30.13	ND
	7/4/12	–	30.29	ND
	12/31/12	–	30.40	ND
	5/8/13	–	26.39	ND
EP-15	2/9/07	–	29.12	ND
	11/20/07	–	32.70	ND
	6/5/08	NM	NM	NM
	9/28/08	NM	NM	NM
	1/22/09	–	33.73	ND
	4/16/09	–	32.27	ND
	7/23/09	NM	NM	NM
	9/18/09	–	32.60	ND
	12/3/09	NM	NM	NM
	4/17/10	NM	NM	NM
	9/22/10	NM	NM	NM
	2/10/11	NM	NM	NM
	6/29/11	33.42	33.72	0.30
	12/30/11	–	34.18	ND
	3/12/12	–	34.14	ND
	7/4/12	–	34.30	ND
	12/31/12	–	34.40	ND
	5/8/13	–	30.68	ND
EP-16	2/9/07	29.22	29.23	0.01
	11/20/07	32.30	32.40	0.10
	6/5/08	–	DRY	–
	9/28/08	–	DRY	–
	1/22/09	33.90	34.02	0.12
	4/16/09	33.04	33.18	0.14
	7/23/09	32.31	32.36	0.05

TABLE 2 (Continued)

PRODUCT THICKNESS DATA (Extraction Wells)

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-16 Continued	9/18/09	32.30	32.31	32.31
	12/3/09	–	31.47	31.47
	4/17/10	31.48	31.49	31.49
	9/22/10	32.50	32.52	32.52
	2/10/11	30.99	31.60	31.60
	6/29/11	30.72	31.03	31.03
	12/30/11	–	31.39	31.39
	3/12/12	–	31.41	31.41
	7/4/12	–	31.76	31.76
	12/31/12	–	31.60	31.60
	5/8/13	–	27.51	ND
EP-17	2/9/07	–	29.57	ND
	11/20/07	–	32.17	ND
	6/5/08	–	DRY	–
	9/28/08	–	DRY	–
	1/22/09	–	33.78	ND
	4/16/09	32.80	33.57	0.77
	7/23/09	32.13	32.92	0.79
	9/18/09	32.15	32.80	0.65
	12/3/09	31.32	31.69	0.37
	4/17/10	31.30	31.60	0.30
	9/22/10	32.28	32.40	0.12
	2/10/11	30.87	31.66	0.79
	6/29/11	33.63	34.31	0.68
	12/30/11	34.83	35.32	0.52
	3/12/12	34.90	35.27	0.37
	7/4/12	35.07	35.58	0.41
	12/31/12	34.41	34.63	0.22
	5/8/13	–	30.85	ND
EP-18	2/9/07	29.08	29.33	0.25
	11/20/07	31.41	32.00	0.59
	6/5/08	NM	NM	0.75
	9/28/08	–	32.73	–
	1/22/09	–	32.75	ND
	4/16/09	–	32.73	ND
	7/23/09	NM	NM	ND
	9/18/09	–	33.10	ND
	12/3/09	31.31	31.59	0.28
	4/17/10	31.30	31.50	0.20
	9/22/10	32.38	32.51	0.13
	2/10/11	30.98	30.99	0.01
	6/29/11	–	33.91	ND
	12/30/11	–	35.10	ND
	3/12/12	–	35.08	ND
	7/4/12	35.25	35.27	0.02
	12/31/12	–	34.76	ND
	5/8/13	–	30.72	ND

TABLE 2 (Continued)

PRODUCT THICKNESS DATA (Extraction Wells)

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-19	2/9/07	–	29.43	ND
	11/20/07	–	32.15	ND
	6/5/08	NM	NM	0.09
	9/28/08	NM	NM	ND
	1/22/09	–	34.01	ND
	4/16/09	–	32.84	ND
	7/23/09	NM	NM	ND
	9/18/09	33.10	33.20	0.10
	12/3/09	32.23	32.45	0.22
	4/17/10	32.23	32.33	0.10
	9/22/10	33.26	33.29	0.03
	2/10/11	30.95	31.90	0.95
	6/29/11	33.55	33.97	0.42
	12/30/11	–	34.78	ND
	3/12/12	–	34.76	ND
	7/4/12	34.99	35.06	0.07
	12/31/12	34.61	34.62	0.01
	5/8/13	–	30.63	ND
EP-20	2/9/07	29.68	30.17	0.49
	11/20/07	32.40	32.50	0.10
	6/5/08	NM	NM	0.20
	9/28/08	–	32.47	–
	1/22/09	–	32.49	ND
	4/16/09	–	32.59	ND
	7/23/09	32.60	32.62	0.02
	9/18/09	–	32.64	ND
	12/3/09	–	32.01	ND
	4/17/10	–	32.00	ND
	9/22/10	–	33.09	ND
	2/10/11	31.25	31.93	0.68
	6/29/11	–	30.80	ND
	12/30/11	–	32.38	ND
	3/12/12	–	32.37	ND
	7/4/12	–	32.50	ND
	12/31/12	–	31.60	ND
	5/8/13	–	29.89	ND
EP-21	2/9/07	–	29.57	ND
	11/20/07	–	32.55	ND
	6/5/08	NM	NM	ND
	9/28/08	NM	NM	ND
	1/22/09	–	34.47	ND
	7/23/09	32.46	32.49	0.03
	9/18/09	32.47	32.48	0.01
	12/3/09	–	31.65	ND
	4/17/10	–	31.67	ND
	9/22/10	32.60	32.61	0.01
	2/10/11	–	31.35	ND

TABLE 2 (Continued)

PRODUCT THICKNESS DATA (Extraction Wells)

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-21 Continued	6/29/11	–	30.50	ND
	3/12/12	–	30.53	ND
	7/4/12	–	30.78	ND
	12/31/12	–	30.88	ND
	5/8/13	–	27.83	ND
EP-22	2/9/07	–	29.07	ND
	11/20/07	–	32.65	ND
	6/5/08	–	DRY	–
	9/28/08	–	DRY	–
	1/22/09	–	34.21	ND
	4/16/09	32.68	32.73	0.05
	7/23/09	31.73	31.78	0.05
	9/18/09	31.72	31.75	0.03
	12/3/09	30.99	31.47	0.48
	4/17/10	30.98	31.35	0.36
	9/22/10	32.02	32.40	0.38
	2/10/11	NM	NM	NM
	6/29/11	33.30	33.91	0.61
	12/30/11	–	34.45	ND
	3/12/12	–	34.49	ND
	7/4/12	–	34.77	ND
	12/31/12	–	34.52	ND
	5/8/13	–	30.49	ND
EP-23	2/9/07	27.94	27.99	0.05
	11/20/07	32.00	32.12	0.12
	6/5/08	NM	NM	ND
	9/28/08	–	32.80	–
	1/22/09	–	32.76	ND
	4/16/09	31.00	31.09	0.09
	7/23/09	31.43	31.45	0.02
	9/18/09	31.40	31.45	0.05
	12/3/09	29.18	29.32	0.14
	4/17/10	29.19	29.29	0.10
	9/22/10	30.15	30.18	0.03
	2/11/10	29.98	30.00	0.02
	6/29/11	32.66	32.68	0.02
	12/30/11	32.76	32.86	0.10
	3/12/12	32.79	32.81	0.03
	7/4/12	33.02	33.03	0.01
	12/31/12	–	33.53	ND
	5/8/13	–	29.56	ND
EP-24	2/9/07	29.33	29.68	0.35
	11/20/07	31.91	32.10	0.19
	6/5/08	–	DRY	–
	9/28/08	–	DRY	–
	1/22/09	31.86	32.03	0.17
	4/16/09	–	DRY	–
	7/23/09	–	DRY	–

TABLE 2 (Continued)

PRODUCT THICKNESS DATA (Extraction Wells)

Former Red Diamond (SCDHEC #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Depth To Free Product	Depth To Groundwater	Product Thickness
EP-24	9/18/09	–	DRY	–
Continued	12/3/09	31.17	31.75	0.58
	4/17/10	31.18	31.70	0.52
	9/22/10	–	DRY	–
	2/10/11	NM	NM	NM
	6/29/11	33.74	33.93	0.19
	12/30/11	34.59	34.65	0.06
	3/12/12	34.60	34.62	0.02
	7/4/12	34.82	34.89	0.07
	12/31/12	34.52	34.53	0.01
	5/8/13	–	30.62	ND
EP-25	2/9/07	–	27.88	ND
	11/20/07	–	31.70	ND
	6/5/08	NM	NM	ND
	9/28/08	33.32	33.33	0.01
	1/22/09	–	33.00	ND
	4/16/09	32.14	32.59	0.45
	7/23/09	31.08	31.91	0.83
	9/18/09	31.09	31.79	0.70
	12/3/09	29.71	30.13	0.42
	4/17/10	29.77	30.10	0.33
	9/22/10	30.90	31.23	0.33
	2/10/11	29.71	30.02	0.31
	6/29/11	32.75	32.76	0.01
	12/30/11	–	33.31	ND
	3/12/12	–	33.29	ND
	7/4/12	–	33.65	ND
	12/31/12	–	33.59	ND
	5/8/13	–	29.37	ND

Notes: 1) ND = None Detected
2) NM = Not Measured

DISPOSAL MANIFEST

MATERIAL MANIFEST H2-190

JBR ENVIRONMENTAL SERVICES
P.O.BOX 4098
SPARTANBURG, SC 29305
Emergency Phone Number: (864)583-2717

Manifest Document No. 2254-1
Page 1 of 1
Job No. 105032254

GENERATOR INFORMATION

Name: Envirosouth
US EPA ID No.

Street Address	Mailing Address	Phone No.
190 Old Buncombe Rd. Greenville, SC		864 230-4371
		Contact Tom Dunn

DESCRIPTION OF MATERIALS

	HM	USDOT Proper Shipping Name (Complete All Items for Hazardous Materials)	Hazard Class	UN/NA ID No.	Packing Group	Containers		Total Quantity	Unit Wt./Vol.
a.		Nonhazardous Regulated Waste				Qty	type	43120	
b.						1	DM	40280	1.42T
c.								2840 P	

ADDITIONAL INFORMATION		ERG No.	JBR Profile Code	Facility Use
a.	Contact Water		VES 2013	Recycle
b.				
c.				

GENERATORS CERTIFICATION

This is to certify that the above - described materials are properly classified, described, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. I further certify that none of the materials described above are a hazardous waste as defined by EPA 40 CFR Part 261 or any applicable state law, and unless specifically identified above, the materials contain less than 1,000 ppm total halogens and do not contain quantifiable levels (2 ppm) of PCBs as defined by EPA 40 CFR Parts 279 and 761.

Printed/Typed Name: Thomas Dunn
Signature: [signature]
Mo./Day/Yr.: 5/3/13

TRANSPORTER INFORMATION

Transporter: JBR
Address: 210 Alice Street, Spartanburg, SC 29303
Transporter or EPA ID No.: SCR00004358
Unit No.: 8 J
Phone: 864-583-2717

I hereby acknowledge receipt of the above-described materials for transport from the generator site listed above.
Signature: [signature] Shipment Date: 5/8/13

I hereby acknowledge that the above described materials were received from the generator site and were transported to the facility listed below.
Signature: Rodney Cole Delivery Date: 5/8/13

FACILITY INFORMATION

Facility: JBR Environmental Services
Address: 210 Alice Street, Spartanburg, SC 29303
Facility or EPA ID No.: SCR00004358
Phone: 864-583-2717
Contact: Rex Russell

I do hereby acknowledge receipt of the materials covered by this manifest except for any discrepancy noted below.
Signature: [signature] Receipt Date: 5.3.13

Discrepancies	Routing Codes	Handling Methods
a.	Recycle	
b.		
c.		

White - Facility Retain ● Light Yellow - Return to Generator ● Pink - Transporter Retain ● Orange - Generator Retain

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

MAY 23 2013

UST DOCKETING 374ch

MR THOMAS DONN PG
ENVIROSOUTH ENVIRONMENTAL CONSULTANTS
3440 AUGUSTA RD
GREENVILLE SC 29605

Re: CASE report review
Former Red Diamond Oil Company, 519 East North 1st Street, Seneca, SC
UST Permit #14324; CA #25430
Bid #IFB-28949-10/4/05-EMW; PO #605692
Release reported December 30, 1991
CASE report received May 15, 2013
Oconee County

Dear Mr. Donn:

The Underground Storage Tank (UST) Management Division has reviewed the referenced report. Based upon the report, measurable free-phase product is absent from all SSTL wells and extraction points. The Division concurs with EnviroSouth's proposal to gauge the wells and extraction points in 30 days to verify that measurable free-phase product does not reemerge.

The Division notes that the 30-day verification gauging event is scheduled to take place on June 8, 2013. Division personnel will either meet with EnviroSouth on that date or mobilize to the site shortly thereafter to conduct verification gauging. Based upon gauging results from EnviroSouth and the Division, the 6-month verification period may be initiated.

A report documenting the 30-day verification gauging event is due on or before **July 8, 2013**. On all correspondence regarding this site, please reference UST Permit #14324. If you have any questions regarding this correspondence, feel free to contact me by telephone at (803) 896-6398, by fax at (803) 896-6245, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Geologist/Hydrologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

JPP/jpp
14324.case1

cc: Betty Latham, 2 Stratton Place, Greenville, SC 29615-4217
Technical file

DHEC/UST/JPP/052213

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

JUN 17 2013



MR THOMAS DONN PG
ENVIROSOUTH ENVIRONMENTAL CONSULTANTS
3440 AUGUSTA RD
GREENVILLE SC 29605

Re: Verification gauging event
Former Red Diamond Oil Company, 519 East North 1st Street, Seneca, SC
UST Permit #14324; CA #25430
Contract #IFB-28949-10/4/05-EMW; PO #605692
Release reported December 30, 1991
Oconee County

Dear Mr. Donn:

On July 12, 2013, personnel from the Underground Storage Tank (UST) Management Division observed 30-day verification gauging at the referenced site. Gauging results indicate that measurable free-phase product is absent from all SSTL wells and extraction points. Therefore, the 2-quarter verification gauging period commenced on May 8, 2013.

The 1st quarter verification monitoring report is due on or before **September 1, 2013**. The report must document gauging results for extraction points EP-2, EP-4, EP-20, and EP-20 and groundwater sampling results for monitoring wells MW-1 through MW-5, MW-8, MW-12, MW-13, and MW-19. The analytical parameters should be BTEX+naph+MtBE and EDB. Dissolved oxygen, ferrous iron, methane, nitrate, and sulfate will not be necessary. If free-phase product reemerges in any of the aforementioned wells, please contact the Division as soon as possible.

If you have any questions regarding this correspondence, feel free to contact me by telephone at (803) 896-6398, by fax at (803) 896-6245, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Geologist/Hydrologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

JPP/jpp
14324.vmr1

cc: Betty Latham, 2 Stratton Place, Greenville, SC 29615-4217
Technical file
DHEC/UST/JPP/061713

ENVIROSOUTH
Environmental Consultants



August 28, 2013

Mr. Joel Padgett
SCDHEC
Bureau of Land and Waste Management
UST Management Division
2600 Bull Street
Columbia, South Carolina 29201

Re: 1st Verification Monitoring Report
Former Red Diamond
519 East North 1st Street
Seneca, South Carolina
SCDHEC ID #14324
EnviroSouth Job No. 1334

Dear Mr. Padgett:

EnviroSouth, Inc. is pleased to provide the SCDHEC UST Program with the attached report for the Former Red Diamond site in Seneca, South Carolina.

As indicated in the report, no free-product remains in any wells on the site. Based on this, we plan to carry out the final verification event in 3 months.

If you have comments or questions concerning the attached report, please call.

Sincerely,

EnviroSouth, Inc.

Thomas F. Donn, P.G.
Senior Hydrogeologist
S.C. Registration No. 908

TFD/td

Enclosure

phone: 864.236.9010 • fax: 864.236.9097
3440 Augusta Road • Greenville, SC 29605 • www.envirosouth.com

Prepared for:

South Carolina Department of Health and Environmental Control
(SCDHEC)
UST Management Division
2600 Bull Street
Columbia, South Carolina 29201

Attn: Mr. Joel Padgett

1ST VERIFICATION MONITORING REPORT

FORMER RED DIAMOND
519 EAST NORTH 1st STREET
SENECA, SOUTH CAROLINA

UST PERMIT #14324

Job No. 1334

Prepared by:

EnviroSouth, Inc.
3440 Augusta Road
Greenville, South Carolina 29605
SCDHEC Certification No. 257

August 28, 2013

INTRODUCTION

EnviroSouth has completed groundwater gauging and sampling/analyses at the Former Red Diamond facility (UST Permit #14324) facility located in Seneca, South Carolina.

This report includes a description of the field/remediation services, along with our current findings.

METHODS and FINDINGS

Groundwater Elevation and Movement

Water level measurements in all required monitoring wells and extraction points EP-2, EP-4, and EP-20 were recorded by EnviroSouth with a hydrocarbon sensitive electronic interface probe on August 10, 2013. The interface probe was decontaminated prior to and between each measurement to prevent cross-contamination between wells. Free-product was not detected in any of the monitoring wells or extraction points. The TOC elevations, water level measurements, and ground water elevation data recorded to date are included on Table 1.

A map of extraction point locations is included as Figure 1.

GROUNDWATER SAMPLING

All required wells (MW-1, MW-2, MW-3, MW-4, MW-5, MW-8, MW-12, MW-13, and MW-19) were sampled and submitted to a South Carolina certified lab for analyses of BTEX, MTBE, EDB, and naphthalene.

A table summarizing the lab report is included as Table 2.

CONCLUSIONS

Because no wells contain free-product, we proposed to re-gauge and sample/analyze all required wells in 3 months. If no free-product is found, we will cease providing any further services at the subject site.

EnviroSouth, Inc.

Thomas F. Donn, P.G.
Senior Hydrogeologist
S.C. Registration No. 908

TFD/td

APPENDICES

FIGURES

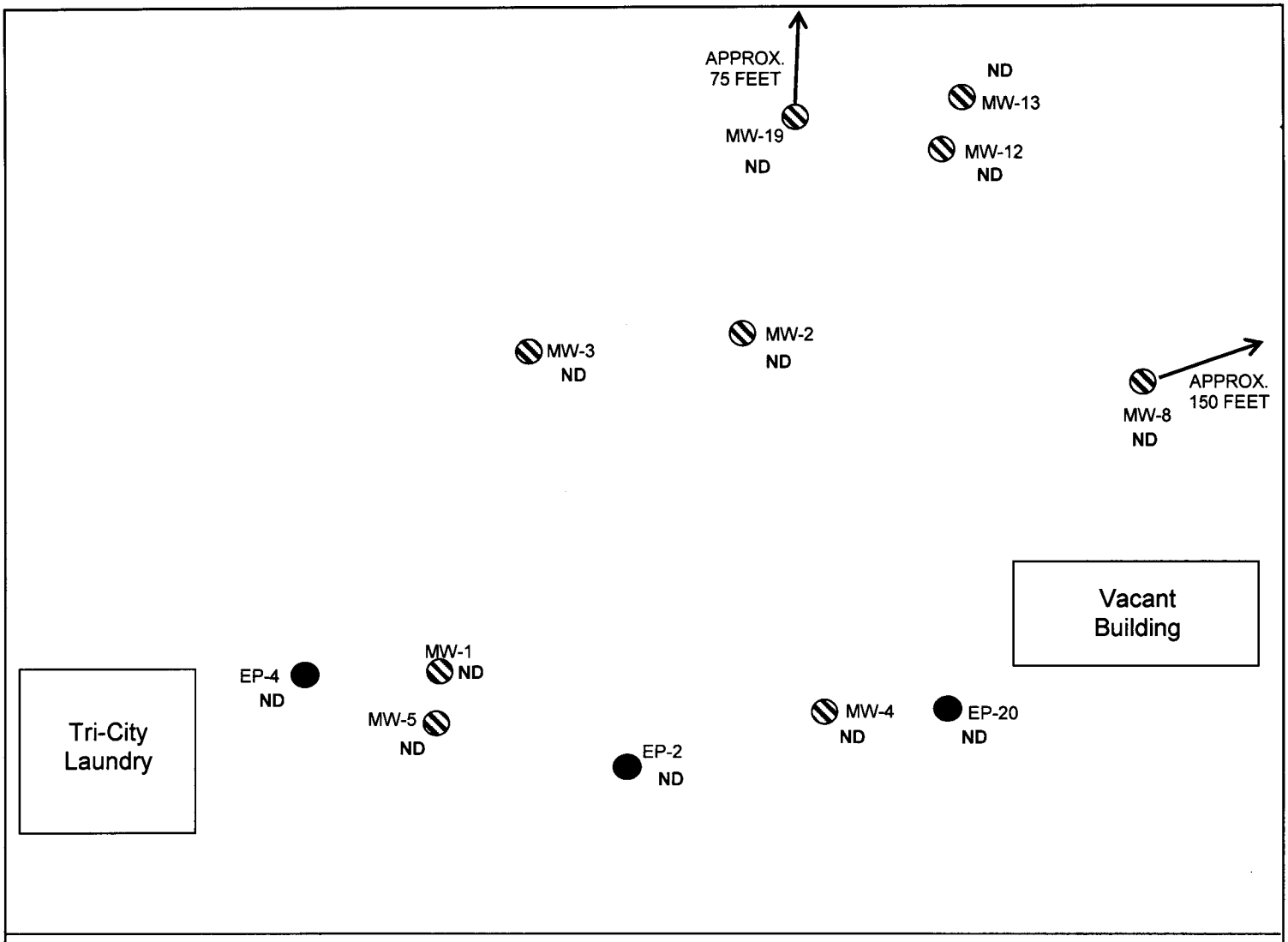
FIGURE 1 – Monitoring Well and Extraction Point Location Map

TABLES

TABLE 1 - Groundwater Elevation Data
TABLE 2 – Groundwater Laboratory Data

LABORATORY REPORT

FIGURE



ENVIROSOUTH
Environmental Consultants

MONITORING WELL AND EXTRACTION POINT LOCATION MAP

FORMER RED DIAMOND
519 EAST NORTH 1ST STREET
SENECA, SOUTH CAROLINA

JOB No: 1334	CHECKED BY: TFD	FIGURE: 1
SCALE: NTS	DRAWN BY: TD	DATE: 8/28/13

TABLES

TABLE 1

GROUNDWATER ELEVATION DATA (Monitoring Wells)

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-1	4/18/03	98.32	29.07	33.27	4.20	65.05
	10/26/05		23.37	27.51	4.14	73.52
	5/4/06		25.64	26.71	1.07	72.41
	5/11/06		26.75	26.87	0.12	71.54
	6/6/06		26.26	26.40	0.14	72.03
	8/14/06		28.25	28.50	0.25	70.01
	2/9/07		27.74	28.22	0.48	70.46
	11/20/07		31.75	31.95	0.20	66.52
	6/5/08		32.00	32.15	0.15	66.28
	9/26/08		33.50	33.53	0.03	64.81
	1/22/09		32.93	33.10	0.17	65.35
	4/16/09		31.80	31.97	0.17	66.48
	9/18/09		32.25	32.35	0.10	66.05
	12/3/09		31.39	31.49	0.10	65.89
	4/17/10		31.41	31.49	0.08	66.89
	9/22/10		32.20	32.33	0.13	66.09
	2/10/11		29.50	30.00	0.50	67.95
	6/29/11		32.80	32.87	0.07	65.40
	12/30/11		--	33.19	ND	65.13
	03/12/12		--	33.21	ND	65.11
	07/04/12		--	33.43	ND	64.89
	12/31/12		--	33.52	ND	64.80
	5/8/13		--	29.47	ND	68.85
	8/10/13		--	26.50	ND	71.82
MW-2	6/5/08	98.60	--	33.30	ND	65.30
	9/26/08		--	34.71	ND	63.89
	1/22/09		--	34.70	ND	63.90
	4/16/09		--	33.72	ND	64.88
	9/18/09		--	34.12	ND	64.48
	12/3/09		--	33.23	ND	65.37
	4/17/10		--	33.26	ND	65.34
	9/22/10		--	34.30	ND	64.30
	2/10/11		--	32.42	ND	66.18
	6/29/11		--	33.89	ND	64.71
	12/30/11		--	34.08	ND	64.52
	03/12/12		--	34.07	ND	64.53
	07/04/12		--	34.36	ND	64.24
	12/31/12		--	33.98	ND	64.62
	5/8/13		--	31.20	ND	67.40
	8/10/13		--	29.00	ND	69.60

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA (Monitoring Wells)

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-3	6/5/08	97.92	--	32.28	ND	65.64
	9/26/08		--	33.74	ND	64.18
	1/22/09		--	33.50	ND	64.42
	4/16/09		--	32.48	ND	65.44
	9/18/09		--	32.87	ND	65.05
	12/3/09		--	31.99	ND	65.93
	4/17/10		--	32.00	ND	65.92
	9/22/10		--	33.18	ND	64.74
	2/10/11		--	31.60	ND	66.32
	6/29/11		--	32.81	ND	65.11
	12/30/11		--	33.10	ND	64.82
	03/12/12		--	33.11	ND	64.81
	07/04/12		--	33.39	ND	64.53
	12/31/12		--	32.86	ND	65.06
	5/8/13		--	29.91	ND	68.01
	8/10/13		--	27.80	ND	70.12
MW-4	4/18/03	99.07	38.29	34.43	3.86	64.64
	10/26/05		24.75	27.61	2.86	73.61
	5/4/06		26.60	27.17	0.57	72.33
	6/6/06		27.27	27.28	0.01	71.79
	8/14/06		--	28.45	ND	70.62
	2/9/07		--	29.15	ND	69.92
	11/20/07		32.47	32.48	0.01	66.60
	6/5/08		32.40	34.72	2.32	66.09
	9/26/08		33.96	34.02	0.06	65.10
	1/22/09		34.20	34.46	0.26	64.81
	4/16/09		32.74	33.51	0.77	66.14
	9/18/09		33.20	33.41	0.21	65.82
	12/3/09		32.15	32.66	0.51	66.01
	4/17/10		32.20	32.68	0.48	66.76
	9/22/10		33.37	33.90	0.43	65.50
	2/10/11		31.10	31.91	0.81	66.55
	6/29/11		--	33.69	ND	65.38
	12/30/11		--	34.83	ND	64.24
	03/12/12		--	34.85	ND	64.22
	07/04/12		--	34.99	ND	64.08
	12/31/12		--	34.84	ND	64.23
	5/8/13		--	30.69	ND	68.38
	8/10/13		--	28.34	ND	70.73

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA (Monitoring Wells)

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-5	6/5/08	98.03	--	31.47	ND	66.56
	9/26/08		--	32.92	ND	65.11
	1/22/09		--	33.21	ND	64.82
	4/16/09		--	32.29	ND	65.74
	9/18/09		--	32.68	ND	65.35
	12/3/09		--	31.90	ND	66.13
	4/17/10		--	31.98	ND	66.05
	9/22/10		--	33.01	ND	65.02
	2/10/11		--	31.11	ND	66.92
	6/29/11		--	32.63	ND	65.40
	12/30/11		--	32.79	ND	65.24
	03/12/12		--	32.77	ND	65.26
	07/04/12		--	32.95	ND	65.08
	12/31/12		--	33.01	ND	65.02
	5/8/13		--	30.69	ND	68.38
	8/10/13		--	27.26	ND	70.77
MW-7	6/5/08	99.30	--	35.19	ND	64.11
	9/26/08		--	36.62	ND	62.68
	1/22/09		--	36.66	ND	62.64
	4/16/09		--	35.67	ND	63.63
	9/18/09		--	36.00	ND	63.30
	12/3/09		--	35.28	ND	64.02
	4/17/10		--	35.31	ND	63.99
	9/22/10		--	36.70	ND	62.60
	2/10/11		--	34.62	ND	64.68
	6/29/11		--	35.88	ND	63.42
	12/30/11		--	35.99	ND	63.31
	03/12/12		--	35.97	ND	63.33
	07/04/12		--	36.22	ND	63.08
	12/31/12	DESTROYED				
MW-8	6/5/08	102.13	--	41.11	ND	61.02
	9/26/08		--	42.60	ND	59.53
	1/22/09		--	42.64	ND	59.49
	4/16/09		--	41.60	ND	60.53
	9/18/09		--	41.99	ND	60.14
	4/17/10		--	42.03	ND	60.10
	9/22/10		--	43.18	ND	58.95
	2/10/11		--	41.19	ND	60.94
	6/29/11		--	42.33	ND	59.80
	12/30/11		--	42.48	ND	59.65
	03/12/12		--	42.49	ND	59.64
	07/04/12		--	42.66	ND	59.47
	12/31/12		--	41.70	ND	60.43
	5/8/13		--	39.22	ND	32.91
	8/10/13		--	37.08	ND	65.05

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA (Monitoring Wells)

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-9	6/5/08	104.97	--	41.82	ND	63.15
	9/26/08		--	43.19	ND	61.78
	1/22/09		--	43.24	ND	61.73
	4/16/09		--	42.29	ND	62.68
	9/18/09		--	42.68	ND	62.29
	12/3/09		--	41.22	ND	63.25
	4/17/10		--	41.23	ND	63.74
	9/22/10		--	42.34	ND	62.63
	2/10/11		--	40.45	ND	64.52
	6/29/11		--	41.91	ND	63.06
	12/30/11		--	42.17	ND	62.80
	03/12/12		--	42.18	ND	62.79
	07/04/12		--	42.42	ND	62.55
	12/31/12		--	44.94	ND	60.03
	5/8/13		--	41.86	ND	63.11
MW-10	6/5/08	104.50	--	43.10	ND	61.40
	9/26/08		--	44.63	ND	59.87
	1/22/09		--	44.67	ND	59.83
	4/16/09		--	43.70	ND	60.80
	9/18/09		--	44.10	ND	60.40
	12/3/09		--	43.33	ND	61.17
	4/17/10		--	43.37	ND	61.13
	9/22/10		--	44.51	ND	59.99
	2/10/11		--	42.12	ND	61.88
	6/29/11		--	42.72	ND	61.78
	12/30/11		--	42.90	ND	61.60
	03/12/12		--	42.89	ND	61.61
	07/04/12		--	43.16	ND	61.34
	12/31/12		--	43.49	ND	61.01
	5/8/13		--	42.01	ND	62.49
MW-11	6/5/08	102.92	--	40.20	ND	62.72
	9/26/08		--	41.73	ND	61.19
	1/22/09		--	41.80	ND	61.12
	4/16/09		--	40.94	ND	61.98
	9/18/09		--	41.36	ND	61.56
	12/3/09		--	40.51	ND	62.41
	4/17/10		--	40.60	ND	62.32
	9/22/10		--	41.80	ND	61.12
	2/10/11		--	40.01	ND	62.91
	6/29/11		--	41.31	ND	61.61
	12/30/11		--	41.47	ND	61.45
	03/12/12		--	41.46	ND	61.46
	07/04/12		--	41.71	ND	61.21
	12/31/12	MISSING				

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA (Monitoring Wells)

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-12	6/5/08	99.12	--	33.77	ND	65.35
	9/26/08		--	35.21	ND	63.91
	1/22/09		--	36.61	ND	62.51
	4/16/09		--	35.72	ND	63.40
	9/18/09		--	35.99	ND	63.13
	12/3/09		--	35.20	ND	63.92
	4/17/10		--	35.22	ND	63.90
	9/22/10		--	36.31	ND	62.81
	2/10/11		--	34.35	ND	64.77
	6/29/11		--	35.74	ND	63.38
	12/30/11		--	35.93	ND	63.19
	03/12/12		--	35.94	ND	63.18
	07/04/12		--	36.19	ND	62.93
	12/31/12		--	36.70	ND	62.42
	5/8/13		--	34.23	ND	64.89
	8/10/13		--	32.22	ND	66.90
MW-13	6/5/08	99.41	--	36.17	ND	63.24
	9/26/08		--	37.68	ND	61.73
	1/22/09		--	37.73	ND	61.68
	4/16/09		--	37.70	ND	61.71
	9/18/09		--	38.11	ND	61.30
	12/3/09		--	37.29	ND	62.12
	4/17/10		--	37.28	ND	62.13
	9/22/10		--	38.31	ND	61.10
	2/10/11		--	36.27	ND	63.14
	6/29/11		--	37.80	ND	61.61
	12/30/11		--	35.71	ND	63.70
	03/12/12		--	35.72	ND	63.69
	07/04/12		--	35.91	ND	63.50
	12/31/12		--	37.13	ND	62.28
	5/5/13		--	26.11	ND	64.69
	8/10/13		--	32.03	ND	67.38
MW-17	6/5/08	93.98	--	31.09	ND	62.89
	9/26/08		--	32.59	ND	61.39
	1/22/09		--	32.61	ND	61.37
	4/16/09		--	31.59	ND	62.39
	9/18/09		--	31.93	ND	62.05
	12/3/09		--	31.16	ND	62.82
	4/17/10		--	31.17	ND	62.81
	9/22/10		--	32.21	ND	61.77
	2/10/11		--	30.19	ND	63.79
	6/29/11		--	31.42	ND	62.56
	12/30/11		--	31.58	ND	62.40
	03/12/12		--	31.59	ND	62.39
	07/04/12		--	31.82	ND	62.16
	12/31/12		--	27.79	ND	66.19
	5/8/13		--	26.11	ND	67.87

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA (Monitoring Wells)

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-19	6/5/08	99.58	--	35.26	ND	64.32
	9/26/08		--	36.71	ND	62.87
	1/22/09		--	36.74	ND	62.84
	4/16/09		--	35.80	ND	63.78
	9/18/09		--	36.18	ND	63.40
	12/3/09		--	36.49	ND	63.37
	4/17/10		--	36.50	ND	63.08
	9/22/10		--	37.70	ND	61.88
	2/10/11		--	35.62	ND	63.96
	6/29/11		--	37.01	ND	62.57
	12/30/11		--	36.44	ND	63.14
	03/12/12		--	36.46	ND	63.12
	07/04/12		--	36.71	ND	62.87
	12/31/12		--	37.75	ND	61.83
	5/8/13		--	35.51	ND	64.07
	8/10/13		--	33.20	ND	66.38
MW-20	6/5/08	99.86	--	36.40	ND	63.46
	9/26/08		--	37.88	ND	61.98
	1/22/09		--	37.89	ND	61.97
	4/16/09		--	37.00	ND	62.86
	9/18/09		--	37.39	ND	62.47
	12/3/09		--	36.49	ND	63.30
	4/17/10		--	36.52	ND	63.34
	9/22/10		--	32.69	ND	62.17
	2/10/11		--	30.41	ND	69.45
	6/29/11		--	31.86	ND	68.00
	12/30/11		--	31.96	ND	67.90
	03/12/12		--	31.97	ND	67.89
	07/04/12		--	32.23	ND	67.63
	12/31/12		--	37.00	ND	62.86
	5/8/13		--	33.21	ND	66.65
MW-22	6/5/08	89.60	--	35.21	ND	54.39
	9/26/08		--	36.73	ND	52.87
	1/22/09		--	36.75	ND	52.85
	4/16/09		--	35.83	ND	53.77
	9/18/09		--	36.18	ND	53.42
	12/3/09		--	35.42	ND	54.18
	4/17/10		--	35.43	ND	54.17
	9/22/10		--	36.42	ND	53.18
	2/10/11		--	34.41	ND	55.19
	6/29/11		--	35.75	ND	53.85
	12/30/11		--	35.88	ND	53.72
	03/12/12		--	35.87	ND	53.73
	07/04/12		--	36.92	ND	52.68
	12/31/12		--	32.72	ND	56.88
	5/8/13		--	30.89	ND	58.80

Notes: 1) ND = None Detected
2) NM = Not Measured

TABLE 2

GROUNDWATER LABORATORY DATA (Monitoring Wells)

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well/Sample No.	Date Sampled	Benzene	Toluene	Ethyl Benzene	Xylene(s)	MTBE	Naphthalene	EDB
MW-1	8/10/13	<100	130	819	6,610	<100	393	0.33
MW-2	8/10/13	3,770	6,000	369	2,436	<5.0	102	61.2
MW-3	8/10/13	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<0.020
MW-4	8/10/13	443	1,530	163	7,980	<50.0	1,080	196
MW-5	8/10/13	<5.0	5.6	<5.0	<15.0	<5.0	<5.0	5.6
MW-8	8/10/13	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	0.034
MW-12	8/10/13	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<0.020
MW-13	8/10/13	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<0.020
MW-19	8/10/13	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<0.020

Notes: 1) All sample results are reported in micrograms per liter (ug/l) or parts per billion (ppb).
2) EDB = 1,2-Dibromoethane

ENVIROSOUTH
Environmental Consultants

LABORATORY REPORT

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August 20, 2013

Tom Donn
EnviroSouth, Inc.
3440 Augusta Rd.
Greenville, SC 29605

RE: Project: Red Diamond 1334
Pace Project No.: 92168777

Dear Tom Donn:
Enclosed are the analytical results for sample(s) received by the laboratory on August 14, 2013. 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,

Kevin Herring

kevin.herring@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project: Red Diamond 1334
Pace Project No.: 92168777

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

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Red Diamond 1334
Pace Project No.: 92168777

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92168777001	**MW-1**	EPA 8011	EJK	2	PASI-C
		EPA 8260	MCK	11	PASI-C
92168777002	**MW-2**	EPA 8011	EJK	2	PASI-C
		EPA 8260	MCK	11	PASI-C
92168777003	**MW-3**	EPA 8011	EJK	2	PASI-C
		EPA 8260	MCK	11	PASI-C
92168777004	**MW-4**	EPA 8011	EJK	2	PASI-C
		EPA 8260	MCK	11	PASI-C
92168777005	**MW-5**	EPA 8011	EJK	2	PASI-C
		EPA 8260	MCK	11	PASI-C
92168777006	**MW-8**	EPA 8011	EJK	2	PASI-C
		EPA 8260	MCK	11	PASI-C
92168777007	**MW-12**	EPA 8011	EJK	2	PASI-C
		EPA 8260	MCK	11	PASI-C
92168777008	**MW-13**	EPA 8011	EJK	2	PASI-C
		EPA 8260	MCK	11	PASI-C
92168777009	**MW-19**	EPA 8011	EJK	2	PASI-C
		EPA 8260	MCK	11	PASI-C

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ANALYTICAL RESULTS

Project: Red Diamond 1334
Pace Project No.: 92168777

Sample: MW-1 **Lab ID: 92168777001** Collected: 08/10/13 15:30 Received: 08/14/13 13:20 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)	**0.33**	ug/L	0.020	1	08/15/13 11:45	08/15/13 13:54	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	121	%	60-140	1	08/15/13 11:45	08/15/13 13:54	301-79-56	
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	100	20		08/16/13 14:20	71-43-2	
Ethylbenzene	**819**	ug/L	100	20		08/16/13 14:20	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	100	20		08/16/13 14:20	1634-04-4	
Naphthalene	**393**	ug/L	100	20		08/16/13 14:20	91-20-3	
Toluene	**130**	ug/L	100	20		08/16/13 14:20	108-88-3	
m&p-Xylene	**4900**	ug/L	200	20		08/16/13 14:20	179601-23-1	
o-Xylene	**1710**	ug/L	100	20		08/16/13 14:20	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	106	%	70-130	20		08/16/13 14:20	460-00-4	
Dibromofluoromethane (S)	87	%	70-130	20		08/16/13 14:20	1868-53-7	
1,2-Dichloroethane-d4 (S)	88	%	70-130	20		08/16/13 14:20	17060-07-0	
Toluene-d8 (S)	97	%	70-130	20		08/16/13 14:20	2037-26-5	

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ANALYTICAL RESULTS

Project: Red Diamond 1334
Pace Project No.: 92168777

Sample: MW-2 **Lab ID: 92168777002** Collected: 08/10/13 14:40 Received: 08/14/13 13:20 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)	**61.2**	ug/L	2.0	100	08/15/13 11:45	08/16/13 19:49	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	0	%	60-140	100	08/15/13 11:45	08/16/13 19:49	301-79-56	S4
8260 MSV	Analytical Method: EPA 8260							
Benzene	**3770**	ug/L	500	100		08/16/13 14:36	71-43-2	
Ethylbenzene	**369**	ug/L	5.0	1		08/16/13 10:25	100-41-4	E
Methyl-tert-butyl ether	ND	ug/L	5.0	1		08/16/13 10:25	1634-04-4	
Naphthalene	**102**	ug/L	5.0	1		08/16/13 10:25	91-20-3	
Toluene	**6000**	ug/L	500	100		08/16/13 14:36	108-88-3	
m&p-Xylene	**1690**	ug/L	1000	100		08/16/13 14:36	179601-23-1	
o-Xylene	**746**	ug/L	500	100		08/16/13 14:36	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%	70-130	1		08/16/13 10:25	460-00-4	
Dibromofluoromethane (S)	81	%	70-130	1		08/16/13 10:25	1868-53-7	
1,2-Dichloroethane-d4 (S)	89	%	70-130	1		08/16/13 10:25	17060-07-0	
Toluene-d8 (S)	97	%	70-130	1		08/16/13 10:25	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Red Diamond 1334
Pace Project No.: 92168777

Sample: MW-3 **Lab ID: 92168777003** Collected: 08/10/13 14:55 Received: 08/14/13 13:20 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	08/15/13 11:46	08/15/13 14:35	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	112	%	60-140	1	08/15/13 11:46	08/15/13 14:35	301-79-56	
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/16/13 10:41	71-43-2	
Ethylbenzene	ND	ug/L	5.0	1		08/16/13 10:41	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		08/16/13 10:41	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		08/16/13 10:41	91-20-3	
Toluene	ND	ug/L	5.0	1		08/16/13 10:41	108-88-3	
m&p-Xylene	ND	ug/L	10.0	1		08/16/13 10:41	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		08/16/13 10:41	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	102	%	70-130	1		08/16/13 10:41	460-00-4	
Dibromofluoromethane (S)	87	%	70-130	1		08/16/13 10:41	1868-53-7	
1,2-Dichloroethane-d4 (S)	89	%	70-130	1		08/16/13 10:41	17060-07-0	
Toluene-d8 (S)	94	%	70-130	1		08/16/13 10:41	2037-26-5	

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ANALYTICAL RESULTS

Project: Red Diamond 1334
Pace Project No.: 92168777

Sample: MW-4 **Lab ID: 92168777004** Collected: 08/10/13 15:10 Received: 08/14/13 13:20 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)	**196**	ug/L	8.0	400	08/15/13 11:46	08/16/13 20:09	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	0	%	60-140	400	08/15/13 11:46	08/16/13 20:09	301-79-56	S4
8260 MSV	Analytical Method: EPA 8260							
Benzene	**443**	ug/L	50.0	10		08/16/13 10:56	71-43-2	
Ethylbenzene	**163**	ug/L	50.0	10		08/16/13 10:56	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	50.0	10		08/16/13 10:56	1634-04-4	
Naphthalene	**1080**	ug/L	50.0	10		08/16/13 10:56	91-20-3	
Toluene	**1530**	ug/L	50.0	10		08/16/13 10:56	108-88-3	
m&p-Xylene	**5230**	ug/L	500	50		08/19/13 02:44	179601-23-1	
o-Xylene	**2750**	ug/L	250	50		08/19/13 02:44	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	106	%	70-130	10		08/16/13 10:56	460-00-4	
Dibromofluoromethane (S)	88	%	70-130	10		08/16/13 10:56	1868-53-7	
1,2-Dichloroethane-d4 (S)	89	%	70-130	10		08/16/13 10:56	17060-07-0	
Toluene-d8 (S)	96	%	70-130	10		08/16/13 10:56	2037-26-5	

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ANALYTICAL RESULTS

Project: Red Diamond 1334
Pace Project No.: 92168777

Sample: MW-5 **Lab ID: 92168777005** Collected: 08/10/13 14:20 Received: 08/14/13 13:20 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)	**5.6**	ug/L	0.20	10	08/15/13 11:46	08/16/13 20:49	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	0	%	60-140	10	08/15/13 11:46	08/16/13 20:49	301-79-56	S4
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/16/13 11:12	71-43-2	
Ethylbenzene	ND	ug/L	5.0	1		08/16/13 11:12	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		08/16/13 11:12	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		08/16/13 11:12	91-20-3	
Toluene	**5.6**	ug/L	5.0	1		08/16/13 11:12	108-88-3	
m&p-Xylene	ND	ug/L	10.0	1		08/16/13 11:12	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		08/16/13 11:12	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	104	%	70-130	1		08/16/13 11:12	460-00-4	
Dibromofluoromethane (S)	89	%	70-130	1		08/16/13 11:12	1868-53-7	
1,2-Dichloroethane-d4 (S)	90	%	70-130	1		08/16/13 11:12	17060-07-0	
Toluene-d8 (S)	98	%	70-130	1		08/16/13 11:12	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Red Diamond 1334
Pace Project No.: 92168777

Sample: MW-8 **Lab ID: 92168777006** Collected: 08/10/13 14:00 Received: 08/14/13 13:20 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)	**0.034**	ug/L	0.020	1	08/15/13 11:46	08/15/13 16:36	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	110	%	60-140	1	08/15/13 11:46	08/15/13 16:36	301-79-56	
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/16/13 11:28	71-43-2	
Ethylbenzene	ND	ug/L	5.0	1		08/16/13 11:28	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		08/16/13 11:28	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		08/16/13 11:28	91-20-3	
Toluene	ND	ug/L	5.0	1		08/16/13 11:28	108-88-3	
m&p-Xylene	ND	ug/L	10.0	1		08/16/13 11:28	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		08/16/13 11:28	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	104	%	70-130	1		08/16/13 11:28	460-00-4	
Dibromofluoromethane (S)	87	%	70-130	1		08/16/13 11:28	1868-53-7	
1,2-Dichloroethane-d4 (S)	88	%	70-130	1		08/16/13 11:28	17060-07-0	
Toluene-d8 (S)	95	%	70-130	1		08/16/13 11:28	2037-26-5	

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ANALYTICAL RESULTS

Project: Red Diamond 1334
Pace Project No.: 92168777

Sample: MW-12 **Lab ID: 92168777007** Collected: 08/10/13 13:35 Received: 08/14/13 13:20 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	08/15/13 11:46	08/15/13 16:56	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	123	%	60-140	1	08/15/13 11:46	08/15/13 16:56	301-79-56	
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/16/13 11:43	71-43-2	
Ethylbenzene	ND	ug/L	5.0	1		08/16/13 11:43	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		08/16/13 11:43	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		08/16/13 11:43	91-20-3	
Toluene	ND	ug/L	5.0	1		08/16/13 11:43	108-88-3	
m&p-Xylene	ND	ug/L	10.0	1		08/16/13 11:43	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		08/16/13 11:43	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	102	%	70-130	1		08/16/13 11:43	460-00-4	
Dibromofluoromethane (S)	87	%	70-130	1		08/16/13 11:43	1868-53-7	
1,2-Dichloroethane-d4 (S)	89	%	70-130	1		08/16/13 11:43	17060-07-0	
Toluene-d8 (S)	93	%	70-130	1		08/16/13 11:43	2037-26-5	

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ANALYTICAL RESULTS

Project: Red Diamond 1334
Pace Project No.: 92168777

Sample: MW-13 **Lab ID: 92168777008** Collected: 08/10/13 13:20 Received: 08/14/13 13:20 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	08/15/13 11:46	08/15/13 17:17	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	119	%	60-140	1	08/15/13 11:46	08/15/13 17:17	301-79-56	
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/16/13 11:59	71-43-2	
Ethylbenzene	ND	ug/L	5.0	1		08/16/13 11:59	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		08/16/13 11:59	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		08/16/13 11:59	91-20-3	
Toluene	ND	ug/L	5.0	1		08/16/13 11:59	108-88-3	
m&p-Xylene	ND	ug/L	10.0	1		08/16/13 11:59	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		08/16/13 11:59	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%	70-130	1		08/16/13 11:59	460-00-4	
Dibromofluoromethane (S)	89	%	70-130	1		08/16/13 11:59	1868-53-7	
1,2-Dichloroethane-d4 (S)	91	%	70-130	1		08/16/13 11:59	17060-07-0	
Toluene-d8 (S)	92	%	70-130	1		08/16/13 11:59	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Red Diamond 1334
Pace Project No.: 92168777

Sample: MW-19 **Lab ID: 92168777009** Collected: 08/10/13 13:00 Received: 08/14/13 13:20 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	08/15/13 11:46	08/15/13 17:37	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	118	%	60-140	1	08/15/13 11:46	08/15/13 17:37	301-79-56	
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		08/16/13 12:14	71-43-2	M1
Ethylbenzene	ND	ug/L	5.0	1		08/16/13 12:14	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		08/16/13 12:14	1634-04-4	M1
Naphthalene	ND	ug/L	5.0	1		08/16/13 12:14	91-20-3	
Toluene	ND	ug/L	5.0	1		08/16/13 12:14	108-88-3	
m&p-Xylene	ND	ug/L	10.0	1		08/16/13 12:14	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		08/16/13 12:14	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	104	%	70-130	1		08/16/13 12:14	460-00-4	
Dibromofluoromethane (S)	90	%	70-130	1		08/16/13 12:14	1868-53-7	
1,2-Dichloroethane-d4 (S)	88	%	70-130	1		08/16/13 12:14	17060-07-0	
Toluene-d8 (S)	93	%	70-130	1		08/16/13 12:14	2037-26-5	

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QUALITY CONTROL DATA

Project: Red Diamond 1334
Pace Project No.: 92168777

QC Batch: MSV/23956 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV SC
Associated Lab Samples: 92168777001, 92168777002, 92168777003, 92168777004, 92168777005, 92168777006, 92168777007, 92168777008, 92168777009

METHOD BLANK: 1030038 Matrix: Water
Associated Lab Samples: 92168777001, 92168777002, 92168777003, 92168777004, 92168777005, 92168777006, 92168777007, 92168777008, 92168777009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	5.0	08/16/13 04:11	
Ethylbenzene	ug/L	ND	5.0	08/16/13 04:11	
m&p-Xylene	ug/L	ND	10.0	08/16/13 04:11	
Methyl-tert-butyl ether	ug/L	ND	5.0	08/16/13 04:11	
Naphthalene	ug/L	ND	5.0	08/16/13 04:11	
o-Xylene	ug/L	ND	5.0	08/16/13 04:11	
Toluene	ug/L	ND	5.0	08/16/13 04:11	
1,2-Dichloroethane-d4 (S)	%	87	70-130	08/16/13 04:11	
4-Bromofluorobenzene (S)	%	105	70-130	08/16/13 04:11	
Dibromofluoromethane (S)	%	89	70-130	08/16/13 04:11	
Toluene-d8 (S)	%	99	70-130	08/16/13 04:11	

LABORATORY CONTROL SAMPLE: 1030039

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	50	48.8	98	70-130	
Ethylbenzene	ug/L	50	50.7	101	70-130	
m&p-Xylene	ug/L	100	106	106	70-130	
Methyl-tert-butyl ether	ug/L	50	41.7	83	70-130	
Naphthalene	ug/L	50	42.8	86	70-130	
o-Xylene	ug/L	50	53.8	108	70-130	
Toluene	ug/L	50	49.5	99	70-130	
1,2-Dichloroethane-d4 (S)	%			89	70-130	
4-Bromofluorobenzene (S)	%			104	70-130	
Dibromofluoromethane (S)	%			88	70-130	
Toluene-d8 (S)	%			96	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1031491 1031492

Parameter	Units	92168777009 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	65.4	66.2	131	132	70-130	1	M1
Ethylbenzene	ug/L	ND	50	50	56.2	56.7	112	113	70-130	1	
m&p-Xylene	ug/L	ND	100	100	109	110	109	110	70-130	1	
Methyl-tert-butyl ether	ug/L	ND	50	50	64.8	65.5	130	131	70-130	1	M1
Naphthalene	ug/L	ND	50	50	51.3	53.2	103	106	70-130	4	
o-Xylene	ug/L	ND	50	50	57.5	59.0	115	118	70-130	3	
Toluene	ug/L	ND	50	50	64.4	65.3	129	130	70-130	1	

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QUALITY CONTROL DATA

Project: Red Diamond 1334
Pace Project No.: 92168777

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1031491 1031492

Parameter	Units	92168777009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,2-Dichloroethane-d4 (S)	%						93	93	70-130		
4-Bromofluorobenzene (S)	%						103	104	70-130		
Dibromofluoromethane (S)	%						100	100	70-130		
Toluene-d8 (S)	%						101	103	70-130		

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QUALITY CONTROL DATA

Project: Red Diamond 1334
Pace Project No.: 92168777

QC Batch: OEXT/23453 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 92168777001, 92168777002, 92168777003, 92168777004, 92168777005, 92168777006, 92168777007, 92168777008, 92168777009

METHOD BLANK: 1029455 Matrix: Water
Associated Lab Samples: 92168777001, 92168777002, 92168777003, 92168777004, 92168777005, 92168777006, 92168777007, 92168777008, 92168777009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	08/15/13 12:54	
1-Chloro-2-bromopropane (S)	%	114	60-140	08/15/13 12:54	

LABORATORY CONTROL SAMPLE & LCSD: 1029456 1029457

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	0.31	0.31	108	108	60-140	1	20	
1-Chloro-2-bromopropane (S)	%				112	114	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1029458 1029459

Parameter	Units	92168777003 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	.28	.28	0.36	0.37	128	130	60-140	2	
1-Chloro-2-bromopropane (S)	%						123	127	60-140		

SAMPLE DUPLICATE: 1029460

Parameter	Units	92168777004 Result	Dup Result	RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	196	191	2	
1-Chloro-2-bromopropane (S)	%	0	0		S4

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Red Diamond 1334
Pace Project No.: 92168777

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.

PRL - Pace Reporting Limit.

RL - Reporting 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.

SG - Silica Gel - Clean-Up

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.

Acid preservation may not be appropriate for 2-Chloroethylvinyl ether, Styrene, and Vinyl chloride.

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TNI - The NELAC Institute.

LABORATORIES

PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

E	Analyte concentration exceeded the calibration range. The reported result is estimated.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Red Diamond 1334
Pace Project No.: 92168777

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92168777001	**MW-1**	EPA 8011	OEXT/23453	EPA 8011	GCSV/15322
92168777002	**MW-2**	EPA 8011	OEXT/23453	EPA 8011	GCSV/15322
92168777003	**MW-3**	EPA 8011	OEXT/23453	EPA 8011	GCSV/15322
92168777004	**MW-4**	EPA 8011	OEXT/23453	EPA 8011	GCSV/15322
92168777005	**MW-5**	EPA 8011	OEXT/23453	EPA 8011	GCSV/15322
92168777006	**MW-8**	EPA 8011	OEXT/23453	EPA 8011	GCSV/15322
92168777007	**MW-12**	EPA 8011	OEXT/23453	EPA 8011	GCSV/15322
92168777008	**MW-13**	EPA 8011	OEXT/23453	EPA 8011	GCSV/15322
92168777009	**MW-19**	EPA 8011	OEXT/23453	EPA 8011	GCSV/15322
92168777001	**MW-1**	EPA 8260	MSV/23956		
92168777002	**MW-2**	EPA 8260	MSV/23956		
92168777003	**MW-3**	EPA 8260	MSV/23956		
92168777004	**MW-4**	EPA 8260	MSV/23956		
92168777005	**MW-5**	EPA 8260	MSV/23956		
92168777006	**MW-8**	EPA 8260	MSV/23956		
92168777007	**MW-12**	EPA 8260	MSV/23956		
92168777008	**MW-13**	EPA 8260	MSV/23956		
92168777009	**MW-19**	EPA 8260	MSV/23956		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical	Sample Condition Upon Receipt (SCUR) Document Number: F-CHR-CS-03-rev.11	Page 1 of 2 Issuing Authority: Pace Huntersville Quality Office

Client Name: ENVD

Where Received: ☑ Huntersville ☐ Asheville ☐ Eden ☐ Raleigh

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other_____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Optional
Proj. Due Date:
Proj. Name:

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other_____

Thermometer Used: IR Gun T1102 T1301 **Type of Ice:** Wet Blue None ☐ Samples on ice, cooling process has begun

Temp Correction Factor T1102: No Correction T1301: No Correction

Corrected Cooler Temp.: 2.1 C **Biological Tissue is Frozen:** Yes No N/A

Temp should be above freezing to 6°C

Comments:

Date and Initials of person examining contents: VM 8/14

Chain of Custody Present:	☑Yes	☐No	☐N/A
Chain of Custody Filled Out:	☑Yes	☐No	☐N/A
Chain of Custody Relinquished:	☑Yes	☐No	☐N/A
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A
Samples Arrived within Hold Time:	☑Yes	☐No	☐N/A
Short Hold Time Analysis (<72hr):	☐Yes	☑No	☐N/A
Rush Turn Around Time Requested:	☐Yes	☑No	☐N/A
Sufficient Volume:	☑Yes	☐No	☐N/A
Correct Containers Used:	☑Yes	☐No	☐N/A
-Pace Containers Used:	☑Yes	☐No	☐N/A
Containers Intact:	☑Yes	☐No	☐N/A
Filtered volume received for Dissolved tests	☐Yes	☐No	☐N/A
Sample Labels match COC:	☐Yes	☑No	☐N/A
-Includes date/time/ID/Analysis Matrix:_____			
All containers needing preservation have been checked.	☐Yes	☐No	☑N/A
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
Headspace in VOA Vials (>6mm):	☐Yes	☑No	☐N/A
Trip Blank Present:	☐Yes	☐No	☑N/A
Trip Blank Custody Seals Present	☐Yes	☐No	☑N/A
Pace Trip Blank Lot # (if purchased):_____			

1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	NO time on bottles
13.	
14.	
15.	
16.	

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted:_____ Date/Time:_____

Comments/ Resolution:_____

SCURF Review: Date: 8/14/13

SRF Review: Date: 8/15/13

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#: 92168777

92168777

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

Section A Required Client Information:

Company:	EnviroSouth, Inc.
Address:	
Email To:	tdonn@envirosouth.com
Phone:	Fax:
Requested Due Date/TAT:	std.

Section B Required Project Information:

Report To:	Tom Donn
Copy To:	
Purchase Order No.:	
Project Name:	Red Diamond
Project Number:	1334

Section C Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	4494-9

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; see valid codes to left): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

Sample Type (G=GRAB C=COMP)

COLLECTED: COMPOSITE START (DATE, TIME); COMPOSITE END/GRAB (DATE, 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)

Analysis Test (Y/N): N, N, N — BTEX, MTBE; NaphS; EDB

Residual Chlorine (Y/N)

Pace Project No./ Lab I.D.: 92408777

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COMP START DATE	COMP START TIME	COMP END/GRAB DATE	COMP END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-1	WT	G			8-10-13	1530		6				6					N	001
2	MW-2						1440												002
3	MW-3						1455												003
4	MW-4						1510												004
5	MW-5						1420												005
6	MW-8						1400												006
7	MW-12						1335												007
8	MW-13						1320												008
9	MW-19						1300												009
10																			
11																			
12																			

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
					8/13/13	1113	
	Beaver			Emoody Pace	8/14/13	12:10	
	Emoody	8-14-13	17:20	Emoody Pace	8-14-13	1320	2.1 y n y

SAMPLER NAME AND SIGNATURE: Thomas Donn

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: TDonn DATE Signed (MM/DD/YY): 8-12-13

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.

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

SEP 0 9 2013

MR THOMAS DONN PG
ENVIROSOUTH ENVIRONMENTAL CONSULTANTS
3440 AUGUSTA RD
GREENVILLE SC 29605

UST 40 Tech DOCKETING

Re: Verification monitoring report review
Former Red Diamond Oil Company, 519 East North 1st Street, Seneca, SC
UST Permit #14324; CA #25430
Contract #IFB-28949-10/4/05-EMW; PO #605692
Release reported December 30, 1991
Verification monitoring report received September 3, 2013
Oconee County

Dear Mr. Donn:

The Underground Storage Tank (UST) Management Division has reviewed the referenced report. The report documents that measurable free-phase product has not reemerged in the SSTL wells and extraction points. Therefore, the two-quarter verification gauging period remains in effect.

The 2nd quarter verification monitoring report is due on or before **December 1, 2013**. The report must document gauging results for extraction points EP-2, EP-4, EP-20, and EP-20 and groundwater sampling results for monitoring wells MW-1 through MW-5, MW-8, MW-12, MW-13, and MW-19. The analytical parameters should be BTEX+naph+MtBE and EDB. Dissolved oxygen, ferrous iron, methane, nitrate, and sulfate will not be necessary.

In accordance with the contract, the Division must also conduct verification gauging during the 2nd quarter verification period. Therefore, please notify the Division at least two weeks prior to your planned gauging/sampling date. Division personnel will either meet with you on that date or mobilize to the site shortly thereafter to conduct the gauging.

If you have any questions regarding this correspondence, feel free to contact me by telephone at (803) 898-0655, by fax at (803) 898-0673, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Geologist/Hydrologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

JPP/jpp
14324.vmr2

cc: Betty Latham, 2 Stratton Place, Greenville, SC 29615-4217
Technical file

Former Red Diamond- Post-ACA data
UST Permit #14324

	MR
MW-1	8/10/13
DTW	26.50
Benzene	**<100**
Toluene	130
Ethylbenzene	819
Xylenes	6610
MTBE	**<100**
Naphthalene	**393**
DCA	na
EDB	**0.33**
Lead	na

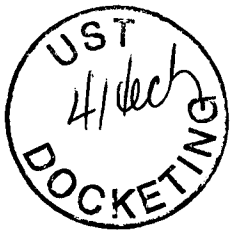
MW-2	8/10/13
DTW	29.00
Benzene	**3770**
Toluene	**6000**
Ethylbenzene	369
Xylenes	2436
MTBE	<5
Naphthalene	**102**
DCA	na
EDB	**61.20**
Lead	na

MW-3	8/10/13
DTW	27.80
Benzene	<5
Toluene	<5
Ethylbenzene	<5
Xylenes	<15
MTBE	<5
Naphthalene	<5
DCA	na
EDB	<0.02
Lead	na

MW-4	8/10/13
DTW	28.34
Benzene	**443**
Toluene	**1530**
Ethylbenzene	163
Xylenes	7980
MTBE	**<50**
Naphthalene	**1080**
DCA	na
EDB	**196.00**
Lead	na

MW-5	8/10/13
DTW	27.26
Benzene	<5
Toluene	6
Ethylbenzene	<5
Xylenes	<15
MTBE	<5
Naphthalene	<5
DCA	na
EDB	**5.60**
Lead	na

MW-8	8/10/13
DTW	37.08
Benzene	<5
Toluene	<5
Ethylbenzene	<5
Xylenes	<15
MTBE	<5
Naphthalene	<5
DCA	na
EDB	0.03
Lead	na



MW-12	8/10/13
DTW	32.22
Benzene	<5
Toluene	<5
Ethylbenzene	<5
Xylenes	<15
MTBE	<5
Naphthalene	<5
DCA	na
EDB	<0.02
Lead	na

MW-13	8/10/13
DTW	**32.03**
Benzene	<5
Toluene	<5
Ethylbenzene	<5
Xylenes	<15
MTBE	<5
Naphthalene	<5
DCA	na
EDB	<0.02
Lead	na

MW-19	8/10/13
DTW	33.20
Benzene	<5
Toluene	<5
Ethylbenzene	<5
Xylenes	<15
MTBE	<5
Naphthalene	<5
DCA	na
EDB	<0.02
Lead	na

FP- free-phase product
na- not analyzed
ns- not sampled
nm- not measured
unk- unknown

D H E C

Underground Storage Tank Management Division
Field Data Information Sheet – Monitoring Well Gauging

Site Information

Date: 11/06/13	Site ID #: 14324	Site Name: Former Red Diamond
County: Pickens	Project Manager: J. Padgett	Field Personnel: J. Padgett, B. Fuller

Well Gauging Information

Well ID:	Total Well Depth (ft.)	Screened Interval (ft.)	Depth to Free Product (ft.)	Depth to Ground water (ft.)	Free Product Thickness (ft.)	Confirmed with Bailer?	Photos Taken ?	Well Pad OK?	Bolts in Well Cover?	Water in Well Vault?
EP-4				26.77			N	Y		
MW-1				26.75			N	Y		
EP-2				27.60			N	Y		
MW-4				27.59			N	Y		
EP-20				28.18			N	Y		

UST 42tech DOCKETING

Notes: _____

_____

_____

_____ Signature: _____

-UST Field Data Information Sheet – Monitoring Well Gauging

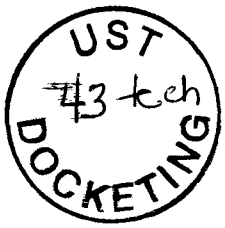
-Purpose of the form is to record information gathered during a monitoring well gauging event
-DHEC UST Project Managers and Field Staff
-Item-by-item instructions for completing the form:
    Fill in all Site Information boxes
    Record Well Gauging Information for all necessary wells
    Record any applicable notes
    Sign the form
-Form is scanned and saved electronically; Record Group Number 169, Retention Schedule 10304

ENVIROSOUTH
Environmental Consultants



November 18, 2013

Mr. Joel Padgett
SCDHEC
Bureau of Land and Waste Management
UST Management Division
2600 Bull Street
Columbia, South Carolina 29201



Re: 2nd (Final) Verification Monitoring Report
Former Red Diamond
519 East North 1st Street
Seneca, South Carolina
SCDHEC ID #14324
EnviroSouth Job No. 1334

Dear Mr. Padgett:

EnviroSouth, Inc. is pleased to provide the SCDHEC UST Program with the attached report for the Former Red Diamond site in Seneca, South Carolina.

As indicated in the report, no free-product remains in any wells on the site. Based on this, we plan to immediately abandon any wells requested.

If you have comments or questions concerning the attached report, please call.

Sincerely,

EnviroSouth, Inc.

Thomas F. Donn, P.G.
Senior Hydrogeologist
S.C. Registration No. 908

TFD/td

Enclosure

phone: 864.236.9010 • fax: 864.236.9097
3440 Augusta Road • Greenville, SC 29605 • www.envirosouth.com

Prepared for:

South Carolina Department of Health and Environmental Control
(SCDHEC)
UST Management Division
2600 Bull Street
Columbia, South Carolina 29201

Attn: Mr. Joel Padgett

2ND (FINAL) VERIFICATION MONITORING REPORT

FORMER RED DIAMOND
519 EAST NORTH 1st STREET
SENECA, SOUTH CAROLINA

UST PERMIT #14324

Job No. 1334

Prepared by:

EnviroSouth, Inc.
3440 Augusta Road
Greenville, South Carolina 29605
SCDHEC Certification No. 257

November 18, 2013

INTRODUCTION

EnviroSouth has completed groundwater gauging and sampling/analyses at the Former Red Diamond facility (UST Permit #14324) facility located in Seneca, South Carolina.

This report includes a description of the field/remediation services, along with our current findings.

METHODS and FINDINGS

Groundwater Elevation and Movement

Water level measurements in all required monitoring wells and extraction points EP-2, EP-4, and EP-20 were recorded by EnviroSouth with a hydrocarbon sensitive electronic interface probe on November 6, 2013. The interface probe was decontaminated prior to and between each measurement to prevent cross-contamination between wells. Free-product was not detected in any of the monitoring wells or extraction points. The TOC elevations, water level measurements, and ground water elevation data recorded to date are included on Table 1.

A map of extraction point locations is included as Figure 1.

GROUNDWATER SAMPLING

Wells MW-1, MW-2, MW-3, EP-4, MW-5, MW-8, MW-12, MW-13, and MW-19 were sampled and submitted to a South Carolina certified lab for analyses of BTEX, MTBE, EDB, and naphthalene. Because of an obstruction in well MW-4, a groundwater sample was collected from well EP-4 which is located approximately 15 feet away.

A table summarizing the lab report is included as Table 2.

CONCLUSIONS

Because no wells contain free-product, we will consider this project to be completed following abandonment of any monitoring wells requested by the SCDHEC.

EnviroSouth, Inc.

Thomas F. Donn, P.G.
Senior Hydrogeologist
S.C. Registration No. 908

TFD/td

APPENDICES

FIGURES

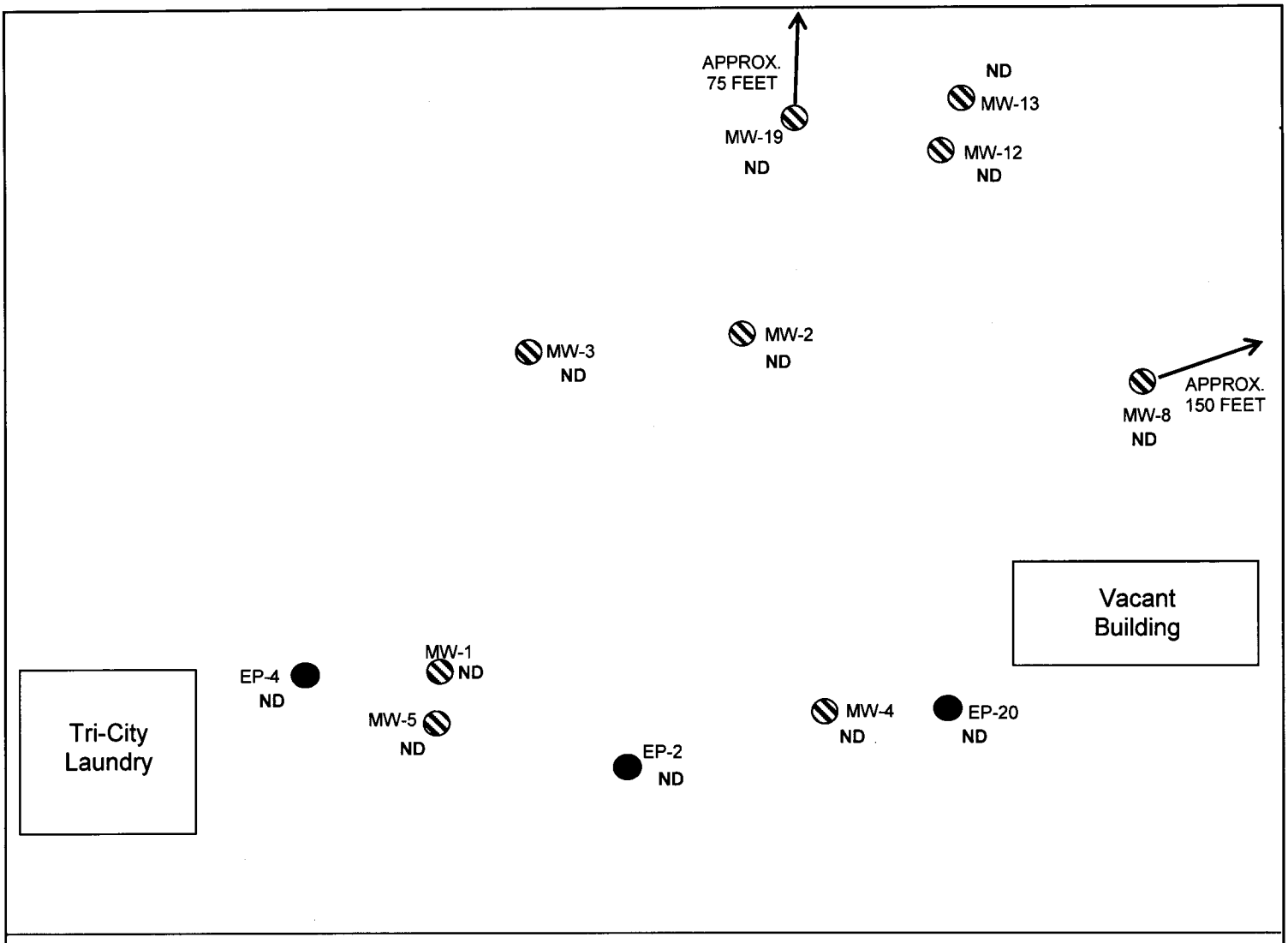
FIGURE 1 – Monitoring Well and Extraction Point Location Map

TABLES

TABLE 1 - Groundwater Elevation Data
TABLE 2 – Groundwater Laboratory Data

LABORATORY REPORT

FIGURE



ENVIROSOUTH
Environmental Consultants

MONITORING WELL AND EXTRACTION POINT LOCATION MAP

FORMER RED DIAMOND
519 EAST NORTH 1ST STREET
SENECA, SOUTH CAROLINA

JOB No: 1334	CHECKED BY: TFD	FIGURE: 1
SCALE: NTS	DRAWN BY: TD	DATE: 11/18/13

TABLES

TABLE 1

GROUNDWATER ELEVATION DATA (Monitoring Wells)

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-1	4/18/03	98.32	29.07	33.27	4.20	65.05
	10/26/05		23.37	27.51	4.14	73.52
	5/4/06		25.64	26.71	1.07	72.41
	5/11/06		26.75	26.87	0.12	71.54
	6/6/06		26.26	26.40	0.14	72.03
	8/14/06		28.25	28.50	0.25	70.01
	2/9/07		27.74	28.22	0.48	70.46
	11/20/07		31.75	31.95	0.20	66.52
	6/5/08		32.00	32.15	0.15	66.28
	9/26/08		33.50	33.53	0.03	64.81
	1/22/09		32.93	33.10	0.17	65.35
	4/16/09		31.80	31.97	0.17	66.48
	9/18/09		32.25	32.35	0.10	66.05
	12/3/09		31.39	31.49	0.10	65.89
	4/17/10		31.41	31.49	0.08	66.89
	9/22/10		32.20	32.33	0.13	66.09
	2/10/11		29.50	30.00	0.50	67.95
	6/29/11		32.80	32.87	0.07	65.40
	12/30/11		--	33.19	ND	65.13
	03/12/12		--	33.21	ND	65.11
	07/04/12		--	33.43	ND	64.89
	12/31/12		--	33.52	ND	64.80
	5/8/13		--	29.47	ND	68.85
	8/10/13		--	26.50	ND	71.82
	11/6/13		--	26.77	ND	71.55
MW-2	6/5/08	98.60	--	33.30	ND	65.30
	9/26/08		--	34.71	ND	63.89
	1/22/09		--	34.70	ND	63.90
	4/16/09		--	33.72	ND	64.88
	9/18/09		--	34.12	ND	64.48
	12/3/09		--	33.23	ND	65.37
	4/17/10		--	33.26	ND	65.34
	9/22/10		--	34.30	ND	64.30
	2/10/11		--	32.42	ND	66.18
	6/29/11		--	33.89	ND	64.71
	12/30/11		--	34.08	ND	64.52
	03/12/12		--	34.07	ND	64.53
	07/04/12		--	34.36	ND	64.24
	12/31/12		--	33.98	ND	64.62
	5/8/13		--	31.20	ND	67.40
	8/10/13		--	29.00	ND	69.60
	11/6/13		--	28.20	ND	70.40

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA (Monitoring Wells)

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-3	6/5/08	97.92	--	32.28	ND	65.64
	9/26/08		--	33.74	ND	64.18
	1/22/09		--	33.50	ND	64.42
	4/16/09		--	32.48	ND	65.44
	9/18/09		--	32.87	ND	65.05
	12/3/09		--	31.99	ND	65.93
	4/17/10		--	32.00	ND	65.92
	9/22/10		--	33.18	ND	64.74
	2/10/11		--	31.60	ND	66.32
	6/29/11		--	32.81	ND	65.11
	12/30/11		--	33.10	ND	64.82
	03/12/12		--	33.11	ND	64.81
	07/04/12		--	33.39	ND	64.53
	12/31/12		--	32.86	ND	65.06
	5/8/13		--	29.91	ND	68.01
	8/10/13		--	27.80	ND	70.12
	11/6/13		--	27.12	ND	70.80
MW-4	4/18/03	99.07	38.29	34.43	3.86	64.64
	10/26/05		24.75	27.61	2.86	73.61
	5/4/06		26.60	27.17	0.57	72.33
	6/6/06		27.27	27.28	0.01	71.79
	8/14/06		--	28.45	ND	70.62
	2/9/07		--	29.15	ND	69.92
	11/20/07		32.47	32.48	0.01	66.60
	6/5/08		32.40	34.72	2.32	66.09
	9/26/08		33.96	34.02	0.06	65.10
	1/22/09		34.20	34.46	0.26	64.81
	4/16/09		32.74	33.51	0.77	66.14
	9/18/09		33.20	33.41	0.21	65.82
	12/3/09		32.15	32.66	0.51	66.01
	4/17/10		32.20	32.68	0.48	66.76
	9/22/10		33.37	33.90	0.43	65.50
	2/10/11		31.10	31.91	0.81	66.55
	6/29/11		--	33.69	ND	65.38
	12/30/11		--	34.83	ND	64.24
	03/12/12		--	34.85	ND	64.22
	07/04/12		--	34.99	ND	64.08
	12/31/12		--	34.84	ND	64.23
	5/8/13		--	30.69	ND	68.38
	8/10/13		--	28.34	ND	70.73
	11/6/13	INACCESSIBLE				

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA (Monitoring Wells)

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-5	6/5/08	98.03	--	31.47	ND	66.56
	9/26/08		--	32.92	ND	65.11
	1/22/09		--	33.21	ND	64.82
	4/16/09		--	32.29	ND	65.74
	9/18/09		--	32.68	ND	65.35
	12/3/09		--	31.90	ND	66.13
	4/17/10		--	31.98	ND	66.05
	9/22/10		--	33.01	ND	65.02
	2/10/11		--	31.11	ND	66.92
	6/29/11		--	32.63	ND	65.40
	12/30/11		--	32.79	ND	65.24
	03/12/12		--	32.77	ND	65.26
	07/04/12		--	32.95	ND	65.08
	12/31/12		--	33.01	ND	65.02
	5/8/13		--	30.69	ND	68.38
	8/10/13		--	27.26	ND	70.77
	11/6/13		--	26.78	ND	71.25
MW-7	6/5/08	99.30	--	35.19	ND	64.11
	9/26/08		--	36.62	ND	62.68
	1/22/09		--	36.66	ND	62.64
	4/16/09		--	35.67	ND	63.63
	9/18/09		--	36.00	ND	63.30
	12/3/09		--	35.28	ND	64.02
	4/17/10		--	35.31	ND	63.99
	9/22/10		--	36.70	ND	62.60
	2/10/11		--	34.62	ND	64.68
	6/29/11		--	35.88	ND	63.42
	12/30/11		--	35.99	ND	63.31
	03/12/12		--	35.97	ND	63.33
	07/04/12		--	36.22	ND	63.08
	12/31/12	DESTROYED				
MW-8	6/5/08	102.13	--	41.11	ND	61.02
	9/26/08		--	42.60	ND	59.53
	1/22/09		--	42.64	ND	59.49
	4/16/09		--	41.60	ND	60.53
	9/18/09		--	41.99	ND	60.14
	4/17/10		--	42.03	ND	60.10
	9/22/10		--	43.18	ND	58.95
	2/10/11		--	41.19	ND	60.94
	6/29/11		--	42.33	ND	59.80
	12/30/11		--	42.48	ND	59.65
	03/12/12		--	42.49	ND	59.64
	07/04/12		--	42.66	ND	59.47
	12/31/12		--	41.70	ND	60.43
	5/8/13		--	39.22	ND	32.91
	8/10/13		--	37.08	ND	65.05
	11/6/13		--	36.44	ND	65.69

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA (Monitoring Wells)

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-9	6/5/08	104.97	--	41.82	ND	63.15
	9/26/08		--	43.19	ND	61.78
	1/22/09		--	43.24	ND	61.73
	4/16/09		--	42.29	ND	62.68
	9/18/09		--	42.68	ND	62.29
	12/3/09		--	41.22	ND	63.25
	4/17/10		--	41.23	ND	63.74
	9/22/10		--	42.34	ND	62.63
	2/10/11		--	40.45	ND	64.52
	6/29/11		--	41.91	ND	63.06
	12/30/11		--	42.17	ND	62.80
	03/12/12		--	42.18	ND	62.79
	07/04/12		--	42.42	ND	62.55
	12/31/12		--	44.94	ND	60.03
	5/8/13		--	41.86	ND	63.11
MW-10	6/5/08	104.50	--	43.10	ND	61.40
	9/26/08		--	44.63	ND	59.87
	1/22/09		--	44.67	ND	59.83
	4/16/09		--	43.70	ND	60.80
	9/18/09		--	44.10	ND	60.40
	12/3/09		--	43.33	ND	61.17
	4/17/10		--	43.37	ND	61.13
	9/22/10		--	44.51	ND	59.99
	2/10/11		--	42.12	ND	61.88
	6/29/11		--	42.72	ND	61.78
	12/30/11		--	42.90	ND	61.60
	03/12/12		--	42.89	ND	61.61
	07/04/12		--	43.16	ND	61.34
	12/31/12		--	43.49	ND	61.01
	5/8/13		--	42.01	ND	62.49
MW-11	6/5/08	102.92	--	40.20	ND	62.72
	9/26/08		--	41.73	ND	61.19
	1/22/09		--	41.80	ND	61.12
	4/16/09		--	40.94	ND	61.98
	9/18/09		--	41.36	ND	61.56
	12/3/09		--	40.51	ND	62.41
	4/17/10		--	40.60	ND	62.32
	9/22/10		--	41.80	ND	61.12
	2/10/11		--	40.01	ND	62.91
	6/29/11		--	41.31	ND	61.61
	12/30/11		--	41.47	ND	61.45
	03/12/12		--	41.46	ND	61.46
	07/04/12		--	41.71	ND	61.21
	12/31/12	MISSING				

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA (Monitoring Wells)

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-12	6/5/08	99.12	--	33.77	ND	65.35
	9/26/08		--	35.21	ND	63.91
	1/22/09		--	36.61	ND	62.51
	4/16/09		--	35.72	ND	63.40
	9/18/09		--	35.99	ND	63.13
	12/3/09		--	35.20	ND	63.92
	4/17/10		--	35.22	ND	63.90
	9/22/10		--	36.31	ND	62.81
	2/10/11		--	34.35	ND	64.77
	6/29/11		--	35.74	ND	63.38
	12/30/11		--	35.93	ND	63.19
	03/12/12		--	35.94	ND	63.18
	07/04/12		--	36.19	ND	62.93
	12/31/12		--	36.70	ND	62.42
	5/8/13		--	34.23	ND	64.89
	8/10/13		--	32.22	ND	66.90
	11/6/13		--	31.10	ND	68.02
MW-13	6/5/08	99.41	--	36.17	ND	63.24
	9/26/08		--	37.68	ND	61.73
	1/22/09		--	37.73	ND	61.68
	4/16/09		--	37.70	ND	61.71
	9/18/09		--	38.11	ND	61.30
	12/3/09		--	37.29	ND	62.12
	4/17/10		--	37.28	ND	62.13
	9/22/10		--	38.31	ND	61.10
	2/10/11		--	36.27	ND	63.14
	6/29/11		--	37.80	ND	61.61
	12/30/11		--	35.71	ND	63.70
	03/12/12		--	35.72	ND	63.69
	07/04/12		--	35.91	ND	63.50
	12/31/12		--	37.13	ND	62.28
	5/5/13		--	26.11	ND	64.69
	8/10/13		--	32.03	ND	67.38
	11/6/13		--	31.45	ND	67.96
MW-17	6/5/08	93.98	--	31.09	ND	62.89
	9/26/08		--	32.59	ND	61.39
	1/22/09		--	32.61	ND	61.37
	4/16/09		--	31.59	ND	62.39
	9/18/09		--	31.93	ND	62.05
	12/3/09		--	31.16	ND	62.82
	4/17/10		--	31.17	ND	62.81
	9/22/10		--	32.21	ND	61.77
	2/10/11		--	30.19	ND	63.79
	6/29/11		--	31.42	ND	62.56
	12/30/11		--	31.58	ND	62.40
	03/12/12		--	31.59	ND	62.39
	07/04/12		--	31.82	ND	62.16
	12/31/12		--	27.79	ND	66.19
	5/8/13		--	26.11	ND	67.87

TABLE 1 (continued)

GROUNDWATER ELEVATION DATA (Monitoring Wells)

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well No.	Date Measured	Top of Casing Elevation	Depth to Free Product	Depth to Groundwater (btoc)	Product Thickness	Groundwater Elevation
MW-19	6/5/08	99.58	--	35.26	ND	64.32
	9/26/08		--	36.71	ND	62.87
	1/22/09		--	36.74	ND	62.84
	4/16/09		--	35.80	ND	63.78
	9/18/09		--	36.18	ND	63.40
	12/3/09		--	36.49	ND	63.37
	4/17/10		--	36.50	ND	63.08
	9/22/10		--	37.70	ND	61.88
	2/10/11		--	35.62	ND	63.96
	6/29/11		--	37.01	ND	62.57
	12/30/11		--	36.44	ND	63.14
	03/12/12		--	36.46	ND	63.12
	07/04/12		--	36.71	ND	62.87
	12/31/12		--	37.75	ND	61.83
	5/8/13		--	35.51	ND	64.07
	8/10/13		--	33.20	ND	66.38
	11/6/13		--	31.73	ND	67.85
MW-20	6/5/08	99.86	--	36.40	ND	63.46
	9/26/08		--	37.88	ND	61.98
	1/22/09		--	37.89	ND	61.97
	4/16/09		--	37.00	ND	62.86
	9/18/09		--	37.39	ND	62.47
	12/3/09		--	36.49	ND	63.30
	4/17/10		--	36.52	ND	63.34
	9/22/10		--	32.69	ND	62.17
	2/10/11		--	30.41	ND	69.45
	6/29/11		--	31.86	ND	68.00
	12/30/11		--	31.96	ND	67.90
	03/12/12		--	31.97	ND	67.89
	07/04/12		--	32.23	ND	67.63
	12/31/12		--	37.00	ND	62.86
	5/8/13		--	33.21	ND	66.65
MW-22	6/5/08	89.60	--	35.21	ND	54.39
	9/26/08		--	36.73	ND	52.87
	1/22/09		--	36.75	ND	52.85
	4/16/09		--	35.83	ND	53.77
	9/18/09		--	36.18	ND	53.42
	12/3/09		--	35.42	ND	54.18
	4/17/10		--	35.43	ND	54.17
	9/22/10		--	36.42	ND	53.18
	2/10/11		--	34.41	ND	55.19
	6/29/11		--	35.75	ND	53.85
	12/30/11		--	35.88	ND	53.72
	03/12/12		--	35.87	ND	53.73
	07/04/12		--	36.92	ND	52.68
	12/31/12		--	32.72	ND	56.88
	5/8/13		--	30.89	ND	58.80

Notes: *1) ND = None Detected*
2) NM = Not Measured

ENVIROSOUTH
Environmental Consultants

TABLE 2

GROUNDWATER LABORATORY DATA (Monitoring Wells)

Former Red Diamond (SCDHEC ID #14324)
519 East North 1st Street
Seneca, South Carolina
EnviroSouth Job No. 1334

Well/ Sample No.	Date Sampled	Benzene	Toluene	Ethyl-Benzene	Xylene(s)	MTBE	Naphthalene	EDB
MW-1	8/10/13	<100	130	819	6,610	<100	393	0.33
	11/6/13	<125	159	1,220	9,360	<125	774	<0.020
MW-2	8/10/13	3,770	6,000	369	2,436	<5.0	102	61.2
	11/6/13	4,430	10,200	1,220	6,990	<250	542	61.1
MW-3	8/10/13	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<0.020
	11/6/13	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.020
MW-4	8/10/13	443	1,530	163	7,980	<50.0	1,080	196
EP-4	11/6/13	4,600	8,980	956	10,800	<125	1,870	699
MW-5	8/10/13	<5.0	5.6	<5.0	<15.0	<5.0	<5.0	5.6
	11/6/13	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.020
MW-8	8/10/13	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	0.034
	11/6/13	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.020
MW-12	8/10/13	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<0.020
	11/6/13	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.020
MW-13	8/10/13	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<0.020
	11/6/13	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.020
MW-19	8/10/13	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<0.020
	11/6/13	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<0.020

Notes: 1) All sample results are reported in micrograms per liter (ug/l) or parts per billion (ppb).
2) EDB = 1,2-Dibromoethane

ENVIROSOUTH
Environmental Consultants

LABORATORY REPORT

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November 18, 2013

Tom Donn
EnviroSouth, Inc.
3440 Augusta Rd.
Greenville, SC 29605

RE: Project: Fmr Red Diamond 1334
Pace Project No.: 92178898

Dear Tom Donn:
Enclosed are the analytical results for sample(s) received by the laboratory on November 08, 2013. 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,

Angela M. Baioni

Angela Baioni

angela.baioni@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project: Fmr Red Diamond 1334
Pace Project No.: 92178898

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

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Fmr Red Diamond 1334
Pace Project No.: 92178898

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92178898001	**MW-1**	EPA 8011	EJK	2	PASI-C
		EPA 8260	CAM	11	PASI-C
92178898002	**MW-2**	EPA 8011	EJK	2	PASI-C
		EPA 8260	CAM	11	PASI-C
92178898003	**MW-3**	EPA 8011	EJK	2	PASI-C
		EPA 8260	CAM	11	PASI-C
92178898004	**MW-5**	EPA 8011	EJK	2	PASI-C
		EPA 8260	CAM	11	PASI-C
92178898005	**MW-8**	EPA 8011	EJK	2	PASI-C
		EPA 8260	CAM	11	PASI-C
92178898006	**MW-12**	EPA 8011	EJK	2	PASI-C
		EPA 8260	CAM	11	PASI-C
92178898007	**MW-13**	EPA 8011	EJK	2	PASI-C
		EPA 8260	CAM	11	PASI-C
92178898008	**MW-19**	EPA 8011	EJK	2	PASI-C
		EPA 8260	CAM	11	PASI-C
92178898009	**EP-4**	EPA 8011	EJK	2	PASI-C
		EPA 8260	CAM	11	PASI-C

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ANALYTICAL RESULTS

Project: Fmr Red Diamond 1334
Pace Project No.: 92178898

Sample: MW-1 **Lab ID: 92178898001** Collected: 11/06/13 15:00 Received: 11/08/13 12:00 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	11/13/13 17:01	11/14/13 00:17	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	103	%	60-140	1	11/13/13 17:01	11/14/13 00:17	301-79-56	
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	125	25		11/15/13 08:45	71-43-2	
Ethylbenzene	**1220**	ug/L	125	25		11/15/13 08:45	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	125	25		11/15/13 08:45	1634-04-4	
Naphthalene	**774**	ug/L	125	25		11/15/13 08:45	91-20-3	
Toluene	**159**	ug/L	125	25		11/15/13 08:45	108-88-3	
Xylene (Total)	**9360**	ug/L	250	25		11/15/13 08:45	1330-20-7	
m&p-Xylene	**7270**	ug/L	250	25		11/15/13 08:45	179601-23-1	
o-Xylene	**2080**	ug/L	125	25		11/15/13 08:45	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%	70-130	25		11/15/13 08:45	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	70-130	25		11/15/13 08:45	17060-07-0	
Toluene-d8 (S)	101	%	70-130	25		11/15/13 08:45	2037-26-5	

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ANALYTICAL RESULTS

Project: Fmr Red Diamond 1334
Pace Project No.: 92178898

Sample: MW-2 **Lab ID: 92178898002** Collected: 11/06/13 15:15 Received: 11/08/13 12:00 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)	**61.1**	ug/L	2.0	100	11/13/13 17:01	11/14/13 00:37	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	0	%	60-140	100	11/13/13 17:01	11/14/13 00:37	301-79-56	S4
8260 MSV	Analytical Method: EPA 8260							
Benzene	**4430**	ug/L	250	50		11/15/13 09:01	71-43-2	
Ethylbenzene	**1220**	ug/L	250	50		11/15/13 09:01	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	250	50		11/15/13 09:01	1634-04-4	
Naphthalene	**542**	ug/L	250	50		11/15/13 09:01	91-20-3	
Toluene	**10200**	ug/L	500	100		11/15/13 17:44	108-88-3	
Xylene (Total)	**6990**	ug/L	500	50		11/15/13 09:01	1330-20-7	
m&p-Xylene	**4850**	ug/L	500	50		11/15/13 09:01	179601-23-1	
o-Xylene	**2140**	ug/L	250	50		11/15/13 09:01	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%	70-130	50		11/15/13 09:01	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130	50		11/15/13 09:01	17060-07-0	
Toluene-d8 (S)	101	%	70-130	50		11/15/13 09:01	2037-26-5	

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ANALYTICAL RESULTS

Project: Fmr Red Diamond 1334
Pace Project No.: 92178898

Sample: MW-3 **Lab ID: 92178898003** Collected: 11/06/13 14:45 Received: 11/08/13 12:00 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	11/10/13 17:03	11/11/13 04:00	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	112	%	60-140	1	11/10/13 17:03	11/11/13 04:00	301-79-56	
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		11/15/13 09:16	71-43-2	
Ethylbenzene	ND	ug/L	5.0	1		11/15/13 09:16	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		11/15/13 09:16	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		11/15/13 09:16	91-20-3	
Toluene	ND	ug/L	5.0	1		11/15/13 09:16	108-88-3	
Xylene (Total)	ND	ug/L	10.0	1		11/15/13 09:16	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		11/15/13 09:16	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		11/15/13 09:16	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%	70-130	1		11/15/13 09:16	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130	1		11/15/13 09:16	17060-07-0	
Toluene-d8 (S)	100	%	70-130	1		11/15/13 09:16	2037-26-5	

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ANALYTICAL RESULTS

Project: Fmr Red Diamond 1334
Pace Project No.: 92178898

Sample: MW-5 **Lab ID: 92178898004** Collected: 11/06/13 13:00 Received: 11/08/13 12:00 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	11/10/13 17:03	11/11/13 04:20	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	109	%	60-140	1	11/10/13 17:03	11/11/13 04:20	301-79-56	
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		11/15/13 09:32	71-43-2	
Ethylbenzene	ND	ug/L	5.0	1		11/15/13 09:32	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		11/15/13 09:32	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		11/15/13 09:32	91-20-3	
Toluene	ND	ug/L	5.0	1		11/15/13 09:32	108-88-3	
Xylene (Total)	ND	ug/L	10.0	1		11/15/13 09:32	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		11/15/13 09:32	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		11/15/13 09:32	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-130	1		11/15/13 09:32	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130	1		11/15/13 09:32	17060-07-0	
Toluene-d8 (S)	100	%	70-130	1		11/15/13 09:32	2037-26-5	

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ANALYTICAL RESULTS

Project: Fmr Red Diamond 1334
Pace Project No.: 92178898

Sample: MW-8 **Lab ID: 92178898005** Collected: 11/06/13 13:25 Received: 11/08/13 12:00 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	11/10/13 17:03	11/11/13 04:40	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	110	%	60-140	1	11/10/13 17:03	11/11/13 04:40	301-79-56	
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		11/15/13 09:47	71-43-2	
Ethylbenzene	ND	ug/L	5.0	1		11/15/13 09:47	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		11/15/13 09:47	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		11/15/13 09:47	91-20-3	
Toluene	ND	ug/L	5.0	1		11/15/13 09:47	108-88-3	
Xylene (Total)	ND	ug/L	10.0	1		11/15/13 09:47	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		11/15/13 09:47	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		11/15/13 09:47	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-130	1		11/15/13 09:47	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130	1		11/15/13 09:47	17060-07-0	
Toluene-d8 (S)	99	%	70-130	1		11/15/13 09:47	2037-26-5	

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ANALYTICAL RESULTS

Project: Fmr Red Diamond 1334
Pace Project No.: 92178898

Sample: MW-12 **Lab ID: 92178898006** Collected: 11/06/13 13:50 Received: 11/08/13 12:00 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	11/10/13 17:03	11/11/13 05:00	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	112	%	60-140	1	11/10/13 17:03	11/11/13 05:00	301-79-56	
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		11/15/13 10:03	71-43-2	
Ethylbenzene	ND	ug/L	5.0	1		11/15/13 10:03	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		11/15/13 10:03	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		11/15/13 10:03	91-20-3	
Toluene	ND	ug/L	5.0	1		11/15/13 10:03	108-88-3	
Xylene (Total)	ND	ug/L	10.0	1		11/15/13 10:03	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		11/15/13 10:03	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		11/15/13 10:03	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%	70-130	1		11/15/13 10:03	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130	1		11/15/13 10:03	17060-07-0	
Toluene-d8 (S)	99	%	70-130	1		11/15/13 10:03	2037-26-5	

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ANALYTICAL RESULTS

Project: Fmr Red Diamond 1334
Pace Project No.: 92178898

Sample: MW-13 **Lab ID: 92178898007** Collected: 11/06/13 14:10 Received: 11/08/13 12:00 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	11/10/13 17:03	11/11/13 05:21	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	112	%	60-140	1	11/10/13 17:03	11/11/13 05:21	301-79-56	
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		11/15/13 10:19	71-43-2	
Ethylbenzene	ND	ug/L	5.0	1		11/15/13 10:19	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		11/15/13 10:19	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		11/15/13 10:19	91-20-3	
Toluene	ND	ug/L	5.0	1		11/15/13 10:19	108-88-3	
Xylene (Total)	ND	ug/L	10.0	1		11/15/13 10:19	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		11/15/13 10:19	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		11/15/13 10:19	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%	70-130	1		11/15/13 10:19	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130	1		11/15/13 10:19	17060-07-0	
Toluene-d8 (S)	100	%	70-130	1		11/15/13 10:19	2037-26-5	

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ANALYTICAL RESULTS

Project: Fmr Red Diamond 1334
Pace Project No.: 92178898

Sample: MW-19 **Lab ID: 92178898008** Collected: 11/06/13 14:30 Received: 11/08/13 12:00 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	11/10/13 17:03	11/11/13 05:41	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	115	%	60-140	1	11/10/13 17:03	11/11/13 05:41	301-79-56	
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		11/15/13 10:34	71-43-2	
Ethylbenzene	ND	ug/L	5.0	1		11/15/13 10:34	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	5.0	1		11/15/13 10:34	1634-04-4	
Naphthalene	ND	ug/L	5.0	1		11/15/13 10:34	91-20-3	
Toluene	ND	ug/L	5.0	1		11/15/13 10:34	108-88-3	
Xylene (Total)	ND	ug/L	10.0	1		11/15/13 10:34	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	1		11/15/13 10:34	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		11/15/13 10:34	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	100	%	70-130	1		11/15/13 10:34	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130	1		11/15/13 10:34	17060-07-0	
Toluene-d8 (S)	99	%	70-130	1		11/15/13 10:34	2037-26-5	

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ANALYTICAL RESULTS

Project: Fmr Red Diamond 1334
Pace Project No.: 92178898

Sample: EP-4 **Lab ID: 92178898009** Collected: 11/06/13 15:30 Received: 11/08/13 12:00 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)	**699**	ug/L	19.9	1000	11/13/13 17:01	11/14/13 00:57	106-93-4	
Surrogates								
1-Chloro-2-bromopropane (S)	0	%	60-140	1000	11/13/13 17:01	11/14/13 00:57	301-79-56	S4
8260 MSV	Analytical Method: EPA 8260							
Benzene	**4600**	ug/L	125	25		11/15/13 10:50	71-43-2	
Ethylbenzene	**956**	ug/L	125	25		11/15/13 10:50	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	125	25		11/15/13 10:50	1634-04-4	
Naphthalene	**1870**	ug/L	125	25		11/15/13 10:50	91-20-3	
Toluene	**8980**	ug/L	500	100		11/15/13 18:00	108-88-3	
Xylene (Total)	**10800**	ug/L	250	25		11/15/13 10:50	1330-20-7	
m&p-Xylene	**7060**	ug/L	250	25		11/15/13 10:50	179601-23-1	
o-Xylene	**3780**	ug/L	125	25		11/15/13 10:50	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	100	%	70-130	25		11/15/13 10:50	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130	25		11/15/13 10:50	17060-07-0	
Toluene-d8 (S)	101	%	70-130	25		11/15/13 10:50	2037-26-5	

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QUALITY CONTROL DATA

Project: Fmr Red Diamond 1334
Pace Project No.: 92178898

QC Batch: MSV/24929 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV SC
Associated Lab Samples: 92178898001, 92178898002, 92178898003, 92178898004, 92178898005, 92178898006, 92178898007, 92178898008, 92178898009

METHOD BLANK: 1086802 Matrix: Water
Associated Lab Samples: 92178898001, 92178898002, 92178898003, 92178898004, 92178898005, 92178898006, 92178898007, 92178898008, 92178898009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	5.0	11/15/13 01:12	
Ethylbenzene	ug/L	ND	5.0	11/15/13 01:12	
m&p-Xylene	ug/L	ND	10.0	11/15/13 01:12	
Methyl-tert-butyl ether	ug/L	ND	5.0	11/15/13 01:12	
Naphthalene	ug/L	ND	5.0	11/15/13 01:12	
o-Xylene	ug/L	ND	5.0	11/15/13 01:12	
Toluene	ug/L	ND	5.0	11/15/13 01:12	
Xylene (Total)	ug/L	ND	10.0	11/15/13 01:12	
1,2-Dichloroethane-d4 (S)	%	100	70-130	11/15/13 01:12	
4-Bromofluorobenzene (S)	%	99	70-130	11/15/13 01:12	
Toluene-d8 (S)	%	101	70-130	11/15/13 01:12	

LABORATORY CONTROL SAMPLE: 1086803

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	50	52.4	105	70-130	
Ethylbenzene	ug/L	50	49.4	99	70-130	
m&p-Xylene	ug/L	100	104	104	70-130	
Methyl-tert-butyl ether	ug/L	50	54.4	109	70-130	
Naphthalene	ug/L	50	48.7	97	70-130	
o-Xylene	ug/L	50	53.3	107	70-130	
Toluene	ug/L	50	51.2	102	70-130	
Xylene (Total)	ug/L	150	157	105	70-130	
1,2-Dichloroethane-d4 (S)	%			96	70-130	
4-Bromofluorobenzene (S)	%			101	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1087546 1087547

Parameter	Units	92178898008 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	58.7	61.6	117	123	70-130	5	
Ethylbenzene	ug/L	ND	50	50	55.1	57.3	110	115	70-130	4	
m&p-Xylene	ug/L	ND	100	100	112	113	112	112	70-130	0	
Methyl-tert-butyl ether	ug/L	ND	50	50	58.8	62.6	118	125	70-130	6	
Naphthalene	ug/L	ND	50	50	48.1	53.9	96	108	70-130	11	
o-Xylene	ug/L	ND	50	50	57.7	60.3	115	120	70-130	4	
Toluene	ug/L	ND	50	50	55.9	59.0	112	118	70-130	5	

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QUALITY CONTROL DATA

Project: Fmr Red Diamond 1334
Pace Project No.: 92178898

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1087546 1087547

Parameter	Units	92178898008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,2-Dichloroethane-d4 (S)	%						100	99	70-130		
4-Bromofluorobenzene (S)	%						100	100	70-130		
Toluene-d8 (S)	%						101	101	70-130		

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QUALITY CONTROL DATA

Project: Fmr Red Diamond 1334
Pace Project No.: 92178898

QC Batch: OEXT/24674 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 92178898003, 92178898004, 92178898005, 92178898006, 92178898007, 92178898008

METHOD BLANK: 1083547 Matrix: Water
Associated Lab Samples: 92178898003, 92178898004, 92178898005, 92178898006, 92178898007, 92178898008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	11/10/13 23:17	
1-Chloro-2-bromopropane (S)	%	100	60-140	11/10/13 23:17	

LABORATORY CONTROL SAMPLE & LCSD: 1083548 1083549

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	0.28	0.27	98	96	60-140	2	20	
1-Chloro-2-bromopropane (S)	%				98	99	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1083550 1083551

Parameter	Units	92178734003 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	.28	.28	0.22	0.22	78	78	60-140	0	
1-Chloro-2-bromopropane (S)	%						82	82	60-140		

SAMPLE DUPLICATE: 1083552

Parameter	Units	92178734005 Result	Dup Result	RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		
1-Chloro-2-bromopropane (S)	%	97	96	0	

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QUALITY CONTROL DATA

Project: Fmr Red Diamond 1334
Pace Project No.: 92178898

QC Batch: OEXT/24725 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 92178898001, 92178898002, 92178898009

METHOD BLANK: 1085663 Matrix: Water
Associated Lab Samples: 92178898001, 92178898002, 92178898009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	11/13/13 22:15	
1-Chloro-2-bromopropane (S)	%	100	60-140	11/13/13 22:15	

LABORATORY CONTROL SAMPLE & LCSD: 1085664 1085665

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	0.30	104	104	60-140	2	20	
1-Chloro-2-bromopropane (S)	%				101	102	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1085666 1085667

Parameter	Units	92179029002 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	.28	.28	0.29	0.28	104	102	60-140	2	
1-Chloro-2-bromopropane (S)	%						101	101	60-140		

SAMPLE DUPLICATE: 1085668

Parameter	Units	92179029003 Result	Dup Result	RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		
1-Chloro-2-bromopropane (S)	%	103	92	12	

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Fmr Red Diamond 1334
Pace Project No.: 92178898

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.

PRL - Pace Reporting Limit.

RL - Reporting 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.

SG - Silica Gel - Clean-Up

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.

Acid preservation may not be appropriate for 2-Chloroethylvinyl ether, Styrene, and Vinyl chloride.

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

S4 Surrogate recovery not evaluated against control limits due to sample dilution.

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Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

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 CROSS REFERENCE TABLE

Project: Fmr Red Diamond 1334
Pace Project No.: 92178898

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92178898001	**MW-1**	EPA 8011	OEXT/24725	EPA 8011	GCSV/15993
92178898002	**MW-2**	EPA 8011	OEXT/24725	EPA 8011	GCSV/15993
92178898003	**MW-3**	EPA 8011	OEXT/24674	EPA 8011	GCSV/15958
92178898004	**MW-5**	EPA 8011	OEXT/24674	EPA 8011	GCSV/15958
92178898005	**MW-8**	EPA 8011	OEXT/24674	EPA 8011	GCSV/15958
92178898006	**MW-12**	EPA 8011	OEXT/24674	EPA 8011	GCSV/15958
92178898007	**MW-13**	EPA 8011	OEXT/24674	EPA 8011	GCSV/15958
92178898008	**MW-19**	EPA 8011	OEXT/24674	EPA 8011	GCSV/15958
92178898009	**EP-4**	EPA 8011	OEXT/24725	EPA 8011	GCSV/15993
92178898001	**MW-1**	EPA 8260	MSV/24929		
92178898002	**MW-2**	EPA 8260	MSV/24929		
92178898003	**MW-3**	EPA 8260	MSV/24929		
92178898004	**MW-5**	EPA 8260	MSV/24929		
92178898005	**MW-8**	EPA 8260	MSV/24929		
92178898006	**MW-12**	EPA 8260	MSV/24929		
92178898007	**MW-13**	EPA 8260	MSV/24929		
92178898008	**MW-19**	EPA 8260	MSV/24929		
92178898009	**EP-4**	EPA 8260	MSV/24929		

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Pace Analytical	Sample Condition Upon Receipt (SCUR) Document Number: F-CHR-CS-03-rev.11	Page 1 of 2 Issuing Authority: Pace Huntersville Quality Office

Client Name: ENVIRO

Where Received: ☐ Huntersville ☐ Asheville ☐ Eden ☐ Raleigh

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other_____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Optional
Proj. Due Date:
Proj. Name:

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other_____

Thermometer Used: IR Gun T1102 T1301 **Type of Ice:** Wet Blue None ☑ Samples on ice, cooling process has begun

Temp Correction Factor T1102: No Correction T1301: No Correction

Corrected Cooler Temp.: 05 C **Biological Tissue is Frozen:** Yes No N/A

Temp should be above freezing to 6°C

Comments:

Date and Initials of person examining contents: 11/7/13

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 time on bottles
-Includes date/time/ID/Analysis Matrix:_____		
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: RMB **Date:** 11-8-13

SRF Review: JDB **Date:** 11/8/13

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#: 92178898

92178898

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

1670941

Section A Required Client Information:

Company: EnviroSouth, Inc.
Address:
Email To:
Phone: Fax:
Requested Due Date/TAT: std. TAT

Section B Required Project Information:

Report To: Tom Donn
Copy To:
Purchase Order No.:
Project Name: 1334
Project Number: Former Red Diamond

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #: 4494-1

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

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	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	Analysis Test: BTEX, MTBE, Naph	Analysis Test: EDB	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
																		N	N	N		92178898
1	MW-1	WT	G			11/6/13	1500		6				6						X	X	N	001
2	MW-2						1515															002
3	MW-3						1445															003
4	MW-5						1300															004
5	MW-8						1325															005
6	MW-12						1350															006
7	MW-13						1410															007
8	MW-19						1430															008
9	EP-4						1530															009
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	T. Donn				11/7/13	2pm	
					11/8	830	
		11-8-13	12:00		11/8	1200	0.5 4 Y 4

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Thomas Donn
SIGNATURE of SAMPLER: T. Donn
DATE Signed (MM/DD/YY): 11-7-13

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

ORIGINAL

*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.

Former Red Diamond- Post-ACA data
UST Permit #14324

	MR	MR
MW-1	8/10/13	11/6/13
DTW	26.50	26.77
Benzene	**<100**	**<125**
Toluene	130	159
Ethylbenzene	**819**	**1220**
Xylenes	6610	9360
MTBE	**<100**	**<125**
Naphthalene	**393**	**774**
DCA	na	na
EDB	**0.33**	<0.02
Lead	na	na

MW-2	8/10/13	11/6/13
DTW	29.00	28.20
Benzene	**3770**	**4430**
Toluene	**6000**	**10200**
Ethylbenzene	369	**1220**
Xylenes	2436	6990
MTBE	<5	**<250**
Naphthalene	**102**	**542**
DCA	na	na
EDB	**61.20**	**61.10**
Lead	na	na

MW-3	8/10/13	11/6/13
DTW	27.80	27.12
Benzene	<5	<5
Toluene	<5	<5
Ethylbenzene	<5	<5
Xylenes	<15	<10
MTBE	<5	<5
Naphthalene	<5	<5
DCA	na	na
EDB	<0.02	<0.02
Lead	na	na

MW-4	8/10/13	11/6/13
DTW	28.34	well
Benzene	**443**	not
Toluene	**1530**	accessible
Ethylbenzene	163	
Xylenes	7980	
MTBE	**<50**	
Naphthalene	**1080**	
DCA	na	
EDB	**196.00**	
Lead	na	

MW-5	8/10/13	11/6/13
DTW	27.26	26.78
Benzene	<5	<5
Toluene	6	<5
Ethylbenzene	<5	<5
Xylenes	<15	<10
MTBE	<5	<5
Naphthalene	<5	<5
DCA	na	na
EDB	**5.60**	<0.02
Lead	na	na

MW-8	8/10/13	11/6/13
DTW	37.08	36.44
Benzene	<5	<5
Toluene	<5	<5
Ethylbenzene	<5	<5
Xylenes	<15	<10
MTBE	<5	<5
Naphthalene	<5	<5
DCA	na	na
EDB	0.03	<0.02
Lead	na	na

UST
DOCKETING
44Lee

MW-12	8/10/13	11/6/13
DTW	32.22	31.10
Benzene	<5	<5
Toluene	<5	<5
Ethylbenzene	<5	<5
Xylenes	<15	<10
MTBE	<5	<5
Naphthalene	<5	<5
DCA	na	na
EDB	<0.02	<0.02
Lead	na	na

MW-13	8/10/13	11/6/13
DTW	32.03	31.45
Benzene	<5	<5
Toluene	<5	<5
Ethylbenzene	<5	<5
Xylenes	<15	<10
MTBE	<5	<5
Naphthalene	<5	<5
DCA	na	na
EDB	<0.02	<0.02
Lead	na	na

MW-19	8/10/13	11/6/13
DTW	33.20	31.73
Benzene	<5	<5
Toluene	<5	<5
Ethylbenzene	<5	<5
Xylenes	<15	<10
MTBE	<5	<5
Naphthalene	<5	<5
DCA	na	na
EDB	<0.02	<0.02
Lead	na	na

FP- free-phase product
na- not analyzed
ns- not sampled
nm- not measured
unk- unknown

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

NOV 26 2013

UST 45 DOCKETING

MR THOMAS DONN PG
ENVIROSOUTH ENVIRONMENTAL CONSULTANTS
3440 AUGUSTA RD
GREENVILLE SC 29605

Re: Verification gauging event
Former Red Diamond Oil Company, 519 East North 1st Street, Seneca, SC
UST Permit #14324; CA #25430
Contract #IFB-28949-10/4/05-EMW; PO #605692
Release reported December 30, 1991
Verification monitoring report received November 22, 2013
Oconee County

Dear Mr. Donn:

On November 6, 2013, personnel from the Underground Storage Tank (UST) Management Division observed 2nd quarter verification gauging at the referenced site. Gauging results indicate that measurable free-phase product is absent from all SSTL wells and extraction points. The verification monitoring report received November 22, 2013 documents the absence of free-phase product and further verifies that concentrations of chemicals of concern (CoC) are below effective solubility limits. Accordingly, EnviroSouth may begin site restoration as specified in Item III B 12 of the referenced contract.

All monitoring and extraction wells except MW-1 through MW-5, MW-12, MW-13, MW-19, EP-2, EP-4, EP-6, EP-19, and EP-20 must be properly abandoned in accordance with UST Quality Assurance Program Plan (QAPP) Revision 2.0 and with the South Carolina Well Standards and Regulations (R. 61-71). The retained wells will be used for monitored natural attenuation (MNA). Please remove any debris/materials associated with the corrective action from the site. A site map showing the location of all monitoring wells associated with the release is enclosed for reference. A report documenting the site restoration is due on or before **February 1, 2014**.

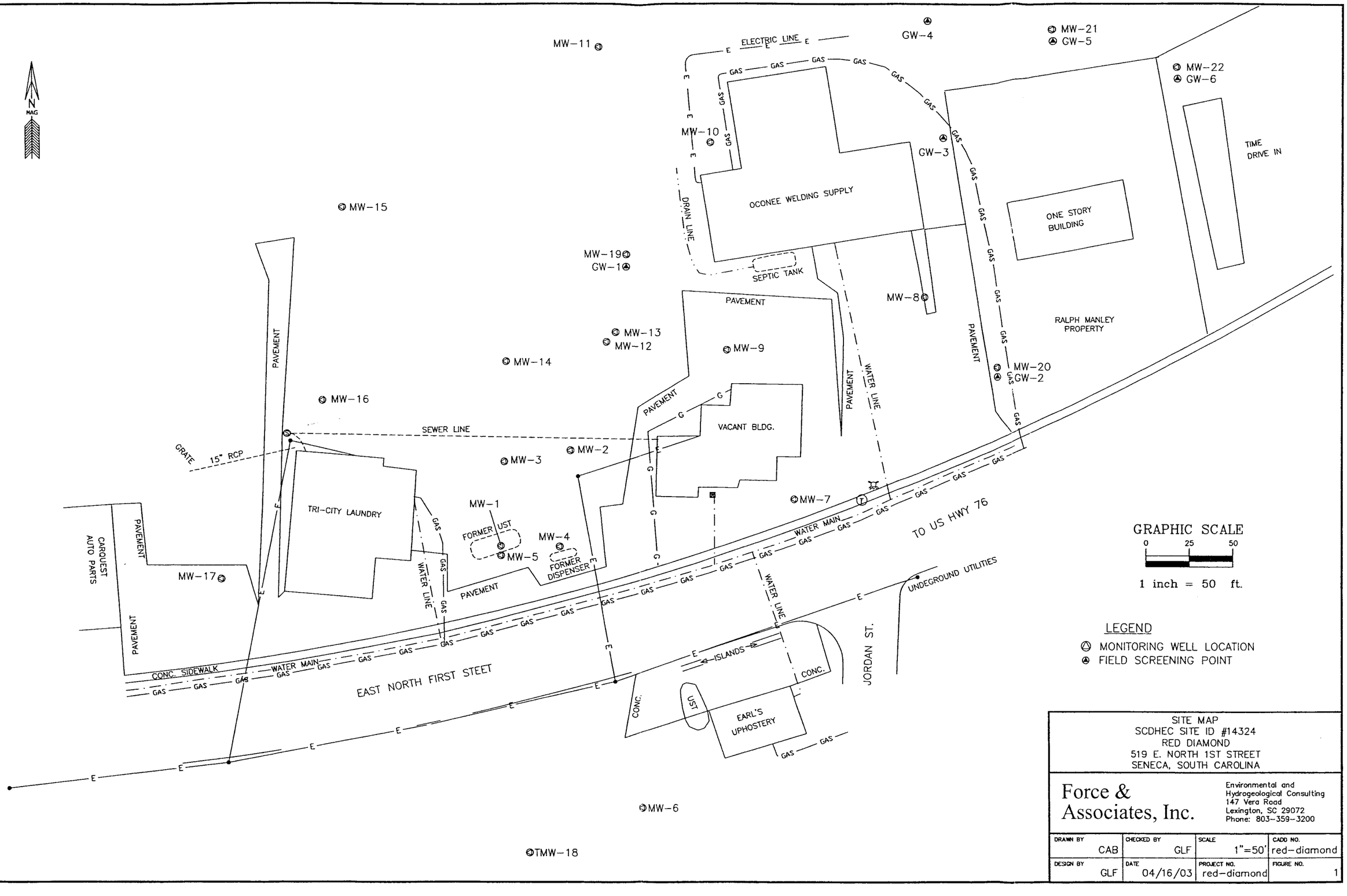
If you have any questions regarding this correspondence, feel free to contact me by telephone at (803) 896-6398, by fax at (803) 896-6245, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Geologist/Hydrologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

JPP/jpp
14324.vmr3

enc: Site map
cc: Betty Latham, 2 Stratton Place, Greenville, SC 29615-4217 (w/ enc)
Technical file (w/enc)



SITE MAP
SCDHEC SITE ID #14324
RED DIAMOND
519 E. NORTH 1ST STREET
SENECA, SOUTH CAROLINA

Force & Associates, Inc.
Environmental and Hydrogeological Consulting
147 Vera Road
Lexington, SC 29072
Phone: 803-359-3200

DRAWN BY	CHECKED BY	SCALE	CADD NO.
CAB	GLF	1"=50'	red-diamond
DESIGN BY	DATE	PROJECT NO.	FIGURE NO.
GLF	04/16/03	red-diamond	1

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

DEC 12 2013

MR THOMAS DONN PG
ENVIROSOUTH ENVIRONMENTAL CONSULTANTS
3440 AUGUSTA RD
GREENVILLE SC 29605

UST 46 tech DOCKETING

Re: Final site inspection
Former Red Diamond Oil Company, 519 East North 1st Street, Seneca, SC
UST Permit #14324; CA #25430
Contract #IFB-28949-10/4/05-EMW; PO #605692
Release reported December 30, 1991
Oconee County

Dear Mr. Donn:

On December 11, 2013, personnel from the Underground Storage Tank (UST) Management Division conducted a final inspection for active corrective action (ACA) at the referenced site. No exceptions were noted. Accordingly, ACA at the Former Red Diamond site is complete and the release reported on December 30, 1991 is now eligible for monitored natural attenuation (MNA).

Please submit a final invoice for achievement of the 100% FPP thickness reduction goal (10% of the total contract award amount or $10,644.40) and for achievement of ACA completion (20% of the contract award amount or $21,288.80). The invoice and report documenting restoration activities and well abandonment at the site is due on or before **February 1, 2014**.

If you have any questions regarding this correspondence, feel free to contact me by telephone at (803) 898-0655, by fax at (803) 898-0673, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Geologist/Hydrologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

JPP/jpp
14324.acacomplete

cc: Betty Latham, 2 Stratton Place, Greenville, SC 29615-4217 (w/ enc)
Technical file (w/enc)

ENVIROSOUTH
Environmental Consultants

3440 Augusta Road
Greenville, SC 29605
(p)864.236.9010 (f)864.236.9097

UST DEC 18 2013 PROGRAM

facsimile transmittal

UST DOCKETING

To: Joel Padgett Fax: 803-898-0673

From: Tom Down Date: 12-18-13

Re: Red Diamond forms Pages: 6 (incl. cover)

CC: ← revised invoice and abandonment logs

☐ Urgent ☐ For Review ☐ Please Comment ☐ Please Reply ☐ Please Recycle

UST DOCKETING 4/Red

Joel,

Please e-mail me to acknowledge that all these sheets were received and approvable.

Based on your e-mail, I don't think these need to be mailed, but let me know if you also need originals.

Thanks + Have a Merry Christmas.

Tom



Well abandonment
records

#14324

Joel

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: Former Red Diamond (last) (first)
Address: 519 E. North 1st Street
City: Seneca State: SC Zip:
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Oconee
Name: same as above
Street Address: same as above
City: Zip:
Latitude: Longitude:

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

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from bottom ft. to surface ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
The wells were abandoned from		
bottom to top by filling with		
bentonite cement grout using a		
tremie pipe.		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
Well numbers MW-6, MW-8 MW-9, MW-10, MW-11

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

7. PERMIT NUMBER: SCDHEC Site ID No. 14324

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

9. WELL DEPTH (completed) Date Started: 12/7/2013
ft. Date Completed: 12/7/2013

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 ft. to 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: Norman Wayne Mowbray CERT. NO.: 2000
Address: (Print) Level: A B C D (circle one) ✓
100 Bent Willow Way, Easley, SC
Telephone No.: 864-230-4371 Fax No.: 864-236-9097

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: Wayne Mowbray Date: 12/8/2013
Well Driller

If D Level Driller, provide supervising driller's name:
Jeffrey Grant - License No. 2105, Level B

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: Former Red Diamond (last) (first)
Address: 519 E. North 1st Street
City: Seneca State: SC Zip:
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Oconee
Name: same as above
Street Address: same as above
City: Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from bottom ft. to surface ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
The wells were abandoned from		
bottom to top by filling with		
bentonite cement grout using a		
tremie pipe.		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
Well numbers MW-16, MW-17, MW-20, MW-21, MW-22

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

7. PERMIT NUMBER: SCDHEC Site ID No. 14324

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

9. WELL DEPTH (completed) Date Started: 12/7/2013
_____ ft. Date Completed: 12/7/2013

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 _____ ft. to _____ 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: Norman Wayne Mowbray CERT. NO.: 2000
Address: (Print) Level: A B C D (circle one)
100 Bent Willow Way, Easley, SC
Telephone No.: 864-230-4371 Fax No.: 864-236-9097

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: Wayne Mowbray (Well Driller) Date: 12/8/2013

If D Level Driller, provide supervising driller's name:
Jeffrey Grant - License No. 2105, Level B

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: Former Red Diamond (last) (first)
Address: 519 E. North 1st Street
City: Seneca State: SC Zip:
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Oconee
Name: same as above
Street Address: same as above
City: Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from bottom ft. to surface ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
The wells were abandoned from		
bottom to top by filling with		
bentonite cement grout using a		
tremie pipe.		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
Well numbers EP-1, EP-3, EP-5, EP-7

7. PERMIT NUMBER: SCDHEC Site ID No. 14324

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

9. WELL DEPTH (completed) Date Started: 12/7/2013
_____ ft. Date Completed: 12/7/2013

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 _____ ft. to _____ 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

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Address: (Print) Level: A B C D (circle one)
100 Bent Willow Way, Easley, SC
Telephone No.: 864-230-4371 Fax No.: 864-236-9097

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: Wayne Mowbray Date: 12/8/2013

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: Former Red Diamond (last) (first)
Address: 519 E. North 1st Street
City: Seneca State: SC Zip:
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:** Oconee
Name: same as above
Street Address: same as above
City: Zip:
Latitude: Longitude:

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

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from bottom ft. to surface ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
The wells were abandoned from		
bottom to top by filling with		
bentonite cement grout using a		
tremie pipe.		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
Well numbers EP-8 through EP-18, EP-21 through EP-25

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

7. PERMIT NUMBER: SCDHEC Site ID No. 14324

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

9. WELL DEPTH (completed) Date Started: 12/7/2013
_____ ft. Date Completed: 12/7/2013

10. CASING: ☐ Threaded ☐ Welded
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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 _____ ft. to _____ 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: Norman Wayne Mowbray **CERT. NO.:** 2000
Address: (Print) Level: A B C D ✓ (circle one)
100 Bent Willow Way, Easley, SC
Telephone No.: 864-230-4371 Fax No.: 864-236-9097

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: Wayne Mowbray (Well Driller) Date: 12/8/2013

If D Level Driller, provide supervising driller's name:
Jeffrey Grant - License No. 2105, Level B

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

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

FEB 2 5 2014

UST 48Hech DOCKETING

MS TAMY SANFORD
250 EAST NORTH 2ND ST
SENECA SC 29679-4773

Re: Concern letter
Former Red Diamond Oil Company, 519 East North 1st Street, Seneca, SC
UST Permit #14324
Petroleum reported December 30, 1991
Oconee County

Dear Ms. Sanford:

Per your request, the Underground Storage Tank (UST) Management Division is providing you with this update on environmental conditions and liability associated with the referenced facility.

According to Division records, three underground storage tanks (USTs) were operated at the Former Red Diamond Oil Company to supply gasoline and kerosene. The tanks were abandoned by removal on December 19, 1991.

On December 30, 1991, the Division received a report that documented a petroleum releases at the referenced facility. In response to the initial reports of contamination, the Division directed Ms. Betty Latham, the trustee for the facility property and owner/operator on record with the Division, to assess the severity and extent of the petroleum contamination. Assessment work conducted from 1997 to 2005 confirmed and delineated petroleum free-phase product (FPP) and chemicals of concern (CoC) at the site. In October 2005, the Division solicited bids to perform active corrective action (ACA) at the site to reduce the contamination to acceptable levels protective of human health and the environment. The successful bidder, EnviroSouth, Inc., conducted ACA from 2006 to 2013 to remove FPP. In December 2013, the release was placed in monitored natural attenuation (MNA) and all non-essential monitoring and recovery wells were abandoned. The Division will direct ground-water sampling in support of MNA in May 2014. MNA will continue at the site for approximately two years or until such time that sufficient ground-water data is collected to support closure of the release by conditional no further action (CNFA).

The referenced release is qualified to receive funding under the conditions of the State Underground Petroleum Environmental Response Bank (SUPERB) Act. This means that reasonable costs up to $1,000,000 can be paid by the SUPERB account for site rehabilitation associated with the releases. Should cleanup costs exceed $1,000,000.00, Ms. Betty Latham, pursuant to state and federal laws, retains responsibility for any additional site rehabilitation and costs associated with the releases. Division records show that a total of $210,631.20 of SUPERB funds has been expended on site rehabilitation to date.

Section 80(C) of the SUPERB Act provides that a subsequent purchaser of property from which an underground storage tank (UST) has been removed is not responsible for site rehabilitation activities other than abatement actions necessary to eliminate any imminent threat to human health or the environment. This exemption applies to the extent that the release is eligible for compensation from the SUPERB Account, provided that the person allows reasonable access to the property for rehabilitation activities, and does not or has not had any familial, financial, or other interest with the person who owned or operated the UST. This applies equally to subsequent lenders or to those who would acquire this property through foreclosure in the future.

Please note there are currently no laws or regulations that prohibit the use, sale or development of properties at or near the location of a UST petroleum release. Should the current owner sell the property, the Division requests that the buyer coordinate with the Division to allow for continued access for necessary site rehabilitation activities.

If you have any questions, please contact me by telephone at (803) 898-0655, by fax at (803) 898-0673, or by e-mail at padgetjp@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Geologist/Hydrologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

JPP/jpp
14324.concern

enc: Citizen's Guide to Monitored Natural Attenuation

cc: Technical file (w/o enc)

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

BRYAN SHANE
MIDLANDS ENVIRONMENTAL CONSULTANTS
PO BOX 854
LEXINGTON SC 29071

NOV 17 2014

UST DOCKETING

Re: **Site Specific Work Plan Request**
Groundwater Sampling Contract
Solicitation # IFB-5400007403, PO#4600368640

Dear Mr. Shane:

In accordance with bid solicitation # IFB-5400007403 and the UST Management Division Quality Assurance Program Plan (QAPP), Revision 2.0 it is requested that you submit a Site Specific Work Plan for each site listed below. The plans must be submitted **within 15 business days** to my attention. The project manager for each site will issue a notice to proceed once the plan has been reviewed and approved.

UST Permit #	Site Name	County	# samples and requested analysis*	Project Manager
02801	Frm Hess Station	Darlington	17-BTEXMN, DCA, Oxygenates, & EDB	S. Briney
12789	Jamiva	Charleston	4-BTEXMN, DCA, & Oxygenates	M. Hornosky
02046	Frm Chester Maint	Chester	23-BTEXMN, DCA, Oxygenates, EDB, & Lead	M. Hornosky
15128	Bryan's Corner	Chester	19-BTEXMN, DCA, Oxygenates, 10-EDB, & 5-lead	M. Hornosky
15576	Frm Clawson Bakery	Charleston	6-BTEXMN, DCA, & Oxygenates	R. Dunn
04887	Warren Green	Jasper	29-BTEXMN, DCA, Oxygenates, & EDB	J. Bryant
07783	Brazzels Grocery	Richland	6-BTEXMN, DCA, Oxygenates, & EDB	R. Miner
14597	Hoopers Auto Serv	Anderson	6-BTEXMN, DCA, Oxygenates, & EDB	R. Miner
00467	Stop A Minute	Anderson	8-BTEXMN, DCA, Oxygenates, & EDB	R. Miner
07034	B&B Service	Orangeburg	13-BTEXMN, DCA, Oxygenates, & EDB	R. Miner
15765	River City Land Co	Anderson	11-BTEXMN, DCA, Oxygenates, & EDB	R. Miner
08937	HQ Heath Self Serve	Sumter	49-BTEXMN, DCA, Oxygenates, & EDB	C. Ridgley
~~01642~~	Royster Transport	Charleston	9-BTEXMN, DCA, & Oxygenates	J. Padgett
14324	Frm Red Diamond	Oconee	16-BTEXMN, DCA, Oxygenates, & EDB	J. Padgett
~~18955~~	Frm Donnies	Sumter	15- BTEXMN, DCA, Oxygenates, & EDB	C. Ridgley

*The number of samples may not include trip blanks, field blanks, or field duplicates.

Please contact me with the sampling schedule before commencing work at these facilities. In addition, a weekly update for each site is required to be submitted via e-mail to the site's project manager and myself. If you have any questions or need further assistance, please contact me at (803) 898-0631 or thomadl@dhec.sc.gov.

Sincerely,

Debra L. Thoma

Debra L. Thoma, Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land & Waste Management

Enc: Site Information Packages

cc: Technical Files

Midlands Environmental Consultants, Inc.

December 4, 2014

UST
DEC 10 2014
PROGRAM

UST
50 tech
DOCKETING

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
Former Red Diamond
Seneca, South Carolina
SCDHEC Site ID Number 14324
MECI Project Number 14-5046
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 December 1, 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.

RECEIVED
DEC 05 2014
SC Department of
Health and Environmental
Control

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

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. Joel Padgett, P.G. (SCDHEC Project Manager)
From: Mr. Jeff Coleman (Contractor Project Manager)
Contractor: Midlands Environmental Consultants, Inc. UST Contractor Certification Number: 009

Facility Name: Former Red Diamond UST Permit #: 14324
Facility Address: 519 East North 1st Street, Seneca, SC 29678
Responsible Party: Betty-Lathem Trustee Phone: 864-288-6480
RP Address: 2 Stratton Place, Greenville, SC 29615
Property Owner (if different): N/A
Property Owner Address: N/A
Current Use of Property: Vacant Building

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 _____ Water Supply Wells _____ Air 1 Field Blank
12 Monitoring Wells _____ Surface Water 1 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 #: 14324 Facility Name: Former Red Diamond

Implementation Schedule (Number of calendar days from approval)
Field Work Start-Up: 12/18/2014 Field Work Completion: 1/18/2015
Report Submittal: 2/18/2015 # of Copies Provided to Property Owners: _____

Aquifer Characterization
Pump Test: ☐ Slug Test: ☐ (Check one and provide explanation below for choice)

Investigation Derived Waste Disposal
Soil: _____ Tons Purge Water: 150.0 Gallons
Drilling Fluids: _____ Gallons Free-Phase Product: _____ Gallons

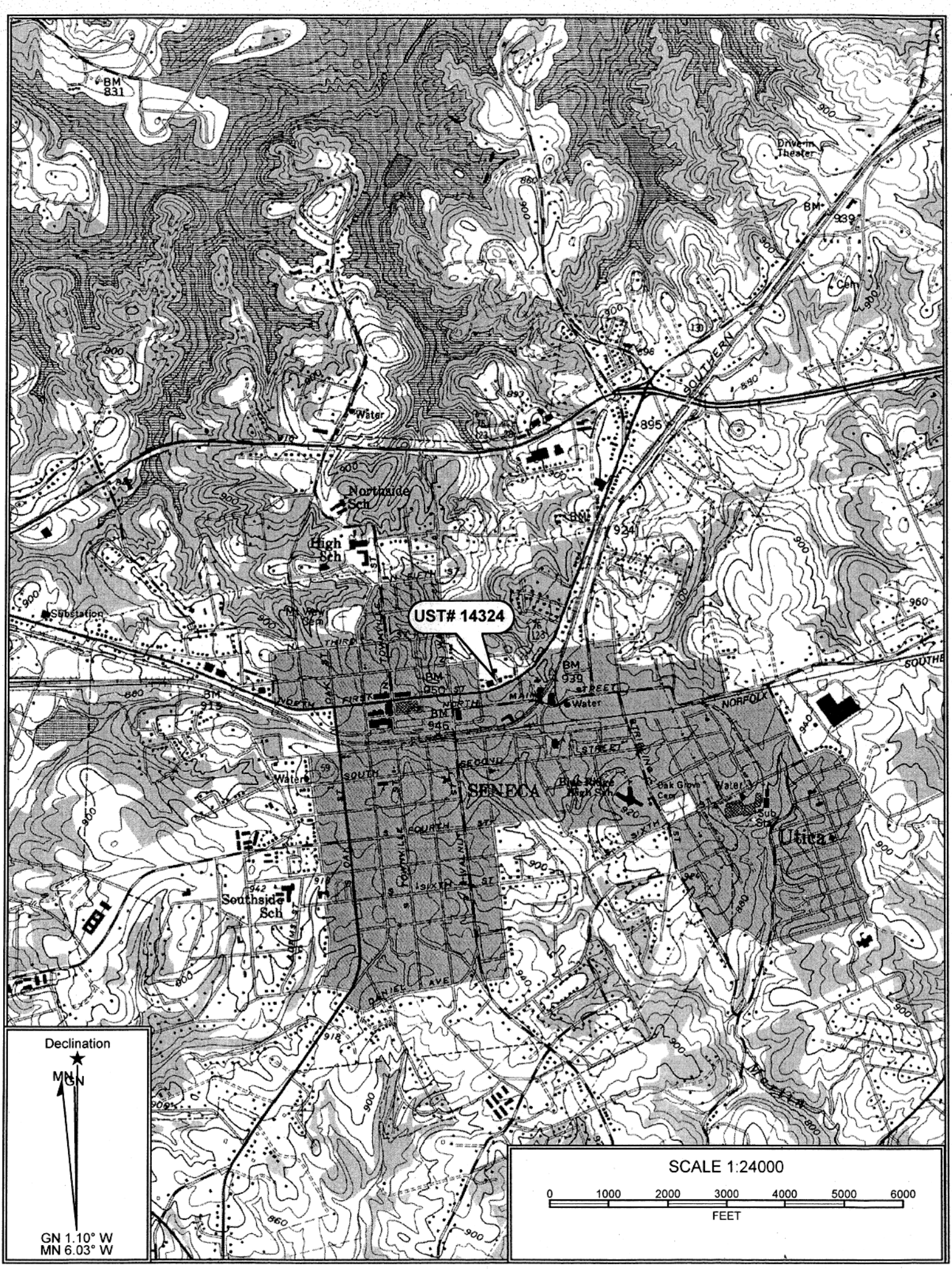
Additional Details For This Scope of Work
For example, list wells to be sampled, wells to be abandoned/repaired, well pads/bolts/caps to replace, details of AFVR event, etc.
-During the initial site visit, the metal detector was not working properly and the site is heavily overgrown. Due to these conditions, only two monitoring wells were located (MW-12 & MW-13).
-Upon approval of the SSWP, MECI will mobilize extra personnel, a working metal detector, and utensils to clear heavy brush in order to locate monitoring wells.
-If further problems arise during the sampling event, MECI will contact SCDHEC immediately.

Compliance With Annual Contractor Quality Assurance Plan (ACQAP)
No Laboratory as indicated in ACQAP? (Yes/No) If no, indicate laboratory information below.
Name of Laboratory: PACE Analytical Services, Inc.
SCDHEC Certification Number: 99006001
Name of Laboratory Director: Jeff Graham

N/A Well Driller as indicated in ACQAO? (Yes/No) If no, indicate driller information below.
Name of Well Driller: _____
SCLLR Certification Number: _____

Yes Other variations from ACQAP. Please describe below.
MECI has submitted ammended ACQAP for review. The ammeded ACQAP documents MECI's intention to utilize PACE Analytical Services, Inc. as our primary lab. This ammended ACQAP is still under review, however MECI is requesting approval to send samples collected from the above referenced site to PACE Analytical Services, Inc.

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


UST# 14324
SENECA
Utica
Northside Sch
High Sch
Southside Sch
Substation
Water
Declination
MN
GN
GN 1.10° W
MN 6.03° W
SCALE 1:24000
0 1000 2000 3000 4000 5000 6000
FEET

APPROX.
75 FEET

MW-19

MW-13

MW-12

MW-3

MW-2

EP-6

Vacant
Building

MW-1

EP-4

Tri-City
Laundry

MW-5

MW-4

EP-20

EP-2

EP-9

East North 1st Street

LEGEND

ND = No Free-Product Detected

= Monitoring Well Location

= Extraction Point Location

Earl's
Upholstry

ENVIROSOUTH
Environmental Consultants

MONITORING WELL AND EXTRACTION POINT LOCATION MAP

FORMER RED DIAMOND
519 EAST NORTH 1ST STREET
SENECA, SOUTH CAROLINA

JOB No: 1334	CHECKED BY: TFD	FIGURE: 1
SCALE: NTS	DRAWN BY: TD	DATE: 11/18/13

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
CONTRACT PO NUMBER 4600328425

Facility Name: Former Red Diamond

UST Permit #: 14324 **Cost Agreement #:** Proposal

ITEM	QUANTITY	UNIT	UNIT PRICE		TOTAL
1. **Plan***					
A1. Site Specific Work Plan	1	each	$0.00		$0.00
C1. QAPP Appendix B		each	$0.00		$0.00
2. A1. Receptor Survey		each	$0.00		$0.00
4. **Mob/Demob**					
B1. Personnel	1	each	$350.00		$350.00
10. **Groundwater Sample Collection / Gauge Depth to Water or Product (Each)**					
A1. Groundwater Purge	12	per well	$16.00		$192.00
B1. Air or Vapors		samples	$0.00		$0.00
C1. Water Supply		samples	$5.00		$0.00
D1. Groundwater No Purge or Duplicate		per well	$8.00		$0.00
E1. Gauge Well only		per well	$0.00		$0.00
F1. Sample Below Product		per well	$0.00		$0.00
G1. Pasive Diffusion Bag		each	$20.00		$0.00
H1. Field Blank	1	each	$10.00		$10.00
17. **Disposal* (gallons or tons)**					
AA. Disposal/Water	150	gallons	$1.00		$150.00
BB. Free Product		gallons	$0.00		$0.00
Note: Rate includes costs or rental of suitable container(s)					
23. D. Site Reconnaissance	1	each	$0.00		$0.00
18. **Miscellaneous (attach receipts)**					
GW Contour Map		each	$25.00		$0.00
Isopleth Map		each	$25.00		$0.00
High-Strength Well Pad Replacement		each	$75.00		$0.00
Data Table		each	$25.00		$0.00
25. **Well Repair**					
B1. Repair 2x2 MW Pad		each	$75.00		$0.00
C1. Repair 4x4 MW Pad		each	$75.00		$0.00
D1. Replace Well Vault		each	$75.00		$0.00
E. Replace well cover		each	$25.00		$0.00
F1. Replace well cover bolts		each	$2.60		$0.00
G. Replace locking well cap & lock		each	$15.00		$0.00
K1. Replace Missing Well ID Plate		each	$10.00		$0.00
TOTAL					$702.00

*The appropriate mobilization cost can be added to complete these tasks, as necessary

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

UST 5Mech DOCKETING

BRYAN SHANE PG
MIDLANDS ENVIRONMENTAL CONSULTANTS
PO BOX 854
LEXINGTON SC 29071

JAN 09 2015

Re: Notice to Proceed-Groundwater sampling/SSWP approval
Groundwater sampling contract
Contract #IFB-5400007403; PO #4600368640
Former Red Diamond, 519 East North 1st Street, Seneca, SC
UST Permit #14324; CA #49174 (MECI); CA #49175 (Pace)
Oconee County

Dear Mr. Shane:

In accordance with Contract #IFB-5400007403 and Quality Assurance Program Plan (QAPP) Revision 2.0 for the UST Management Division, the Site-Specific Work Plan (SSWP) Contractor Addendum has been reviewed and approved with the following comment:

- The SSWP states that Midlands did not locate ten monitoring wells during the reconnaissance but may be able to locate/uncover the wells during sampling activities. The Division considers groundwater quality data from these wells as critical for monitored natural attenuation (MNA) at the site. Therefore, the Division requests that Midlands make every effort to locate and obtain samples from the wells.

In accordance with QAPP Revision 2.0, a status report of the project should be provided on a weekly basis 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.

Midlands Environmental Consultants, Inc. will perform services at the site on behalf of the release owner/operator (O/O) and payment for the services will be made from the State Underground Petroleum Environmental Response Bank (SUPERB) account. The release O/O has no obligation to pay for this scope of work. Please coordinate access to the facility with the property owner. The Agency 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 that sampling should be conducted within 15 calendar days from the date of this letter and that the final report is due within 3 weeks from the sampling date. 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. The final report should contain the requirements of Section III.2.15 of the contract. Please submit the report to John Bryant, the contract manager.

If you have any site-specific questions, please contact me at (803) 898-0655 or via e-mail at padgetjp@dhec.sc.gov. If you have any contract-specific questions, please contact John Bryant at (803) 898-0606 or via e-mail at bryantjc@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Geologist/Hydrologist
Corrective Action Section
UST Management Division
Bureau of Land & Waste Management

JPP/jpp
14324.mr1

enc: Pace and Midlands approved cost agreements
Contractor memorandum

cc: John Bryant, Corrective Action Section (w/o enc)
Angela Baioni, Pace Analytical Services, 9800 Kincey Ave, Ste 100, Huntersville, NC, 28078 (w/approved Pace CA)
Technical file (w/enc)

D H E C
PROMOTE PROTECT PROSPER
South Carolina Department of Health and Environmental Control

UNDERGROUND STORAGE TANK MANAGEMENT DIVISION
BUREAU OF LAND AND WASTE MANAGEMENT
2600 Bull Street, Columbia, South Carolina 29201
Telephone: 803-896-6240

MEMORANDUM

TO: Midlands Environmental Consultants, Inc

FROM: Joel Padgett, P.G.

RE: **Site Specific Work Plan Request**

Facility Name: Former Red Diamond

Permit Number: 16642

County: Oconee

Work To Be Completed: Sample all MW for BTEX+naph+MtBE+DCA+oxygenates, EDB.

Approved Cost Agreement 49174

Facility: 14324 UST - UNKNOWN 14324

PADGETJP

PO Number:

Task / Description Categories	Item Description	Qty / Pct	Unit Price	Amount
04 MOB/DEMOB				
	B1 PERSONNEL	1.0000	350.00	350.00
10 SAMPLE COLLECTION				
	A1 GROUNDWATER (PURGE)	12.0000	16.00	192.00
	D1 GROUNDWATER NO PURGE/DUPLICATE	1.0000	8.00	8.00
	H1 FIELD BLANK	1.0000	10.00	10.00
17 DISPOSAL				
	AA WASTEWATER	150.0000	1.00	150.00
18 MISCELLANEOUS				
	SITE RECONNAISSANCE	1.0000	0.00	0.00
	SITE SPECIFIC WORK PLAN	1.0000	0.00	0.00
		Total Amount		710.00

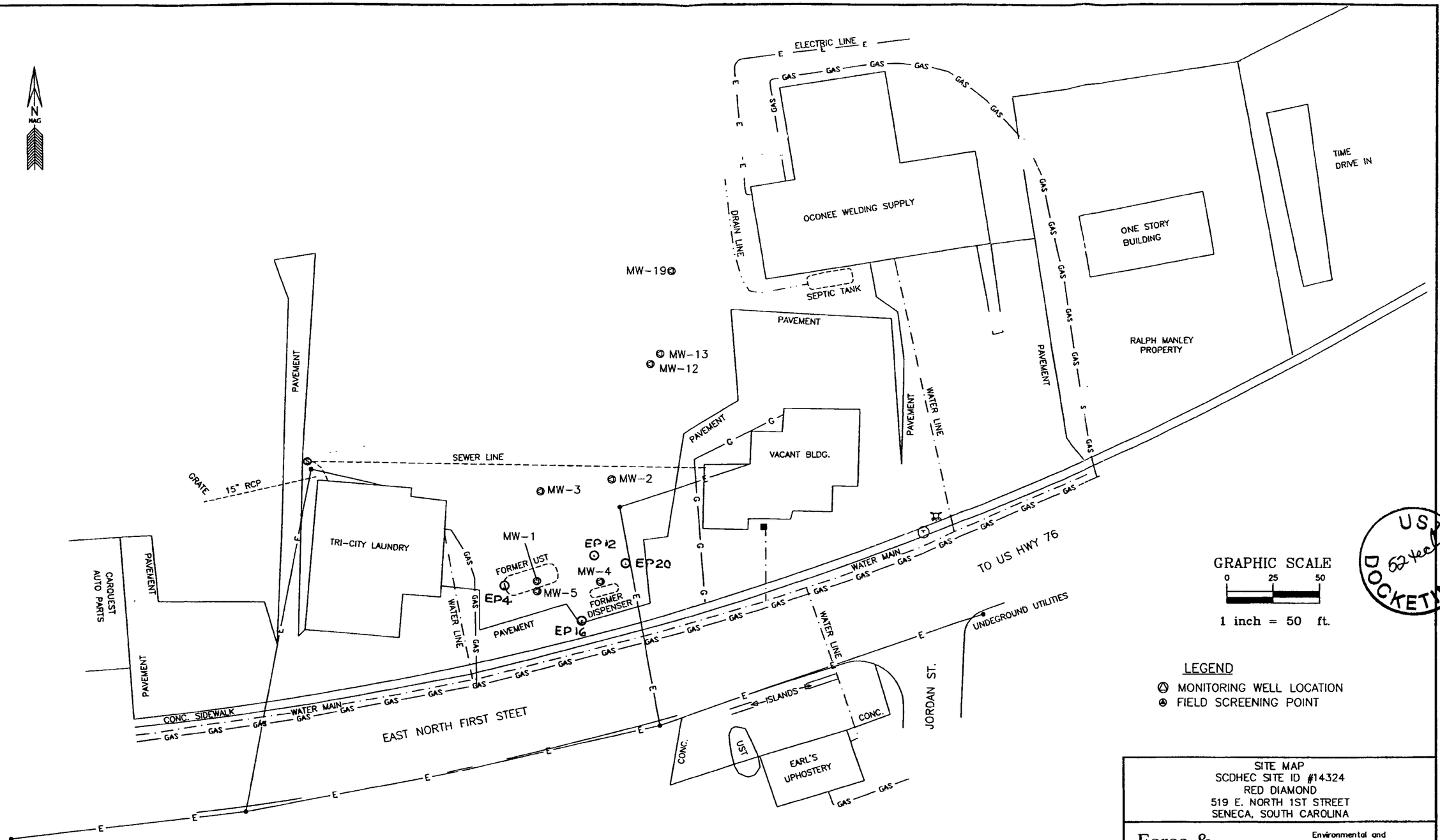
Approved Cost Agreement 49175

Facility: 14324 UST - UNKNOWN 14324

PADGETJP

PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
11 ANALYSES						
	GW GROUNDWATER	A2	BTEXNM+OXYGS+1,2-DCA+ETH-8260B	15.0000	19.00	285.00
		F1	EDB BY 8011	15.0000	18.00	270.00
				Total Amount		555.00



SITE MAP
SCDHEC SITE ID #14324
RED DIAMOND
519 E. NORTH 1ST STREET
SENECA, SOUTH CAROLINA

Force & Associates, Inc.
Environmental and Hydrogeological Consulting
147 Vera Road
Lexington, SC 29072
Phone: 803-359-3200

DRAWN BY	CHECKED BY	SCALE	CADD NO.
CAB	GLF	1"=50'	red-diamond
DESIGN BY	DATE	PROJECT NO.	FIGURE NO.
GLF	04/16/03	red-diamond	1

Midlands
Environmental
Consultants, Inc.

UST
Joel
MAR 25 2015
PROGRAM

March 20, 2015

RECEIVED
MAR 25 2015
SC Department of
Health and Environmental
Control

Mr. John Bryant, Hydrogeologist
Corrective Action Section
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
Former Red Diamond
519 East North First Street
Seneca, South Carolina
SCDHEC Site ID Number #14324; CA # 49174
MECI Project Number 14-5046
Certified Site Rehabilitation Contractor UCC-0009

UST
5346
DOCKETING

Dear Mr. Bryant,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Report of Groundwater Sampling for the referenced site. This report describes site activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control's (SCDHEC) Quality Assurance Program Plan for the Underground Storage Tank Management Division (QAPP).

PROJECT INFORMATION

The subject site (Former Red Diamond) is located at 519 East North First Street, Seneca, Oconee County, South Carolina. The subject site formerly maintained two 1,000 gallon gasoline underground storage tanks (UST's) and one 500 gallon kerosene UST. The subject tanks were abandoned by removal from ground in December of 1991. The South Carolina Department of Health and Environmental Control (SCDHEC) reported a release of petroleum product from the subject tanks in December of 1991 and confirmed the release in March of 1992. The subject site is currently rated a Class 3BA.

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

MONITORING WELL SAMPLING AND CHEMICAL ANALYSIS

On March 12, 2015, MECI personnel collected twelve (12) monitoring wells samples at the subject site. 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. Based on a request by SCDHEC personnel, all of the wells were to be purged prior to sampling, however

Post Office Box 854, Lexington SC 29071 • 231 Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

monitoring well MW-19 was obstructed and unable to be purged prior to sample collection. Eleven (11) monitoring wells were purged prior to sample collection. Purging was completed by bailing at least five well volumes of water from the well, until pH, conductivity, dissolved oxygen, and turbidity 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 YSI550A meter for DO (mg/L) and temperature readings (°C), YSI63 meters for pH and conductivity (uS) readings and a MicroTPI/TPW turbidimeter for turbidity readings (NTU). 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, Dates January 2014).

Groundwater samples obtained were sent to Pace Analytical Services, Inc. of Huntersville, NC (SCDHEC Laboratory Certification #99006001) for analysis.

The following sampling matrix contains well development and requested analyses for each well:

Monitoring Well	Purge	No Purge	Product	Not Sampled	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)	Sulfate (EPA Method 375.2)	Nitrate (EPA Method 353.2)	Methane (RSK Method)	PAH's (EPA Method 8270)	Ferrous Iron (Field Test)
					Analyte Sampled									
MW-1	X				X	X	X	X						
MW-2	X				X	X	X	X						
MW-3	X				X	X	X	X						
MW-4	X				X	X	X	X						
MW-5	X				X	X	X	X						
MW-12	X				X	X	X	X						
MW-13	X				X	X	X	X						
MW-19		X			X	X	X	X						
EP-4	X				X	X	X	X						
EP-12	X				X	X	X	X						
EP-16	X				X	X	X	X						
EP-20	X				X	X	X	X						
EP-16 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
Trip Blank provided by Pace Analytical Services, temperature obtained upon receipt at Laboratory

Purge water produced by the purging process was treated on-site utilizing a granular activated carbon unit. A total of 72.25 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.

Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Wesley H. Huss
Staff Scientist

Jeff L. Coleman
Senior Scientist

Attachments:

Contractor Checklist

Item#	Item	Yes	No	N/A
1	Is 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? See MECI SOP	X		
21	Have the groundwater sampling dates and groundwater measurements been provided? See attached Site Activity Summary Sheet	X		
22	Has the purging methodology been detailed? See MECI SOP	X		
23	Has the volume of water purged from each well been provided along with measurements to verify that purging is complete? See attached Field Data Information Sheets	X		
24	If free-product is present, has the thickness been provided? See attached Site Activity Summary Sheets	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?			X
35	Have the aquifer characteristics been provided and summarized on the appropriate form?			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? (Figure 3 & Figure 4)			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 D)			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? See attached	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?	X		

Site Activity Summary

UST Permit #: 14324
Facility Name: Former Red Diamond
County: Oconee
Field Personnel: Frank Mitlin, Thad Abbott

Midlands Environmental Consultants, Inc.

Sample ID	Sampled?	Date	Time	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	DO (mg/l)	# Gals. Purged	Comments
MW-1	Y	3/12/15	13:24	25-40	***	27.31	***	3.27	4.25	Odor; Sheen
MW-2	Y	3/12/15	12:01	30-40	***	29.46	***	0.56	6.00	Organic Odor
MW-3	Y	3/12/15	11:48	30-40	***	28.07	***	2.84	8.00	No Odor
MW-4	Y	3/12/15	12:34	30-40	***	28.81	***	1.86	4.00	No Odor
MW-5	Y	3/12/15	13:12	60-65	***	27.89	***	2.24	15.00	No Odor
MW-12	Y	3/12/15	11:28	60-65	***	32.55	***	3.01	22.00	Organic Odor
MW-13	Y	3/12/15	11:02	36-46	***	34.15	***	Sheen	7.00	Odor; Sheen
MW-19	Y	3/12/15	10:50	35-45	***	0.00	***	INS	INS	Obstruction at 2.49 Feet, Unable to Purge
EP-4	Y	3/12/15	13:41	20-35	***	27.70	***	2.35	2.00	Odor; Sheen
EP-12	Y	3/12/15	12:11	20-35	***	29.73	***	Sheen	1.25	Odor; Sheen
EP-16	Y	3/12/15	12:47	TD:34.35	***	28.99	***	Sheen	1.75	Odor; Sheen
EP-20	Y	3/12/15	12:21	15-35	***	29.58	***	Sheen	1.00	Odor; Sheen
EP-16 Dup.	Y	3/12/15	12:47	***	***	***	***	***	***	Duplicate Sample
Field Blank	Y	3/12/15	13:45	***	***	***	***	***	***	Field Blank
Trip Blank	Y	3/12/15	13:46	***	***	***	***	***	***	Trip Blank
									72.25	**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): 3/12/2015

Field Personnel: Frank Mitlin, Thad Abbott

General Weather Conditions: Rainy

Ambient Air Temperature: 21.0 °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: Former Red Diamond

Site ID#: 14324 **Monitoring Well#** MW-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)	27.31			feet
Total Well Depth (TWD)	40			feet
Length of the water column (LWC=TWD-DGW)			12.69	feet
1 casing volume (CV=LWC X C)= _____ X		0.163	2.07	gallons
5 casing volume (5 X CV)=		5	10.34	gallons

Total Volume of Water Purged Before Sampling 4.25 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)	13:20	13:22	13:24					
pH (s.u.)	6.37	Sheen	Sheen					
Specific Conductivity (µmhos/cm)	174.6	Sheen	Sheen					
Water Temperature (°C)	18.1	Sheen	Sheen					
Dissolved Oxygen	3.27	Sheen	Sheen					
Turbidity (NTU)	16.43	Sheen	Sheen					
PID readings, if required								

Remarks: Sample Time: 13:24 **Dry @ 4.25 Gallons**

Sheen= Petroleum Sheen on Samples

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): 3/12/2015

Field Personnel: Frank Mitlin, Thad Abbott

General Weather Conditions: Rainy

Ambient Air Temperature: 21.0 °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: Former Red Diamond

Site ID#: 14324 **Monitoring Well#** MW-2

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)	29.46			feet
Total Well Depth (TWD)	40			feet
Length of the water column (LWC=TWD-DGW)			10.54	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	1.72	gallons
5 casing volume (5 X CV)=		5	8.59	gallons

Total Volume of Water Purged Before Sampling 6 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)	11:55	11:57	11:59	12:01				
pH (s.u.)	6.38	6.36	6.47	6.53				
Specific Conductivity (µmhos/cm)	121.1	129.7	131.6	133.5				
Water Temperature (°C)	17.8	17.7	17.7	17.6				
Dissolved Oxygen	0.56	0.96	1.21	1.38				
Turbidity (NTU)	20.86	109.0	149.7	186.2				
PID readings, if required								

Remarks: Sample Time: 12:01 **Dry @ 6.0 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): 3/12/2015
Field Personnel: Frank Mitlin, Thad Abbott
General Weather Conditions: Rainy

Ambient Air Temperature: 21.0 °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: Former Red Diamond
Site ID#: 14324 **Monitoring Well#** MW-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)				feet
Depth to Ground Water (DGW)	28.07			feet
Total Well Depth (TWD)	40			feet
Length of the water column (LWC=TWD-DGW)			11.93	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	1.94	gallons
5 casing volume (5 X CV)=		5	9.72	gallons

Total Volume of Water Purged Before Sampling 8 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)	11:40	11:42	11:44	11:46	11:48			
pH (s.u.)	7.19	7.24	7.15	7.06	6.95			
Specific Conductivity (µmhos/cm)	46.0	69.9	78.4	80.2	83.4			
Water Temperature (°C)	17.5	17.6	17.5	17.5	17.5			
Dissolved Oxygen	2.84	2.71	2.46	2.36	2.39			
Turbidity (NTU)	21.64	121.6	139.8	204.4	209.9			
PID readings, if required								

Remarks: Sample Time: 11:48 **Dry @ 8.0 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): 3/12/2015

Field Personnel: Frank Mitlin, Thad Abbott

General Weather Conditions: Rainy

Ambient Air Temperature: 21.0 °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: Former Red Diamond

Site ID#: 14324 **Monitoring Well#** MW-4

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)	28.81			feet
Total Well Depth (TWD)	40			feet
Length of the water column (LWC=TWD-DGW)			11.19	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	1.82	gallons
5 casing volume (5 X CV)=		5	9.12	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)	12:30	12:32	12:34					
pH (s.u.)	6.67	6.59	6.49					
Specific Conductivity (µmhos/cm)	82.7	96.2	98.4					
Water Temperature (°C)	17.5	17.4	17.4					
Dissolved Oxygen	1.86	1.71	1.64					
Turbidity (NTU)	27.07	139.8	176.6					
PID readings, if required								

Remarks: Sample Time: 12:34 **Dry @ 8.0 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): 3/12/2015

Field Personnel: Frank Mitlin, Thad Abbott

General Weather Conditions: Rainy

Ambient Air Temperature: 21.0 °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: Former Red Diamond

Site ID#: 14324 **Monitoring Well#** MW-5

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)	27.89			feet
Total Well Depth (TWD)	65			feet
Length of the water column (LWC=TWD-DGW)			37.11	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	6.05	gallons
5 casing volume (5 X CV)=		5	30.24	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)	13:00	13:06	13:12					
pH (s.u.)	6.27	6.31	6.20					
Specific Conductivity (µmhos/cm)	98.3	120.0	126.4					
Water Temperature (°C)	18.2	18.0	17.9					
Dissolved Oxygen	2.24	2.19	2.15					
Turbidity (NTU)	14.57	76.2	112.6					
PID readings, if required								

Remarks: Sample Time: 13:12 **Dry @ 15.0 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): 3/12/2015

Field Personnel: Frank Mitlin, Thad Abbott

General Weather Conditions: Rainy

Ambient Air Temperature: 21.0 °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: Former Red Diamond

Site ID#: 14324 **Monitoring Well#** MW-12

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)	32.55		feet
Total Well Depth (TWD)	65		feet
Length of the water column (LWC=TWD-DGW)		32.45	feet
1 casing volume (CV=LWC X C)= ____ X	0.163	5.29	gallons
5 casing volume (5 X CV)=	5	26.45	gallons

Total Volume of Water Purged Before Sampling 22 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)	11:08	11:13	11:18	11:23	11:28			
pH (s.u.)	7.92	7.64	7.60	7.51	7.42			
Specific Conductivity (µmhos/cm)	136.9	104.6	101.2	99.8	96.1			
Water Temperature (°C)	17.6	17.5	17.5	17.4	17.4			
Dissolved Oxygen	3.01	2.93	2.86	2.74	2.70			
Turbidity (NTU)	34.76	107.8	162.9	199.0	212.6			
PID readings, if required								

Remarks: Sample Time: 11:28 **Dry @ 22.0 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): 3/12/2015

Field Personnel: Frank Mitlin, Thad Abbott

General Weather Conditions: Rainy

Ambient Air Temperature: 21.0 °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: Former Red Diamond

Site ID#: 14324 **Monitoring Well#** MW-13

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)	34.15			feet
Total Well Depth (TWD)	46			feet
Length of the water column (LWC=TWD-DGW)			11.85	feet
1 casing volume (CV=LWC X C)= _____ X		0.163	1.93	gallons
5 casing volume (5 X CV)=		5	9.66	gallons

Total Volume of Water Purged Before Sampling 7 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)	10:56	10:58	11:00	11:02				
pH (s.u.)	Sheen	Sheen	Sheen	Sheen				
Specific Conductivity (µmhos/cm)	Sheen	Sheen	Sheen	Sheen				
Water Temperature (°C)	Sheen	Sheen	Sheen	Sheen				
Dissolved Oxygen	Sheen	Sheen	Sheen	Sheen				
Turbidity (NTU)	Sheen	Sheen	Sheen	Sheen				
PID readings, if required								

Remarks: Sample Time: 11:02 **Dry @ 7.0 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): 3/12/2015

Field Personnel: Frank Mitlin, Thad Abbott

General Weather Conditions: Rainy

Ambient Air Temperature: 21.0 °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: Former Red Diamond

Site ID#: 14324 **Monitoring Well#** MW-19

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)	0.00			feet
Total Well Depth (TWD)	45			feet
Length of the water column (LWC=TWD-DGW)			45	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	7.34	gallons
5 casing volume (5 X CV)=		5	36.68	gallons

Total Volume of Water Purged Before Sampling 7 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)	10:50							
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: 10:50 **Dry @ 7.0 Gallons**

OBS @ 2.49 feet BGS

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): 3/12/2015

Field Personnel: Frank Mitlin, Thad Abbott

General Weather Conditions: Rainy

Ambient Air Temperature: 21.0 °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: Former Red Diamond

Site ID#: 14324 **Monitoring Well#** EP-4

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)	27.70			feet
Total Well Depth (TWD)	35			feet
Length of the water column (LWC=TWD-DGW)			7.3	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	1.19	gallons
5 casing volume (5 X CV)=		5	5.95	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	13:41						
pH (s.u.)	6.56	Sheen						
Specific Conductivity (µmhos/cm)	48.9	Sheen						
Water Temperature (°C)	18.5	Sheen						
Dissolved Oxygen	2.35	Sheen						
Turbidity (NTU)	13.07	Sheen						
PID readings, if required								

Remarks: Sample Time: 13:41 **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): 3/12/2015

Field Personnel: Frank Mitlin, Thad Abbott

General Weather Conditions: Rainy

Ambient Air Temperature: 21.0 °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: Former Red Diamond

Site ID#: 14324 **Monitoring Well#** EP-12

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)	27.70			feet
Total Well Depth (TWD)	35			feet
Length of the water column (LWC=TWD-DGW)			7.3	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	1.19	gallons
5 casing volume (5 X CV)=		5	5.95	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)	12:10	12:11						
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: 12:11 **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): 3/12/2015

Field Personnel: Frank Mitlin, Thad Abbott

General Weather Conditions: Rainy

Ambient Air Temperature: 21.0 °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: Former Red Diamond

Site ID#: 14324 **Monitoring Well#** EP-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)	28.99			feet
Total Well Depth (TWD)	35			feet
Length of the water column (LWC=TWD-DGW)			6.01	feet
1 casing volume (CV=LWC X C)= ____ X		0.163	0.98	gallons
5 casing volume (5 X CV)=		5	4.90	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)	12:45	12:46	12:47					
pH (s.u.)	Sheen	Sheen	Sheen					
Specific Conductivity (µmhos/cm)	Sheen	Sheen	Sheen					
Water Temperature (°C)	Sheen	Sheen	Sheen					
Dissolved Oxygen	Sheen	Sheen	Sheen					
Turbidity (NTU)	Sheen	Sheen	Sheen					
PID readings, if required								

Remarks: Sample Time: 12:11 **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): 3/12/2015
Field Personnel: Frank Mitlin, Thad Abbott
General Weather Conditions: Rainy

Ambient Air Temperature: 21.0 °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: Former Red Diamond
Site ID#: 14324 **Monitoring Well#** EP-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)	28.99			feet
Total Well Depth (TWD)	35			feet
Length of the water column (LWC=TWD-DGW)			6.01	feet
1 casing volume (CV=LWC X C)=	____ X	0.163	0.98	gallons
5 casing volume (5 X CV)=		5	4.90	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)	12:20	12:21						
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: 12:21 **Dry @ 1.0 Gallons**

Midlands Environmental Consultants, Inc.

March 20, 2015

Re: Treatment of Purge Water
Former Red Diamond
Seneca, South Carolina
SCDHEC Site ID Number 14324
MECI Project Number 14-5046

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 72.25 gallons were treated on March 12, 2015, 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.

Wesley H. Huss for
Staff Scientist

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

1947007

Section A Required Client Information:

Company: SCDHEC - UST
Address: 2600 Bull St
Columbia, SC, 29201
Email To: brownjem@dhec.sc.gov
Phone: 803-896-0666 Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: J. Bryant - UST
Copy To:
Purchase Order No.: 4166325125
Project Name: Former Red Diamond
Project Number: UST# 14524 / PHEC (H# 49175

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: A. Baucom
Pace Profile #:

REGULATORY AGENCY

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

Site Location STATE: SC — Oconee

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 Naphthalene	1,2-DCA	8-Oxygenates	EDB	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW 1	WT	G			3/12/15	13:24		6				6						X	X	X	X		Strong Odor
2	MW 2						12:01																	Slight Organic Odor
3	MW 3						11:48																	No Odor
4	MW 4						12:34																	NO Odor
5	MW 5						13:12																	No Odor
6	MW 12						11:28																	Organic Odor
7	MW 13						11:02																	Strong Odor
8	MW 19						10:50																	Organic Odor
9	EP 4						13:41																	Strong Odor
10	EP 12						12:11																	Strong Odor
11	EP 16						12:47																	Strong Odor
12	EP 20	WT	G			3/12/15	12:21		6				6						X	X	X	X		Odor

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
		3/13/15	11:10	Pace Moody-Pace	03-17-15	11:10	

2

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Frank Mitlin
SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 3/12/15

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

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.

1947008

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: SCDHEC - UST	Report To: J. Bryant - UST	Attention:
Address: 2600 Bull St Columbia, SC 29201	Copy To:	Company Name:
		Address:
Email To: BryantJC@dhec.sc.gov	Purchase Order No.: 4166328425	Pace Quote Reference:
Phone: 803-898-0666 Fax:	Project Name: Former Red Diamond	Pace Project Manager: A. Baioni
Requested Due Date/TAT:	Project Number: UST #14324 / SALE (AI#4915	Pace Profile #:

REGULATORY AGENCY

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

Site Location STATE: SC — Oconee

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: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT	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, Naph, MTBE	1,2 - DCP	3 Oxygenates	EDB									Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	EP 16 Duplicate		WT	G			3/12/15	12:47		6				6						X	X	X	X									Duplicate
2	Field Blank		↓	↓			↓	13:45		6				6						X	X	X	X									Field Blank
3	Trip Blank		WT	G			3/12/15	13:46		2				2						X	X	X										Trip Blank
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	[signature]	3/12/15	11:10	Moody Pace	03-13-15	11:10	

2

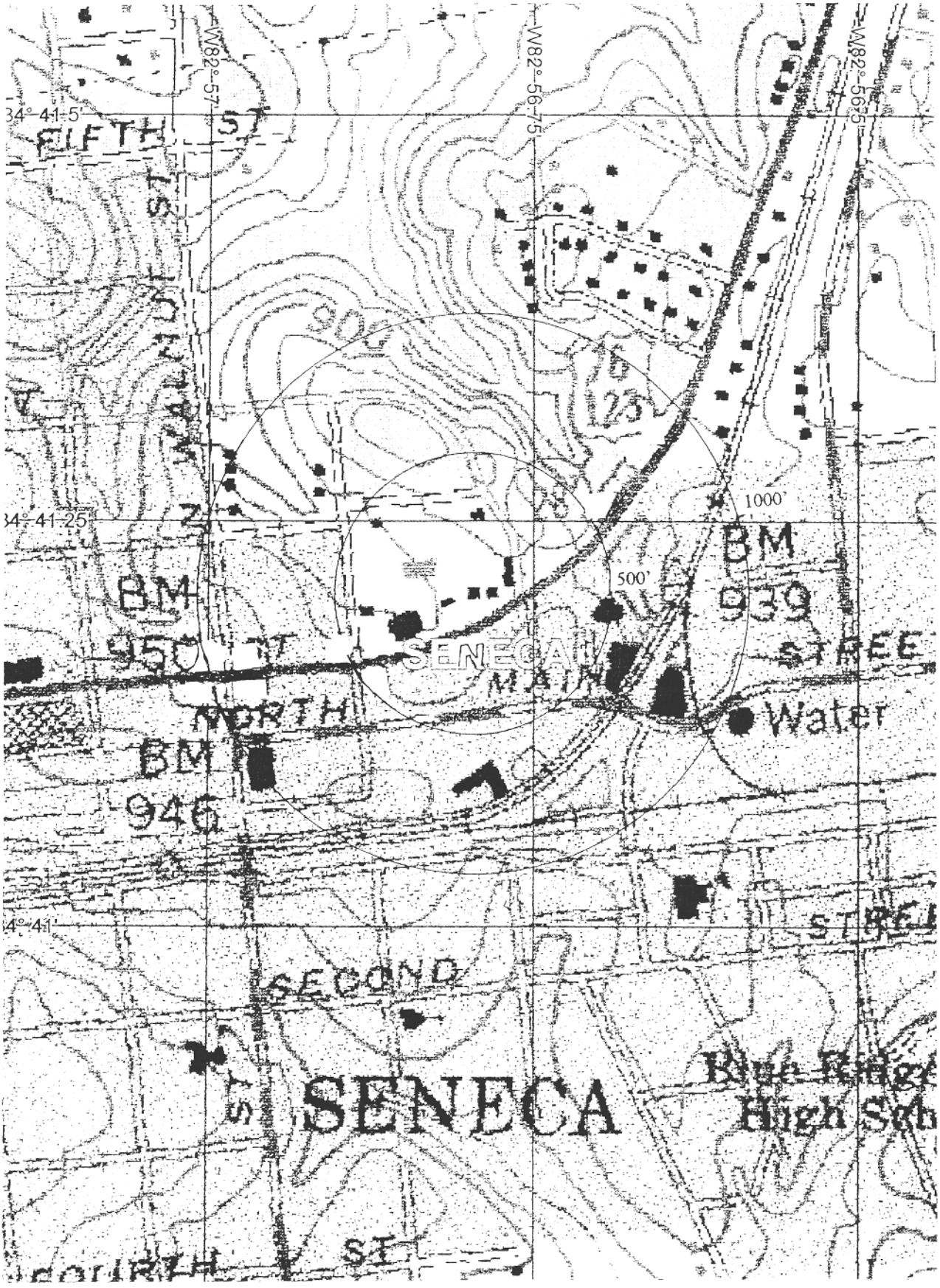
SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Frank Mullin

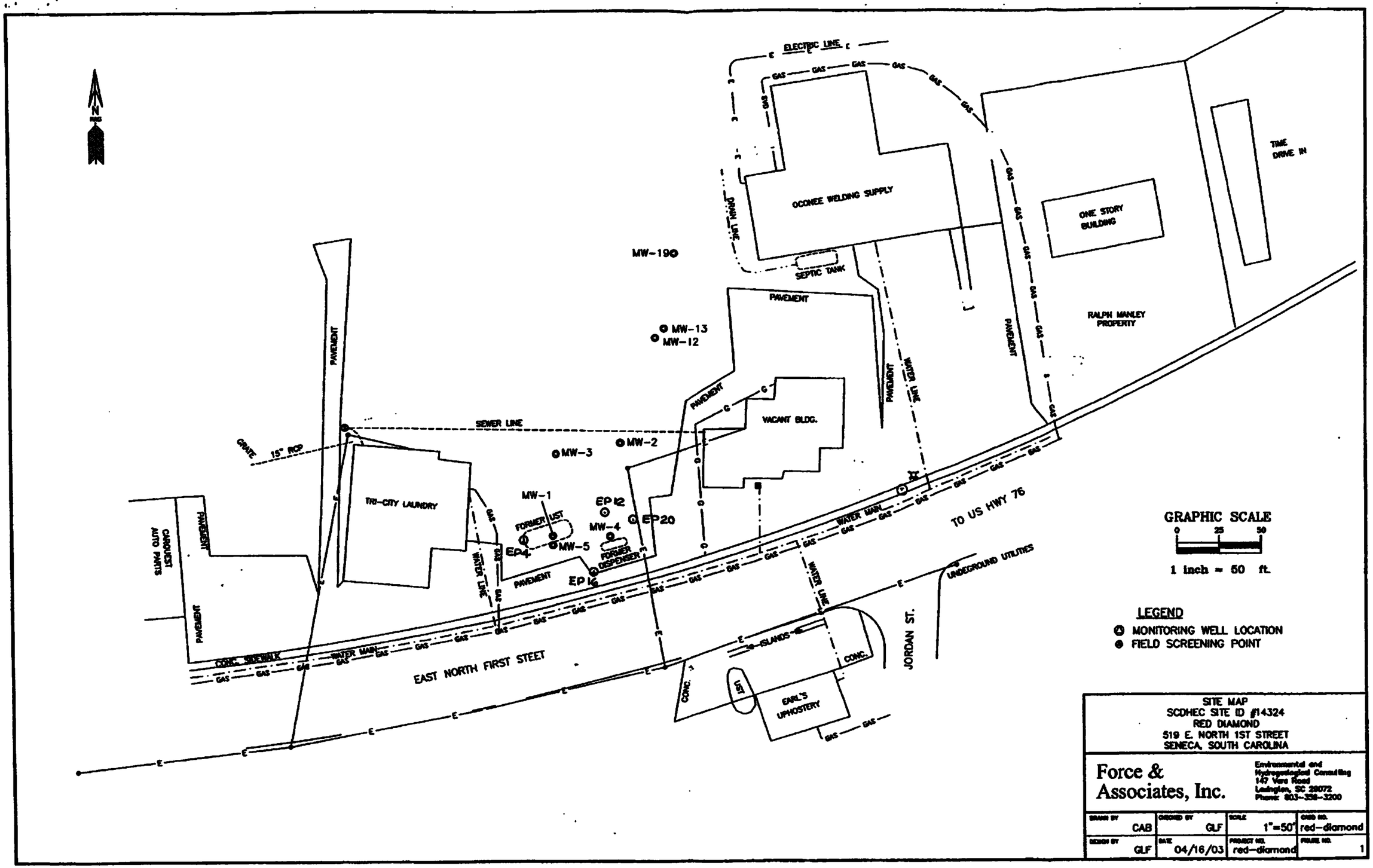
SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 3/12/15

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.



Force & Associates, Inc. Environmental & Hydrogeological Consulting 138 Middlebrook Drive Lexington, SC 29072 Phone: 803-359-7847	SCALE 1"=500' DRAWN BY CAB CHECKED BY GLF DATE 6/4/01	TOPOGRAPHIC MAP SCDHEC SITE ID#14324 RED DIAMOND OIL COMPANY 519 EAST NORTH FIRST STREET SENECA, SC	FIGURE NO. 1 CADD NO. FIG 1 PROJECT NO.



SITE MAP
SCDHEC SITE ID #14324
RED DIAMOND
519 E. NORTH 1ST STREET
SENECA, SOUTH CAROLINA

Force & Associates, Inc.
Environmental and Hydrogeological Consulting
147 Vara Road
Lexington, SC 29072
Phone: 803-359-3200

DRAWN BY	DESIGNED BY	SCALE	CASE NO.
CAB	GLF	1"=50'	red-diamond
DESIGN BY	DATE	PROJECT NO.	FIGURE NO.
GLF	04/16/03	red-diamond	1

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

March 19, 2015

Mr. John Bryant
SCDHEC
UST Program
2600 Bull Street
Columbia, SC 29201



RE: Project: FORMER RED DIAMOND 14324/49175
Pace Project No.: 92241257

Dear Mr. Bryant:
Enclosed are the analytical results for sample(s) received by the laboratory on March 13, 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,

Angela Baioni

Angela Baioni
angela.baioni@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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

CERTIFICATIONS

Project: FORMER RED DIAMOND 14324/49175
Pace Project No.: 92241257

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

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: FORMER RED DIAMOND 14324/49175
Pace Project No.: 92241257

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92241257001	MW1	Water	03/12/15 13:24	03/13/15 16:15
92241257002	MW2	Water	03/12/15 12:01	03/13/15 16:15
92241257003	MW3	Water	03/12/15 11:48	03/13/15 16:15
92241257004	MW4	Water	03/12/15 12:34	03/13/15 16:15
92241257005	MW5	Water	03/12/15 13:12	03/13/15 16:15
92241257006	MW12	Water	03/12/15 11:38	03/13/15 16:15
92241257007	MW13	Water	03/12/15 11:02	03/13/15 16:15
92241257008	MW19	Water	03/12/15 10:50	03/13/15 16:15
92241257009	EP4	Water	03/12/15 13:41	03/13/15 16:15
92241257010	EP12	Water	03/12/15 12:11	03/13/15 16:15
92241257011	EP16	Water	03/12/15 12:47	03/13/15 16:15
92241257012	EP20	Water	03/12/15 12:21	03/13/15 16:15
92241257013	EP16 DUPLICATE	Water	03/12/15 12:47	03/13/15 16:15
92241257014	FIELD BLANK	Water	03/12/15 13:45	03/13/15 16:15
92241257015	TRIP BLANK	Water	03/12/15 13:46	03/13/15 16:15

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SAMPLE ANALYTE COUNT

Project: FORMER RED DIAMOND 14324/49175
Pace Project No.: 92241257

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92241257001	MW1	EPA 8011	JMC	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92241257002	MW2	EPA 8011	JMC	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92241257003	MW3	EPA 8011	JMC	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92241257004	MW4	EPA 8011	JMC	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92241257005	MW5	EPA 8011	JMC	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92241257006	MW12	EPA 8011	JMC	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92241257007	MW13	EPA 8011	JMC	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92241257008	MW19	EPA 8011	JMC	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92241257009	EP4	EPA 8011	JMC	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92241257010	EP12	EPA 8011	JMC	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92241257011	EP16	EPA 8011	JMC	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92241257012	EP20	EPA 8011	JMC	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92241257013	EP16 DUPLICATE	EPA 8011	JMC	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92241257014	FIELD BLANK	EPA 8011	JMC	2	PASI-C
		EPA 8260	CCL	20	PASI-C
92241257015	TRIP BLANK	EPA 8260	CCL	20	PASI-C

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SUMMARY OF DETECTION

Project: FORMER RED DIAMOND 14324/49175
Pace Project No.: 92241257

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92241257001	**MW1**					
EPA 8260	Ethylbenzene	847	ug/L	100	03/16/15 17:14	
EPA 8260	Naphthalene	630	ug/L	100	03/16/15 17:14	
EPA 8260	Toluene	139	ug/L	100	03/16/15 17:14	
EPA 8260	Xylene (Total)	7070	ug/L	200	03/16/15 17:14	
EPA 8260	m&p-Xylene	5750	ug/L	200	03/16/15 17:14	
EPA 8260	o-Xylene	1330	ug/L	100	03/16/15 17:14	
92241257002	**MW2**					
EPA 8011	1,2-Dibromoethane (EDB)	201	ug/L	9.7	03/18/15 10:32	
EPA 8260	tert-Amyl Alcohol	5520	ug/L	1000	03/16/15 17:31	
EPA 8260	Benzene	13200	ug/L	1000	03/17/15 17:25	
EPA 8260	Ethylbenzene	1540	ug/L	50.0	03/16/15 17:31	
EPA 8260	Naphthalene	529	ug/L	50.0	03/16/15 17:31	
EPA 8260	Toluene	24200	ug/L	1000	03/17/15 17:25	
EPA 8260	Xylene (Total)	11400	ug/L	2000	03/17/15 17:25	
EPA 8260	m&p-Xylene	7880	ug/L	2000	03/17/15 17:25	
EPA 8260	o-Xylene	3490	ug/L	1000	03/17/15 17:25	
92241257003	**MW3**					
EPA 8260	Benzene	259	ug/L	25.0	03/16/15 17:48	
EPA 8260	Ethylbenzene	1230	ug/L	125	03/17/15 17:43	
EPA 8260	Naphthalene	374	ug/L	25.0	03/16/15 17:48	
EPA 8260	Toluene	3390	ug/L	125	03/17/15 17:43	
EPA 8260	Xylene (Total)	6020	ug/L	250	03/17/15 17:43	
EPA 8260	m&p-Xylene	4140	ug/L	250	03/17/15 17:43	
EPA 8260	o-Xylene	1880	ug/L	125	03/17/15 17:43	
92241257004	**MW4**					
EPA 8011	1,2-Dibromoethane (EDB)	687	ug/L	19.9	03/18/15 10:53	
EPA 8260	tert-Amyl Alcohol	4170	ug/L	2500	03/16/15 18:05	
EPA 8260	Benzene	21500	ug/L	1000	03/17/15 18:00	
EPA 8260	1,2-Dichloroethane	93.9J	ug/L	125	03/16/15 18:05	
EPA 8260	Diisopropyl ether	156	ug/L	125	03/16/15 18:05	
EPA 8260	Ethylbenzene	1220	ug/L	125	03/16/15 18:05	
EPA 8260	Naphthalene	1050	ug/L	125	03/16/15 18:05	
EPA 8260	Toluene	26100	ug/L	1000	03/17/15 18:00	
EPA 8260	Xylene (Total)	10900	ug/L	250	03/16/15 18:05	
EPA 8260	m&p-Xylene	6910	ug/L	250	03/16/15 18:05	
EPA 8260	o-Xylene	3940	ug/L	125	03/16/15 18:05	
92241257005	**MW5**					
EPA 8011	1,2-Dibromoethane (EDB)	122	ug/L	4.0	03/18/15 11:13	
EPA 8260	tert-Amyl Alcohol	4340	ug/L	2500	03/16/15 18:22	
EPA 8260	Benzene	18100	ug/L	1000	03/17/15 18:17	
EPA 8260	Ethylbenzene	1520	ug/L	125	03/16/15 18:22	
EPA 8260	Naphthalene	516	ug/L	125	03/16/15 18:22	
EPA 8260	Toluene	33900	ug/L	1000	03/17/15 18:17	
EPA 8260	Xylene (Total)	8040	ug/L	250	03/16/15 18:22	
EPA 8260	m&p-Xylene	5370	ug/L	250	03/16/15 18:22	

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SUMMARY OF DETECTION

Project: FORMER RED DIAMOND 14324/49175
Pace Project No.: 92241257

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92241257005	**MW5**					
EPA 8260	o-Xylene	2670	ug/L	125	03/16/15 18:22	
92241257006	**MW12**					
EPA 8011	1,2-Dibromoethane (EDB)	23.1	ug/L	1.0	03/18/15 11:33	
EPA 8260	tert-Amyl Alcohol	1550	ug/L	500	03/16/15 21:30	
EPA 8260	Benzene	6400	ug/L	500	03/17/15 19:08	
EPA 8260	1,2-Dichloroethane	44.7	ug/L	25.0	03/16/15 21:30	
EPA 8260	Diisopropyl ether	38.6	ug/L	25.0	03/16/15 21:30	
EPA 8260	Ethylbenzene	817	ug/L	25.0	03/16/15 21:30	
EPA 8260	Naphthalene	247	ug/L	25.0	03/16/15 21:30	
EPA 8260	Toluene	12000	ug/L	500	03/17/15 19:08	
EPA 8260	Xylene (Total)	5650	ug/L	1000	03/17/15 19:08	
EPA 8260	m&p-Xylene	3950	ug/L	1000	03/17/15 19:08	
EPA 8260	o-Xylene	1700	ug/L	500	03/17/15 19:08	
92241257007	**MW13**					
EPA 8011	1,2-Dibromoethane (EDB)	43.2	ug/L	0.97	03/18/15 11:53	
EPA 8260	Benzene	2610	ug/L	125	03/16/15 21:47	
EPA 8260	Ethylbenzene	1220	ug/L	125	03/16/15 21:47	
EPA 8260	Naphthalene	629	ug/L	125	03/16/15 21:47	
EPA 8260	Toluene	7620	ug/L	250	03/17/15 19:25	
EPA 8260	Xylene (Total)	7420	ug/L	250	03/16/15 21:47	
EPA 8260	m&p-Xylene	5260	ug/L	250	03/16/15 21:47	
EPA 8260	o-Xylene	2160	ug/L	125	03/16/15 21:47	
92241257008	**MW19**					
EPA 8260	Ethanol	5910	ug/L	200	03/16/15 19:13	
92241257009	**EP4**					
EPA 8260	Benzene	155	ug/L	100	03/16/15 22:04	
EPA 8260	Ethylbenzene	1730	ug/L	100	03/16/15 22:04	
EPA 8260	Naphthalene	897	ug/L	100	03/16/15 22:04	
EPA 8260	Toluene	4830	ug/L	250	03/17/15 19:42	
EPA 8260	Xylene (Total)	9990	ug/L	200	03/16/15 22:04	
EPA 8260	m&p-Xylene	6670	ug/L	200	03/16/15 22:04	
EPA 8260	o-Xylene	3320	ug/L	100	03/16/15 22:04	
92241257010	**EP12**					
EPA 8011	1,2-Dibromoethane (EDB)	298	ug/L	10.1	03/18/15 12:14	
EPA 8260	Benzene	8600	ug/L	625	03/16/15 22:21	
EPA 8260	Ethylbenzene	1060	ug/L	625	03/16/15 22:21	
EPA 8260	Naphthalene	1380	ug/L	625	03/16/15 22:21	
EPA 8260	Toluene	16600	ug/L	625	03/16/15 22:21	
EPA 8260	Xylene (Total)	12600	ug/L	1250	03/16/15 22:21	
EPA 8260	m&p-Xylene	8320	ug/L	1250	03/16/15 22:21	
EPA 8260	o-Xylene	4320	ug/L	625	03/16/15 22:21	
92241257011	**EP16**					
EPA 8011	1,2-Dibromoethane (EDB)	876	ug/L	39.3	03/18/15 12:33	
EPA 8260	Benzene	4540	ug/L	500	03/17/15 21:24	

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SUMMARY OF DETECTION

Project: FORMER RED DIAMOND 14324/49175
Pace Project No.: 92241257

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92241257011	**EP16**					
EPA 8260	Ethylbenzene	1140	ug/L	500	03/17/15 21:24	
EPA 8260	Naphthalene	1910	ug/L	500	03/17/15 21:24	
EPA 8260	Toluene	9720	ug/L	500	03/17/15 21:24	
EPA 8260	Xylene (Total)	16400	ug/L	1000	03/17/15 21:24	
EPA 8260	m&p-Xylene	10600	ug/L	1000	03/17/15 21:24	
EPA 8260	o-Xylene	5850	ug/L	500	03/17/15 21:24	
92241257012	**EP20**					
EPA 8011	1,2-Dibromoethane (EDB)	604	ug/L	19.9	03/18/15 12:53	
EPA 8260	Benzene	7730	ug/L	250	03/17/15 06:20	
EPA 8260	1,2-Dichloroethane	156J	ug/L	250	03/17/15 06:20	
EPA 8260	Diisopropyl ether	99.1J	ug/L	250	03/17/15 06:20	
EPA 8260	Ethylbenzene	550	ug/L	250	03/17/15 06:20	
EPA 8260	Naphthalene	1610	ug/L	250	03/17/15 06:20	
EPA 8260	Toluene	16100	ug/L	625	03/17/15 19:59	
EPA 8260	Xylene (Total)	13000	ug/L	500	03/17/15 06:20	
EPA 8260	m&p-Xylene	8020	ug/L	500	03/17/15 06:20	
EPA 8260	o-Xylene	4970	ug/L	250	03/17/15 06:20	
92241257013	**EP16 DUPLICATE**					
EPA 8011	1,2-Dibromoethane (EDB)	876	ug/L	40.3	03/18/15 13:12	
EPA 8260	Benzene	5150	ug/L	500	03/17/15 21:41	
EPA 8260	Ethylbenzene	1300	ug/L	500	03/17/15 21:41	
EPA 8260	Naphthalene	1960	ug/L	500	03/17/15 21:41	
EPA 8260	Toluene	10800	ug/L	500	03/17/15 21:41	
EPA 8260	Xylene (Total)	17400	ug/L	1000	03/17/15 21:41	
EPA 8260	m&p-Xylene	11200	ug/L	1000	03/17/15 21:41	
EPA 8260	o-Xylene	6140	ug/L	500	03/17/15 21:41	
92241257014	**FIELD BLANK**					
EPA 8011	1,2-Dibromoethane (EDB)	0.28	ug/L	0.019	03/18/15 00:07	

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ANALYTICAL RESULTS

Project: FORMER RED DIAMOND 14324/49175
Pace Project No.: 92241257

Sample: MW1 **Lab ID: 92241257001** Collected: 03/12/15 13:24 Received: 03/13/15 16:15 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	03/16/15 16:57	03/17/15 18:40	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	118	%	60-140		1	03/16/15 16:57	03/17/15 18:40	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	2000	1540	20		03/16/15 17:14	75-85-4	
tert-Amylmethyl ether	ND	ug/L	200	68.0	20		03/16/15 17:14	994-05-8	
Benzene	ND	ug/L	100	34.0	20		03/16/15 17:14	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	2000	642	20		03/16/15 17:14	624-95-3	
tert-Butyl Alcohol	ND	ug/L	2000	1150	20		03/16/15 17:14	75-65-0	
tert-Butyl Formate	ND	ug/L	1000	146	20		03/16/15 17:14	762-75-4	
1,2-Dichloroethane	ND	ug/L	100	36.0	20		03/16/15 17:14	107-06-2	
Diisopropyl ether	ND	ug/L	100	34.0	20		03/16/15 17:14	108-20-3	
Ethanol	ND	ug/L	4000	2760	20		03/16/15 17:14	64-17-5	
Ethylbenzene	847	ug/L	100	32.0	20		03/16/15 17:14	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	200	72.0	20		03/16/15 17:14	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	100	34.0	20		03/16/15 17:14	1634-04-4	
Naphthalene	630	ug/L	100	40.0	20		03/16/15 17:14	91-20-3	
Toluene	139	ug/L	100	32.0	20		03/16/15 17:14	108-88-3	
Xylene (Total)	7070	ug/L	200	54.0	20		03/16/15 17:14	1330-20-7	
m&p-Xylene	5750	ug/L	200	62.0	20		03/16/15 17:14	179601-23-1	
o-Xylene	1330	ug/L	100	32.0	20		03/16/15 17:14	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	111	%	70-130		20		03/16/15 17:14	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-130		20		03/16/15 17:14	17060-07-0	
Toluene-d8 (S)	103	%	70-130		20		03/16/15 17:14	2037-26-5	

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ANALYTICAL RESULTS

Project: FORMER RED DIAMOND 14324/49175
Pace Project No.: 92241257

Sample: MW2 Lab ID: 92241257002 Collected: 03/12/15 12:01 Received: 03/13/15 16:15 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)	201	ug/L	9.7	9.7	500	03/16/15 16:57	03/18/15 10:32	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	0	%	60-140		500	03/16/15 16:57	03/18/15 10:32	301-79-56	S4
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	5520	ug/L	1000	768	10		03/16/15 17:31	75-85-4	
tert-Amylmethyl ether	ND	ug/L	100	34.0	10		03/16/15 17:31	994-05-8	
Benzene	13200	ug/L	1000	340	200		03/17/15 17:25	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	1000	321	10		03/16/15 17:31	624-95-3	
tert-Butyl Alcohol	ND	ug/L	1000	577	10		03/16/15 17:31	75-65-0	
tert-Butyl Formate	ND	ug/L	500	73.0	10		03/16/15 17:31	762-75-4	
1,2-Dichloroethane	ND	ug/L	50.0	18.0	10		03/16/15 17:31	107-06-2	
Diisopropyl ether	ND	ug/L	50.0	17.0	10		03/16/15 17:31	108-20-3	
Ethanol	ND	ug/L	2000	1380	10		03/16/15 17:31	64-17-5	
Ethylbenzene	1540	ug/L	50.0	16.0	10		03/16/15 17:31	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	100	36.0	10		03/16/15 17:31	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	50.0	17.0	10		03/16/15 17:31	1634-04-4	
Naphthalene	529	ug/L	50.0	20.0	10		03/16/15 17:31	91-20-3	
Toluene	24200	ug/L	1000	320	200		03/17/15 17:25	108-88-3	
Xylene (Total)	11400	ug/L	2000	540	200		03/17/15 17:25	1330-20-7	
m&p-Xylene	7880	ug/L	2000	620	200		03/17/15 17:25	179601-23-1	
o-Xylene	3490	ug/L	1000	320	200		03/17/15 17:25	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	105	%	70-130		10		03/16/15 17:31	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130		10		03/16/15 17:31	17060-07-0	
Toluene-d8 (S)	103	%	70-130		10		03/16/15 17:31	2037-26-5	

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ANALYTICAL RESULTS

Project: FORMER RED DIAMOND 14324/49175
Pace Project No.: 92241257

Sample: MW3 **Lab ID: 92241257003** Collected: 03/12/15 11:48 Received: 03/13/15 16:15 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	03/16/15 16:58	03/17/15 19:21	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	127	%	60-140		1	03/16/15 16:58	03/17/15 19:21	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	500	384	5		03/16/15 17:48	75-85-4	
tert-Amylmethyl ether	ND	ug/L	50.0	17.0	5		03/16/15 17:48	994-05-8	
Benzene	259	ug/L	25.0	8.5	5		03/16/15 17:48	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	500	160	5		03/16/15 17:48	624-95-3	
tert-Butyl Alcohol	ND	ug/L	500	288	5		03/16/15 17:48	75-65-0	
tert-Butyl Formate	ND	ug/L	250	36.5	5		03/16/15 17:48	762-75-4	
1,2-Dichloroethane	ND	ug/L	25.0	9.0	5		03/16/15 17:48	107-06-2	
Diisopropyl ether	ND	ug/L	25.0	8.5	5		03/16/15 17:48	108-20-3	
Ethanol	ND	ug/L	1000	689	5		03/16/15 17:48	64-17-5	
Ethylbenzene	1230	ug/L	125	40.0	25		03/17/15 17:43	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	50.0	18.0	5		03/16/15 17:48	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	25.0	8.5	5		03/16/15 17:48	1634-04-4	
Naphthalene	374	ug/L	25.0	10.0	5		03/16/15 17:48	91-20-3	
Toluene	3390	ug/L	125	40.0	25		03/17/15 17:43	108-88-3	
Xylene (Total)	6020	ug/L	250	67.5	25		03/17/15 17:43	1330-20-7	
m&p-Xylene	4140	ug/L	250	77.5	25		03/17/15 17:43	179601-23-1	
o-Xylene	1880	ug/L	125	40.0	25		03/17/15 17:43	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	106	%	70-130		5		03/16/15 17:48	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	70-130		5		03/16/15 17:48	17060-07-0	
Toluene-d8 (S)	103	%	70-130		5		03/16/15 17:48	2037-26-5	

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ANALYTICAL RESULTS

Project: FORMER RED DIAMOND 14324/49175
Pace Project No.: 92241257

Sample: MW4 Lab ID: 92241257004 Collected: 03/12/15 12:34 Received: 03/13/15 16:15 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)	687	ug/L	19.9	19.9	1000	03/16/15 16:58	03/18/15 10:53	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	0	%	60-140		1000	03/16/15 16:58	03/18/15 10:53	301-79-56	S4
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	4170	ug/L	2500	1920	25		03/16/15 18:05	75-85-4	
tert-Amylmethyl ether	ND	ug/L	250	85.0	25		03/16/15 18:05	994-05-8	
Benzene	21500	ug/L	1000	340	200		03/17/15 18:00	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	2500	802	25		03/16/15 18:05	624-95-3	
tert-Butyl Alcohol	ND	ug/L	2500	1440	25		03/16/15 18:05	75-65-0	
tert-Butyl Formate	ND	ug/L	1250	182	25		03/16/15 18:05	762-75-4	
1,2-Dichloroethane	93.9J	ug/L	125	45.0	25		03/16/15 18:05	107-06-2	
Diisopropyl ether	156	ug/L	125	42.5	25		03/16/15 18:05	108-20-3	
Ethanol	ND	ug/L	5000	3440	25		03/16/15 18:05	64-17-5	
Ethylbenzene	1220	ug/L	125	40.0	25		03/16/15 18:05	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	250	90.0	25		03/16/15 18:05	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	125	42.5	25		03/16/15 18:05	1634-04-4	
Naphthalene	1050	ug/L	125	50.0	25		03/16/15 18:05	91-20-3	
Toluene	26100	ug/L	1000	320	200		03/17/15 18:00	108-88-3	
Xylene (Total)	10900	ug/L	250	67.5	25		03/16/15 18:05	1330-20-7	
m&p-Xylene	6910	ug/L	250	77.5	25		03/16/15 18:05	179601-23-1	
o-Xylene	3940	ug/L	125	40.0	25		03/16/15 18:05	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	106	%	70-130		25		03/16/15 18:05	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	70-130		25		03/16/15 18:05	17060-07-0	
Toluene-d8 (S)	103	%	70-130		25		03/16/15 18:05	2037-26-5	

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ANALYTICAL RESULTS

Project: FORMER RED DIAMOND 14324/49175
Pace Project No.: 92241257

Sample: MW5 **Lab ID: 92241257005** Collected: 03/12/15 13:12 Received: 03/13/15 16:15 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)	122	ug/L	4.0	4.0	200	03/16/15 16:58	03/18/15 11:13	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	0	%	60-140		200	03/16/15 16:58	03/18/15 11:13	301-79-56	S4
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	4340	ug/L	2500	1920	25		03/16/15 18:22	75-85-4	
tert-Amylmethyl ether	ND	ug/L	250	85.0	25		03/16/15 18:22	994-05-8	
Benzene	18100	ug/L	1000	340	200		03/17/15 18:17	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	2500	802	25		03/16/15 18:22	624-95-3	
tert-Butyl Alcohol	ND	ug/L	2500	1440	25		03/16/15 18:22	75-65-0	
tert-Butyl Formate	ND	ug/L	1250	182	25		03/16/15 18:22	762-75-4	
1,2-Dichloroethane	ND	ug/L	125	45.0	25		03/16/15 18:22	107-06-2	
Diisopropyl ether	ND	ug/L	125	42.5	25		03/16/15 18:22	108-20-3	
Ethanol	ND	ug/L	5000	3440	25		03/16/15 18:22	64-17-5	
Ethylbenzene	1520	ug/L	125	40.0	25		03/16/15 18:22	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	250	90.0	25		03/16/15 18:22	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	125	42.5	25		03/16/15 18:22	1634-04-4	
Naphthalene	516	ug/L	125	50.0	25		03/16/15 18:22	91-20-3	
Toluene	33900	ug/L	1000	320	200		03/17/15 18:17	108-88-3	
Xylene (Total)	8040	ug/L	250	67.5	25		03/16/15 18:22	1330-20-7	
m&p-Xylene	5370	ug/L	250	77.5	25		03/16/15 18:22	179601-23-1	
o-Xylene	2670	ug/L	125	40.0	25		03/16/15 18:22	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	105	%	70-130		25		03/16/15 18:22	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130		25		03/16/15 18:22	17060-07-0	
Toluene-d8 (S)	100	%	70-130		25		03/16/15 18:22	2037-26-5	

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ANALYTICAL RESULTS

Project: FORMER RED DIAMOND 14324/49175
Pace Project No.: 92241257

Sample: MW12 Lab ID: 92241257006 Collected: 03/12/15 11:38 Received: 03/13/15 16:15 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)	23.1	ug/L	1.0	1.0	50	03/16/15 16:59	03/18/15 11:33	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	0	%	60-140		50	03/16/15 16:59	03/18/15 11:33	301-79-56	S4
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	1550	ug/L	500	384	5		03/16/15 21:30	75-85-4	
tert-Amylmethyl ether	ND	ug/L	50.0	17.0	5		03/16/15 21:30	994-05-8	
Benzene	6400	ug/L	500	170	100		03/17/15 19:08	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	500	160	5		03/16/15 21:30	624-95-3	
tert-Butyl Alcohol	ND	ug/L	500	288	5		03/16/15 21:30	75-65-0	
tert-Butyl Formate	ND	ug/L	250	36.5	5		03/16/15 21:30	762-75-4	
1,2-Dichloroethane	44.7	ug/L	25.0	9.0	5		03/16/15 21:30	107-06-2	
Diisopropyl ether	38.6	ug/L	25.0	8.5	5		03/16/15 21:30	108-20-3	
Ethanol	ND	ug/L	1000	689	5		03/16/15 21:30	64-17-5	
Ethylbenzene	817	ug/L	25.0	8.0	5		03/16/15 21:30	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	50.0	18.0	5		03/16/15 21:30	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	25.0	8.5	5		03/16/15 21:30	1634-04-4	
Naphthalene	247	ug/L	25.0	10.0	5		03/16/15 21:30	91-20-3	
Toluene	12000	ug/L	500	160	100		03/17/15 19:08	108-88-3	
Xylene (Total)	5650	ug/L	1000	270	100		03/17/15 19:08	1330-20-7	
m&p-Xylene	3950	ug/L	1000	310	100		03/17/15 19:08	179601-23-1	
o-Xylene	1700	ug/L	500	160	100		03/17/15 19:08	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	106	%	70-130		5		03/16/15 21:30	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-130		5		03/16/15 21:30	17060-07-0	
Toluene-d8 (S)	99	%	70-130		5		03/16/15 21:30	2037-26-5	

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ANALYTICAL RESULTS

Project: FORMER RED DIAMOND 14324/49175
Pace Project No.: 92241257

Sample: MW13 Lab ID: 92241257007 Collected: 03/12/15 11:02 Received: 03/13/15 16:15 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)	43.2	ug/L	0.97	0.97	50	03/16/15 16:59	03/18/15 11:53	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	0	%	60-140		50	03/16/15 16:59	03/18/15 11:53	301-79-56	S4
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	2500	1920	25		03/16/15 21:47	75-85-4	
tert-Amylmethyl ether	ND	ug/L	250	85.0	25		03/16/15 21:47	994-05-8	
Benzene	2610	ug/L	125	42.5	25		03/16/15 21:47	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	2500	802	25		03/16/15 21:47	624-95-3	
tert-Butyl Alcohol	ND	ug/L	2500	1440	25		03/16/15 21:47	75-65-0	
tert-Butyl Formate	ND	ug/L	1250	182	25		03/16/15 21:47	762-75-4	
1,2-Dichloroethane	ND	ug/L	125	45.0	25		03/16/15 21:47	107-06-2	
Diisopropyl ether	ND	ug/L	125	42.5	25		03/16/15 21:47	108-20-3	
Ethanol	ND	ug/L	5000	3440	25		03/16/15 21:47	64-17-5	
Ethylbenzene	1220	ug/L	125	40.0	25		03/16/15 21:47	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	250	90.0	25		03/16/15 21:47	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	125	42.5	25		03/16/15 21:47	1634-04-4	
Naphthalene	629	ug/L	125	50.0	25		03/16/15 21:47	91-20-3	
Toluene	7620	ug/L	250	80.0	50		03/17/15 19:25	108-88-3	
Xylene (Total)	7420	ug/L	250	67.5	25		03/16/15 21:47	1330-20-7	
m&p-Xylene	5260	ug/L	250	77.5	25		03/16/15 21:47	179601-23-1	
o-Xylene	2160	ug/L	125	40.0	25		03/16/15 21:47	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	108	%	70-130		25		03/16/15 21:47	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		25		03/16/15 21:47	17060-07-0	
Toluene-d8 (S)	101	%	70-130		25		03/16/15 21:47	2037-26-5	

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ANALYTICAL RESULTS

Project: FORMER RED DIAMOND 14324/49175
Pace Project No.: 92241257

Sample: MW19 Lab ID: 92241257008 Collected: 03/12/15 10:50 Received: 03/13/15 16:15 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	0.025	0.025	1	03/16/15 16:59	03/17/15 21:45	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	97	%	60-140		1	03/16/15 16:59	03/17/15 21:45	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		03/16/15 19:13	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		03/16/15 19:13	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		03/16/15 19:13	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		03/16/15 19:13	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		03/16/15 19:13	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		03/16/15 19:13	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		03/16/15 19:13	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		03/16/15 19:13	108-20-3	
Ethanol	5910	ug/L	200	138	1		03/16/15 19:13	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		03/16/15 19:13	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		03/16/15 19:13	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		03/16/15 19:13	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		03/16/15 19:13	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		03/16/15 19:13	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		03/16/15 19:13	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		03/16/15 19:13	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		03/16/15 19:13	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	111	%	70-130		1		03/16/15 19:13	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130		1		03/16/15 19:13	17060-07-0	
Toluene-d8 (S)	103	%	70-130		1		03/16/15 19:13	2037-26-5	

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ANALYTICAL RESULTS

Project: FORMER RED DIAMOND 14324/49175
Pace Project No.: 92241257

Sample: EP4 Lab ID: 92241257009 Collected: 03/12/15 13:41 Received: 03/13/15 16:15 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	03/16/15 16:59	03/17/15 22:05	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	114	%	60-140		1	03/16/15 16:59	03/17/15 22:05	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	2000	1540	20		03/16/15 22:04	75-85-4	
tert-Amylmethyl ether	ND	ug/L	200	68.0	20		03/16/15 22:04	994-05-8	
Benzene	155	ug/L	100	34.0	20		03/16/15 22:04	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	2000	642	20		03/16/15 22:04	624-95-3	
tert-Butyl Alcohol	ND	ug/L	2000	1150	20		03/16/15 22:04	75-65-0	
tert-Butyl Formate	ND	ug/L	1000	146	20		03/16/15 22:04	762-75-4	
1,2-Dichloroethane	ND	ug/L	100	36.0	20		03/16/15 22:04	107-06-2	
Diisopropyl ether	ND	ug/L	100	34.0	20		03/16/15 22:04	108-20-3	
Ethanol	ND	ug/L	4000	2760	20		03/16/15 22:04	64-17-5	
Ethylbenzene	1730	ug/L	100	32.0	20		03/16/15 22:04	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	200	72.0	20		03/16/15 22:04	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	100	34.0	20		03/16/15 22:04	1634-04-4	
Naphthalene	897	ug/L	100	40.0	20		03/16/15 22:04	91-20-3	
Toluene	4830	ug/L	250	80.0	50		03/17/15 19:42	108-88-3	
Xylene (Total)	9990	ug/L	200	54.0	20		03/16/15 22:04	1330-20-7	
m&p-Xylene	6670	ug/L	200	62.0	20		03/16/15 22:04	179601-23-1	
o-Xylene	3320	ug/L	100	32.0	20		03/16/15 22:04	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	106	%	70-130		20		03/16/15 22:04	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	70-130		20		03/16/15 22:04	17060-07-0	
Toluene-d8 (S)	102	%	70-130		20		03/16/15 22:04	2037-26-5	

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ANALYTICAL RESULTS

Project: FORMER RED DIAMOND 14324/49175
Pace Project No.: 92241257

Sample: EP12 Lab ID: 92241257010 Collected: 03/12/15 12:11 Received: 03/13/15 16:15 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)	298	ug/L	10.1	10.1	500	03/16/15 16:59	03/18/15 12:14	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	0	%	60-140		500	03/16/15 16:59	03/18/15 12:14	301-79-56	S4
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	12500	9600	125		03/16/15 22:21	75-85-4	
tert-Amylmethyl ether	ND	ug/L	1250	425	125		03/16/15 22:21	994-05-8	
Benzene	8600	ug/L	625	212	125		03/16/15 22:21	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	12500	4010	125		03/16/15 22:21	624-95-3	
tert-Butyl Alcohol	ND	ug/L	12500	7210	125		03/16/15 22:21	75-65-0	
tert-Butyl Formate	ND	ug/L	6250	912	125		03/16/15 22:21	762-75-4	
1,2-Dichloroethane	ND	ug/L	625	225	125		03/16/15 22:21	107-06-2	
Diisopropyl ether	ND	ug/L	625	212	125		03/16/15 22:21	108-20-3	
Ethanol	ND	ug/L	25000	17200	125		03/16/15 22:21	64-17-5	
Ethylbenzene	1060	ug/L	625	200	125		03/16/15 22:21	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	1250	450	125		03/16/15 22:21	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	625	212	125		03/16/15 22:21	1634-04-4	
Naphthalene	1380	ug/L	625	250	125		03/16/15 22:21	91-20-3	
Toluene	16600	ug/L	625	200	125		03/16/15 22:21	108-88-3	
Xylene (Total)	12600	ug/L	1250	338	125		03/16/15 22:21	1330-20-7	
m&p-Xylene	8320	ug/L	1250	388	125		03/16/15 22:21	179601-23-1	
o-Xylene	4320	ug/L	625	200	125		03/16/15 22:21	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	110	%	70-130		125		03/16/15 22:21	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130		125		03/16/15 22:21	17060-07-0	
Toluene-d8 (S)	101	%	70-130		125		03/16/15 22:21	2037-26-5	

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ANALYTICAL RESULTS

Project: FORMER RED DIAMOND 14324/49175
Pace Project No.: 92241257

Sample: EP16 Lab ID: 92241257011 Collected: 03/12/15 12:47 Received: 03/13/15 16:15 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)	876	ug/L	39.3	39.3	2000	03/16/15 16:59	03/18/15 12:33	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	0	%	60-140		2000	03/16/15 16:59	03/18/15 12:33	301-79-56	S4
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	10000	7680	100		03/17/15 21:24	75-85-4	
tert-Amylmethyl ether	ND	ug/L	1000	340	100		03/17/15 21:24	994-05-8	
Benzene	4540	ug/L	500	170	100		03/17/15 21:24	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	10000	3210	100		03/17/15 21:24	624-95-3	
tert-Butyl Alcohol	ND	ug/L	10000	5770	100		03/17/15 21:24	75-65-0	
tert-Butyl Formate	ND	ug/L	5000	730	100		03/17/15 21:24	762-75-4	
1,2-Dichloroethane	ND	ug/L	500	180	100		03/17/15 21:24	107-06-2	
Diisopropyl ether	ND	ug/L	500	170	100		03/17/15 21:24	108-20-3	
Ethanol	ND	ug/L	20000	13800	100		03/17/15 21:24	64-17-5	
Ethylbenzene	1140	ug/L	500	160	100		03/17/15 21:24	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	1000	360	100		03/17/15 21:24	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	500	170	100		03/17/15 21:24	1634-04-4	
Naphthalene	1910	ug/L	500	200	100		03/17/15 21:24	91-20-3	
Toluene	9720	ug/L	500	160	100		03/17/15 21:24	108-88-3	
Xylene (Total)	16400	ug/L	1000	270	100		03/17/15 21:24	1330-20-7	
m&p-Xylene	10600	ug/L	1000	310	100		03/17/15 21:24	179601-23-1	
o-Xylene	5850	ug/L	500	160	100		03/17/15 21:24	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	108	%	70-130		100		03/17/15 21:24	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-130		100		03/17/15 21:24	17060-07-0	
Toluene-d8 (S)	102	%	70-130		100		03/17/15 21:24	2037-26-5	

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ANALYTICAL RESULTS

Project: FORMER RED DIAMOND 14324/49175
Pace Project No.: 92241257

Sample: EP20 Lab ID: 92241257012 Collected: 03/12/15 12:21 Received: 03/13/15 16:15 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)	604	ug/L	19.9	19.9	1000	03/16/15 16:59	03/18/15 12:53	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	0	%	60-140		1000	03/16/15 16:59	03/18/15 12:53	301-79-56	S4
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	5000	3840	50		03/17/15 06:20	75-85-4	
tert-Amylmethyl ether	ND	ug/L	500	170	50		03/17/15 06:20	994-05-8	
Benzene	7730	ug/L	250	85.0	50		03/17/15 06:20	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	5000	1600	50		03/17/15 06:20	624-95-3	
tert-Butyl Alcohol	ND	ug/L	5000	2880	50		03/17/15 06:20	75-65-0	
tert-Butyl Formate	ND	ug/L	2500	365	50		03/17/15 06:20	762-75-4	
1,2-Dichloroethane	156J	ug/L	250	90.0	50		03/17/15 06:20	107-06-2	
Diisopropyl ether	99.1J	ug/L	250	85.0	50		03/17/15 06:20	108-20-3	
Ethanol	ND	ug/L	10000	6890	50		03/17/15 06:20	64-17-5	
Ethylbenzene	550	ug/L	250	80.0	50		03/17/15 06:20	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	500	180	50		03/17/15 06:20	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	250	85.0	50		03/17/15 06:20	1634-04-4	
Naphthalene	1610	ug/L	250	100	50		03/17/15 06:20	91-20-3	
Toluene	16100	ug/L	625	200	125		03/17/15 19:59	108-88-3	
Xylene (Total)	13000	ug/L	500	135	50		03/17/15 06:20	1330-20-7	
m&p-Xylene	8020	ug/L	500	155	50		03/17/15 06:20	179601-23-1	
o-Xylene	4970	ug/L	250	80.0	50		03/17/15 06:20	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	115	%	70-130		50		03/17/15 06:20	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-130		50		03/17/15 06:20	17060-07-0	
Toluene-d8 (S)	103	%	70-130		50		03/17/15 06:20	2037-26-5	

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ANALYTICAL RESULTS

Project: FORMER RED DIAMOND 14324/49175
Pace Project No.: 92241257

Sample: EP16 DUPLICATE Lab ID: 92241257013 Collected: 03/12/15 12:47 Received: 03/13/15 16:15 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)	876	ug/L	40.3	40.3	2000	03/16/15 16:59	03/18/15 13:12	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	0	%	60-140		2000	03/16/15 16:59	03/18/15 13:12	301-79-56	S4
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	10000	7680	100		03/17/15 21:41	75-85-4	
tert-Amylmethyl ether	ND	ug/L	1000	340	100		03/17/15 21:41	994-05-8	
Benzene	5150	ug/L	500	170	100		03/17/15 21:41	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	10000	3210	100		03/17/15 21:41	624-95-3	
tert-Butyl Alcohol	ND	ug/L	10000	5770	100		03/17/15 21:41	75-65-0	
tert-Butyl Formate	ND	ug/L	5000	730	100		03/17/15 21:41	762-75-4	
1,2-Dichloroethane	ND	ug/L	500	180	100		03/17/15 21:41	107-06-2	
Diisopropyl ether	ND	ug/L	500	170	100		03/17/15 21:41	108-20-3	
Ethanol	ND	ug/L	20000	13800	100		03/17/15 21:41	64-17-5	
Ethylbenzene	1300	ug/L	500	160	100		03/17/15 21:41	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	1000	360	100		03/17/15 21:41	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	500	170	100		03/17/15 21:41	1634-04-4	
Naphthalene	1960	ug/L	500	200	100		03/17/15 21:41	91-20-3	
Toluene	10800	ug/L	500	160	100		03/17/15 21:41	108-88-3	
Xylene (Total)	17400	ug/L	1000	270	100		03/17/15 21:41	1330-20-7	
m&p-Xylene	11200	ug/L	1000	310	100		03/17/15 21:41	179601-23-1	
o-Xylene	6140	ug/L	500	160	100		03/17/15 21:41	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	107	%	70-130		100		03/17/15 21:41	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130		100		03/17/15 21:41	17060-07-0	
Toluene-d8 (S)	101	%	70-130		100		03/17/15 21:41	2037-26-5	

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ANALYTICAL RESULTS

Project: FORMER RED DIAMOND 14324/49175
Pace Project No.: 92241257

Sample: FIELD BLANK Lab ID: 92241257014 Collected: 03/12/15 13:45 Received: 03/13/15 16:15 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)	0.28	ug/L	0.019	0.019	1	03/16/15 16:59	03/18/15 00:07	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	100	%	60-140		1	03/16/15 16:59	03/18/15 00:07	301-79-56	
8260 MSV	Analytical Method: EPA 8260								
tert-Amyl Alcohol	ND	ug/L	100	76.8	1		03/16/15 13:22	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		03/16/15 13:22	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		03/16/15 13:22	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		03/16/15 13:22	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		03/16/15 13:22	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		03/16/15 13:22	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		03/16/15 13:22	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		03/16/15 13:22	108-20-3	
Ethanol	ND	ug/L	200	138	1		03/16/15 13:22	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		03/16/15 13:22	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		03/16/15 13:22	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		03/16/15 13:22	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		03/16/15 13:22	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		03/16/15 13:22	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		03/16/15 13:22	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		03/16/15 13:22	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		03/16/15 13:22	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	129	%	70-130		1		03/16/15 13:22	460-00-4	
1,2-Dichloroethane-d4 (S)	125	%	70-130		1		03/16/15 13:22	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		03/16/15 13:22	2037-26-5	

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ANALYTICAL RESULTS

Project: FORMER RED DIAMOND 14324/49175
Pace Project No.: 92241257

Sample: TRIP BLANK Lab ID: 92241257015 Collected: 03/12/15 13:46 Received: 03/13/15 16:15 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		03/17/15 20:16	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.4	1		03/17/15 20:16	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		03/17/15 20:16	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	32.1	1		03/17/15 20:16	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	57.7	1		03/17/15 20:16	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	7.3	1		03/17/15 20:16	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.8	1		03/17/15 20:16	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	1.7	1		03/17/15 20:16	108-20-3	
Ethanol	ND	ug/L	200	138	1		03/17/15 20:16	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.6	1		03/17/15 20:16	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.6	1		03/17/15 20:16	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	1.7	1		03/17/15 20:16	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.0	1		03/17/15 20:16	91-20-3	
Toluene	ND	ug/L	5.0	1.6	1		03/17/15 20:16	108-88-3	
Xylene (Total)	ND	ug/L	10.0	2.7	1		03/17/15 20:16	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	3.1	1		03/17/15 20:16	179601-23-1	
o-Xylene	ND	ug/L	5.0	1.6	1		03/17/15 20:16	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	109	%	70-130		1		03/17/15 20:16	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130		1		03/17/15 20:16	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		03/17/15 20:16	2037-26-5	

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QUALITY CONTROL DATA

Project: FORMER RED DIAMOND 14324/49175
Pace Project No.: 92241257

QC Batch: MSV/30750 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV SC
Associated Lab Samples: 92241257001, 92241257002, 92241257003, 92241257004, 92241257005, 92241257008, 92241257014

METHOD BLANK: 1411698 Matrix: Water
Associated Lab Samples: 92241257001, 92241257002, 92241257003, 92241257004, 92241257005, 92241257008, 92241257014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	03/16/15 12:47	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	03/16/15 12:47	
Benzene	ug/L	ND	5.0	03/16/15 12:47	
Diisopropyl ether	ug/L	ND	5.0	03/16/15 12:47	
Ethanol	ug/L	ND	200	03/16/15 12:47	
Ethyl-tert-butyl ether	ug/L	ND	10.0	03/16/15 12:47	
Ethylbenzene	ug/L	ND	5.0	03/16/15 12:47	
m&p-Xylene	ug/L	ND	10.0	03/16/15 12:47	
Methyl-tert-butyl ether	ug/L	ND	5.0	03/16/15 12:47	
Naphthalene	ug/L	ND	5.0	03/16/15 12:47	
o-Xylene	ug/L	ND	5.0	03/16/15 12:47	
tert-Amyl Alcohol	ug/L	ND	100	03/16/15 12:47	
tert-Amylmethyl ether	ug/L	ND	10.0	03/16/15 12:47	
tert-Butyl Alcohol	ug/L	ND	100	03/16/15 12:47	
tert-Butyl Formate	ug/L	ND	50.0	03/16/15 12:47	
Toluene	ug/L	ND	5.0	03/16/15 12:47	
Xylene (Total)	ug/L	ND	10.0	03/16/15 12:47	
1,2-Dichloroethane-d4 (S)	%	121	70-130	03/16/15 12:47	
4-Bromofluorobenzene (S)	%	125	70-130	03/16/15 12:47	
Toluene-d8 (S)	%	100	70-130	03/16/15 12:47	

LABORATORY CONTROL SAMPLE: 1411699

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	57.0	114	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	902	90	70-130	
Benzene	ug/L	50	52.3	105	70-130	
Diisopropyl ether	ug/L	50	46.2	92	70-130	
Ethanol	ug/L	2000	1650	83	70-130	
Ethyl-tert-butyl ether	ug/L	100	116	116	70-130	
Ethylbenzene	ug/L	50	54.6	109	70-130	
m&p-Xylene	ug/L	100	115	115	70-130	
Methyl-tert-butyl ether	ug/L	50	52.4	105	70-130	
Naphthalene	ug/L	50	48.9	98	70-130	
o-Xylene	ug/L	50	58.4	117	70-130	
tert-Amyl Alcohol	ug/L	1000	923	92	70-130	
tert-Amylmethyl ether	ug/L	100	115	115	70-130	
tert-Butyl Alcohol	ug/L	500	527	105	70-130	
tert-Butyl Formate	ug/L	400	525	131	70-130	L3
Toluene	ug/L	50	52.3	105	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.

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QUALITY CONTROL DATA

Project: FORMER RED DIAMOND 14324/49175
Pace Project No.: 92241257

LABORATORY CONTROL SAMPLE: 1411699

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Xylene (Total)	ug/L	150	173	115	70-130	
1,2-Dichloroethane-d4 (S)	%			108	70-130	
4-Bromofluorobenzene (S)	%			112	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE SAMPLE: 1411700

Parameter	Units	92240838014 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	19.1	95	70-130	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	349	87	70-130	
Benzene	ug/L	3.5J	20	24.2	103	70-130	
Diisopropyl ether	ug/L	ND	20	16.5	81	70-130	
Ethanol	ug/L	ND	800	560	70	70-130	
Ethyl-tert-butyl ether	ug/L	ND	40	39.2	98	70-130	
Ethylbenzene	ug/L	17.2	20	39.4	111	70-130	
m&p-Xylene	ug/L	11.2	40	55.5	111	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	18.5	89	70-130	
Naphthalene	ug/L	11.6	20	31.0	97	70-130	
o-Xylene	ug/L	ND	20	23.7	113	70-130	
tert-Amyl Alcohol	ug/L	ND	400	362	91	70-130	
tert-Amylmethyl ether	ug/L	ND	40	39.1	98	70-130	
tert-Butyl Alcohol	ug/L	ND	200	236	118	70-130	
tert-Butyl Formate	ug/L	ND	160	ND	0	70-130	P5
Toluene	ug/L	ND	20	21.3	102	70-130	
1,2-Dichloroethane-d4 (S)	%				101	70-130	
4-Bromofluorobenzene (S)	%				108	70-130	
Toluene-d8 (S)	%				100	70-130	

SAMPLE DUPLICATE: 1412931

Parameter	Units	92240445008 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	1860	1710	8	30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethanol	ug/L	ND	ND		30	
Ethyl-tert-butyl ether	ug/L	45.1J	ND		30	
Ethylbenzene	ug/L	409	329	22	30	
m&p-Xylene	ug/L	539	409	27	30	
Methyl-tert-butyl ether	ug/L	1300	1210	7	30	
Naphthalene	ug/L	ND	102		30	
o-Xylene	ug/L	315	227	32	30	R1
tert-Amyl Alcohol	ug/L	3380	2830	18	30	
tert-Amylmethyl ether	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: FORMER RED DIAMOND 14324/49175
Pace Project No.: 92241257

SAMPLE DUPLICATE: 1412931

Parameter	Units	92240445008 Result	Dup Result	RPD	Max RPD	Qualifiers
tert-Butyl Alcohol	ug/L	1500	1600	6	30	
tert-Butyl Formate	ug/L	ND	ND		30	
Toluene	ug/L	50.4J	35.2J		30	
Xylene (Total)	ug/L	854	636	29	30	RS
1,2-Dichloroethane-d4 (S)	%	111	98	13		
4-Bromofluorobenzene (S)	%	119	107	11		
Toluene-d8 (S)	%	100	100	0		

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QUALITY CONTROL DATA

Project: FORMER RED DIAMOND 14324/49175
Pace Project No.: 92241257

QC Batch: MSV/30751 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV SC
Associated Lab Samples: 92241257006, 92241257007, 92241257009, 92241257010

METHOD BLANK: 1411705 Matrix: Water
Associated Lab Samples: 92241257006, 92241257007, 92241257009, 92241257010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	03/16/15 13:05	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	03/16/15 13:05	
Benzene	ug/L	ND	5.0	03/16/15 13:05	
Diisopropyl ether	ug/L	ND	5.0	03/16/15 13:05	
Ethanol	ug/L	ND	200	03/16/15 13:05	
Ethyl-tert-butyl ether	ug/L	ND	10.0	03/16/15 13:05	
Ethylbenzene	ug/L	ND	5.0	03/16/15 13:05	
m&p-Xylene	ug/L	ND	10.0	03/16/15 13:05	
Methyl-tert-butyl ether	ug/L	ND	5.0	03/16/15 13:05	
Naphthalene	ug/L	ND	5.0	03/16/15 13:05	
o-Xylene	ug/L	ND	5.0	03/16/15 13:05	
tert-Amyl Alcohol	ug/L	ND	100	03/16/15 13:05	
tert-Amylmethyl ether	ug/L	ND	10.0	03/16/15 13:05	
tert-Butyl Alcohol	ug/L	ND	100	03/16/15 13:05	
tert-Butyl Formate	ug/L	ND	50.0	03/16/15 13:05	
Toluene	ug/L	ND	5.0	03/16/15 13:05	
Xylene (Total)	ug/L	ND	10.0	03/16/15 13:05	
1,2-Dichloroethane-d4 (S)	%	124	70-130	03/16/15 13:05	
4-Bromofluorobenzene (S)	%	122	70-130	03/16/15 13:05	
Toluene-d8 (S)	%	102	70-130	03/16/15 13:05	

LABORATORY CONTROL SAMPLE: 1411706

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	47.6	95	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	798	80	70-130	
Benzene	ug/L	50	44.5	89	70-130	
Diisopropyl ether	ug/L	50	39.1	78	70-130	
Ethanol	ug/L	2000	1430	71	70-130	
Ethyl-tert-butyl ether	ug/L	100	99.1	99	70-130	
Ethylbenzene	ug/L	50	46.1	92	70-130	
m&p-Xylene	ug/L	100	96.5	96	70-130	
Methyl-tert-butyl ether	ug/L	50	44.3	89	70-130	
Naphthalene	ug/L	50	42.2	84	70-130	
o-Xylene	ug/L	50	48.9	98	70-130	
tert-Amyl Alcohol	ug/L	1000	809	81	70-130	
tert-Amylmethyl ether	ug/L	100	98.7	99	70-130	
tert-Butyl Alcohol	ug/L	500	444	89	70-130	
tert-Butyl Formate	ug/L	400	443	111	70-130	
Toluene	ug/L	50	44.5	89	70-130	

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QUALITY CONTROL DATA

Project: FORMER RED DIAMOND 14324/49175
Pace Project No.: 92241257

LABORATORY CONTROL SAMPLE: 1411706

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Xylene (Total)	ug/L	150	145	97	70-130	
1,2-Dichloroethane-d4 (S)	%			106	70-130	
4-Bromofluorobenzene (S)	%			110	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE SAMPLE: 1411707

Parameter	Units	92241265003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	19.1	96	70-130	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	347	87	70-130	
Benzene	ug/L	ND	20	20.2	101	70-130	
Diisopropyl ether	ug/L	ND	20	16.4	82	70-130	
Ethanol	ug/L	ND	800	577	72	70-130	
Ethyl-tert-butyl ether	ug/L	ND	40	40.1	100	70-130	
Ethylbenzene	ug/L	ND	20	21.1	105	70-130	
m&p-Xylene	ug/L	ND	40	43.8	110	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	18.1	90	70-130	
Naphthalene	ug/L	ND	20	20.7	103	70-130	
o-Xylene	ug/L	ND	20	22.0	110	70-130	
tert-Amyl Alcohol	ug/L	ND	400	366	92	70-130	
tert-Amylmethyl ether	ug/L	ND	40	38.8	97	70-130	
tert-Butyl Alcohol	ug/L	ND	200	252	126	70-130	
tert-Butyl Formate	ug/L	ND	160	ND	0	70-130	P5
Toluene	ug/L	ND	20	20.4	102	70-130	
1,2-Dichloroethane-d4 (S)	%				100	70-130	
4-Bromofluorobenzene (S)	%				108	70-130	
Toluene-d8 (S)	%				98	70-130	

SAMPLE DUPLICATE: 1411708

Parameter	Units	92241265005 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	

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QUALITY CONTROL DATA

Project: FORMER RED DIAMOND 14324/49175
Pace Project No.: 92241257

SAMPLE DUPLICATE: 1411708

Parameter	Units	92241265005 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)	%	103	104	1		
4-Bromofluorobenzene (S)	%	115	115	0		
Toluene-d8 (S)	%	102	102	0		

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QUALITY CONTROL DATA

Project: FORMER RED DIAMOND 14324/49175
Pace Project No.: 92241257

QC Batch: MSV/30755 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV SC
Associated Lab Samples: 92241257012

METHOD BLANK: 1411785 Matrix: Water
Associated Lab Samples: 92241257012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	03/17/15 01:29	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	03/17/15 01:29	
Benzene	ug/L	ND	5.0	03/17/15 01:29	
Diisopropyl ether	ug/L	ND	5.0	03/17/15 01:29	
Ethanol	ug/L	ND	200	03/17/15 01:29	
Ethyl-tert-butyl ether	ug/L	ND	10.0	03/17/15 01:29	
Ethylbenzene	ug/L	ND	5.0	03/17/15 01:29	
m&p-Xylene	ug/L	ND	10.0	03/17/15 01:29	
Methyl-tert-butyl ether	ug/L	ND	5.0	03/17/15 01:29	
Naphthalene	ug/L	ND	5.0	03/17/15 01:29	
o-Xylene	ug/L	ND	5.0	03/17/15 01:29	
tert-Amyl Alcohol	ug/L	ND	100	03/17/15 01:29	
tert-Amylmethyl ether	ug/L	ND	10.0	03/17/15 01:29	
tert-Butyl Alcohol	ug/L	ND	100	03/17/15 01:29	
tert-Butyl Formate	ug/L	ND	50.0	03/17/15 01:29	
Toluene	ug/L	ND	5.0	03/17/15 01:29	
Xylene (Total)	ug/L	ND	10.0	03/17/15 01:29	
1,2-Dichloroethane-d4 (S)	%	106	70-130	03/17/15 01:29	
4-Bromofluorobenzene (S)	%	116	70-130	03/17/15 01:29	
Toluene-d8 (S)	%	100	70-130	03/17/15 01:29	

LABORATORY CONTROL SAMPLE: 1411786

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	47.9	96	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	825	82	70-130	
Benzene	ug/L	50	48.9	98	70-130	
Diisopropyl ether	ug/L	50	41.6	83	70-130	
Ethanol	ug/L	2000	1150	57	70-130	L0
Ethyl-tert-butyl ether	ug/L	100	104	104	70-130	
Ethylbenzene	ug/L	50	51.4	103	70-130	
m&p-Xylene	ug/L	100	106	106	70-130	
Methyl-tert-butyl ether	ug/L	50	46.0	92	70-130	
Naphthalene	ug/L	50	47.9	96	70-130	
o-Xylene	ug/L	50	54.8	110	70-130	
tert-Amyl Alcohol	ug/L	1000	803	80	70-130	
tert-Amylmethyl ether	ug/L	100	104	104	70-130	
tert-Butyl Alcohol	ug/L	500	427	85	70-130	
tert-Butyl Formate	ug/L	400	458	114	70-130	
Toluene	ug/L	50	49.0	98	70-130	

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QUALITY CONTROL DATA

Project: FORMER RED DIAMOND 14324/49175
Pace Project No.: 92241257

LABORATORY CONTROL SAMPLE: 1411786

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Xylene (Total)	ug/L	150	160	107	70-130	
1,2-Dichloroethane-d4 (S)	%			99	70-130	
4-Bromofluorobenzene (S)	%			107	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE SAMPLE: 1411787

Parameter	Units	92241265014 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	18.7	94	70-130	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	352	88	70-130	
Benzene	ug/L	ND	20	20.0	100	70-130	
Diisopropyl ether	ug/L	ND	20	16.2	81	70-130	
Ethanol	ug/L	ND	800	513	64	70-130	M0
Ethyl-tert-butyl ether	ug/L	ND	40	39.1	98	70-130	
Ethylbenzene	ug/L	ND	20	20.9	105	70-130	
m&p-Xylene	ug/L	ND	40	43.8	110	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	17.7	89	70-130	
Naphthalene	ug/L	ND	20	20.4	102	70-130	
o-Xylene	ug/L	ND	20	22.0	110	70-130	
tert-Amyl Alcohol	ug/L	ND	400	354	89	70-130	
tert-Amylmethyl ether	ug/L	ND	40	38.6	97	70-130	
tert-Butyl Alcohol	ug/L	ND	200	233	117	70-130	
tert-Butyl Formate	ug/L	ND	160	ND	0	70-130	P5
Toluene	ug/L	ND	20	20.0	100	70-130	
1,2-Dichloroethane-d4 (S)	%				99	70-130	
4-Bromofluorobenzene (S)	%				107	70-130	
Toluene-d8 (S)	%				97	70-130	

SAMPLE DUPLICATE: 1411788

Parameter	Units	92241265015 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	

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QUALITY CONTROL DATA

Project: FORMER RED DIAMOND 14324/49175
Pace Project No.: 92241257

SAMPLE DUPLICATE: 1411788

Parameter	Units	92241265015 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)	%	128	129	1		
4-Bromofluorobenzene (S)	%	124	123	1		
Toluene-d8 (S)	%	99	101	2		

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QUALITY CONTROL DATA

Project: FORMER RED DIAMOND 14324/49175
Pace Project No.: 92241257

QC Batch: MSV/30766 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV SC
Associated Lab Samples: 92241257011, 92241257013, 92241257015

METHOD BLANK: 1412542 Matrix: Water
Associated Lab Samples: 92241257011, 92241257013, 92241257015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	03/17/15 16:51	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	03/17/15 16:51	
Benzene	ug/L	ND	5.0	03/17/15 16:51	
Diisopropyl ether	ug/L	ND	5.0	03/17/15 16:51	
Ethanol	ug/L	ND	200	03/17/15 16:51	
Ethyl-tert-butyl ether	ug/L	ND	10.0	03/17/15 16:51	
Ethylbenzene	ug/L	ND	5.0	03/17/15 16:51	
m&p-Xylene	ug/L	ND	10.0	03/17/15 16:51	
Methyl-tert-butyl ether	ug/L	ND	5.0	03/17/15 16:51	
Naphthalene	ug/L	ND	5.0	03/17/15 16:51	
o-Xylene	ug/L	ND	5.0	03/17/15 16:51	
tert-Amyl Alcohol	ug/L	ND	100	03/17/15 16:51	
tert-Amylmethyl ether	ug/L	ND	10.0	03/17/15 16:51	
tert-Butyl Alcohol	ug/L	ND	100	03/17/15 16:51	
tert-Butyl Formate	ug/L	ND	50.0	03/17/15 16:51	
Toluene	ug/L	ND	5.0	03/17/15 16:51	
Xylene (Total)	ug/L	ND	10.0	03/17/15 16:51	
1,2-Dichloroethane-d4 (S)	%	107	70-130	03/17/15 16:51	
4-Bromofluorobenzene (S)	%	110	70-130	03/17/15 16:51	
Toluene-d8 (S)	%	101	70-130	03/17/15 16:51	

LABORATORY CONTROL SAMPLE: 1412543

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	50	44.1	88	70-130	
3,3-Dimethyl-1-Butanol	ug/L	1000	991	99	70-130	
Benzene	ug/L	50	52.6	105	70-130	
Diisopropyl ether	ug/L	50	51.9	104	70-130	
Ethanol	ug/L	2000	1910	95	70-130	
Ethyl-tert-butyl ether	ug/L	100	112	112	70-130	
Ethylbenzene	ug/L	50	51.9	104	70-130	
m&p-Xylene	ug/L	100	104	104	70-130	
Methyl-tert-butyl ether	ug/L	50	49.5	99	70-130	
Naphthalene	ug/L	50	51.7	103	70-130	
o-Xylene	ug/L	50	52.4	105	70-130	
tert-Amyl Alcohol	ug/L	1000	927	93	70-130	
tert-Amylmethyl ether	ug/L	100	104	104	70-130	
tert-Butyl Alcohol	ug/L	500	524	105	70-130	
tert-Butyl Formate	ug/L	400	483	121	70-130	
Toluene	ug/L	50	50.3	101	70-130	

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QUALITY CONTROL DATA

Project: FORMER RED DIAMOND 14324/49175
Pace Project No.: 92241257

LABORATORY CONTROL SAMPLE: 1412543

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Xylene (Total)	ug/L	150	157	104	70-130	
1,2-Dichloroethane-d4 (S)	%			93	70-130	
4-Bromofluorobenzene (S)	%			99	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE SAMPLE: 1412544

Parameter	Units	92241271004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	20.1	100	70-130	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	356	89	70-130	
Benzene	ug/L	ND	20	21.7	109	70-130	
Diisopropyl ether	ug/L	ND	20	19.9	100	70-130	
Ethanol	ug/L	ND	800	945	118	70-130	
Ethyl-tert-butyl ether	ug/L	ND	40	44.0	110	70-130	
Ethylbenzene	ug/L	ND	20	22.1	111	70-130	
m&p-Xylene	ug/L	ND	40	44.7	112	70-130	
Methyl-tert-butyl ether	ug/L	ND	20	19.9	99	70-130	
Naphthalene	ug/L	ND	20	19.2	96	70-130	
o-Xylene	ug/L	ND	20	21.6	108	70-130	
tert-Amyl Alcohol	ug/L	ND	400	363	91	70-130	
tert-Amylmethyl ether	ug/L	ND	40	40.2	101	70-130	
tert-Butyl Alcohol	ug/L	ND	200	301	151	70-130	M0
tert-Butyl Formate	ug/L	ND	160	ND	0	70-130	P5
Toluene	ug/L	ND	20	21.4	107	70-130	
1,2-Dichloroethane-d4 (S)	%				102	70-130	
4-Bromofluorobenzene (S)	%				100	70-130	
Toluene-d8 (S)	%				98	70-130	

SAMPLE DUPLICATE: 1412545

Parameter	Units	92241271005 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

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

QUALITY CONTROL DATA

Project: FORMER RED DIAMOND 14324/49175
Pace Project No.: 92241257

SAMPLE DUPLICATE: 1412545

Parameter	Units	92241271005 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)	%	111	112	1		
4-Bromofluorobenzene (S)	%	108	110	2		
Toluene-d8 (S)	%	103	102	1		

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Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: FORMER RED DIAMOND 14324/49175
Pace Project No.: 92241257

QC Batch: OEXT/33599 Analysis Method: EPA 8011
QC Batch Method: EPA 8011 Analysis Description: GCS 8011 EDB DBCP
Associated Lab Samples: 92241257001, 92241257002, 92241257003, 92241257004, 92241257005, 92241257006, 92241257007, 92241257008, 92241257009, 92241257010, 92241257011, 92241257012, 92241257013, 92241257014

METHOD BLANK: 1411749 Matrix: Water
Associated Lab Samples: 92241257001, 92241257002, 92241257003, 92241257004, 92241257005, 92241257006, 92241257007, 92241257008, 92241257009, 92241257010, 92241257011, 92241257012, 92241257013, 92241257014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	03/17/15 16:56	
1-Chloro-2-bromopropane (S)	%	96	60-140	03/17/15 16:56	

LABORATORY CONTROL SAMPLE & LCSD: 1411750 1411751

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	0.30	0.28	102	98	60-140	4	20	
1-Chloro-2-bromopropane (S)	%				97	97	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1411752 1411753

Parameter	Units	92241257005 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	122	.29	.29	111	113	-3897	-3253	60-140	2	20	M3
1-Chloro-2-bromopropane (S)	%						107	108	60-140			

SAMPLE DUPLICATE: 1411754

Parameter	Units	92241257009 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%	114	103	11		

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

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

QUALIFIERS

Project: FORMER RED DIAMOND 14324/49175
Pace Project No.: 92241257

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

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.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
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.
RS	The RPD value in one of the constituent analytes was outside the control limits.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

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Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FORMER RED DIAMOND 14324/49175
Pace Project No.: 92241257

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92241257001	MW1	EPA 8011	OEXT/33599	EPA 8011	GCSV/20655
92241257002	MW2	EPA 8011	OEXT/33599	EPA 8011	GCSV/20655
92241257003	MW3	EPA 8011	OEXT/33599	EPA 8011	GCSV/20655
92241257004	MW4	EPA 8011	OEXT/33599	EPA 8011	GCSV/20655
92241257005	MW5	EPA 8011	OEXT/33599	EPA 8011	GCSV/20655
92241257006	MW12	EPA 8011	OEXT/33599	EPA 8011	GCSV/20655
92241257007	MW13	EPA 8011	OEXT/33599	EPA 8011	GCSV/20655
92241257008	MW19	EPA 8011	OEXT/33599	EPA 8011	GCSV/20655
92241257009	EP4	EPA 8011	OEXT/33599	EPA 8011	GCSV/20655
92241257010	EP12	EPA 8011	OEXT/33599	EPA 8011	GCSV/20655
92241257011	EP16	EPA 8011	OEXT/33599	EPA 8011	GCSV/20655
92241257012	EP20	EPA 8011	OEXT/33599	EPA 8011	GCSV/20655
92241257013	EP16 DUPLICATE	EPA 8011	OEXT/33599	EPA 8011	GCSV/20655
92241257014	FIELD BLANK	EPA 8011	OEXT/33599	EPA 8011	GCSV/20655
92241257001	MW1	EPA 8260	MSV/30750		
92241257002	MW2	EPA 8260	MSV/30750		
92241257003	MW3	EPA 8260	MSV/30750		
92241257004	MW4	EPA 8260	MSV/30750		
92241257005	MW5	EPA 8260	MSV/30750		
92241257006	MW12	EPA 8260	MSV/30751		
92241257007	MW13	EPA 8260	MSV/30751		
92241257008	MW19	EPA 8260	MSV/30750		
92241257009	EP4	EPA 8260	MSV/30751		
92241257010	EP12	EPA 8260	MSV/30751		
92241257011	EP16	EPA 8260	MSV/30766		
92241257012	EP20	EPA 8260	MSV/30755		
92241257013	EP16 DUPLICATE	EPA 8260	MSV/30766		
92241257014	FIELD BLANK	EPA 8260	MSV/30750		
92241257015	TRIP BLANK	EPA 8260	MSV/30766		

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Pace Analytical	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: September 22, 2014 Page 1 of 2
	Document Number: F-CHR-CS-003-rev.15	Issuing Authority: Pace Huntersville Quality Office

Client Name: SCDHEC - UST

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☑ no

[redacted]

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____

Thermometer Used: IR Gun T1401 Type of Ice: Wet Blue None ☑ Samples on ice, cooling process has begun

Temp Correction Factor T1401 No Correction

Corrected Cooler Temp.: 3.3 °C Biological Tissue is Frozen: Yes No N/A

Date and Initials of person examining contents: _____

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 Time written on vials
-Includes date/time/ID/Analysis Matrix: _____		
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: AMB Date: 3-13-15

SRF Review: AMB Date: 3-14-15

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)



Project number (if no label available)

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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

1947007

Section A Required Client Information:

Company: SCDHEC - UST
Address: 2600 Bull St
Columbia, SC, 29201
Email To: BryantJC@dhec.sc.gov
Phone: 803-898-0606 Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: J. Bryant - UST
Copy To:
Purchase Order No.: 4600328426
Project Name: Former Red Diamond
Project Number: UST# 14324 / PACE QA# 49175

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: A. Baioni
Pace Profile #: 8409-1

REGULATORY AGENCY

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

Site Location STATE: SC — Oconee

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information — 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, Naph, MTBE	1,2-DCA	8-Oxygenates	EDB	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW 1	WT	G			3/12/15	13:24		6				6					X	X	X	X			Strong Odor
2	MW 2	"	"			"	12:01		"				"					"	"	"	"			Slight Organic Odor
3	MW 3	"	"			"	11:48		"				"					"	"	"	"			No Odor
4	MW 4	"	"			"	12:34		"				"					"	"	"	"			No Odor
5	MW 5	"	"			"	13:12		"				"					"	"	"	"			No Odor
6	MW 12	"	"			"	11:28		"				"					"	"	"	"			Organic Odor
7	MW 13	"	"			"	11:02		"				"					"	"	"	"			Strong Odor
8	MW 19	"	"			"	10:50		"				"					"	"	"	"			Organic Odor
9	EP 4	"	"			"	13:41		"				"					"	"	"	"			Strong Odor
10	EP 12	"	"			"	12:11		"				"					"	"	"	"			Strong Odor
11	EP 16	"	"			"	12:47		"				"					"	"	"	"			Strong Odor
12	EP 20	WT	G			3/12/15	12:21		6				6					X	X	X	X			Odor

92241257

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	[signature]	3/13/15	11:10	[signature] Moody-Pace	03-13-15	11:10	
	[signature] Moody	03-13-15	16:15	[signature]	3/13/15	16:15	2.3 Y N Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Frank Mitlin

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 3/12/15

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.

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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

1947008

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: SCDHEC-UST	Report To: J. Bryant - UST	Attention:
Address: 2600 Bull St Columbia, SC 29201	Copy To:	Company Name:
Email To: bryantjc@dhec.sc.gov	Purchase Order No.: 4600328425	Address:
Phone: 803-898-0606 Fax:	Project Name: Former Red Diamond	Pace Quote Reference:
Requested Due Date/TAT:	Project Number: UST#14324/PACE CA#49175	Pace Project Manager: A. Baioni
		Pace Profile #:

REGULATORY AGENCY

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

Site Location STATE: SC — Oconee

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information — SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (use 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	BTEX, Naph, MTBE	1,2-DCA	5-Oxygenates	EDB	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	EP 16 Duplicate	WT	G			3/12/15	12:47		6				6					X	X	X	X			9224125 (Pace) Duplicate 13
2	Field Blank	↓	↓			↓	13:45		6				6					X	X	X	X			Field Blank 14
3	Trip Blank	WT	G			3/12/15	13:46		2				2					X	X	X				Trip Blank 15
4																									
5																									
6																									
7																									
8																									
9																									
10																									
11																									
12																									

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

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
		3/13/15	11:10	Moody Pace	03-13-15	11:10	
	Moody	03-13-15	16:15		3/13/15	16:15	3.3 Y N Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Frank Mellin

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 3/12/15

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

Former Red Diamond- Post-ACA data
UST Permit #14324

	MR	MR	MR
MW-1	8/10/13	11/6/13	3/12/15
DTW	26.50	26.77	27.31
Benzene	<100	<125	<100
Toluene	130	159	139
Ethylbenzene	819	1220	847
Xylenes	6610	9360	7070
MTBE	<100	<125	<100
Naphthalene	393	774	630
DCA	na	na	<100
EDB	0.33	<0.02	<0.02
Lead	na	na	na
TAA	na	na	<2000

MW-2	8/10/13	11/6/13	3/12/15
DTW	29.00	28.20	29.48
Benzene	3770	4430	13200
Toluene	6000	10200	24200
Ethylbenzene	369	1220	1540
Xylenes	2436	6990	11400
MTBE	<5	<250	<50
Naphthalene	102	542	529
DCA	na	na	<50
EDB	61.20	61.10	201.00
Lead	na	na	na
TAA	na	na	5520

MW-3	8/10/13	11/6/13	3/12/15
DTW	27.80	27.12	28.07
Benzene	<5	<5	259
Toluene	<5	<5	3390
Ethylbenzene	<5	<5	1230
Xylenes	<15	<10	6020
MTBE	<5	<5	<25
Naphthalene	<5	<5	374
DCA	na	na	<25
EDB	<0.02	<0.02	<0.02
Lead	na	na	na
TAA	na	na	<500

MW-4	8/10/13	11/6/13	3/12/15
DTW	28.34	well	28.81
Benzene	443	not	21500
Toluene	1530	accessible	26100
Ethylbenzene	163		1220
Xylenes	7980		10900
MTBE	<50		<125
Naphthalene	1080		1050
DCA	na		94
EDB	196.00		687.00
Lead	na		na
TAA	na	na	4170

MW-5	8/10/13	11/6/13	3/12/15
DTW	27.26	26.78	27.89
Benzene	<5	<5	18100
Toluene	6	<5	33900
Ethylbenzene	<5	<5	1620
Xylenes	<15	<10	8040
MTBE	<5	<5	<125
Naphthalene	<5	<5	516
DCA	na	na	<125
EDB	5.60	<0.02	122.00
Lead	na	na	na
TAA	na	na	4340

MW-8	8/10/13	11/6/13	3/12/15
DTW	37.08	36.44	well
Benzene	<5	<5	abandoned
Toluene	<5	<5	
Ethylbenzene	<5	<5	
Xylenes	<15	<10	
MTBE	<5	<5	
Naphthalene	<5	<5	
DCA	na	na	
EDB	0.03	<0.02	
Lead	na	na	
TAA	na	na	



MW-12	8/10/13	11/6/13	3/12/15
DTW	32.22	31.10	32.55
Benzene	<5	<5	6400
Toluene	<5	<5	12000
Ethylbenzene	<5	<5	817
Xylenes	<15	<10	5650
MTBE	<5	<5	<25
Naphthalene	<5	<5	247
DCA	na	na	45
EDB	<0.02	<0.02	23.10
Lead	na	na	na
TAA	na	na	1560

MW-13	8/10/13	11/6/13	3/12/15
DTW	32.03	31.45	34.15
Benzene	<5	<5	2610
Toluene	<5	<5	7620
Ethylbenzene	<5	<5	1220
Xylenes	<15	<10	7420
MTBE	<5	<5	<125
Naphthalene	<5	<5	629
DCA	na	na	<125
EDB	<0.02	<0.02	43.20
Lead	na	na	na
TAA	na	na	<2500

MW-19	8/10/13	11/6/13	3/12/15
DTW	33.20	31.73	well
Benzene	<5	<5	obstructed
Toluene	<5	<5	
Ethylbenzene	<5	<5	
Xylenes	<15	<10	
MTBE	<5	<5	
Naphthalene	<5	<5	
DCA	na	na	
EDB	<0.02	<0.02	
Lead	na	na	
TAA	na	na	

EP-4	8/10/13	11/6/13	3/12/15
DTW	nm	nm	27.70
Benzene	ns	ns	155
Toluene			4830
Ethylbenzene			1730
Xylenes			9990
MTBE			<100
Naphthalene			897
DCA			<100
EDB			<0.02
Lead			na
TAA			<2000

EP-12	8/10/13	11/6/13	3/12/15
DTW	nm	nm	29.73
Benzene	ns	ns	8600
Toluene			16600
Ethylbenzene			1060
Xylenes			12600
MTBE			<625
Naphthalene			1380
DCA			<625
EDB			298.00
Lead			na
TAA			<12500

EP-16	8/10/13	11/6/13	3/12/15
DTW	nm	nm	28.99
Benzene	ns	ns	4540
Toluene			9720
Ethylbenzene			1140
Xylenes			16400
MTBE			<500
Naphthalene			1910
DCA			<500
EDB			876.00
Lead			na
TAA			<10000

EP-20	8/10/13	11/6/13	3/12/15
DTW	nm	nm	29.58
Benzene	ns	ns	7730
Toluene			16100
Ethylbenzene			550
Xylenes			13000
MTBE			<250
Naphthalene			1610
DCA			156
EDB			604.00
Lead			na
TAA			<5000

FP- free-phase product
na- not analyzed
ns- not sampled
nm- not measured
unk- unknown

D H E C

PROMOTE PROTECT PROSPER

W. Marshall Taylor Jr., Acting Director

Promoting and protecting the health of the public and the environment

UST 55ked DOCKETING

BRYAN SHANE
MIDLANDS ENVIRONMENTAL CONSULTANTS INC
PO BOX 854
LEXINGTON SC 29071

MAR 3 1 2015

Re: Site-Specific Work Plan Directive for Small Scope Contract
Solicitation # 5400006561; PO# 4600368246

Dear Mr. Shane:

Based on the award of the referenced bid package, enclosed are the information packets to conduct assessments at several facilities. Please submit the Site-specific Quality Assurance Project Plan for an IGWA, Tier I or Assessment Plan, and Assessment Component Cost Agreement as necessary, to my attention **within fifteen (15) days from the date of this correspondence**. Plan implementation shall not commence prior to receipt of written technical and financial approval from the Department. The facilities will be assigned a Cost Agreement (CA) numbers once the QAPP Contractor Addendum has been approved by the project manager. Please reference the CA numbers and Purchase Order # 4600368246 on the appropriate invoices submitted for payment. 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) after the technical and cost approval from the project manager.**

UST Permit #	Facility	County	Project Manager	Work Scope	Due Date*
14324	Former Red Diamond	Oconee	Padgett	MWI	60 Days
03597	Miller's Foreign Car Service	Florence	Milenkova	MWI	60 Days

*From receipt of Notice to Proceed 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 State Underground Petroleum Environmental Response Bank (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.

IGWA, Tier I or Assessment Quality Assurance Project Plan, Implementation and Report submittal shall be performed in accordance with the referenced contract. Per Section 3.4.2., a late fee of $50.00/day (not to exceed 20% of the cost agreement total) may be levied for each day the report is submitted after the deadline established in the Notice to Proceed letter.

Please provide this office with a schedule of drilling dates and coordinate all work with me before commencing work at the facility. In accordance with the bid specification, a bi-monthly status report of the project should be provided by the 5th and 20th of each month via e-mail to my attention. If any quality assurance problems arise, you must contact me within 24 hours via phone or e-mail. If you have any questions or need further assistance, please contact me at (803) 898-7542.

Sincerely,

Minda Hornosky, Hydrogeologist
Assessment Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

enc: Information Packet

cc: Joel Padgett, UST Management Division (w/o enc)
Maia Milenkova, UST Management Division (w/o enc)
Minda Hornosky, UST Management Division (w/ enc)
Technical Files (w/ enc)

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South Carolina Department of Health and Environmental Control

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT
2600 Bull Street, Columbia, South Carolina 29201
Telephone: 803-896-6240

MEMORANDUM

TO: Bryan Shane, Midlands Environmental Consultants, Inc.

FROM: Maia Milenkova

RE: **Site-Specific Work Plan Notice to Proceed**

Facility Name: Miller's Foreign Car Service

Permit Number: 03597

County: Florence

Work To Be Completed: IGWA(2002) and Tier I(2007). During site visit in January 2015 verified that all four wells (MW-1through MW-4) are destroyed. The site has been graded and it's a vacant lot now. The current owner plans to develop and build onsite. Contact Mr. Scott(843/858-1940)prior to drilling to adjust locations if needed. Sample all wells for BTEXNM, 1,2-DCA, Oxy's and EDB.Provide tax map information.

CA# _____

te Information for N-03597 Facility: MILLERS FOREIGN CAR SERVICE

ıs.	821 SECOND LOOP RD		Phone				
ldress	FLORENCE	SC 29505-2826	County	Florence	District	Florence EQC Office	
tegory	Retail Sales		Last Inspection	04/08/97	Trans. of Ownership	06/10/88	
nk Owner	ELWOOD & MICHAEL MILLER						
ıs.	700 S PARKER DR				Financial Responsibility		
ldress	FLORENCE	SC 29501	Phone	843-665-5397	Financial Mechanism	Expiration Date	
ıerator					Training Date		
ıs.							
ldress			Phone				
nd Owner	SMITH, SCOTT						
ıs.	PO BOX 4396						
ldress	FLORENCE	SC 29502-4396	Phone	843-393-2853			

nks 3 Billable 0 Aband. 3 Other 0

Compliance Operator(s) ID

l. No. 1	Reported	11/29/99	Status	Confirmed - Active	Product	Petroleum	Compl Required Y
tive Tnks	NFA		Fin. Type	Recoverable SUPI	RBCA / Score	3BF 145	Compliance Met Y
	Confirmed	12/01/99	Emer. Resp.		Superb Qualified	Y	Compliance Met Dt
	CU Init.	07/03/00	Abate. Met	06/18/99	Superb Determ. Dt	05/12/03	Fin Res Mechanism
	CU Compl.		Transferred		Project Manager	MILENKOVA, MAIA P	
	CU > MCL		Source	UST	Responsible Party	ELWOOD & MICHAEL MILLER	

nking SCRBCA: 3BF - GW < 15 feet in sand or gravel FP Thick: Unknown

el. No. 1

alyticals

Contaminant	ug/L	RBSL	Score	SSTL's
Benzene	500	5	100	0
Toluene	7500	1000	8	0
Ethylbenzene	2300	700	3	0
Xylene	13000	10000	1	0
Naphthalene	520	25	21	0
MTBE	500	40	13	0
		Total Score:	145	

Other Contaminants	ug/L	SSTL's
1,2-dichloroethane	0	
CITY WATER-YES		
EDB	1.4	
JEFRIES CREEK		
1750' N		
Lead	40	
SAND-68% CLAY		
23% @10' IN MW-2		
WORST CASE WELL		
FOR EDB IS MW-1		
WORST CASE WELL		
IS MW-3		

teceptor Ttype: POND Ground Water Flow: NW

listancd to Receptor: 970 Seepage Velocity: 3.2

GW Depth: 11

perB Original Qualified Date:

eck List Release Reported: 11/29/99

el. No. 1 Deductible Group from Release Report Date: 25K

Y All tanks Registered? Tanks must be registered Before eligible.

Y Fees Paid to date?

Y Contamination requiring Remediation confirmed?

Enviro Company Deductible Limit Amount

Y Enviro Insurance?

A written statement of No Insurance dated: 03/09/05

Abatement Met: 06/18/99 Abatement Method: Permanently closed

Approved by: Approved date: 05/12/03 Qualified? Y

te Information for N-03597 Facility: MILLERS FOREIGN CAR SERVICE

Tank No.	1	Const.		Class	N	Tank Const. Mat.	SL		Pipe Const. Mat.	SL	
		Operate	11/11/11	T Status	ABD	Tank Protect.		CP	Pipe Protect.		CP
		Notify	05/06/86	Capacity	8,000	Tank Cont. Meth.	SW		Pipe Cont. Meth.	SW	
		Variance		Product	GN	Overfill Type		Ver	Piping Type		
		Compl.		C Status		Age @ Notif.	10		Dist. to Well		
		Spill Det.		Left Gal.	0	Owner @ ABD	ELWOOD & MICHAEL MILLER			Last Use	11/11/11
		Aband.	06/16/97	Method	RG	CAS No.		Chem.			
		Under Dispenser Cont.		N	Drop Tube	N	Tank Leak Det.		Pipe Leak Det.		
Tank No.	2	Const.		Class	N	Tank Const. Mat.	SL		Pipe Const. Mat.	SL	
		Operate	11/11/01	T Status	ABD	Tank Protect.		CP	Pipe Protect.		CP
		Notify	05/06/86	Capacity	8,000	Tank Cont. Meth.	SW		Pipe Cont. Meth.	SW	
		Variance		Product	GN	Overfill Type		Ver	Piping Type		
		Compl.		C Status		Age @ Notif.	10		Dist. to Well		
		Spill Det.		Left Gal.	0	Owner @ ABD	ELWOOD & MICHAEL MILLER			Last Use	11/11/11
		Aband.	06/16/97	Method	RG	CAS No.		Chem.			
		Under Dispenser Cont.		N	Drop Tube	N	Tank Leak Det.		Pipe Leak Det.		
Tank No.	3	Const.		Class	N	Tank Const. Mat.	SL		Pipe Const. Mat.	SL	
		Operate	11/11/11	T Status	ABD	Tank Protect.		CP	Pipe Protect.		CP
		Notify	05/06/86	Capacity	10,000	Tank Cont. Meth.	SW		Pipe Cont. Meth.	SW	
		Variance		Product	GN	Overfill Type		Ver	Piping Type		
		Compl.		C Status		Age @ Notif.	10		Dist. to Well		
		Spill Det.		Left Gal.	0	Owner @ ABD	ELWOOD & MICHAEL MILLER			Last Use	11/11/11
		Aband.	06/16/97	Method	RG	CAS No.		Chem.			
		Under Dispenser Cont.		N	Drop Tube	N	Tank Leak Det.		Pipe Leak Det.		

PERMISSION FORM
PROPERTY OWNER
UST Permit #03597

UST Maia MAR 06 2015 Processed

If you are the Property Owner or are the authorized representative for that person, please complete this form.

I, Scott Smith, certify that I am the legal owner of the property identified below or serve as the authorized representative for the property owner. I authorize the South Carolina Department of Health and Environmental Control (Agency), or a contractor selected by the Agency, to enter this property at reasonable times only to conduct assessment and corrective action activities, as required. The contractor will be designated as the contractor for the UST owner or operator for only the required environmental site rehabilitation activities. Compensation to the contractor will be from the SUPERB Account and I will have no obligation to pay the contractor. I understand that the Agency will notify me of all activities that are necessary prior to their initiation and will promptly provide to me a summary of the data upon request.

UST 14Tech DOCKETING

Name of Facility _____ Phone # _____

Street Address of Facility 821 Second Loop Rd.

Town, City, District, Suburb Florence SC 29505

Name of nearest intersecting street, road, highway, alley Rollins & Second Loop Is this facility within the city limits? (yes or no) _____

Does a public water or sewer utility service this facility? (yes or no) _____, if no, please provide the name and phone number of a person that we can contact that can assist in the location of private water and septic tank lines _____, phone number _____

Were underground storage tanks previously removed from the ground at this facility? (yes or no) _____ If yes, please provide the name of a person we can contact that can assist in the location of the former underground storage tank excavation _____ Phone number _____
I was told by Maia Milenkova, Hydrogeologist with UST managment Division, That Tanks were Removed by their contractors

Is the property currently leased or rented to someone? (yes or no) _____. If yes, please provide their name _____ and phone number _____ and let them know about the pending assessment activities. If vehicles or other mobile structures are parked over the former or existing underground storage tanks, they should be moved before Agency's contractor gets to the site.

NAME of Property owner (Please Print): Scott Smith

Phone Number (home) 843 858 1940 (work) _____

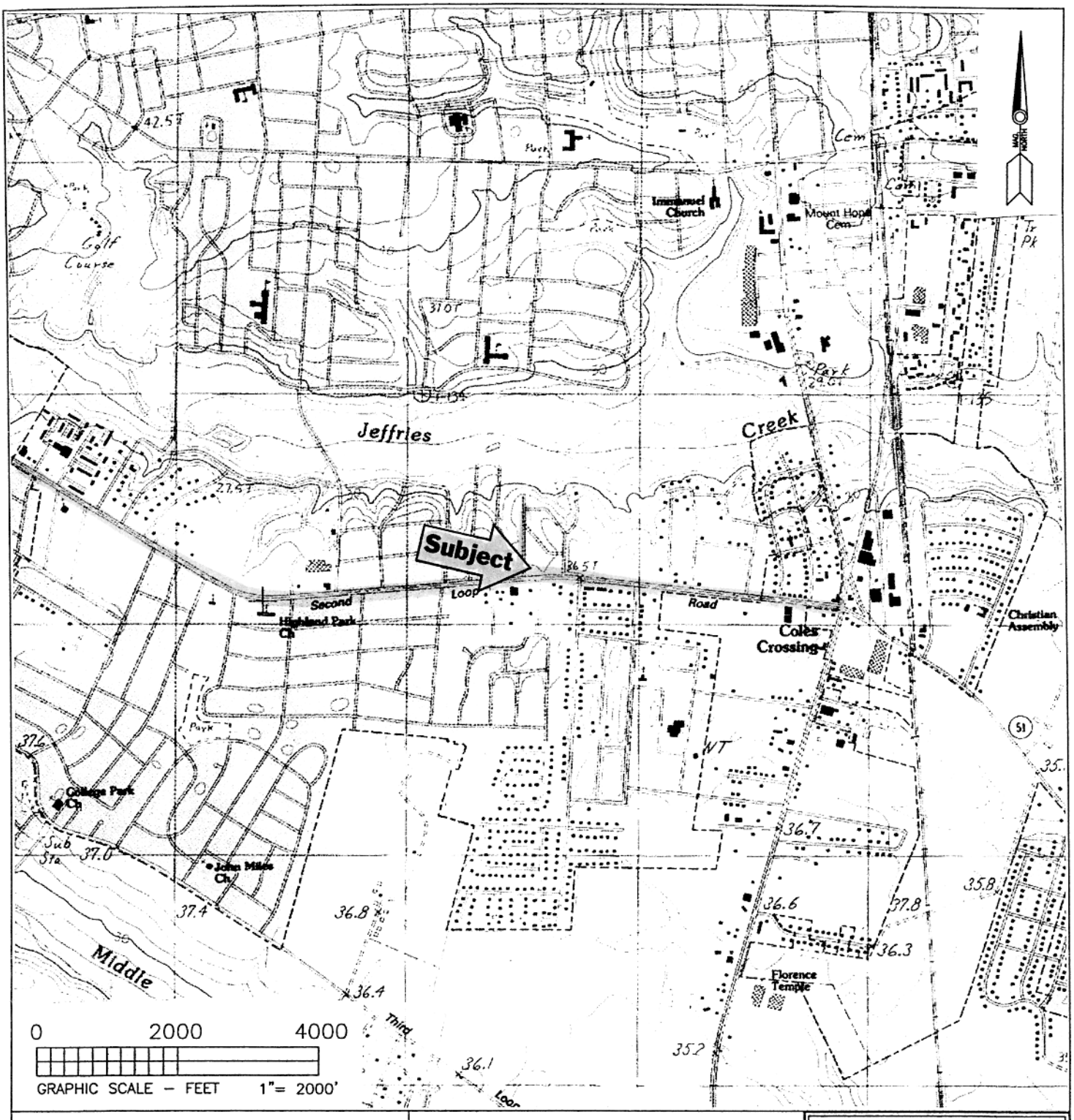
Current Mailing Address: PO Box 4396 Florence SC 29502

Signature of Property Owner: Scott Smith

Witness: _____

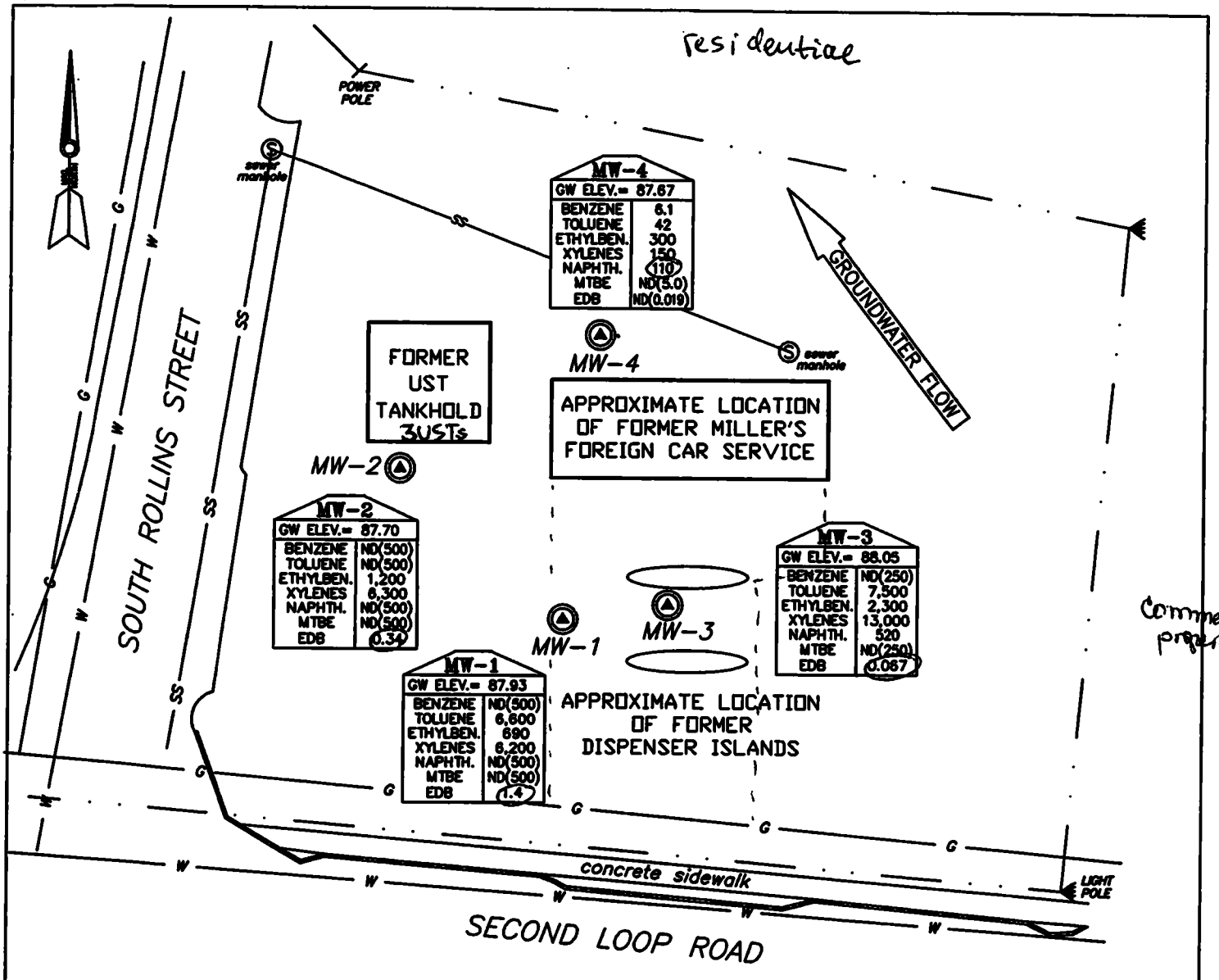
Date: 3-5-15 Month March Day fifth Year 2015

Return to: Maia Milenkova. UST Management Division. 2600 Bull Street. Columbia. SC 29201



PROJECT: TIER I ASSESSMENT MILLER'S FOREIGN CAR SERVICE 821 SECOND LOOP ROAD FLORENCE, SOUTH CAROLINA SITE ID #03597, CA #18900	DESCRIPTION: TOPOGRAPHIC SITE LOCATION MAP	**FIGURE 1** DATE: MAY 2007
ARM ENVIRONMENTAL SERVICES, INC.	REFERENCE: USGS TOPOGRAPHIC MAP (7.5 MINUTE SERIES) FLORENCE WEST QUADRANGLE	

tax map # 90068-04-001



0 40 80

GRAPHIC SCALE – FEET
1" = 40'

NOTES:
ND = NOT PRESENT ABOVE ANALYTICAL METHOD DETECTION LIMIT (DETECTION LIMIT IN uG/L)

PROJECT: TIER I ASSESSMENT MILLER'S FOREIGN CAR SERVICE 821 SECOND LOOP ROAD FLORENCE, SOUTH CAROLINA SITE ID #03597, CA #18900	DESCRIPTION: GROUNDWATER COC SITE MAP (MARCH 8, 2007)	**FIGURE 5** DATE: MAY 2007
ARM ENVIRONMENTAL SERVICES, INC.	REFERENCE: BENZENE, TOLUENE, ETHLYBENZENE, XYLENES, NAPHTHALENE AND MTBE CONCENTRATIONS ARE INDICATED ADJACENT TO EACH MONITORING WELL IN ug/L	NOTES: = MONITORING WELL

F. Chemicals of Concern - Groundwater

Provide well installation information in the table below.

MW #	Installation Date	Development Date	Sampling Date
MW-1	9/5/02 ~~unknown~~	9/5/02 unknown	03/08/07
MW-2	03/08/07	03/08/07	03/08/07
MW-3	03/08/07	03/08/07	03/08/07
MW-4	03/08/07	03/08/07	03/08/07

Summarize the monitoring well and ground water data in the table below.

MW #	TOC Elevation (ft.)	Screened Interval (ft.)	Depth to Water (ft.)	Depth to Product (ft.)	Water Table Elevation (ft.)
(IGWA) MW-1	99.21	8.5 – 18.5	11.28	NM	87.93
MW-2	98.35	7.0 – 17.0	10.65	NM	87.70
MW-3	99.14	7.0 – 17.0	11.09	NM	88.05
MW-4	99.07	7.0 – 17.0	11.40	NM	87.67

Notes: NM = No measurable product present

Enter field data measurements (temperature, pH, conductivity) taken during well purging on the form provided. Complete one for each well.

Enter field dissolved oxygen measurements for each well in the table below.

Monitoring Well #	MW-1	MW-2	MW-3	MW-4
Dissolved Oxygen (mg/L)	1.4	2.4	1.0	2.4

Midlands Environmental Consultants, Inc.

UST
APR 16 2015
PROGRAM

April 15, 2015

RECEIVED
APR 15 2015
SC Department of
Health and Environmental
Control

Ms. Minda Hornosky, Hydrogeologist
Assessment 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

UST
56 tech
DOCKETING

Subject: Site-Specific Work Plan (Small Scope Contract)
Former Red Diamond
Seneca, South Carolina
SCDHEC Site ID Number 14324
MECI Project Number 15-5171
Certified Site Rehabilitation Contractor UCC-0009

Dear Ms. Hornosky,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Site-Specific Work Plan for the referenced site.

On April 14, 2015, MECI personnel performed a site visit to the subject site to evaluate conditions, locate monitoring wells/potential receptors, 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.

Todd D. Elder
Staff Hydrogeologist

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
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Site-Specific Work Plan for Approved ACQAP
Underground Storage Tank Management Division

To: Mr. Joel Padgett, P.G. (SCDHEC Project Manager)
From: Mr. Jeff Coleman (Contractor Project Manager)
Contractor: Midlands Environmental Consultants, Inc. UST Contractor Certification Number: 009

Facility Name: Former Red Diamond UST Permit #: 14324
Facility Address: 519 East North First Street, Seneca SC 29678
Responsible Party: Betty Lathem-Trustee Phone: 864-288-6480
RP Address: 2 Stratton Pl, Greenville SC 29615
Property Owner (if different): N/A
Property Owner Address: N/A
Current Use of Property: Vacant lot

Scope of Work (Please check all that apply)

- ☐ IGWA
- ☐ Tier I
- ☐ Tier II
- ☑ Monitoring Well Installation
- ☐ Groundwater Sampling
- ☑ Other Abandonment and comprehensive survey.
- ☐ 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

Soil:

- ☐ BTEXN
- ☐ PAH
- ☐ 8 RCRA Metals
- ☐ 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 _____ Water Supply Wells _____ Air _____ Field Blank
_____ Monitoring Wells _____ Surface Water _____ Duplicate _____ 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: 8 Estimated Footage: 40 feet per point
# of deep wells: 1 Estimated Footage: 65 feet per point
# of recovery wells: 5 Estimated Footage: 40 feet per point
Monitoring Well development method (consistent with SOP): Hand Bailing, Surging, Pumping (Dependant on formation)
Comments, if warranted:
"Deep" monitoring well will be installed with a 6" outer diameter casing and completed to 45' BGS. The "Deep" well will utilize a five foot screen.

UST Permit #: 14324 Facility Name: Former Red Diamond

Implementation Schedule (Number of calendar days from approval)
Field Work Start-Up: 4/29/2015 Field Work Completion: 5/29/2015
Report Submittal: 6/29/2015 # 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: 10.0 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 drilling activities, eight "shallow" wells will be installed to approximately 40' BGS. Five recovery wells will be installed to approximately 40' BGS. One "deep" well will be installed to approximately 65' BGS with a casing to approximately 45' BGS.
-Monitoring well MW-19 will be abandoned.
-Following well installation, a comprehensive survey will be performed.

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 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

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South Carolina Department of Health and Environmental Control

ASSESSMENT COMPONENT INVOICE

SOUTH CAROLINA

Department of Health and Environmental Control

Underground Storage Tank Management Division

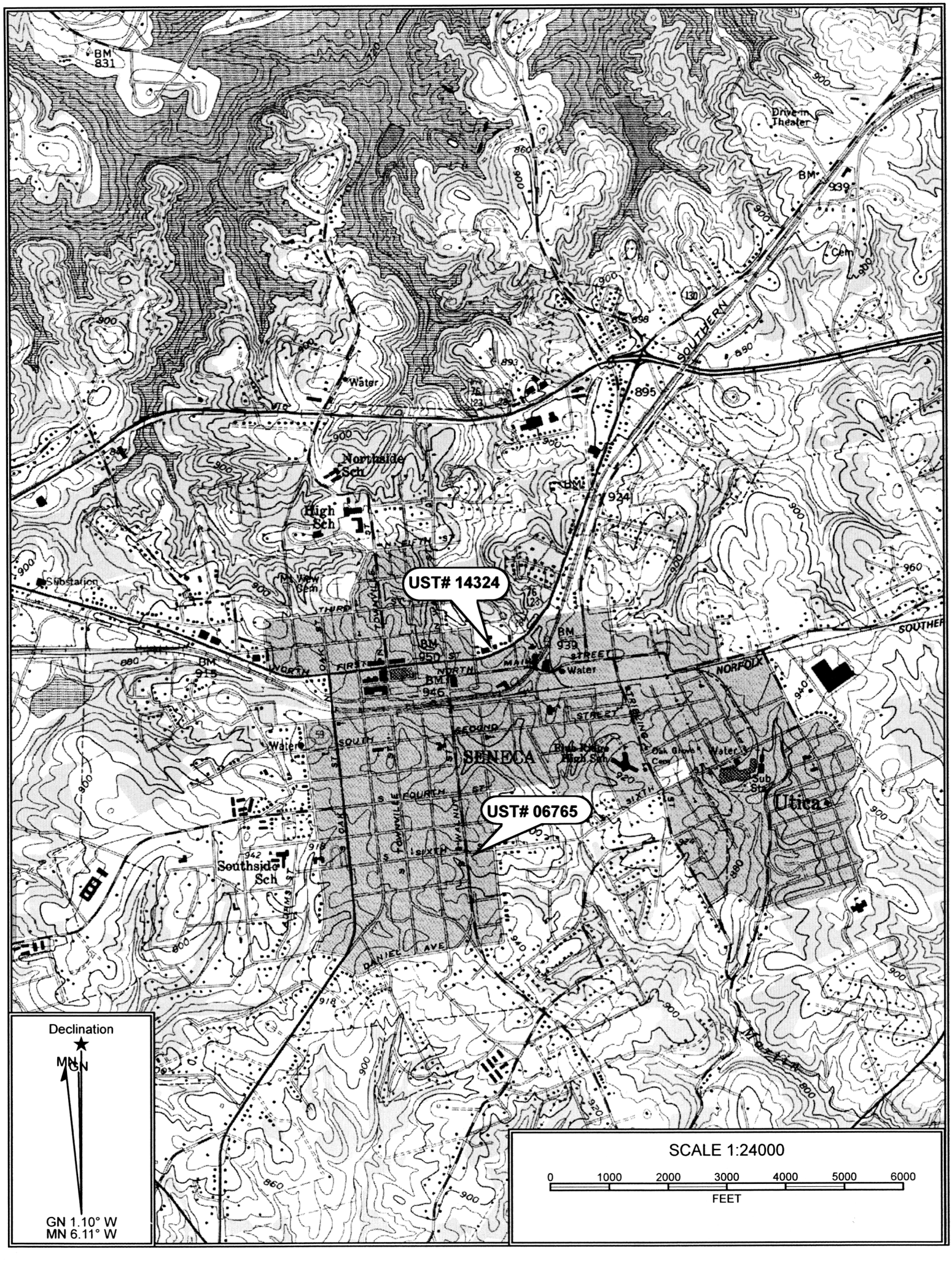
State Underground Petroleum Environmental Response Bank Account

Facility Name: Former Red Diamond

UST Permit #: 14324 **Cost Agreement #:** Proposal

ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
1. **Plan Preparation**				
A1. Site-specific Work Plan	1	each	$400.00	$400.00
B1. Tax Map		each	$70.00	$0.00
3. **Survey (500 x 500 feet)**				
A1. Comprehensive Survey	1	each	$1,000.00	$1,000.00
4. **Mob/Demob (Each)**				
A1. Equipment	1	each	$250.00	$250.00
B1. Personnel	3	each	$200.00	$600.00
C1. Adverse Terrain Vehicle to install wells		each	$0.00	$0.00
5. A1. **Soil Borings (hand auger)***		feet	$0.00	$0.00
6. **Soil Borings (requiring equipment, push technology, etc)* or Field Screening (including water sample, soil sample, soil gas sample, etc.)***				
A1. Standard		per foot	$6.00	$0.00
8. **Abandonment (per foot)***				
A1. 4" diameter or less	45	per foot	$2.75	$123.75
B1. Greater than 4" diameter		per foot	$2.76	$0.00
9. **Well Installation (per foot)***				
A1. Water Table (hand augered)		per foot	$0.00	$0.00
B1. Water Table (drill rig)	320	per foot	$18.87	$6,038.40
C1. Telescoping/ Pit Cased	65	per foot	$31.00	$2,015.00
D1. Rock Drilling		per foot	$23.00	$0.00
G1. Rock Multi-sampling ports/screens		per foot	$7.00	$0.00
H1. Recovery Well (4 inch diameter)	200	per foot	$28.00	$5,600.00
K. Re-develop Existing Well		per foot	$4.00	$0.00
10. **Groundwater Sample Collection / Gauge Depth to Water or Product ***				
A1. Groundwater Purge		per well	$15.00	$0.00
C1. Water Supply		per well/recep	$5.00	$0.00
D1. Groundwater No Purge or Duplicate		samples	$15.00	$0.00
E1. Gauge Well only		per well	$5.00	$0.00
F1. Sample Below Product		well	$5.00	$0.00
G1. Pasive Diffusion Bag		each	$20.00	$0.00

11. Laboratory Analyses-Groundwater					
A2. BTEX+Naphth.+ Oxyg's+ 1,2 DCA + Ethanol		sample	$50.00		$0.00
AA1. Lead, Filtered		sample	$12.00		$0.00
D1. PAH's		sample	$48.00		$0.00
E1. Lead, Unfiltered		sample	$12.00		$0.00
F1. EDB by EPA 8011		sample	$27.00		$0.00
G1. 8 RCRA Metals		sample	$50.00		$0.00
H1. TPH (9070)		sample	$0.00		$0.00
PP. Ethanol		sample	$0.00		$0.00
11. **Analyses-Soil**					
E1. Lead		sample	$12.00		$0.00
Q1. BTEX + Naphth.		sample	$32.00		$0.00
R1. PAH's		sample	$50.00		$0.00
S1. 8 RCRA Metals		sample	$50.00		$0.00
U1. TPH-DRO (3550B/8015B)		sample	$0.00		$0.00
V1. TPH- GRO (5030B/8015B)		sample	$0.00		$0.00
W1. Grain size/hydrometer		sample	$150.00		$0.00
X1. Total Organic Carbon		sample	$0.10		$0.00
11. **Analyses-Air**					
Y1. BTEX + Naphthalene		sample	$7.00		$0.00
12. **Aquifer Characterization***					
B1. Slug Test*		per test	$100.00		$0.00
13. A1. **Free Product Recovery Test**		each	$35.00		$0.00
16. A1. **Subsequent Survey***		each	$300.00		$0.00
17. **Disposal (gallons or tons)***					
AA. Wastewater	200	gallon	$1.25		$250.00
BB. Free Product		gallon	$0.00		$0.00
C1. Soil Treatment/Disposal	10	ton	$50.04		$500.40
D1. Drilling fluids		gallon	$0.00		$0.00
18. **Miscellaneous (attach receipts)**					
High Strength Well Pad Replacement		each	$100.00		$0.00
Free Product Hydrocarbon (Age and Type Identification		each	$7.00		$0.00
		each	$0.00		$0.00
		each	$0.00		$0.00
20. **Tier I Asse. (Use DHEC 3665 form)**		standard	$5,100.00		$0.00
21. **IGWA (Use DHEC 3666 form)**		standard	$1,051.00		$0.00
25. **Well Repair***					
A1. Additional Copies of the Report		each	$0.00		$0.00
B1. Repair 2x2 MW pad		each	$200.00		$0.00
C1. Repair 4x4 MW pad		each	$199.97		$0.00
D1. Repair well vault		each	$200.00		$0.00
F1. Replace well cover bolts		each	$0.00		$0.00
G. Replace locking well cap & lock		each	$0.00		$0.00
H1. Replace/Repair stick-up		each	$0.00		$0.00
II. Convert Flush-mount to Stick-up		each	$0.00		$0.00
J1. Convert Stick-up to Flush-mount		each	$0.00		$0.00
K1. Replace missing/illegible well ID plate		each	$0.00		$0.00
TOTAL					$16,777.55


UST# 14324
UST# 06765
SENECA
Utica
Northside Sch
High Sch
Southside Sch
Substation
Water
Cem
Drive-in Theater
SOUTHERN
NORFOLK
Declination
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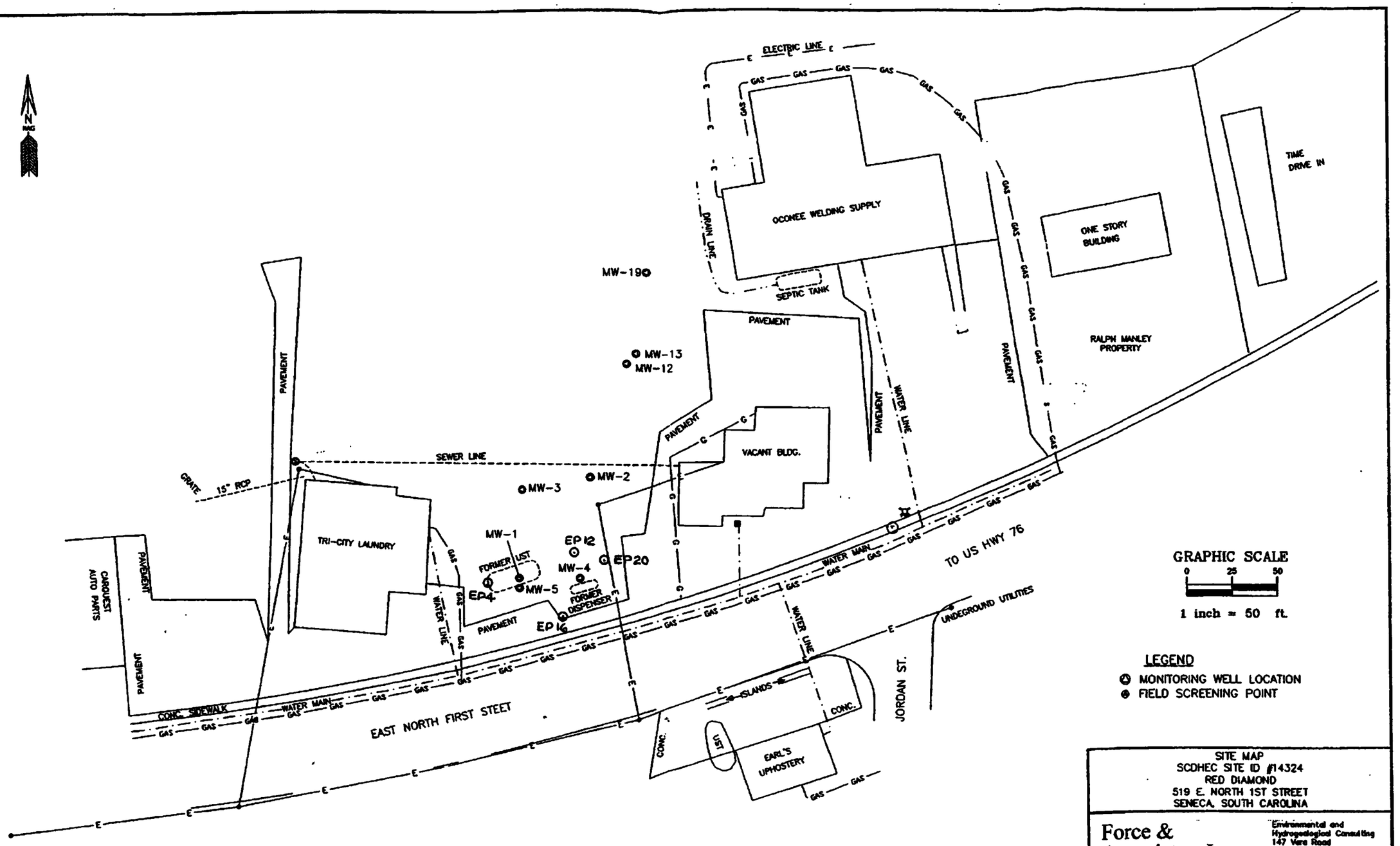


SITE MAP
SCDHEC SITE ID #14324
RED DIAMOND
519 E. NORTH 1ST STREET
SENECA, SOUTH CAROLINA

Force & Associates, Inc.
Environmental and Hydrogeological Consulting
147 Vera Road
Lexington, SC 29072
Phone: 803-358-3200

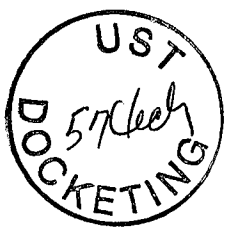
DRAWN BY	CHECKED BY	SCALE	CADD NO.
CAB	GLF	1"=50'	red-diamond
DESIGN BY	DATE	PROJECT NO.	FIGURE NO.
GLF	04/16/03	red-diamond	1

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 BRYAN SHANE PG
MIDLANDS ENVIRONMENTAL CONSULTANTS
PO BOX 854
LEXINGTON SC 29071-0854

APR 2 9 2015

Re: Notice to proceed for small scope
Former Red Diamond, 519 East North 1st Street, Seneca, SC
UST Permit #14324; CA #50046; MWA #UMW-25945
Solicitation #5400006561, PO #4600368246
Release reported December 30, 1991
Site-specific work plan received April 16, 2015
Oconee County

Dear Mr. Shane:

In accordance with the bid solicitation #IFB-5400006561 and the UST Management Division Quality Assurance Program Plan (QAPP) Revision 2.0, the referenced site-specific work plan (SSWP) has been reviewed and approved. Monitoring well installation and abandonment, and recovery well installation at the Former Red Diamond site may proceed upon receipt of this correspondence. If a problem or problems occur, you must contact me within 24 hours by phone or e-mail. The final report must document the problem(s) and the mitigation action(s) taken.

A report meeting the contract specifications of Section 3.10, 3.11, or 3.12 and invoice are due sixty (60) days from the date of this letter. Approval for the installation of eight shallow monitoring wells, one deep monitoring well, and five recovery wells is enclosed. The solicitation requires adherence to all applicable South Carolina certification requirements for laboratory analyses, well installation, and report preparation.

Midlands Environmental Consultants, Inc. will perform services at the site on behalf of the UST owner/operator (O/O) and payment will be made from the SUPERB Account. The O/O has no obligation for payment of this scope of work. Please coordinate access to the facility and adjacent properties with the property owners. The Agency 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. The SUPERB Account will not reimburse for transportation or treatment of soil and/or groundwater with concentrations below risk-Based Screening Levels.

On all correspondence, please reference UST Permit #14324. If you have any site-specific questions, please contact me by telephone at (803) 898-0655 or by e-mail at padgetjp@dhec.sc.gov. If you have any contract- specific questions, please contact Minda Hornosky by telephone at (803) 898-7542 or by e-mail at hornosms@dhec.sc.gov.

Sincerely,

Joel P. Padgett, P.G., Geologist/Hydrologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

enc: Approved cost agreement (CA)
Monitoring well approval

cc: Minda Hornosky, Assessment Section, UST Management Division (w/ca copy)
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

Monitoring Well Approval

Approval is hereby granted to:	Midlands Environmental Consultants, Inc.
(On behalf of):	Ms. Betty Lathem-Trustee
Facility:	Former Red Diamond
UST Permit Number:	14324
County:	Oconee

This approval is for the installation of eight shallow monitoring wells, one deep monitoring well, and five recovery wells. The wells are to be installed in the approved locations in accordance with the South Carolina Well Standards, R.61-71, and the Quality Assurance Program Plan (QAPP) revision 2.0. 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 South Carolina Department of Health and Environmental Control (Agency) shall be completed and submitted to the Agency within 30 days after well completion or abandonment unless another schedule has been approved by the Agency. 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 Agency within 30 days of receipt of laboratory results unless another schedule has been approved by the Agency required by R.61-71.H.1.d.
5. If any of the information provided to the Agency changes, notification to Joel Padgett (tel: (803) 898-0655 or e-mail: padgetjp@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. Agency 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 Issue: April 23, 2015 **Approval #:** UMW-25945

Joel P. Padgett, P.G., Geologist/Hydrologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

Approved Cost Agreement 50046

Facility: 14324 UST - UNKNOWN 14324

PADGETJP

PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
01 PLAN						
		A1	SITE SPECIFIC WORK PLAN	1.0000	400.00	400.00
03 COMPREHENSIVE SURVEY						
		A1	COMPREHENSIVE SURVEY	1.0000	1,000.00	1,000.00
04 MOB/DEMOB						
		A1	EQUIPMENT	1.0000	250.00	250.00
		B1	PERSONNEL	3.0000	200.00	600.00
08 ABANDONMENT						
		A1	ABANDONMENT 2" DIA OR LESS	45.0000	2.75	123.75
09 WELL INSTALLATION						
		B1	WATER TABLE (DRILL RIG)	400.0000	18.87	7,548.00
		C1	TELESCOPING	65.0000	31.00	2,015.00
		H1	RECOVERY WELL (4" DIA)	200.0000	28.00	5,600.00
16 SUBSEQUENT SURVEY						
		A1	SUBSEQUENT SURVEY	1.0000	300.00	300.00
17 DISPOSAL						
		AA	WASTEWATER	460.0000	1.25	575.00
		C1	SOIL TREATMENT DISPOSAL	14.0000	50.04	700.56
				Total Amount		19,112.31

Joel

UST
APR 29 2015
DIVISION

UNDERGROUND STORAGE TANK (UST) OWNER/OPERATOR LEAD INFORMATION SHEET

1. CONTRACTOR OF CHOICE

As the UST Owner/Operator of UST Permit # 14324 (Former Red Diamond) , 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 and remediation scopes.**

RECEIVED
APR 29 2015
SC Department of Health and Environmental Control
UST
DOCKETING

Name of Contractor/Person(s): Midlands Environmental Consultants, Inc.

Address: 231 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 Betty S. Salmon
Date 4-23-15

REPORT OF MONITORING & RECOVERY WELL INSTALLATION

Former Red Diamond
400 East North 1st Street
Seneca, South Carolina
SCDHEC SITE ID 14324
CA # 50046



Prepared By:



Midlands Environmental Consultants, Inc.

231 Dooley Road, Lexington, SC 29073
(803) 808-2043 fax: 808-2048

July 9, 2015

MECI Project No. 15-5171

REPORT OF MONITORING & RECOVERY WELL INSTALLATION

Former Red Diamond
400 East North 1st Street
Seneca, South Carolina
SCDHEC SITE ID 14324
CA # 50046

Prepared By:

Midlands
Environmental
Consultants, Inc.

231 Dooley Road, Lexington, SC 29073
(803) 808-2043 fax: 808-2048

July 9, 2015

MECI Project No. 15-5171

Midlands Environmental Consultants, Inc.

January 8, 2015

Mr. Joel Padgett, P.G., Hydrologist
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 Monitoring & Recovery Well Installation
Former Red Diamond
400 East North 1st Street
Seneca, South Carolina
SCDHEC Site ID# 14324, CA # 50046
MECI Project Number 15-5171
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Padgett,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Report of Monitoring & Recovery Well Installation for the referenced site. This report describes assessment activities conducted at the site and results of those activities 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

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**APPENDIX B – SAMPLING LOGS, LABORATORY DATA SHEETS AND CHAIN OF CUSTODY FORMS
**APPENDIX C – TAX MAP DATA
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APPENDIX G – DISPOSAL MANIFESTS
**APPENDIX H – LOCAL ZONING REGULATIONS
**APPENDIX I – FATE & TRANSPORT MODELING
APPENDIX J – ACCESS AGREEMENTS
APPENDIX K – DATA VERIFICATION CHECKLIST

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:	Former Red Diamond	UST Permit #:	14324
Facility Address:	519 East North 1st Street, Seneca, SC 29678		
Name:	Betty Latham		
Address:	2 Stratton Place, Greenville, SC 29615		
Telephone #:	(864) 288-6480		

B. **Property Owner Information**

Name	Ann Latham Laney
Tax Map #:	Oconee County Tax Map#: 520-30-02-015
Address	2 Stratton Place, Greenville, SC 29615
Telephone #	(864) 288-6480

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
Driller:	Tommy Bolyard
Certification #:	B 01846
Address:	17538 Greenhill Road, Charlotte, NC 28278
Telephone #:	(704) 607-7529

E. **SCDHEC Certified Laboratory**

Name:	N/A
Certification #:	N/A
Address:	N/A
Telephone #:	N/A

1.1 PROJECT INFORMATION

The subject site (Former Red Diamond) is located at 519 East North First Street, Seneca, Oconee County, South Carolina (See Figure 1). The subject site formerly maintained two 1,000 gallon gasoline underground storage tanks (UST's) and one 500 gallon kerosene UST. The subject tanks were abandoned by removal from ground in December of 1991. The South Carolina Department of Health and Environmental Control (SCDHEC) reported a release of petroleum product from the subject tanks in December of 1991 and confirmed the release in March of 1992. The subject site is currently rated a Class 3B.

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

2.0 SURROUNDING PROPERTY USAGE

The subject site is currently a vacant lot located within the town limits of Seneca, Oconee County, South Carolina. East North 1st Street forms the southern property boundary, beyond which are commercial properties to include a former gasoline service station (Earl's Upholstery). West of the site is a vacant commercial lot, beyond which is Oconee Welding Supply and additional commercial properties. East of the site is bordered by a dry cleaning facility (Tri-City Cleaners/BLWM# 56039), beyond which are commercial properties. North of the site is an open grass lot and wooded area, beyond which are residential properties.

3.0 AREA GEOLOGY AND HYDROGEOLOGY

The mean elevation of the property, as depicted on the local USGS quadrangle (Seneca, South Carolina), appears to be approximately 960 feet above sea level. The site is located in the Piedmont Physiographic Province of South Carolina, an area underlain by ancient igneous and metamorphic rocks. The soils in this province are generally residual soils that are underlain by rock at highly varying depths.

The soils encountered in this area are the product of in-place weathering of rocks similar to the rocks underlying the site. In areas not altered by erosion or disturbed by the activities of man, the typical residual soil profile consists of near surface clayey soils and underlying sandy silt and sand. The boundary between soil and rock is gradational. A transitional zone termed "weathered rock" is normally found overlying the parent bedrock. This zone is typically the most transmissive zone for groundwater movement. Consequently, the topography of the bedrock surface is uneven, even over short horizontal distances. It is not unusual to find lenses and boulders of hard rock and zones of weathered rock within the soil mantle well above the general bedrock level.

Local precipitation is the source of practically all of the groundwater in Oconee County. A portion of the precipitation infiltrates into the ground and moves under the influence of gravity to the surficial aquifer. After the water has reached the surficial aquifer, the direction of movement is generally parallel to the hydraulic gradient. In the Piedmont Province, the slope of the surficial aquifer's surface under static conditions (no pumping interference) approximates the topography of an area. Thus, the movement of groundwater within the soil mantel is typically in the direction of the topographic slope. Local groundwater flow patterns may be affected by disturbed areas such as tank pits, utility trenches, building foundations, borings, wells, etc. Groundwater flow in fractured rock is often difficult to interpret due to the variability of fracture connectivity and orientation.

Locally, in the surficial aquifer, groundwater discharges into streams, lakes or springs where the groundwater table intersects lows occupied by these water bodies. The apparent direction (based topographic maps and historical data) of groundwater flow from the release is to the north, toward drainage features associated with the Cane Creek.

3.1 LOCAL SUBSURFACE CONDITIONS

Piedmont Residuum was encountered during drilling activities conducted at the site. The soils encountered in our borings generally consisted of medium to coarse grained sandy clays near surface which were underlain by clayey medium to coarse grained sands. Test Boring Records, which depict the materials encountered in each boring, are located in Appendix E.

On June 24, 2015, a stabilized groundwater level was measured in the newly installed wells. Depth to groundwater ranged from 30.96 to 35.71 feet from the 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.

The above descriptions provide a general summary of the subsurface conditions encountered. The attached Test Boring Records (Appendix E) contain detailed information recorded from the newly installed replacement wells. The Test Boring Records represent our interpretation of the field logs based on examination of the field samples. The lines designating the interfaces between various strata represent approximate boundaries, and the transition between strata may be gradational.

4.0 FIELD EXPLORATION

A site visit was performed at the referenced site on April 14, 2015 to evaluate current site conditions, gain property access, and determine drilling accessibility. Field exploration conducted at the site included:

- construction of nine (9) groundwater monitoring wells;
- construction of five (5) groundwater recovery wells;
- abandonment of one (1) monitoring well; and,
- a subsequent survey of subject site.

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

4.1 WELL INSTALLATION

From June 9-12, 2015, eight single cased, watertable bracketing monitoring wells, one double cased monitoring well, and five single cased, 4-inch recovery wells were installed at the subject site. All monitoring wells were installed by Environmental Drilling and Probing Services, LLC. (EDPS) of Charlotte, NC (S.C. Driller Certification: Tommy Bolyard # B 01846) to better define the contaminant plume and to provide sufficient recovery points for future Aggressive Fluid Vapor Extraction (AFVR) events. All wells were installed using a truck-mounted Canterra Combo drilling rig. EDPS employed 8.0-inch outer diameter hollow stem augers to construct the boreholes for the watertable bracketing monitoring wells (MW-19R, MW-20, MW-21, MW-22, MW-23, MW-24, MW-25 & MW-26) and 10.0-inch outer diameter hollow stem augers to construct the boreholes for the 4-inch recovery wells (RW-1, RW-2, RW-3, RW-4 & RW-5).

The double cased monitoring well (DW-1) were constructed with a 6-inch ID schedule 40 PVC outer casing installed to an approximate depth of 50-feet below ground surface. The casing was pressure grouted to the ground surface with a bentonite-cement grout and allowed to cure for at 24 hours. After curing, a 4.5-inch outside diameter roller cone bit was utilized to advance the borehole through the outer casing to the termination depth.

The following table presents well installation details:

Well Number	Single Cased	Double Cased	Well Diameter	Screened Interval	Total Depth (ft)
MW-19R	X		2"	30.0-40.0	40.50
MW-20	X		2"	30.0-40.0	40.40
MW-21	X		2"	30.0-40.0	40.88
MW-22	X		2"	30.0-40.0	40.45
MW-23	X		2"	30.0-40.0	40.39
MW-24	X		2"	30.0-40.0	40.47
MW-25	X		2"	30.0-40.0	40.79
MW-26	X		2"	30.0-40.0	40.11
DW-1		X	2"	60.0-65.0	65.51
RW-1	X		4"	20.0-40.0	40.30
RW-2	X		4"	20.0-40.0	40.19
RW-3	X		4"	20.0-40.0	39.08
RW-4	X		4"	20.0-40.0	41.23
RW-5	X		4"	20.0-40.0	41.20

The soils encountered during drilling activities generally consisted of medium to coarse grained sandy clays near surface which were underlain by clayey medium to coarse grained sands. 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 on June 10 & 12, 2015 to Richland Landfill in Elgin, SC by MECI personnel. A total of 4.08 tons was disposed of in this manner. A disposal manifest for these soils is presented in Appendix G.

Following completion of the monitoring wells, the wells were developed by purging until they were determined to be functioning properly and turbidity was reduced. These wells were developed utilizing a Mini-Monsoon well pump. The drum of purge water was treated by MECI personnel using a granular activated carbon drum. A total of 125.0 gallons of purge/development water was disposed of in this manner. A disposal manifest for the treated purge water is presented in Appendix G.

4.2 MONITORING WELL ABANDONMENT

On June 12, 2015, one single cased monitoring well was abandoned at the subject site according to South Carolina Well Standards and Regulations R.61-71.H. This well abandonment was conducted by Environmental Drilling & Probing Services (EDPS) of Charlotte, NC (S.C. Driller Certification: Tommy Bolyard # B 01846). The following matrix presents the well identification numbers, surface coverings, well diameter and total well depth:

Well Number	Surface Covering	Well Diameter (Inches)	Total Depth (Feet)
MW-19	Grass	2"	45.00
Total Footage of Abandoned Wells			**45.00**

The wells were abandoned with portland bentonite slurry utilizing tremie pipe. A total of 45.00 feet were abandoned by the methods described above. Following the abandonment, the well pad and vault were removed and the void filled with topsoil. Please find the SCDHEC 1903 abandonment Water Well Records in Appendix E.

4.3 SITE SURVEY

On June 24, 2015, 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 wells. A TOC elevation of 98.60 for MW-2 and 97.92 for MW-3 were used as benchmarks for surveying MW-24, MW-25, MW-26, RW-1, RW-2, RW-3 and RW-5. A TOC elevation of 97.92 for MW-3 and 99.12 for MW-12 were used as benchmarks for surveying MW-19R, MW-20, MW-21, MW-22, DW-1 and RW-4. A TOC elevation of 99.12 for MW-12 and 98.63 for DW-1 were used as benchmarks for surveying MW-23. Elevations were based on site datum obtained from SCDHEC files. See Table 2 and Figure 5 for potentiometric data for the entire monitoring well network.

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 are intended for the sole use of 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

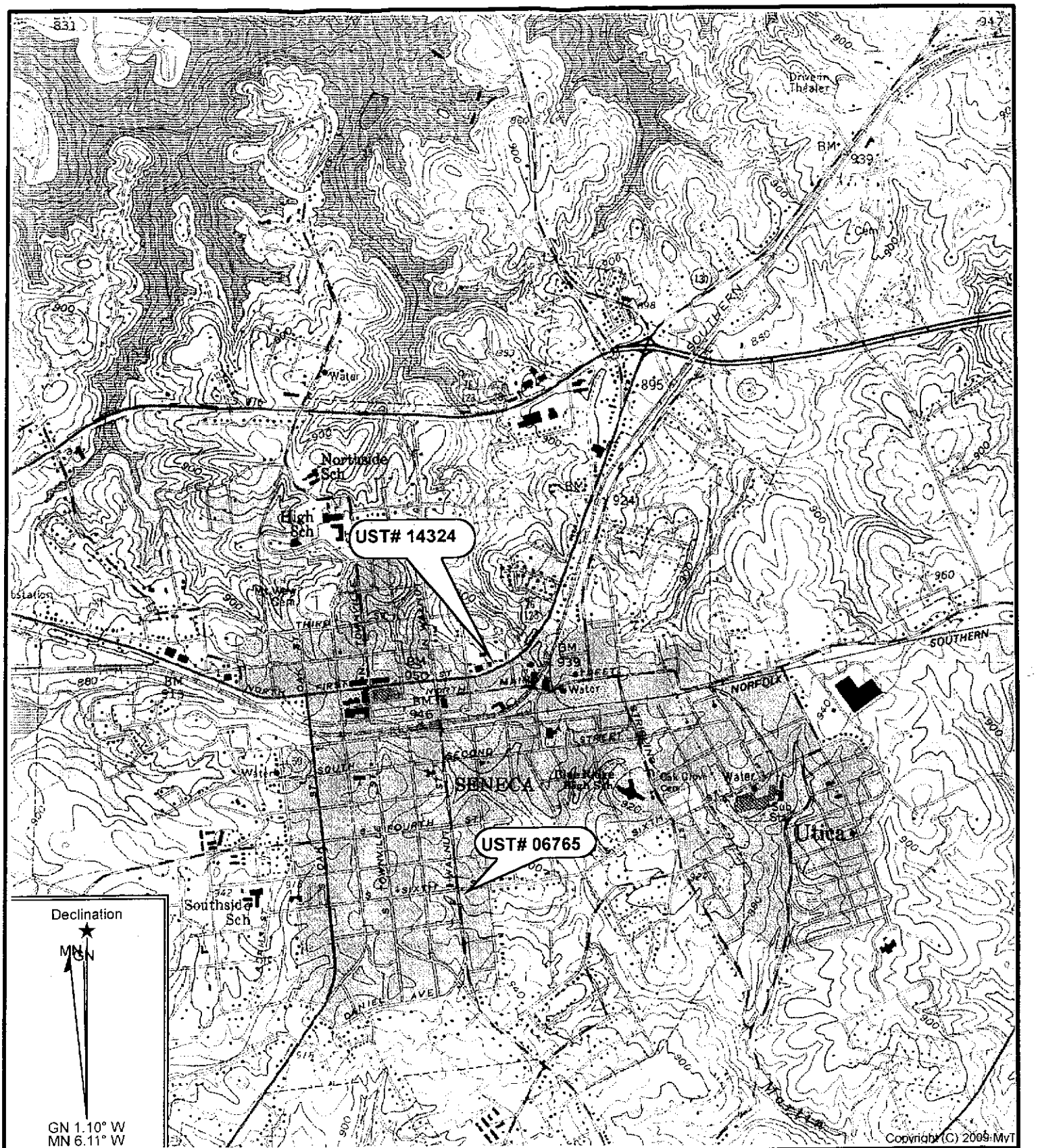
TABLE 2
POTENTIOMETRIC DATA
JUNE 24, 2015 GAUGING SAMPLING EVENT
FORMER RED DIAMOND
SENECA, SOUTH CAROLINA
MECI PROJECT NUMBER 15-5171
SCDHEC SITE ID NUMBER 14324

Well Number	Gauge Date	Screened Interval (ft BGS)	Depth to Water (ft)	Well-head Elevation	Groundwater Elevation
MW-1	6/24/2015	25-40	NM	98.32	NM
MW-2	6/24/2015	30-40	NM	98.60	NM
MW-3	6/24/2015	30-40	NM	97.92	NM
MW-4	6/24/2015	30-40	NM	99.07	NM
MW-5	6/24/2015	60-65	NM	98.03	NM
MW-12	6/24/2015	60-65	NM	99.12	NM
MW-13	6/24/2015	36-46	NM	99.41	NM
MW-19	6/24/2015	35-45	Abandoned	99.58	Abandoned
MW-19R	6/24/2015	30-40	34.08	99.09	65.01
MW-20	6/24/2015	30-40	33.92	98.30	64.38
MW-21	6/24/2015	30-40	30.96	95.58	64.62
MW-22	6/24/2015	30-40	33.10	99.03	65.93
MW-23	6/24/2015	30-40	35.71	104.14	68.43
MW-24	6/24/2015	30-40	33.30	100.19	66.89
MW-25	6/24/2015	30-40	31.57	95.40	63.83
MW-26	6/24/2015	30-40	32.86	98.46	65.60
DW-1	6/24/2015	60-65	32.67	98.63	65.96
RW-1	6/24/2015	20-40	31.94	98.64	66.70
RW-2	6/24/2015	20-40	32.06	98.74	66.68
RW-3	6/24/2015	20-40	31.86	98.73	66.87
RW-4	6/24/2015	20-40	31.62	99.31	67.69
RW-5	6/24/2015	20-40	31.43	99.52	68.09
EP-4	6/24/2015	20-35	NM	Unknown	NM
EP-12	6/24/2015	20-35	NM	Unknown	NM
EP-16	6/24/2015	TD: 34.35	NM	Unknown	NM
EP-20	6/24/2015	13-35	NM	Unknown	NM

Notes:

1. Groundwater depths were measured from the top of the PVC riser pipe.
2. Site datum based on assumed spot elevation.
3. NM = Not Measured
4. TD = Total Depth

FIGURES



Reference: Seneca, South Carolina
USGS 7.5 Min. Quad
Countour Interval – 20 Feet

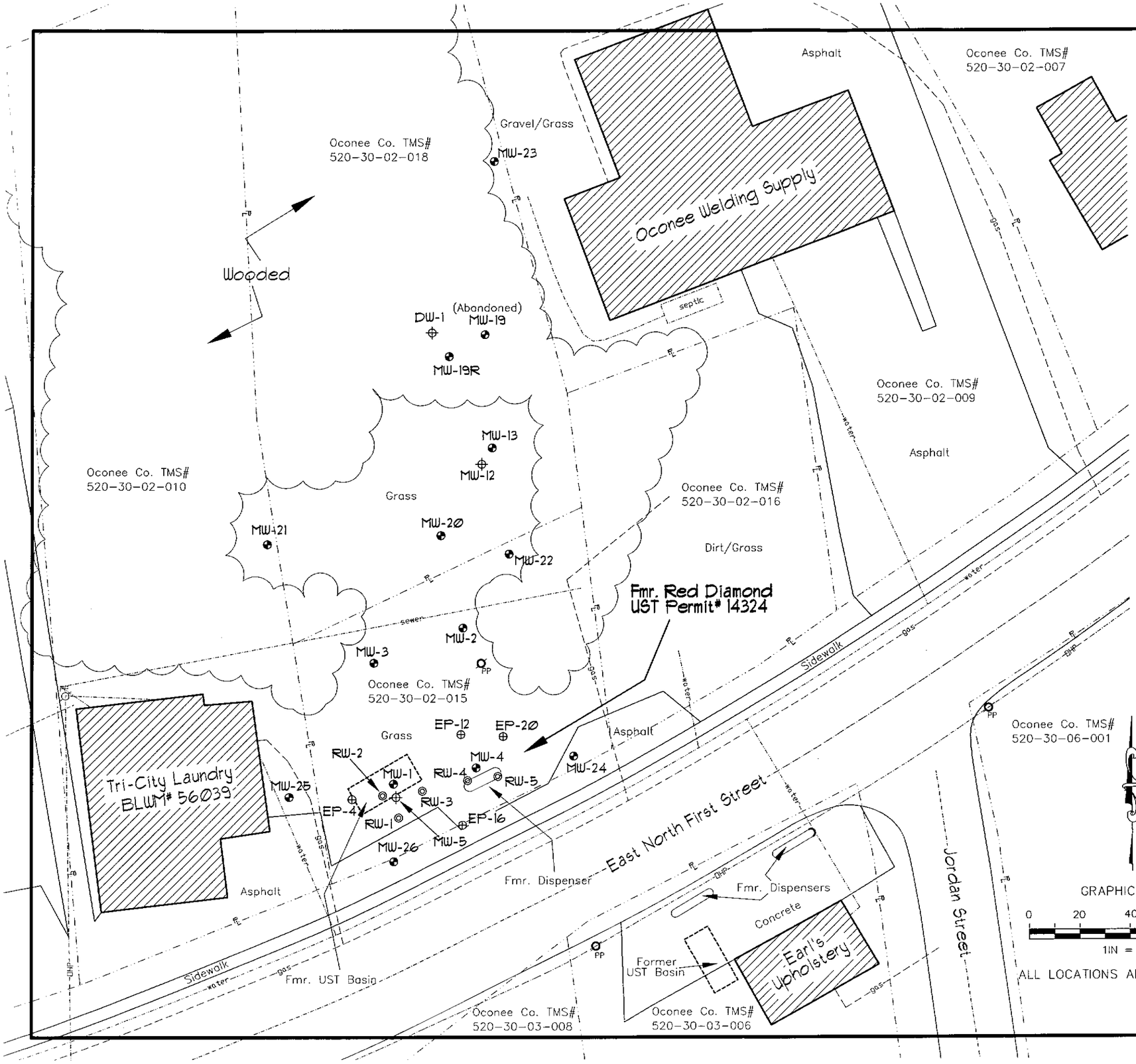
Midlands Environmental Consultants, Inc.

Site Location

Former Red Diamond
519 East North First Street, Seneca, SC
SCDHEC Site ID# 14324

Figure 1

MECI 15-5171



Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Double Cased "Deep" Monitoring Well
- Location of 2-Inch Extraction Point
- Location of 4-Inch Recovery Well
- Estimated Location of Removed Underground Storage Tanks
- OHP — Overhead Power
- P/L — Property Line
- gas — Buried Gas Line
- water — Buried Water Line
- sewer — Buried Sewer/Septic

Drawing Based on MECI Field Notes, Oconee County GIS Data and Figure 1 by Force & Associates, Inc., dated 4/16/03.

Site Base Map

Former Red Diamond
519 East North First Street
Seneca, South Carolina
SCDHEC Site ID 14324

Midlands Environmental Consultants, Inc.

JOB NO. 15-5171
DATE July 9, 2015
FIGURE 2