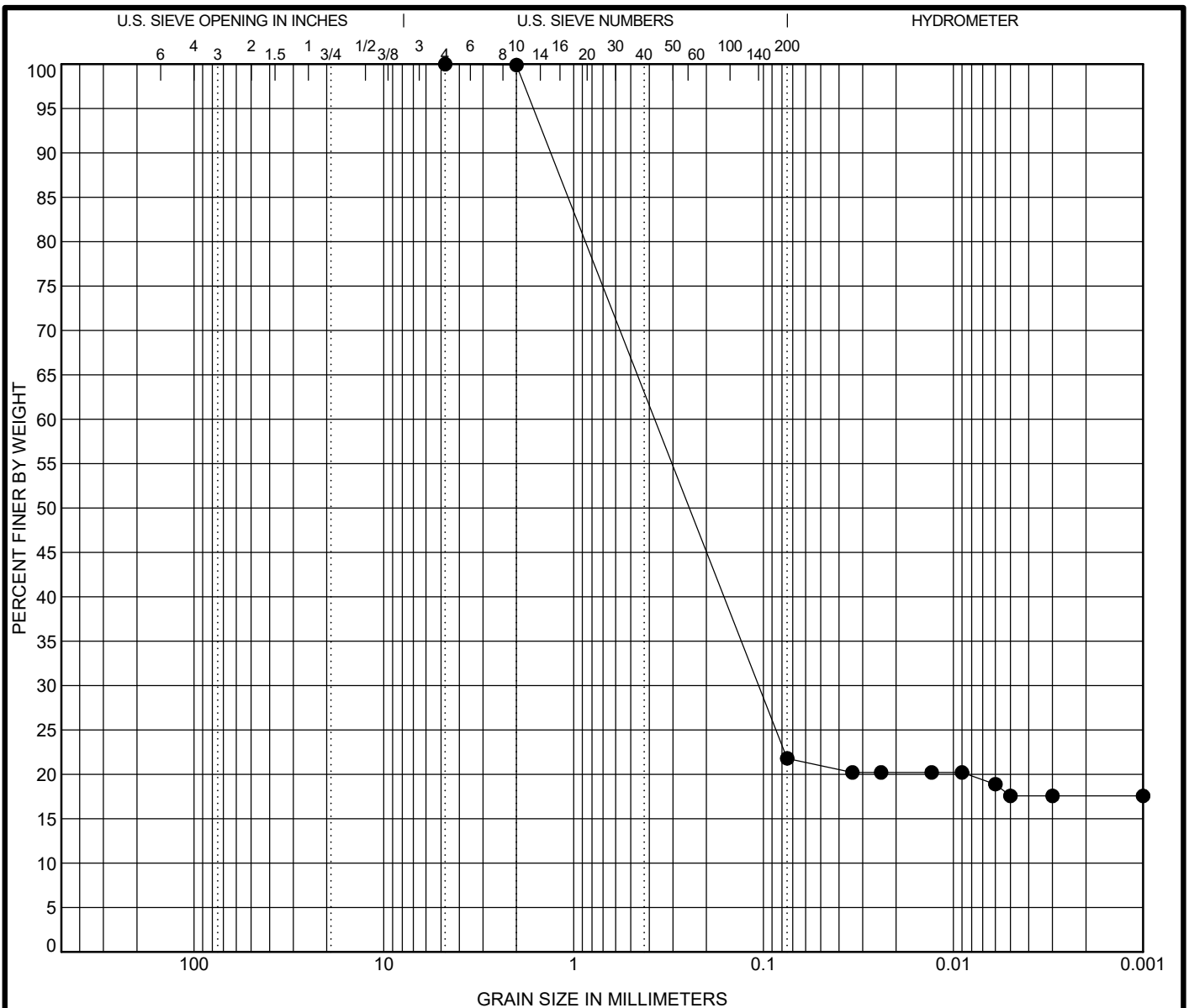




COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen	Sample Description					LL	PL	PI	Test Method
● SB-1 8.0-10.0 ft	CLAYEY SAND (SC), orangish brown					--	--	--	Atterberg ASTM D4318
Test Method	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay	
ASTM D7928	4.75	0.374	0.106		0.0	78.2	4.2	17.6	

Percent Finer

Sieve Size	200	10	4
% Finer	21.8	99.9	100.0

Tested By	Tested Date	Reviewed by	Calc by
EC	2/2/22	SRH	EC

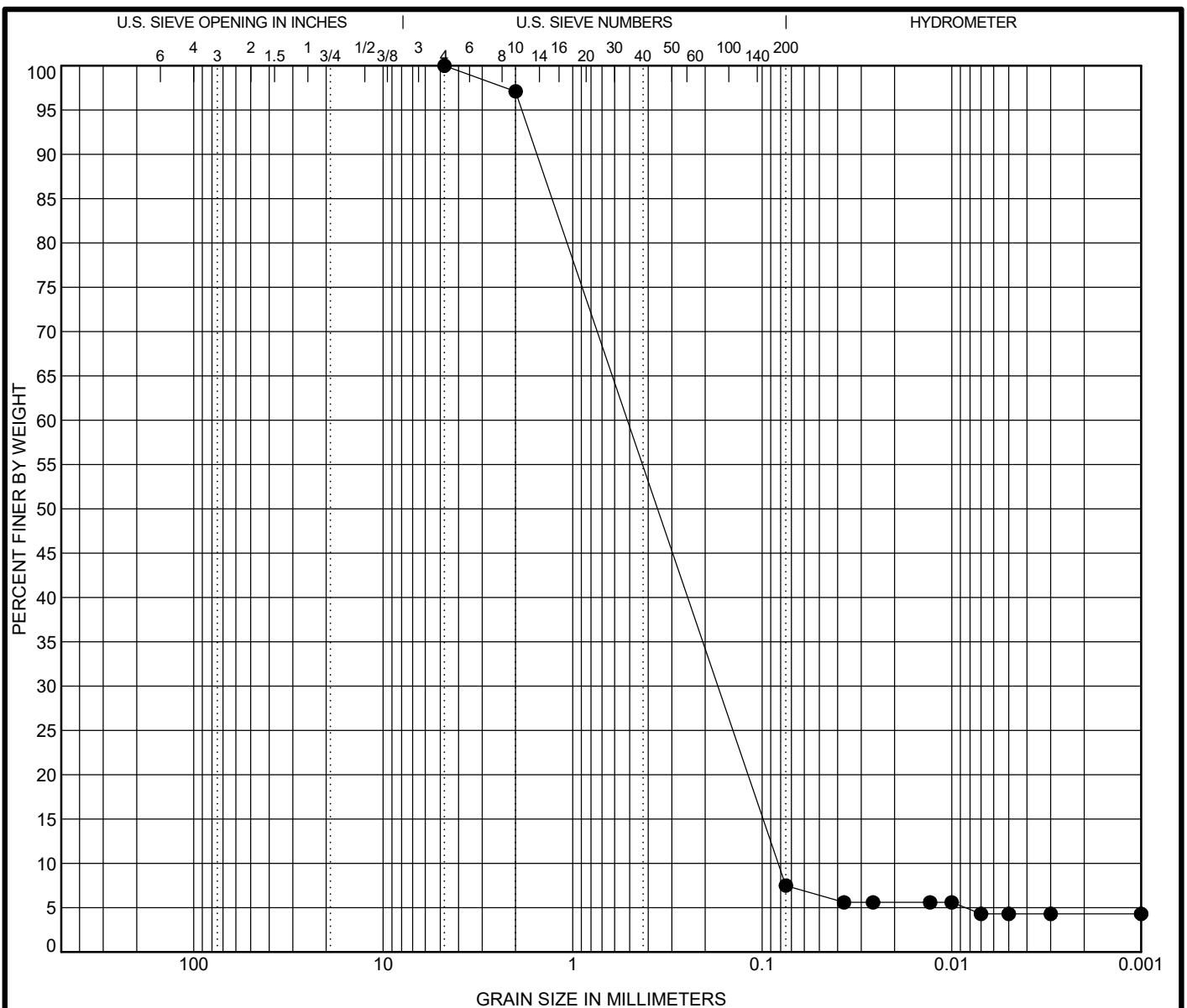


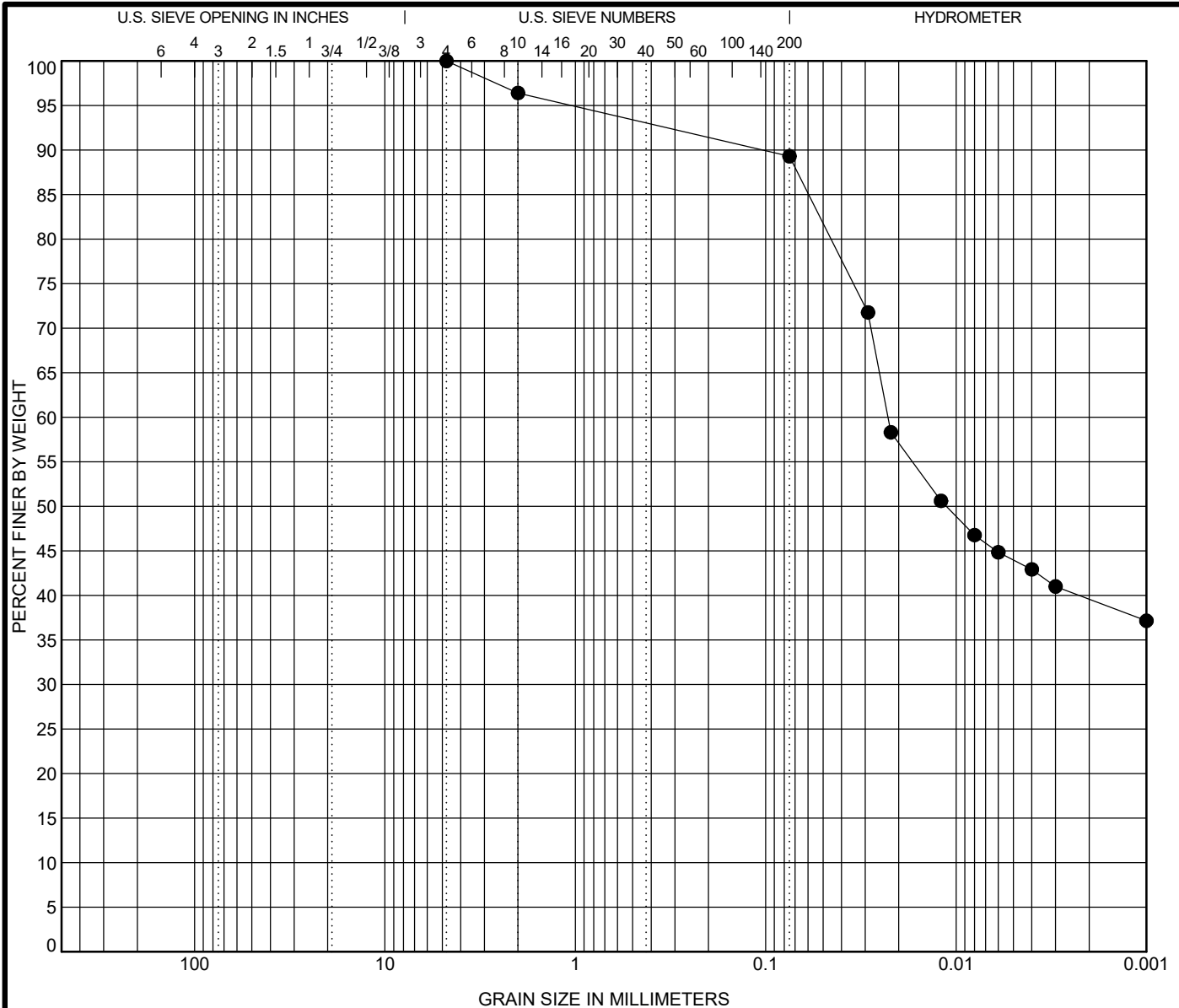
Schnabel
ENGINEERING

GRADATION CURVE

Project: Mildands Environmental Services
Jake Huggins
SC

Contract: 21C19040.00.15-17





COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen		Sample Description					LL	PL	PI	Test Method
●	SB-1 32.0-34.0 ft	SILTY CLAY (CL-ML), grayish brown					--	--	--	Atterberg ASTM D4318
Test Method		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay	
ASTM D7928		4.75	0.023			0.0	10.7	49.7	39.6	

Percent Finer

Sieve Size	200	10	4
% Finer	89.3	96.4	100.0

Tested By	Tested Date	Reviewed by	Calc by
EC	2/2/22	SRH	EC



Schnabel
ENGINEERING

GRADATION CURVE

Project: Mildands Environmental Services
Jake Huggins
SC

Contract: 21C19040.00.15-17



CHAIN OF CUSTODY RECORD

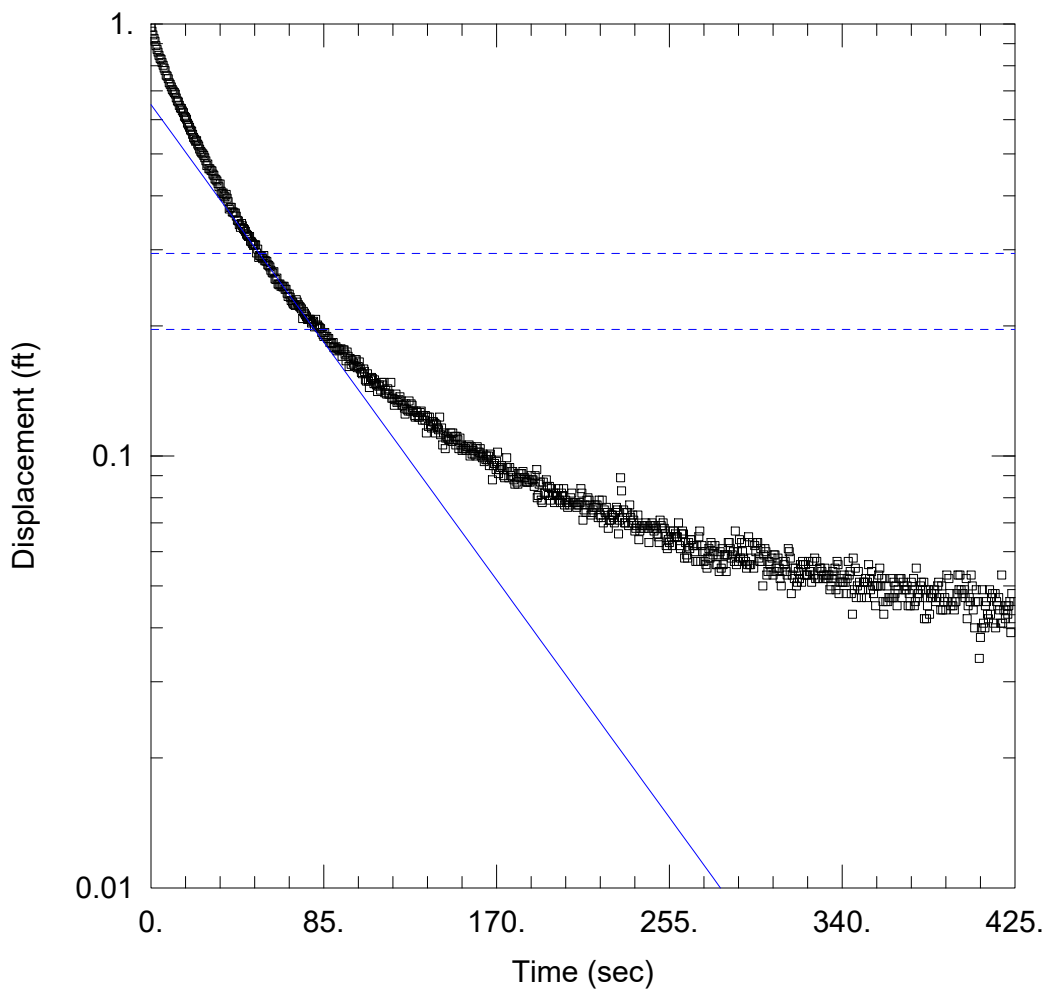
Schnabel Engineering, LLC
 104 Corporate Blvd. Suite 420
 West Columbia, SC 29169
 Phone: 803-796-6240 Fax: 803-796-6250
 Page of

File No.: 21C19040.00 Laboratory: Schnabel Engineering Delivery Date: _____
 Project Name: Jake Huggins Address: _____ Turnaround: _____
 Contact: Stephen Hahn Project Manager: _____ Delivery Date: _____

Sample No.	Date	Time	Depth	Type	Container Size	No. of Containers	Analysis Requested	Preservatives	Comments - (special instructions, precautions, additional method numbers, etc.)
SB-1	1/28/22	9:00	8'-10'	SL	4oz	1	Grain Size / Hydrometer	N/A	Task 15
SB-1	1/28/22	9:15	24'-26'	SL	4oz	1	Grain Size / Hydrometer	N/A	16
SB-1	1/28/22	9:30	32'-34'	SL	4oz	1	Grain Size / Hydrometer	N/A	17

Sampled and Relinquished by Sign <i>Colin Phillips</i> Print Colin Phillips Firm MECE Date 1/28/22 Time 13:55		Received by Sign <i>Arlene Wargo</i> Print Arlene Wargo Firm Schnabel Engineering, LLC Date 1/20/22 Time 13:55		PRESERVATION KEY A Sample chilled B Sample filtered C NaOH D HNO ₃ E H ₂ SO ₄ F HCL G Methanol H Sodium Bisulfate I	Sampling Comments
Relinquished by Sign Print Firm Date Time		Received by Sign Print Firm Date Time			
Relinquished by Sign Print Firm Date Time		Received by Sign Print Firm Date Time			

Evidence samples were tampered with? YES NO
 If YES, please explain in section below.



WELL TEST ANALYSIS

Data Set: M:\active\21-7709\AQTESOLV\MW2.aqt

Date: 03/04/22

Time: 09:35:30

PROJECT INFORMATION

Company: MECI

Client: SCDHEC

Project: 21-7709

Location: Florence

Test Well: MW-2

Test Date: 2/14/2022

AQUIFER DATA

Saturated Thickness: 10.92 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-2)

Initial Displacement: 0.981 ft

Static Water Column Height: 10.92 ft

Total Well Penetration Depth: 13. ft

Screen Length: 10. ft

Casing Radius: 0.083 ft

Well Radius: 0.33 ft

Gravel Pack Porosity: 0.28

SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 0.002207$ cm/sec

$y_0 = 0.6505$ ft

Data Set: M:\active\21-7709\AQTESOLV\MW2.aqt

Date: 03/04/22

Time: 09:35:49

PROJECT INFORMATION

Company: MECI

Client: SCDHEC

Project: 21-7709

Location: Florence

Test Date: 2/14/2022

Test Well: MW-2

AQUIFER DATA

Saturated Thickness: 10.92 ft

Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATATest Well: MW-2

X Location: 0. ft

Y Location: 0. ft

Initial Displacement: 0.981 ft

Static Water Column Height: 10.92 ft

Casing Radius: 0.083 ft

Well Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 10. ft

Total Well Penetration Depth: 13. ft

Corrected Casing Radius (Bouwer-Rice Method): 0.1883 ft

Gravel Pack Porosity: 0.28

No. of Observations: 1230

<u>Observation Data</u>			
<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
0.	0.981	307.5	0.055
0.5	0.962	308.	0.054
1.	0.943	308.5	0.058
1.5	0.926	309.	0.055
2.	0.912	309.5	0.052
2.5	0.891	310.	0.05
3.	0.873	310.5	0.054
3.5	0.86	311.	0.057
4.	0.846	311.5	0.056
4.5	0.832	312.	0.057
5.	0.828	312.5	0.054
5.5	0.814	313.	0.053
6.	0.802	313.5	0.061
6.5	0.79	314.	0.06
7.	0.78	314.5	0.058
7.5	0.761	315.	0.048
8.	0.757	315.5	0.053
8.5	0.747	316.	0.055
9.	0.731	316.5	0.052
9.5	0.725	317.	0.055
10.	0.715	317.5	0.05
10.5	0.705	318.	0.051
11.	0.699	318.5	0.054
11.5	0.694	319.	0.052
12.	0.688	319.5	0.056
12.5	0.674	320.	0.051
13.	0.663	320.5	0.057
13.5	0.66	321.	0.056
14.	0.648	321.5	0.053
14.5	0.639	322.	0.056
15.	0.637	322.5	0.053
15.5	0.629	323.	0.053

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
16.	0.623	323.5	0.057
16.5	0.611	324.	0.054
17.	0.607	324.5	0.054
17.5	0.602	325.	0.051
18.	0.589	325.5	0.057
18.5	0.583	326.	0.053
19.	0.576	326.5	0.058
19.5	0.568	327.	0.052
20.	0.565	327.5	0.057
20.5	0.555	328.	0.052
21.	0.546	328.5	0.052
21.5	0.541	329.	0.055
22.	0.535	329.5	0.055
22.5	0.537	330.1	0.054
23.	0.527	330.5	0.052
23.5	0.522	331.	0.053
24.	0.513	331.5	0.055
24.5	0.507	332.	0.052
25.	0.503	332.5	0.053
25.5	0.5	333.	0.052
26.	0.496	333.5	0.053
26.5	0.49	334.	0.049
27.	0.482	334.5	0.05
27.5	0.47	335.1	0.052
28.	0.474	335.5	0.054
28.5	0.462	336.	0.053
29.	0.462	336.5	0.055
29.52	0.458	337.	0.049
30.	0.457	337.5	0.057
30.5	0.449	338.	0.056
31.	0.446	338.5	0.048
31.5	0.438	339.	0.051
32.	0.436	339.5	0.052
32.5	0.433	340.1	0.051
33.	0.427	340.5	0.051
33.5	0.42	341.	0.053
34.	0.426	341.5	0.051
34.53	0.41	342.	0.048
35.	0.405	342.5	0.052
35.5	0.406	343.	0.057
36.	0.4	343.5	0.053
36.5	0.398	344.	0.054
37.	0.403	344.5	0.048
37.5	0.395	345.1	0.043
38.	0.388	345.5	0.058
38.5	0.373	346.	0.049
39.	0.376	346.5	0.055
39.54	0.376	347.	0.047
40.	0.367	347.5	0.05
40.5	0.367	348.	0.054
41.	0.365	348.5	0.051
41.5	0.365	349.	0.049
42.	0.359	349.5	0.047
42.5	0.351	350.1	0.049
43.	0.35	350.5	0.051
43.5	0.343	351.	0.051
44.	0.338	351.5	0.052
44.56	0.345	352.	0.047
45.	0.341	352.5	0.051
45.5	0.336	353.	0.056
46.	0.334	353.5	0.052
46.5	0.331	354.	0.049
47.	0.326	354.5	0.054
47.5	0.324	355.1	0.05
48.	0.322	355.5	0.048
48.5	0.322	356.	0.05
49.	0.314	356.5	0.045
49.57	0.313	357.	0.05
50.	0.31	357.5	0.05
50.5	0.307	358.	0.053

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
51.	0.308	358.5	0.055
51.5	0.308	359.	0.05
52.	0.295	359.5	0.052
52.5	0.301	360.1	0.046
53.	0.288	360.5	0.043
53.5	0.291	361.	0.052
54.	0.29	361.5	0.046
54.57	0.289	362.	0.05
55.	0.286	362.5	0.046
55.5	0.291	363.	0.047
56.	0.283	363.5	0.047
56.5	0.283	364.	0.052
57.	0.282	364.5	0.047
57.5	0.277	365.1	0.047
58.	0.276	365.5	0.051
58.5	0.274	366.	0.048
59.	0.269	366.5	0.05
59.58	0.266	367.	0.045
60.	0.265	367.5	0.049
60.5	0.267	368.	0.052
61.	0.257	368.5	0.052
61.5	0.256	369.	0.052
62.	0.258	369.5	0.047
62.5	0.25	370.1	0.051
63.	0.249	370.5	0.05
63.5	0.25	371.	0.049
64.	0.247	371.5	0.049
64.6	0.247	372.	0.05
65.	0.246	372.5	0.045
65.5	0.247	373.	0.048
66.	0.243	373.5	0.045
66.5	0.243	374.	0.051
67.	0.238	374.5	0.049
67.5	0.234	375.1	0.052
68.	0.237	375.5	0.045
68.5	0.233	376.	0.046
69.	0.229	376.5	0.055
69.6	0.227	377.	0.047
70.	0.225	377.5	0.048
70.5	0.224	378.	0.047
71.	0.223	378.5	0.05
71.5	0.23	379.	0.051
72.	0.227	379.5	0.049
72.5	0.224	380.2	0.051
73.	0.222	380.5	0.042
73.5	0.221	381.	0.049
74.	0.219	381.5	0.042
74.61	0.208	382.	0.045
75.	0.216	382.5	0.049
75.5	0.214	383.	0.043
76.	0.212	383.5	0.047
76.5	0.21	384.	0.048
77.	0.207	384.5	0.047
77.5	0.207	385.2	0.048
78.	0.207	385.5	0.049
78.5	0.207	386.	0.046
79.	0.203	386.5	0.047
79.63	0.204	387.	0.05
80.	0.205	387.5	0.051
80.5	0.199	388.	0.047
81.	0.207	388.5	0.044
81.5	0.2	389.	0.05
82.	0.201	389.5	0.044
82.5	0.199	390.2	0.046
83.	0.198	390.5	0.047
83.5	0.197	391.	0.044
84.	0.193	391.5	0.053
84.64	0.191	392.	0.046
85.	0.189	392.5	0.052
85.5	0.193	393.	0.048

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
86.	0.189	393.5	0.045
86.5	0.189	394.	0.046
87.	0.187	394.5	0.045
87.5	0.187	395.2	0.044
88.	0.183	395.5	0.046
88.5	0.183	396.	0.046
89.	0.182	396.5	0.048
89.65	0.183	397.	0.053
90.	0.178	397.5	0.049
90.5	0.178	398.	0.053
91.	0.179	398.5	0.049
91.5	0.175	399.	0.048
92.	0.177	399.5	0.048
92.5	0.176	400.2	0.049
93.	0.176	400.5	0.047
93.5	0.177	401.	0.052
94.	0.17	401.5	0.042
94.67	0.176	402.	0.045
95.	0.176	402.5	0.047
95.5	0.172	403.	0.046
96.	0.166	403.5	0.053
96.5	0.174	404.	0.05
97.	0.17	404.5	0.044
97.5	0.161	405.2	0.04
98.	0.168	405.5	0.046
98.5	0.163	406.	0.049
99.	0.166	406.5	0.046
99.68	0.164	407.	0.046
100.	0.162	407.5	0.034
100.5	0.167	408.	0.038
101.	0.167	408.5	0.04
101.5	0.16	409.	0.049
102.	0.161	409.5	0.041
102.5	0.165	410.3	0.04
103.	0.159	410.5	0.045
103.5	0.156	411.	0.046
104.	0.155	411.5	0.043
104.7	0.159	412.	0.042
105.	0.157	412.5	0.049
105.5	0.15	413.	0.043
106.	0.149	413.5	0.047
106.5	0.155	414.	0.048
107.	0.149	414.5	0.041
107.5	0.144	415.3	0.048
108.	0.15	415.5	0.04
108.5	0.152	416.	0.046
109.	0.151	416.5	0.045
109.7	0.147	417.	0.047
110.	0.15	417.5	0.044
110.5	0.147	418.	0.041
111.	0.146	418.5	0.053
111.5	0.141	419.	0.041
112.	0.145	419.5	0.044
112.5	0.146	420.3	0.042
113.	0.142	420.5	0.044
113.5	0.148	421.	0.045
114.	0.146	421.5	0.043
114.7	0.148	422.	0.045
115.	0.14	422.5	0.046
115.5	0.142	423.	0.039
116.	0.139	423.5	0.048
116.5	0.143	424.	0.042
117.	0.139	424.5	0.046
117.5	0.139	425.3	0.042
118.	0.148	425.5	0.043
118.5	0.136	426.	0.039
119.	0.136	426.5	0.039
119.7	0.131	427.	0.043
120.	0.135	427.5	0.047
120.5	0.139	428.	0.046

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
121.	0.133	428.5	0.041
121.5	0.134	429.	0.046
122.	0.135	429.5	0.045
122.5	0.137	430.3	0.046
123.	0.134	430.5	0.043
123.5	0.131	431.	0.044
124.	0.131	431.5	0.044
124.7	0.129	432.	0.042
125.	0.125	432.5	0.038
125.5	0.132	433.	0.054
126.	0.128	433.5	0.041
126.5	0.127	434.	0.062
127.	0.134	434.5	0.052
127.5	0.127	435.3	0.041
128.	0.132	435.5	0.049
128.5	0.131	436.	0.05
129.	0.127	436.5	0.048
129.7	0.124	437.	0.045
130.	0.123	437.5	0.044
130.5	0.127	438.	0.041
131.	0.126	438.5	0.041
131.5	0.123	439.	0.042
132.	0.123	439.5	0.036
132.5	0.126	440.	0.043
133.	0.127	440.5	0.04
133.5	0.121	441.	0.042
134.	0.124	441.5	0.036
134.8	0.121	442.	0.051
135.	0.124	442.5	0.039
135.5	0.113	443.	0.049
136.	0.123	443.5	0.037
136.5	0.117	444.	0.041
137.	0.123	444.5	0.045
137.5	0.118	445.	0.038
138.	0.116	445.5	0.045
138.5	0.12	446.	0.044
139.	0.12	446.5	0.045
139.8	0.119	447.	0.047
140.	0.113	447.5	0.039
140.5	0.118	448.	0.044
141.	0.116	448.5	0.041
141.5	0.115	449.	0.039
142.	0.123	449.5	0.041
142.5	0.112	450.	0.041
143.	0.116	450.5	0.037
143.5	0.106	451.	0.04
144.	0.113	451.5	0.041
144.8	0.104	452.	0.041
145.	0.11	452.5	0.043
145.5	0.111	453.	0.038
146.	0.11	453.5	0.036
146.5	0.109	454.	0.039
147.	0.109	454.5	0.033
147.5	0.113	455.	0.03
148.	0.108	455.5	0.037
148.5	0.113	456.	0.045
149.	0.109	456.5	0.042
149.8	0.111	457.	0.044
150.	0.106	457.5	0.04
150.5	0.111	458.	0.04
151.	0.109	458.5	0.039
151.5	0.104	459.	0.042
152.	0.11	459.5	0.04
152.5	0.106	460.	0.042
153.	0.103	460.5	0.037
153.5	0.104	461.	0.039
154.	0.104	461.5	0.043
154.8	0.104	462.	0.044
155.	0.103	462.5	0.047
155.5	0.105	463.	0.043

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
156.	0.105	463.5	0.046
156.5	0.106	464.	0.048
157.	0.1	464.5	0.042
157.5	0.105	465.	0.045
158.	0.101	465.5	0.039
158.5	0.103	466.	0.043
159.	0.101	466.5	0.041
159.8	0.1	467.	0.041
160.	0.104	467.5	0.042
160.5	0.105	468.	0.042
161.	0.102	468.5	0.042
161.5	0.102	469.	0.043
162.	0.104	469.5	0.039
162.5	0.1	470.	0.042
163.	0.099	470.5	0.044
163.5	0.101	471.	0.038
164.	0.097	471.5	0.043
164.8	0.098	472.	0.049
165.	0.1	472.5	0.045
165.5	0.098	473.	0.043
166.	0.1	473.5	0.046
166.5	0.095	474.	0.039
167.	0.101	474.5	0.039
167.5	0.098	475.	0.037
168.	0.088	475.5	0.04
168.5	0.095	476.	0.041
169.	0.096	476.5	0.041
169.8	0.093	477.	0.042
170.	0.097	477.5	0.039
170.5	0.102	478.	0.045
171.	0.091	478.5	0.04
171.5	0.093	479.	0.041
172.	0.094	479.5	0.041
172.5	0.095	480.	0.039
173.	0.094	480.5	0.038
173.5	0.09	481.	0.043
174.	0.089	481.5	0.034
174.8	0.094	482.	0.045
175.	0.099	482.5	0.05
175.5	0.094	483.	0.043
176.	0.089	483.5	0.042
176.5	0.094	484.	0.038
177.	0.09	484.5	0.042
177.5	0.092	485.	0.035
178.	0.092	485.5	0.033
178.5	0.088	486.	0.041
179.	0.086	486.5	0.039
179.8	0.089	487.	0.038
180.	0.087	487.5	0.04
180.5	0.086	488.	0.04
181.	0.091	488.5	0.038
181.5	0.089	489.	0.043
182.	0.091	489.5	0.04
182.5	0.091	490.	0.039
183.	0.092	490.5	0.044
183.5	0.089	491.	0.044
184.	0.089	491.5	0.038
184.8	0.087	492.	0.038
185.	0.087	492.5	0.044
185.5	0.087	493.	0.036
186.	0.088	493.5	0.035
186.5	0.087	494.	0.047
187.	0.09	494.5	0.045
187.5	0.088	495.	0.04
188.	0.088	495.5	0.041
188.5	0.085	496.	0.041
189.	0.09	496.5	0.038
189.8	0.093	497.	0.045
190.	0.08	497.5	0.041
190.5	0.081	498.	0.046

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
191.	0.086	498.5	0.047
191.5	0.087	499.	0.039
192.	0.079	499.5	0.041
192.5	0.078	500.	0.041
193.	0.087	500.5	0.043
193.5	0.082	501.	0.043
194.	0.082	501.5	0.047
194.5	0.088	502.	0.042
195.	0.085	502.5	0.048
195.5	0.081	503.	0.04
196.	0.085	503.5	0.04
196.5	0.079	504.	0.041
197.	0.084	504.5	0.042
197.5	0.081	505.	0.039
198.	0.082	505.5	0.039
198.5	0.078	506.	0.038
199.	0.082	506.5	0.036
199.5	0.081	507.	0.043
200.	0.081	507.5	0.045
200.5	0.084	508.	0.042
201.	0.079	508.5	0.042
201.5	0.078	509.	0.039
202.	0.082	509.5	0.041
202.5	0.081	510.	0.039
203.	0.084	510.5	0.034
203.5	0.077	511.	0.04
204.	0.079	511.5	0.049
204.5	0.078	512.	0.042
205.	0.076	512.5	0.041
205.5	0.078	513.	0.041
206.	0.077	513.5	0.04
206.5	0.08	514.	0.035
207.	0.082	514.5	0.042
207.5	0.078	515.	0.036
208.	0.078	515.5	0.039
208.5	0.078	516.	0.037
209.	0.078	516.5	0.039
209.5	0.076	517.	0.038
210.	0.077	517.5	0.036
210.5	0.077	518.	0.032
211.	0.078	518.5	0.039
211.5	0.084	519.	0.034
212.	0.082	519.5	0.038
212.5	0.071	520.	0.04
213.	0.075	520.5	0.039
213.5	0.077	521.	0.042
214.	0.074	521.5	0.036
214.5	0.079	522.	0.037
215.	0.08	522.5	0.037
215.5	0.079	523.	0.04
216.	0.077	523.5	0.039
216.5	0.073	524.	0.043
217.	0.074	524.5	0.043
217.5	0.075	525.	0.038
218.	0.076	525.5	0.033
218.5	0.077	526.	0.038
219.	0.076	526.5	0.042
219.5	0.077	527.	0.036
220.	0.072	527.5	0.039
220.5	0.079	528.	0.039
221.	0.073	528.5	0.035
221.5	0.072	529.	0.04
222.	0.079	529.5	0.037
222.5	0.07	530.	0.038
223.	0.075	530.5	0.037
223.5	0.074	531.	0.04
224.	0.076	531.5	0.037
224.5	0.074	532.	0.036
225.	0.068	532.5	0.04
225.5	0.071	533.	0.038

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
226.	0.071	533.5	0.037
226.5	0.073	534.	0.039
227.	0.073	534.5	0.043
227.5	0.072	535.	0.037
228.	0.07	535.5	0.039
228.5	0.074	536.	0.036
229.	0.076	536.5	0.041
229.5	0.075	537.	0.036
230.	0.066	537.5	0.041
230.5	0.071	538.	0.039
231.	0.089	538.5	0.037
231.5	0.083	539.	0.035
232.	0.072	539.5	0.047
232.5	0.075	540.	0.04
233.	0.07	540.5	0.041
233.5	0.07	541.	0.035
234.	0.074	541.5	0.04
234.5	0.074	542.	0.039
235.	0.069	542.5	0.039
235.5	0.077	543.	0.038
236.	0.072	543.5	0.036
236.5	0.07	544.	0.034
237.	0.073	544.5	0.037
237.5	0.071	545.	0.042
238.	0.067	545.5	0.034
238.5	0.068	546.	0.04
239.	0.069	546.5	0.034
239.5	0.073	547.	0.041
240.	0.064	547.5	0.035
240.5	0.067	548.	0.034
241.	0.068	548.5	0.029
241.5	0.069	549.	0.038
242.	0.069	549.5	0.042
242.5	0.068	550.	0.036
243.	0.069	550.5	0.034
243.5	0.07	551.	0.034
244.	0.069	551.5	0.034
244.5	0.068	552.	0.043
245.	0.063	552.5	0.036
245.5	0.069	553.	0.039
246.	0.069	553.5	0.041
246.5	0.07	554.	0.034
247.	0.068	554.5	0.04
247.5	0.067	555.	0.039
248.	0.069	555.5	0.037
248.5	0.068	556.	0.038
249.	0.066	556.5	0.038
249.5	0.065	557.	0.037
250.	0.063	557.5	0.039
250.5	0.071	558.	0.035
251.	0.069	558.5	0.039
251.5	0.068	559.	0.039
252.	0.07	559.5	0.034
252.5	0.068	560.	0.035
253.	0.066	560.5	0.039
253.5	0.062	561.	0.036
254.	0.061	561.5	0.034
254.5	0.064	562.	0.043
255.	0.063	562.5	0.039
255.5	0.067	563.	0.038
256.	0.065	563.5	0.036
256.5	0.062	564.	0.041
257.	0.067	564.5	0.04
257.5	0.065	565.	0.034
258.	0.066	565.5	0.037
258.5	0.065	566.	0.036
259.	0.065	566.5	0.037
259.5	0.07	567.	0.035
260.	0.062	567.5	0.037
260.5	0.061	568.	0.038

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
261.	0.066	568.5	0.038
261.5	0.067	569.	0.043
262.	0.066	569.5	0.038
262.5	0.058	570.	0.037
263.	0.063	570.5	0.032
263.5	0.059	571.	0.037
264.	0.058	571.5	0.038
264.5	0.063	572.	0.039
265.	0.061	572.5	0.04
265.5	0.064	573.	0.034
266.	0.064	573.5	0.042
266.5	0.062	574.	0.033
267.	0.062	574.5	0.036
267.5	0.06	575.	0.037
268.	0.057	575.6	0.035
268.5	0.062	576.	0.038
269.	0.057	576.5	0.035
269.5	0.065	577.	0.034
270.	0.067	577.5	0.034
270.5	0.057	578.	0.038
271.	0.062	578.5	0.035
271.5	0.06	579.	0.035
272.	0.057	579.5	0.029
272.5	0.06	580.	0.029
273.	0.056	580.6	0.032
273.5	0.055	581.	0.037
274.	0.058	581.5	0.034
274.5	0.061	582.	0.036
275.	0.058	582.5	0.038
275.5	0.063	583.	0.035
276.	0.062	583.5	0.033
276.5	0.059	584.	0.034
277.	0.06	584.5	0.038
277.5	0.062	585.	0.039
278.	0.056	585.5	0.034
278.5	0.056	586.	0.038
279.	0.059	586.5	0.036
279.5	0.054	587.	0.037
280.	0.06	587.5	0.034
280.5	0.055	588.	0.037
281.	0.061	588.5	0.034
281.5	0.056	589.	0.036
282.	0.059	589.5	0.037
282.5	0.059	590.	0.04
283.	0.054	590.6	0.031
283.5	0.059	591.	0.023
284.	0.063	591.5	0.057
284.5	0.063	592.	0.067
285.	0.061	592.5	0.027
285.5	0.058	593.	0.03
286.	0.059	593.5	0.03
286.5	0.06	594.	0.032
287.	0.057	594.5	0.028
287.5	0.067	595.	0.034
288.	0.056	595.6	0.03
288.5	0.06	596.	0.033
289.	0.057	596.5	0.031
289.5	0.064	597.	0.029
290.	0.058	597.5	0.028
290.5	0.063	598.	0.027
291.	0.06	598.5	0.034
291.5	0.058	599.	0.031
292.	0.063	599.5	0.031
292.5	0.057	600.	0.031
293.	0.055	600.6	0.028
293.5	0.056	601.	0.036
294.	0.065	601.5	0.034
294.5	0.056	602.	0.029
295.	0.056	602.5	0.033
295.5	0.058	603.	0.033

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
296.	0.063	603.5	0.035
296.5	0.055	604.	0.028
297.	0.062	604.5	0.034
297.5	0.06	605.1	0.029
298.	0.063	605.5	0.036
298.5	0.063	606.3	0.03
299.	0.058	606.5	0.034
299.5	0.057	607.	0.034
300.	0.061	607.5	0.028
300.5	0.057	608.	0.037
301.	0.05	608.5	0.034
301.5	0.059	609.	0.033
302.	0.061	609.5	0.034
302.5	0.06	610.	0.031
303.	0.053	610.5	0.033
303.5	0.054	611.	0.031
304.	0.057	611.5	0.031
304.5	0.056	612.	0.035
305.	0.054	612.5	0.032
305.5	0.058	613.	0.011
306.	0.053	613.5	0.034
306.5	0.059	614.	0.031
307.	0.059	614.5	0.028

SOLUTION

Slug Test

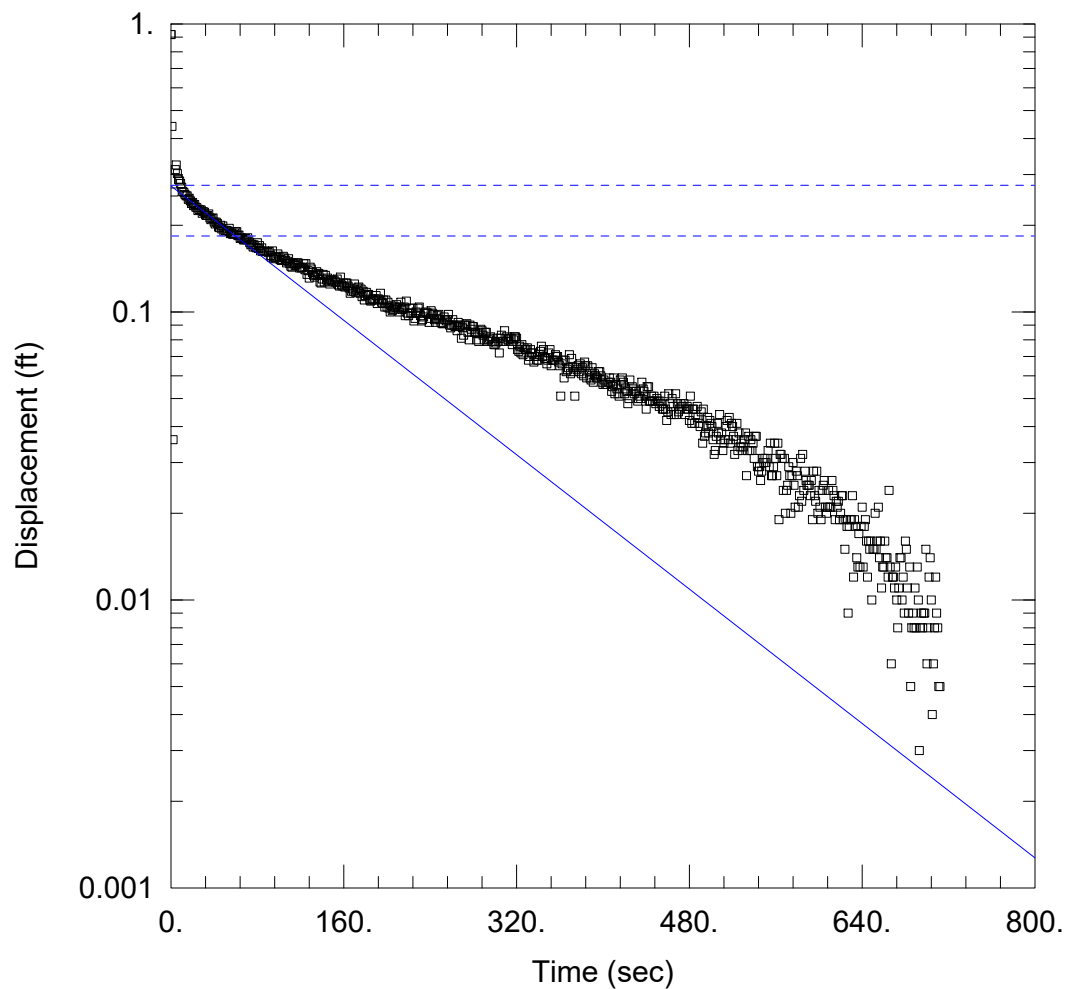
Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

 $\ln(Re/rw)$: 2.742VISUAL ESTIMATION RESULTSEstimated Parameters

<u>Parameter</u>	<u>Estimate</u>	
K	0.002207	cm/sec
y0	0.6505	ft

$$T = K \cdot b = 0.7347 \text{ cm}^2/\text{sec}$$



WELL TEST ANALYSIS

Data Set: M:\active\21-7709\AQTESOLV\MW7.aqt

Date: 03/04/22

Time: 09:36:39

PROJECT INFORMATION

Company: MECI

Client: SCDHEC

Project: 21-7709

Location: Florence

Test Well: MW-7

Test Date: 2/14/2022

AQUIFER DATA

Saturated Thickness: 9.91 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-7)

Initial Displacement: 0.918 ft

Static Water Column Height: 9.91 ft

Total Well Penetration Depth: 13. ft

Screen Length: 10. ft

Casing Radius: 0.083 ft

Well Radius: 0.33 ft

Gravel Pack Porosity: 0.28

SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 0.001003$ cm/sec

$y_0 = 0.274$ ft

Data Set: M:\active\21-7709\AQTESOLV\MW7.aqt

Date: 03/04/22

Time: 09:37:03

PROJECT INFORMATION

Company: MECI

Client: SCDHEC

Project: 21-7709

Location: Florence

Test Date: 2/14/2022

Test Well: MW-7

AQUIFER DATA

Saturated Thickness: 9.91 ft

Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATATest Well: MW-7

X Location: 0. ft

Y Location: 0. ft

Initial Displacement: 0.918 ft

Static Water Column Height: 9.91 ft

Casing Radius: 0.083 ft

Well Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 10. ft

Total Well Penetration Depth: 13. ft

Corrected Casing Radius (Bouwer-Rice Method): 0.1883 ft

Gravel Pack Porosity: 0.28

No. of Observations: 713

<u>Observation Data</u>			
<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
0.	0.918	357.1	0.07
1.	0.441	358.	0.07
2.	0.036	359.	0.067
3.	0.261	360.	0.065
4.	0.312	361.	0.051
5.	0.324	362.1	0.066
6.	0.302	363.	0.068
7.	0.288	364.	0.059
8.	0.285	365.	0.068
9.	0.279	366.	0.062
10.	0.271	367.1	0.063
11.	0.262	368.	0.064
12.	0.26	369.	0.071
13.	0.256	370.	0.061
14.	0.253	371.	0.069
15.	0.253	372.1	0.064
16.	0.246	373.	0.062
17.	0.248	374.	0.051
18.	0.243	375.	0.064
19.	0.238	376.	0.063
20.	0.24	377.2	0.065
21.	0.234	378.	0.062
22.	0.236	379.	0.066
23.	0.231	380.	0.061
24.	0.23	381.	0.064
25.	0.225	382.2	0.06
26.	0.227	383.	0.067
27.	0.226	384.	0.065
28.	0.226	385.	0.059
29.	0.22	386.	0.065
30.	0.223	387.2	0.062
31.	0.222	388.	0.059

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
32.	0.217	389.	0.058
33.	0.216	390.	0.064
34.	0.216	391.	0.057
35.	0.219	392.2	0.061
36.	0.212	393.	0.06
37.	0.209	394.	0.059
38.	0.211	395.	0.059
39.	0.212	396.	0.062
40.	0.205	397.2	0.062
41.	0.202	398.	0.06
42.	0.205	399.	0.057
43.	0.203	400.	0.056
44.	0.197	401.	0.058
45.	0.196	402.2	0.056
46.	0.2	403.	0.056
47.	0.194	404.	0.056
48.	0.199	405.	0.057
49.	0.19	406.	0.059
50.	0.192	407.2	0.057
51.	0.192	408.	0.053
52.	0.192	409.	0.055
53.	0.19	410.	0.059
54.	0.195	411.	0.052
55.	0.187	412.2	0.056
56.	0.188	413.	0.054
57.	0.186	414.	0.052
58.	0.186	415.	0.051
59.	0.188	416.	0.058
60.	0.19	417.2	0.056
61.	0.19	418.	0.059
62.	0.184	419.	0.057
63.	0.185	420.	0.052
64.	0.18	421.	0.054
65.	0.181	422.2	0.053
66.	0.18	423.	0.048
67.	0.178	424.	0.05
68.	0.178	425.	0.058
69.	0.18	426.	0.053
70.	0.178	427.2	0.055
71.	0.181	428.	0.054
72.	0.178	429.	0.052
73.	0.174	430.	0.053
74.	0.171	431.	0.053
75.	0.172	432.2	0.049
76.	0.168	433.	0.05
77.	0.171	434.	0.051
78.	0.168	435.	0.05
79.	0.167	436.	0.057
80.	0.174	437.2	0.054
81.	0.166	438.	0.053
82.	0.17	439.	0.051
83.	0.163	440.	0.046
84.	0.167	441.	0.055
85.	0.162	442.3	0.055
86.	0.163	443.	0.049
87.	0.162	444.	0.049
88.	0.162	445.	0.051
89.	0.162	446.	0.049
90.	0.161	447.3	0.051
91.	0.162	448.	0.049
92.	0.157	449.	0.048
93.	0.155	450.	0.05
94.	0.163	451.	0.049
95.	0.153	452.3	0.047
96.	0.155	453.	0.049
97.	0.154	454.	0.048
98.	0.155	455.	0.046
99.	0.159	456.	0.046
100.	0.156	457.3	0.051
101.	0.152	458.	0.046

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
102.	0.151	459.	0.042
103.	0.151	460.	0.045
104.	0.156	461.	0.052
105.	0.154	462.3	0.048
106.	0.151	463.	0.044
107.	0.148	464.	0.05
108.	0.15	465.	0.047
109.	0.153	466.	0.044
110.	0.147	467.3	0.052
111.	0.144	468.	0.044
112.	0.143	469.	0.048
113.	0.147	470.	0.045
114.	0.148	471.	0.046
115.	0.145	472.3	0.048
116.	0.146	473.	0.047
117.	0.148	474.	0.047
118.	0.148	475.	0.048
119.	0.142	476.	0.044
120.	0.143	477.3	0.046
121.	0.142	478.	0.047
122.	0.143	479.	0.046
123.	0.147	480.	0.042
124.	0.14	481.	0.051
125.	0.147	482.3	0.041
126.	0.135	483.	0.046
127.	0.139	484.	0.046
128.	0.131	485.	0.041
129.	0.143	486.	0.044
130.	0.141	487.3	0.047
131.	0.137	488.	0.043
132.	0.134	489.	0.041
133.	0.132	490.	0.04
134.	0.135	491.	0.045
135.	0.138	492.3	0.035
136.	0.134	493.	0.046
137.	0.136	494.	0.037
138.	0.127	495.	0.038
139.	0.126	496.	0.04
140.	0.13	497.	0.043
141.	0.135	498.	0.038
142.	0.127	499.	0.042
143.	0.134	500.	0.041
144.	0.129	501.	0.04
145.	0.131	502.	0.036
146.	0.128	503.	0.032
147.	0.125	504.	0.033
148.	0.129	505.	0.037
149.	0.129	506.	0.041
150.	0.127	507.	0.038
151.	0.129	508.	0.044
152.	0.127	509.	0.036
153.	0.127	510.	0.038
154.	0.13	511.	0.033
155.	0.124	512.	0.035
156.	0.123	513.	0.036
157.	0.132	514.	0.04
158.	0.124	515.	0.042
159.	0.123	516.	0.036
160.	0.126	517.	0.043
161.	0.122	518.	0.035
162.	0.126	519.	0.041
163.	0.126	520.	0.04
164.	0.123	521.	0.037
165.	0.121	522.	0.032
166.	0.116	523.	0.036
167.	0.118	524.	0.041
168.	0.12	525.	0.033
169.	0.118	526.	0.038
170.	0.125	527.	0.034
171.	0.117	528.	0.035

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
172.	0.119	529.	0.033
173.	0.121	530.	0.034
174.	0.122	531.	0.036
175.	0.116	532.	0.038
176.	0.12	533.	0.027
177.	0.113	534.	0.033
178.	0.118	535.	0.037
179.	0.11	536.	0.033
180.	0.114	537.	0.036
181.	0.117	538.	0.033
182.	0.115	539.	0.035
183.	0.115	540.	0.031
184.	0.11	541.	0.037
185.	0.109	542.	0.037
186.	0.11	543.	0.029
187.	0.111	544.	0.028
188.	0.11	545.	0.029
189.	0.111	546.	0.026
190.	0.114	547.	0.028
191.	0.107	548.	0.031
192.	0.111	549.	0.03
193.	0.11	550.	0.031
194.	0.116	551.	0.03
195.	0.108	552.	0.031
196.	0.107	553.	0.033
197.	0.11	554.	0.029
198.	0.104	555.	0.035
199.	0.11	556.	0.027
200.	0.104	557.	0.027
201.	0.108	558.	0.029
202.	0.103	559.	0.035
203.	0.1	560.	0.031
204.	0.105	561.	0.027
205.	0.101	562.	0.035
206.	0.102	563.	0.019
207.	0.104	564.	0.032
208.	0.104	565.	0.032
209.	0.106	566.	0.031
210.	0.103	567.	0.024
211.	0.1	568.	0.031
212.	0.104	569.	0.02
213.	0.108	570.	0.024
214.	0.102	571.	0.025
215.	0.103	572.	0.029
216.	0.104	573.	0.027
217.	0.097	574.	0.02
218.	0.109	575.	0.027
219.	0.099	576.	0.03
220.	0.097	577.	0.025
221.	0.103	578.	0.021
222.	0.099	579.	0.028
223.	0.099	580.	0.027
224.	0.103	581.	0.021
225.	0.093	582.	0.023
226.	0.095	583.	0.031
227.	0.1	584.	0.022
228.	0.099	585.	0.032
229.	0.103	586.	0.024
230.	0.104	587.	0.028
231.	0.097	588.	0.026
232.	0.093	589.	0.025
233.	0.094	590.	0.025
234.	0.096	591.	0.025
235.	0.099	592.	0.023
236.	0.1	593.	0.026
237.	0.099	594.	0.019
238.	0.099	595.	0.028
239.	0.092	596.	0.023
240.	0.095	597.	0.022
241.	0.101	598.	0.028

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
242.	0.099	599.	0.02
243.	0.098	600.	0.024
244.	0.094	601.	0.021
245.	0.092	602.	0.019
246.	0.095	603.	0.024
247.	0.097	604.	0.025
248.	0.098	605.	0.026
249.	0.094	606.	0.021
250.	0.092	607.	0.02
251.	0.091	608.	0.021
252.	0.091	609.	0.024
253.	0.096	610.	0.021
254.	0.094	611.	0.021
255.	0.093	612.	0.026
256.	0.094	613.	0.024
257.	0.098	614.	0.023
258.	0.09	615.	0.019
259.	0.088	616.	0.022
260.	0.09	617.	0.021
261.	0.094	618.	0.022
262.	0.09	619.	0.019
263.	0.089	620.	0.02
264.	0.09	621.	0.023
265.	0.086	622.	0.023
266.	0.092	623.	0.019
267.	0.089	624.	0.015
268.	0.09	625.	0.019
269.	0.081	626.	0.018
270.	0.088	627.	0.009
271.	0.083	628.	0.018
272.	0.09	629.	0.019
273.	0.09	630.	0.019
274.	0.091	631.	0.023
275.	0.085	632.	0.012
276.	0.08	633.	0.019
277.	0.09	634.	0.018
278.	0.087	635.	0.014
279.	0.089	636.	0.013
280.	0.089	637.	0.017
281.	0.085	638.	0.013
282.	0.085	639.	0.018
283.	0.08	640.	0.021
284.	0.084	641.	0.013
285.	0.079	642.	0.018
286.	0.085	643.	0.019
287.	0.087	644.	0.016
288.	0.086	645.	0.012
289.	0.083	646.	0.016
290.	0.08	647.	0.015
291.	0.085	648.	0.016
292.	0.085	649.	0.01
293.	0.079	650.	0.015
294.	0.08	651.	0.015
295.	0.081	652.	0.02
296.	0.082	653.	0.015
297.	0.079	654.	0.016
298.	0.079	655.	0.021
299.	0.077	656.	0.014
300.	0.077	657.	0.016
301.	0.078	658.	0.011
302.1	0.081	659.	0.013
303.	0.079	660.	0.013
304.	0.072	661.	0.016
305.	0.081	662.	0.014
306.	0.083	663.	0.014
307.1	0.079	664.	0.012
308.	0.079	665.	0.024
309.	0.086	666.	0.013
310.	0.079	667.	0.006
311.	0.082	668.	0.012

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
312.1	0.08	669.	0.012
313.	0.079	670.	0.011
314.	0.081	671.	0.013
315.	0.081	672.	0.01
316.	0.077	673.	0.008
317.1	0.08	674.	0.011
318.	0.082	675.	0.014
319.	0.082	676.	0.014
320.	0.081	677.	0.01
321.	0.074	678.	0.012
322.1	0.073	679.	0.009
323.	0.076	680.	0.016
324.	0.072	681.	0.015
325.	0.077	682.	0.011
326.	0.071	683.	0.009
327.1	0.075	684.	0.013
328.	0.074	685.	0.005
329.	0.074	686.	0.008
330.	0.075	687.	0.009
331.	0.068	688.	0.008
332.1	0.07	689.	0.011
333.	0.074	690.	0.008
334.	0.072	691.	0.013
335.	0.072	692.	0.01
336.	0.067	693.	0.003
337.1	0.07	694.	0.008
338.	0.07	695.	0.009
339.	0.068	696.	0.008
340.	0.068	697.	0.009
341.	0.071	698.	0.009
342.1	0.073	699.	0.015
343.	0.076	700.	0.006
344.	0.07	701.	0.008
345.	0.074	702.	0.012
346.	0.069	703.	0.014
347.1	0.069	704.	0.01
348.	0.066	705.	0.004
349.	0.068	706.	0.006
350.	0.072	707.	0.008
351.	0.074	708.	0.012
352.1	0.065	709.	0.009
353.	0.068	710.	0.008
354.	0.068	711.	0.005
355.	0.068	712.	0.005
356.	0.071		

SOLUTION

Slug Test

Aquifer Model: Unconfined

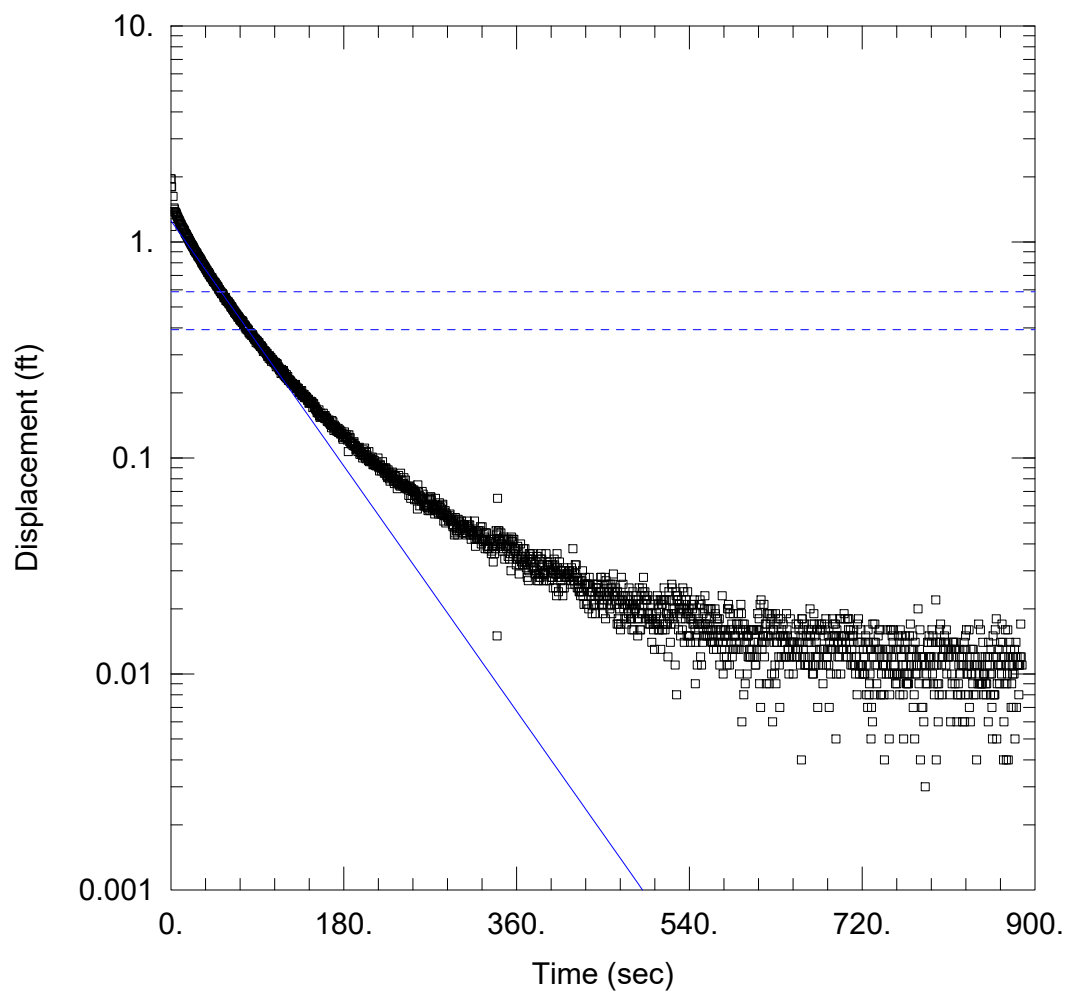
Solution Method: Bouwer-Rice

ln(Re/rw): 2.742

VISUAL ESTIMATION RESULTSEstimated Parameters

<u>Parameter</u>	<u>Estimate</u>	
K	0.001003	cm/sec
y0	0.274	ft

T = K*b = 0.303 cm²/sec



WELL TEST ANALYSIS

Data Set: M:\active\21-7709\AQTESOLV\DW-2.aqt

Date: 03/04/22

Time: 09:38:42

PROJECT INFORMATION

Company: MECI

Client: SCDHEC

Project: 21-7709

Location: Florence

Test Well: DW-2

Test Date: 2/15/2022

AQUIFER DATA

Saturated Thickness: 25. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (DW-2)

Initial Displacement: 1.961 ft

Static Water Column Height: 22.69 ft

Total Well Penetration Depth: 25. ft

Screen Length: 5. ft

Casing Radius: 0.083 ft

Well Radius: 0.33 ft

SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 0.0008627$ cm/sec

$y_0 = 1.253$ ft

Data Set: M:\active\21-7709\AQTESOLV\DW-2.aqt

Date: 03/04/22

Time: 09:39:01

PROJECT INFORMATION

Company: MECI

Client: SCDHEC

Project: 21-7709

Location: Florence

Test Date: 2/15/2022

Test Well: DW-2

AQUIFER DATA

Saturated Thickness: 25. ft

Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATATest Well: DW-2

X Location: 0. ft

Y Location: 0. ft

Initial Displacement: 1.961 ft

Static Water Column Height: 22.69 ft

Casing Radius: 0.083 ft

Well Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 5. ft

Total Well Penetration Depth: 25. ft

No. of Observations: 1774

<u>Observation Data</u>			
<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
0.	1.961	443.2	0.025
0.197	1.807	443.7	0.026
0.697	1.796	444.2	0.026
1.197	1.179	444.7	0.023
1.697	1.335	445.2	0.025
2.197	1.625	445.8	0.023
2.697	1.379	446.2	0.021
3.197	1.437	446.7	0.022
3.697	1.417	447.2	0.024
4.197	1.385	447.7	0.028
5.006	1.367	448.2	0.028
5.197	1.357	448.7	0.024
5.697	1.341	449.2	0.021
6.197	1.324	449.7	0.019
6.697	1.309	450.2	0.023
7.197	1.294	450.8	0.021
7.697	1.277	451.2	0.022
8.197	1.265	451.7	0.024
8.697	1.254	452.2	0.028
9.197	1.241	452.7	0.018
9.697	1.221	453.2	0.027
10.2	1.209	453.7	0.023
10.7	1.202	454.2	0.026
11.2	1.185	454.7	0.022
11.7	1.17	455.2	0.024
12.2	1.163	455.8	0.024
12.7	1.151	456.2	0.026
13.2	1.144	456.7	0.023
13.7	1.133	457.2	0.02
14.2	1.124	457.7	0.021
14.7	1.102	458.2	0.026
15.2	1.096	458.7	0.025
15.7	1.086	459.2	0.019
16.2	1.079	459.7	0.024

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
16.7	1.065	460.2	0.026
17.2	1.054	460.9	0.029
17.7	1.045	461.2	0.023
18.2	1.037	461.7	0.024
18.7	1.023	462.2	0.021
19.2	1.015	462.7	0.024
19.7	1.003	463.2	0.025
20.2	0.995	463.7	0.023
20.7	0.984	464.2	0.021
21.2	0.976	464.7	0.017
21.7	0.967	465.2	0.024
22.2	0.963	465.9	0.018
22.7	0.95	466.2	0.017
23.2	0.946	466.7	0.022
23.7	0.935	467.2	0.02
24.2	0.924	467.7	0.022
24.7	0.911	468.2	0.016
25.2	0.906	468.7	0.017
25.7	0.899	469.2	0.028
26.2	0.89	469.7	0.023
26.7	0.889	470.2	0.022
27.2	0.881	470.9	0.026
27.7	0.868	471.2	0.023
28.2	0.858	471.7	0.02
28.7	0.858	472.2	0.021
29.2	0.848	472.7	0.018
29.7	0.842	473.2	0.021
30.2	0.838	473.7	0.023
30.7	0.827	474.2	0.018
31.2	0.824	474.7	0.017
31.7	0.813	475.2	0.021
32.2	0.8	475.9	0.023
32.7	0.798	476.2	0.022
33.2	0.791	476.7	0.019
33.7	0.784	477.2	0.025
34.2	0.78	477.7	0.021
34.7	0.771	478.2	0.021
35.2	0.768	478.7	0.018
35.7	0.755	479.2	0.02
36.2	0.757	479.7	0.018
36.7	0.745	480.2	0.016
37.2	0.739	480.9	0.021
37.7	0.736	481.2	0.024
38.2	0.723	481.7	0.021
38.7	0.719	482.2	0.016
39.2	0.723	482.7	0.02
39.7	0.706	483.2	0.019
40.2	0.71	483.7	0.02
40.7	0.697	484.2	0.022
41.2	0.689	484.7	0.021
41.7	0.685	485.2	0.023
42.2	0.682	485.9	0.018
42.7	0.683	486.2	0.015
43.2	0.672	486.7	0.022
43.7	0.667	487.2	0.018
44.22	0.656	487.7	0.025
44.7	0.658	488.2	0.021
45.2	0.651	488.7	0.016
45.7	0.649	489.2	0.016
46.2	0.646	489.7	0.023
46.7	0.637	490.2	0.019
47.2	0.635	490.9	0.019
47.7	0.625	491.2	0.025
48.2	0.624	491.7	0.024
48.7	0.623	492.2	0.028
49.2	0.615	492.7	0.021
49.7	0.605	493.2	0.023
50.2	0.601	493.7	0.024
50.7	0.6	494.2	0.018
51.2	0.591	494.7	0.022

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
51.7	0.588	495.2	0.022
52.2	0.585	495.9	0.022
52.7	0.576	496.2	0.019
53.2	0.579	496.7	0.023
53.7	0.576	497.2	0.019
54.2	0.572	497.7	0.018
54.7	0.563	498.2	0.017
55.2	0.553	498.7	0.018
55.7	0.551	499.2	0.017
56.2	0.55	499.7	0.021
56.7	0.554	500.2	0.018
57.2	0.535	500.9	0.014
57.7	0.539	501.2	0.019
58.2	0.534	501.7	0.018
58.7	0.53	502.2	0.017
59.2	0.529	502.7	0.016
59.7	0.528	503.2	0.022
60.2	0.52	503.7	0.013
60.7	0.517	504.2	0.017
61.2	0.516	504.7	0.018
61.7	0.511	505.2	0.017
62.2	0.504	505.9	0.019
62.7	0.498	506.2	0.017
63.2	0.502	506.7	0.023
63.7	0.496	507.2	0.021
64.2	0.49	507.7	0.016
64.7	0.486	508.2	0.02
65.2	0.482	508.7	0.016
65.7	0.481	509.2	0.018
66.2	0.472	509.7	0.022
66.7	0.474	510.2	0.013
67.2	0.467	510.9	0.021
67.7	0.467	511.2	0.022
68.2	0.461	511.7	0.021
68.7	0.46	512.2	0.016
69.2	0.455	512.7	0.017
69.7	0.448	513.2	0.022
70.2	0.451	513.7	0.025
70.7	0.447	514.2	0.022
71.2	0.444	514.7	0.016
71.7	0.436	515.2	0.017
72.2	0.438	515.9	0.022
72.7	0.431	516.2	0.019
73.2	0.431	516.7	0.019
73.7	0.432	517.2	0.017
74.2	0.424	517.7	0.012
74.7	0.43	518.2	0.019
75.2	0.424	518.7	0.024
75.7	0.414	519.2	0.018
76.2	0.413	519.7	0.022
76.7	0.413	520.2	0.014
77.2	0.403	520.9	0.017
77.7	0.408	521.2	0.019
78.2	0.395	521.7	0.026
78.7	0.399	522.2	0.025
79.2	0.399	522.7	0.02
79.7	0.391	523.2	0.018
80.2	0.394	523.7	0.019
80.7	0.39	524.2	0.02
81.2	0.381	524.7	0.017
81.7	0.381	525.2	0.011
82.2	0.375	525.9	0.024
82.7	0.38	526.2	0.023
83.2	0.375	526.7	0.008
83.7	0.374	527.2	0.022
84.2	0.369	527.7	0.023
84.7	0.372	528.2	0.022
85.2	0.371	528.7	0.016
85.7	0.364	529.2	0.02
86.2	0.36	529.7	0.021

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
86.7	0.359	530.2	0.019
87.2	0.354	531.	0.015
87.7	0.352	531.2	0.018
88.2	0.355	531.7	0.022
88.7	0.342	532.2	0.02
89.2	0.348	532.7	0.016
89.7	0.349	533.2	0.025
90.2	0.345	533.7	0.02
90.7	0.337	534.2	0.024
91.2	0.34	534.7	0.014
91.7	0.342	535.2	0.021
92.2	0.334	536.	0.018
92.7	0.331	536.2	0.022
93.2	0.328	536.7	0.02
93.7	0.331	537.2	0.019
94.2	0.329	537.7	0.015
94.7	0.324	538.2	0.024
95.26	0.32	538.7	0.019
95.7	0.323	539.2	0.015
96.2	0.311	539.7	0.02
96.7	0.315	540.2	0.015
97.2	0.314	541.	0.018
97.7	0.313	541.2	0.014
98.2	0.309	541.7	0.018
98.7	0.31	542.2	0.021
99.2	0.306	542.7	0.018
99.7	0.303	543.2	0.02
100.2	0.305	543.7	0.017
100.7	0.295	544.2	0.021
101.2	0.297	544.7	0.017
101.7	0.296	545.2	0.022
102.2	0.289	546.	0.016
102.7	0.297	546.2	0.009
103.2	0.293	546.7	0.014
103.7	0.286	547.2	0.019
104.2	0.291	547.7	0.015
104.7	0.28	548.2	0.011
105.2	0.286	548.7	0.017
105.7	0.285	549.2	0.018
106.2	0.281	549.7	0.016
106.7	0.281	550.2	0.021
107.2	0.277	551.	0.017
107.7	0.276	551.2	0.022
108.2	0.275	551.7	0.012
108.7	0.277	552.2	0.021
109.2	0.272	552.7	0.011
109.7	0.264	553.2	0.017
110.2	0.274	553.7	0.014
110.7	0.272	554.2	0.019
111.2	0.266	554.7	0.015
111.7	0.264	555.2	0.017
112.2	0.261	556.	0.02
112.7	0.26	556.2	0.023
113.2	0.256	556.7	0.017
113.7	0.255	557.2	0.015
114.2	0.254	557.7	0.018
114.7	0.246	558.2	0.016
115.3	0.257	558.7	0.015
115.7	0.249	559.2	0.017
116.2	0.25	559.7	0.02
116.7	0.252	560.2	0.016
117.2	0.254	561.	0.015
117.7	0.242	561.2	0.018
118.2	0.247	561.7	0.02
118.7	0.24	562.2	0.016
119.2	0.238	562.7	0.02
119.7	0.237	563.2	0.014
120.3	0.243	563.7	0.016
120.7	0.234	564.2	0.014
121.2	0.234	564.7	0.015

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
121.7	0.238	565.2	0.013
122.2	0.229	566.	0.014
122.7	0.229	566.2	0.014
123.2	0.23	566.7	0.02
123.7	0.229	567.2	0.019
124.2	0.225	567.7	0.016
124.7	0.227	568.2	0.013
125.3	0.222	568.7	0.018
125.7	0.222	569.2	0.018
126.2	0.222	569.7	0.017
126.7	0.221	570.2	0.014
127.2	0.219	571.	0.015
127.7	0.216	571.2	0.018
128.2	0.216	571.7	0.011
128.7	0.218	572.2	0.016
129.2	0.216	572.7	0.015
129.7	0.219	573.2	0.016
130.3	0.214	573.7	0.013
130.7	0.209	574.2	0.023
131.2	0.21	574.7	0.014
131.7	0.211	575.2	0.01
132.2	0.21	576.	0.016
132.7	0.21	576.2	0.012
133.2	0.201	576.7	0.015
133.7	0.203	577.2	0.015
134.2	0.205	577.7	0.016
134.7	0.201	578.2	0.014
135.3	0.205	578.7	0.012
135.7	0.197	579.2	0.011
136.2	0.205	579.7	0.02
136.7	0.198	580.2	0.015
137.2	0.194	580.7	0.021
137.7	0.194	581.2	0.02
138.2	0.194	581.7	0.011
138.7	0.197	582.2	0.019
139.2	0.19	582.7	0.016
139.7	0.191	583.2	0.016
140.3	0.193	583.7	0.014
140.7	0.19	584.2	0.017
141.2	0.191	584.7	0.012
141.7	0.189	585.2	0.013
142.2	0.185	585.7	0.019
142.7	0.185	586.2	0.013
143.2	0.187	586.7	0.015
143.7	0.179	587.2	0.015
144.2	0.18	587.7	0.015
144.7	0.182	588.2	0.013
145.3	0.18	588.7	0.014
145.7	0.183	589.2	0.017
146.2	0.179	589.7	0.013
146.7	0.182	590.2	0.016
147.2	0.18	590.7	0.017
147.7	0.171	591.2	0.019
148.2	0.178	591.7	0.013
148.7	0.178	592.2	0.01
149.2	0.172	592.7	0.014
149.7	0.171	593.2	0.016
150.3	0.173	593.7	0.021
150.7	0.168	594.2	0.019
151.2	0.169	594.7	0.006
151.7	0.166	595.2	0.016
152.2	0.162	595.7	0.017
152.7	0.164	596.2	0.015
153.2	0.163	596.7	0.008
153.7	0.161	597.2	0.017
154.2	0.167	597.7	0.014
154.7	0.157	598.2	0.009
155.3	0.154	598.7	0.016
155.7	0.156	599.2	0.014
156.2	0.161	599.7	0.015

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
156.7	0.157	600.2	0.01
157.2	0.155	600.7	0.015
157.7	0.155	601.2	0.012
158.2	0.156	601.7	0.015
158.7	0.161	602.2	0.012
159.2	0.157	602.7	0.013
159.7	0.156	603.2	0.012
160.3	0.152	603.7	0.012
160.7	0.157	604.2	0.013
161.2	0.153	604.7	0.016
161.7	0.152	605.2	0.013
162.2	0.153	605.7	0.016
162.7	0.148	606.2	0.012
163.2	0.148	606.7	0.016
163.7	0.147	607.2	0.016
164.2	0.149	607.7	0.014
164.7	0.15	608.2	0.012
165.3	0.146	608.7	0.011
165.7	0.144	609.2	0.011
166.2	0.143	609.7	0.016
166.7	0.143	610.2	0.013
167.2	0.138	610.7	0.016
167.7	0.149	611.2	0.019
168.2	0.141	611.7	0.014
168.7	0.147	612.2	0.016
169.2	0.14	612.7	0.018
169.7	0.134	613.2	0.009
170.3	0.142	613.7	0.021
170.7	0.136	614.2	0.007
171.2	0.139	614.7	0.022
171.7	0.139	615.2	0.014
172.2	0.134	615.7	0.013
172.7	0.133	616.2	0.015
173.2	0.133	616.7	0.014
173.7	0.135	617.2	0.015
174.2	0.137	617.7	0.021
174.7	0.131	618.2	0.012
175.3	0.131	618.7	0.014
175.7	0.135	619.2	0.017
176.2	0.131	619.7	0.015
176.7	0.129	620.2	0.009
177.2	0.133	620.7	0.017
177.7	0.129	621.2	0.019
178.2	0.13	621.7	0.015
178.7	0.124	622.2	0.015
179.2	0.122	622.7	0.019
179.7	0.126	623.2	0.009
180.4	0.129	623.7	0.019
180.7	0.132	624.2	0.017
181.2	0.125	624.7	0.016
181.7	0.124	625.2	0.018
182.2	0.126	625.7	0.01
182.7	0.125	626.2	0.019
183.2	0.128	626.7	0.006
183.7	0.121	627.2	0.016
184.2	0.123	627.7	0.016
184.7	0.107	628.2	0.014
185.4	0.128	628.7	0.01
185.7	0.124	629.2	0.011
186.2	0.119	629.7	0.019
186.7	0.124	630.2	0.009
187.2	0.118	630.7	0.014
187.7	0.116	631.2	0.017
188.2	0.117	631.7	0.014
188.7	0.116	632.2	0.015
189.2	0.117	632.7	0.018
189.7	0.114	633.2	0.012
190.4	0.117	633.7	0.011
190.7	0.119	634.2	0.007
191.2	0.114	634.7	0.015

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
191.7	0.113	635.2	0.018
192.2	0.114	635.7	0.012
192.7	0.109	636.2	0.016
193.2	0.11	636.7	0.014
193.7	0.111	637.2	0.015
194.2	0.111	637.7	0.017
194.7	0.107	638.2	0.015
195.4	0.111	638.7	0.012
195.7	0.11	639.2	0.014
196.2	0.112	639.7	0.015
196.7	0.104	640.2	0.012
197.2	0.106	640.7	0.012
197.7	0.107	641.2	0.019
198.2	0.104	641.7	0.016
198.7	0.106	642.2	0.015
199.2	0.103	642.7	0.013
199.7	0.1	643.2	0.013
200.4	0.109	643.7	0.01
200.7	0.103	644.2	0.012
201.2	0.102	644.7	0.014
201.7	0.111	645.2	0.018
202.2	0.104	645.7	0.014
202.7	0.1	646.2	0.012
203.2	0.099	646.7	0.014
203.7	0.106	647.2	0.014
204.2	0.103	647.7	0.013
204.7	0.101	648.2	0.01
205.4	0.1	648.7	0.014
205.7	0.097	649.2	0.014
206.2	0.107	649.7	0.012
206.7	0.096	650.2	0.015
207.2	0.097	650.7	0.013
207.7	0.099	651.2	0.017
208.2	0.098	651.7	0.012
208.7	0.096	652.2	0.014
209.2	0.098	652.7	0.013
209.7	0.101	653.2	0.013
210.4	0.093	653.7	0.017
210.7	0.098	654.2	0.016
211.2	0.093	654.7	0.014
211.7	0.094	655.2	0.012
212.2	0.097	655.7	0.011
212.7	0.094	656.2	0.015
213.2	0.092	656.7	0.004
213.7	0.092	657.2	0.018
214.2	0.092	657.7	0.018
214.7	0.095	658.2	0.016
215.4	0.092	658.7	0.013
215.7	0.1	659.2	0.012
216.2	0.091	659.7	0.017
216.7	0.09	660.2	0.011
217.2	0.087	660.7	0.012
217.7	0.092	661.2	0.011
218.2	0.093	661.7	0.015
218.7	0.09	662.2	0.015
219.2	0.087	662.7	0.014
219.7	0.09	663.2	0.011
220.4	0.096	663.7	0.011
220.7	0.089	664.2	0.016
221.2	0.088	664.7	0.014
221.7	0.09	665.2	0.012
222.2	0.085	665.7	0.02
222.7	0.089	666.2	0.015
223.2	0.085	666.7	0.014
223.7	0.09	667.2	0.016
224.2	0.089	667.7	0.017
224.7	0.083	668.2	0.01
225.4	0.082	668.7	0.011
225.7	0.081	669.2	0.01
226.2	0.088	669.7	0.019

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
226.7	0.084	670.2	0.017
227.2	0.086	670.7	0.015
227.7	0.08	671.2	0.012
228.2	0.078	671.7	0.011
228.7	0.083	672.2	0.014
229.2	0.083	672.7	0.012
229.7	0.084	673.2	0.016
230.4	0.081	673.7	0.007
230.7	0.086	674.2	0.012
231.2	0.085	674.7	0.011
231.7	0.078	675.2	0.017
232.2	0.08	675.7	0.013
232.7	0.076	676.2	0.016
233.2	0.082	676.7	0.016
233.7	0.083	677.2	0.013
234.2	0.078	677.7	0.017
234.7	0.078	678.2	0.016
235.4	0.077	678.7	0.011
235.7	0.072	679.2	0.009
236.2	0.079	679.7	0.013
236.7	0.078	680.2	0.015
237.2	0.083	680.7	0.017
237.7	0.075	681.2	0.013
238.2	0.075	681.7	0.016
238.7	0.074	682.2	0.018
239.2	0.085	682.7	0.011
239.7	0.079	683.2	0.012
240.4	0.075	683.7	0.012
240.7	0.079	684.2	0.013
241.2	0.076	684.7	0.015
241.7	0.074	685.2	0.011
242.2	0.076	685.7	0.007
242.7	0.081	686.2	0.014
243.2	0.075	686.7	0.013
243.7	0.073	687.2	0.01
244.2	0.079	687.7	0.013
244.7	0.072	688.2	0.013
245.5	0.074	688.7	0.013
245.7	0.073	689.2	0.018
246.2	0.072	689.7	0.015
246.7	0.072	690.2	0.014
247.2	0.071	690.7	0.017
247.7	0.067	691.2	0.015
248.2	0.074	691.7	0.015
248.7	0.074	692.2	0.017
249.2	0.073	692.7	0.005
249.7	0.065	693.2	0.01
250.5	0.072	693.7	0.016
250.7	0.072	694.2	0.014
251.2	0.067	694.7	0.012
251.7	0.07	695.2	0.014
252.2	0.071	695.7	0.015
252.7	0.07	696.2	0.012
253.2	0.071	696.7	0.018
253.7	0.064	697.2	0.018
254.2	0.068	697.7	0.01
254.7	0.069	698.2	0.015
255.5	0.067	698.7	0.013
255.7	0.064	699.2	0.014
256.2	0.066	699.7	0.013
256.7	0.058	700.2	0.013
257.2	0.075	700.7	0.015
257.7	0.07	701.2	0.019
258.2	0.065	701.7	0.015
258.7	0.067	702.2	0.018
259.2	0.06	702.7	0.014
259.7	0.066	703.2	0.012
260.5	0.066	703.7	0.013
260.7	0.063	704.2	0.012
261.2	0.064	704.7	0.018

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
261.7	0.07	705.2	0.018
262.2	0.064	705.7	0.016
262.7	0.068	706.2	0.018
263.2	0.06	706.7	0.014
263.7	0.065	707.2	0.015
264.2	0.06	707.7	0.016
264.7	0.061	708.2	0.011
265.5	0.06	708.7	0.012
265.7	0.064	709.2	0.013
266.2	0.06	709.7	0.011
266.7	0.059	710.2	0.015
267.2	0.06	710.7	0.015
267.7	0.057	711.2	0.016
268.2	0.058	711.7	0.011
268.7	0.064	712.2	0.011
269.2	0.065	712.7	0.011
269.7	0.057	713.2	0.01
270.5	0.066	713.7	0.012
270.7	0.066	714.2	0.012
271.2	0.064	714.7	0.008
271.7	0.06	715.2	0.017
272.2	0.058	715.7	0.014
272.7	0.061	716.2	0.018
273.2	0.061	716.7	0.011
273.7	0.059	717.2	0.01
274.2	0.058	717.7	0.014
274.7	0.055	718.2	0.011
275.5	0.065	718.7	0.016
275.7	0.057	719.2	0.011
276.2	0.06	719.7	0.014
276.7	0.058	720.2	0.011
277.2	0.058	720.7	0.01
277.7	0.06	721.2	0.013
278.2	0.056	721.7	0.012
278.7	0.055	722.2	0.01
279.2	0.06	722.7	0.01
279.7	0.062	723.2	0.014
280.5	0.059	723.7	0.015
280.7	0.056	724.2	0.011
281.2	0.055	724.7	0.008
281.7	0.058	725.2	0.013
282.2	0.055	725.7	0.007
282.7	0.06	726.2	0.016
283.2	0.061	726.7	0.014
283.7	0.055	727.2	0.008
284.2	0.051	727.7	0.009
284.7	0.054	728.2	0.01
285.2	0.056	728.7	0.013
285.7	0.057	729.2	0.005
286.2	0.05	729.7	0.007
286.7	0.055	730.2	0.012
287.2	0.054	730.7	0.006
287.7	0.054	731.2	0.017
288.2	0.053	731.7	0.012
288.7	0.053	732.2	0.014
289.2	0.051	732.7	0.008
289.7	0.052	733.2	0.017
290.2	0.054	733.7	0.014
290.7	0.055	734.2	0.011
291.2	0.051	734.7	0.013
291.7	0.052	735.2	0.009
292.2	0.051	735.7	0.011
292.7	0.053	736.3	0.013
293.2	0.049	736.7	0.015
293.7	0.048	737.2	0.013
294.2	0.049	737.7	0.016
294.7	0.051	738.2	0.013
295.2	0.044	738.7	0.016
295.7	0.045	739.2	0.008
296.2	0.053	739.7	0.008

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
296.7	0.052	740.2	0.01
297.2	0.046	740.7	0.013
297.7	0.046	741.3	0.011
298.2	0.047	741.7	0.012
298.7	0.044	742.2	0.011
299.2	0.052	742.7	0.008
299.7	0.051	743.2	0.004
300.2	0.049	743.7	0.012
300.7	0.046	744.2	0.011
301.2	0.05	744.7	0.013
301.7	0.047	745.2	0.01
302.2	0.049	745.7	0.012
302.7	0.051	746.3	0.016
303.2	0.045	746.7	0.012
303.7	0.048	747.2	0.013
304.2	0.045	747.7	0.01
304.7	0.049	748.2	0.005
305.2	0.049	748.7	0.008
305.7	0.049	749.2	0.016
306.2	0.047	749.7	0.013
306.7	0.045	750.2	0.016
307.2	0.045	750.7	0.012
307.7	0.044	751.3	0.015
308.2	0.048	751.7	0.01
308.7	0.051	752.2	0.014
309.2	0.048	752.7	0.016
309.7	0.049	753.2	0.011
310.2	0.046	753.7	0.01
310.7	0.047	754.2	0.011
311.2	0.049	754.7	0.009
311.7	0.044	755.2	0.013
312.2	0.046	755.7	0.01
312.7	0.042	756.3	0.009
313.2	0.046	756.7	0.01
313.7	0.046	757.2	0.013
314.2	0.045	757.7	0.015
314.7	0.044	758.2	0.01
315.2	0.044	758.7	0.014
315.7	0.045	759.2	0.008
316.2	0.051	759.7	0.016
316.7	0.042	760.2	0.013
317.2	0.039	760.7	0.012
317.7	0.046	761.3	0.012
318.2	0.043	761.7	0.015
318.7	0.042	762.2	0.011
319.2	0.045	762.7	0.008
319.7	0.042	763.2	0.005
320.2	0.046	763.7	0.01
320.7	0.046	764.2	0.013
321.2	0.042	764.7	0.014
321.7	0.042	765.2	0.015
322.2	0.046	765.7	0.011
322.7	0.048	766.3	0.009
323.2	0.04	766.7	0.01
323.7	0.042	767.2	0.009
324.2	0.048	767.7	0.01
324.7	0.042	768.2	0.009
325.2	0.041	768.7	0.01
325.7	0.042	769.2	0.015
326.2	0.045	769.7	0.013
326.7	0.043	770.2	0.017
327.2	0.038	770.7	0.012
327.7	0.041	771.3	0.011
328.2	0.045	771.7	0.012
328.7	0.045	772.2	0.013
329.2	0.039	772.7	0.015
329.7	0.038	773.2	0.007
330.2	0.041	773.7	0.013
330.7	0.039	774.2	0.008
331.2	0.038	774.7	0.005

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
331.7	0.041	775.2	0.014
332.2	0.042	775.7	0.01
332.7	0.042	776.4	0.011
333.2	0.041	776.7	0.012
333.7	0.036	777.2	0.01
334.2	0.037	777.7	0.011
334.7	0.039	778.2	0.02
335.2	0.04	778.7	-0.001
335.7	0.033	779.2	0.009
336.2	0.039	779.7	0.013
336.7	0.041	780.2	0.016
337.2	0.036	780.7	0.004
337.7	0.041	781.4	0.012
338.2	0.038	781.7	0.011
338.7	0.046	782.2	0.007
339.2	0.044	782.7	0.012
339.7	0.015	783.2	0.007
340.2	0.065	783.7	0.012
340.7	0.045	784.2	0.006
341.2	0.046	784.7	0.011
341.7	0.046	785.2	0.011
342.2	0.042	785.7	0.003
342.7	0.041	786.4	0.011
343.2	0.039	786.7	0.009
343.7	0.045	787.2	0.01
344.2	0.04	787.7	0.009
344.7	0.04	788.2	0.014
345.2	0.037	788.7	0.014
345.7	0.042	789.2	0.012
346.2	0.038	789.7	0.015
346.7	0.043	790.2	0.012
347.2	0.042	790.7	0.012
347.7	0.034	791.4	0.011
348.2	0.039	791.7	0.012
348.7	0.039	792.2	0.014
349.2	0.042	792.7	0.016
349.7	0.038	793.2	0.01
350.2	0.042	793.7	0.015
350.7	0.039	794.2	0.009
351.2	0.035	794.7	0.012
351.7	0.042	795.2	0.008
352.2	0.038	795.7	0.011
352.7	0.034	796.4	0.014
353.2	0.042	796.7	0.022
353.7	0.036	797.2	0.004
354.2	0.03	797.7	0.011
354.7	0.043	798.2	0.009
355.2	0.038	798.7	0.014
355.7	0.041	799.2	0.006
356.2	0.042	799.7	0.009
356.7	0.036	800.2	0.008
357.2	0.042	800.7	0.016
357.7	0.038	801.4	0.014
358.2	0.037	801.7	0.017
358.7	0.038	802.2	0.014
359.2	0.037	802.7	0.011
359.7	0.032	803.2	0.008
360.2	0.034	803.7	0.012
360.7	0.034	804.2	0.012
361.2	0.039	804.7	0.013
361.7	0.035	805.2	0.013
362.2	0.038	805.7	0.015
362.7	0.029	806.4	0.014
363.2	0.032	806.7	0.013
363.7	0.034	807.2	0.011
364.2	0.04	807.7	0.016
364.7	0.035	808.2	0.01
365.2	0.033	808.7	0.014
365.7	0.034	809.2	0.012
366.2	0.032	809.7	0.012

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
366.7	0.035	810.2	0.013
367.2	0.038	810.7	0.012
367.7	0.032	811.4	0.008
368.2	0.033	811.7	0.013
368.7	0.038	812.2	0.006
369.2	0.035	812.7	0.013
369.7	0.033	813.2	0.01
370.2	0.031	813.7	0.009
370.7	0.032	814.2	0.014
371.2	0.028	814.7	0.012
371.7	0.034	815.2	0.014
372.2	0.027	815.7	0.014
372.7	0.03	816.4	0.013
373.2	0.036	816.7	0.009
373.7	0.035	817.2	0.013
374.2	0.036	817.7	0.014
374.7	0.034	818.2	0.013
375.2	0.033	818.7	0.006
375.7	0.034	819.2	0.008
376.2	0.031	819.7	0.008
376.7	0.036	820.2	0.009
377.2	0.031	820.7	0.011
377.7	0.031	821.4	0.012
378.2	0.031	821.7	0.013
378.7	0.03	822.2	0.01
379.2	0.029	822.7	0.008
379.7	0.029	823.2	0.011
380.2	0.033	823.7	0.012
380.7	0.03	824.2	0.011
381.2	0.035	824.7	0.006
381.7	0.027	825.2	0.012
382.2	0.035	825.7	0.011
382.7	0.029	826.4	0.014
383.2	0.027	826.7	0.006
383.7	0.028	827.2	0.008
384.2	0.03	827.7	0.015
384.7	0.028	828.2	0.013
385.2	0.034	828.7	0.016
385.7	0.036	829.2	0.01
386.2	0.034	829.7	0.01
386.7	0.032	830.2	0.011
387.2	0.032	830.7	0.008
387.7	0.029	831.4	0.016
388.2	0.027	831.7	0.007
388.7	0.029	832.2	0.012
389.2	0.029	832.7	0.006
389.7	0.029	833.2	0.013
390.2	0.03	833.7	0.01
390.7	0.036	834.2	0.01
391.2	0.027	834.7	0.013
391.7	0.032	835.2	0.009
392.2	0.032	835.7	0.013
392.7	0.033	836.4	0.008
393.2	0.031	836.7	0.011
393.7	0.032	837.2	0.011
394.2	0.027	837.7	0.012
394.7	0.033	838.2	0.008
395.2	0.03	838.7	0.011
395.8	0.028	839.2	0.004
396.2	0.028	839.7	0.011
396.7	0.03	840.2	0.011
397.2	0.028	840.7	0.009
397.7	0.032	841.4	0.017
398.2	0.025	841.7	0.01
398.7	0.03	842.2	0.009
399.2	0.034	842.7	0.011
399.7	0.032	843.2	0.016
400.2	0.029	843.7	0.009
400.8	0.025	844.2	0.009
401.2	0.029	844.7	0.012

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
401.7	0.023	845.2	0.009
402.2	0.036	845.7	0.014
402.7	0.031	846.4	0.01
403.2	0.029	846.7	0.008
403.7	0.024	847.2	0.01
404.2	0.028	847.7	0.01
404.7	0.033	848.2	0.012
405.2	0.029	848.7	0.009
405.8	0.03	849.2	0.008
406.2	0.027	849.7	0.009
406.7	0.028	850.2	0.011
407.2	0.03	850.7	0.012
407.7	0.025	851.4	0.006
408.2	0.023	851.7	0.014
408.7	0.03	852.2	0.012
409.2	0.031	852.7	0.011
409.7	0.025	853.2	0.01
410.2	0.028	853.7	0.008
410.8	0.028	854.2	0.013
411.2	0.03	854.7	0.01
411.7	0.028	855.2	0.007
412.2	0.028	855.7	0.005
412.7	0.029	856.5	0.015
413.2	0.029	856.7	0.012
413.7	0.029	857.2	0.008
414.2	0.03	857.7	0.008
414.7	0.029	858.2	0.008
415.2	0.03	858.7	0.016
415.8	0.028	859.2	0.012
416.2	0.026	859.7	0.018
416.7	0.027	860.2	0.005
417.2	0.031	860.7	0.009
417.7	0.028	861.5	0.013
418.2	0.03	861.7	0.011
418.7	0.038	862.2	0.011
419.2	0.027	862.7	0.013
419.7	0.028	863.2	0.009
420.2	0.027	863.7	0.011
420.8	0.026	864.2	0.014
421.2	0.032	864.7	0.011
421.7	0.029	865.2	0.01
422.2	0.032	865.7	0.017
422.7	0.028	866.5	0.014
423.2	0.025	866.7	0.012
423.7	0.027	867.2	0.004
424.2	0.027	867.7	0.006
424.7	0.025	868.2	0.012
425.2	0.024	868.7	0.009
425.8	0.024	869.2	0.016
426.2	0.027	869.7	0.011
426.7	0.023	870.2	0.004
427.2	0.025	870.7	0.009
427.7	0.024	871.5	0.01
428.2	0.027	871.7	0.016
428.7	0.03	872.2	0.004
429.2	0.023	872.7	0.012
429.7	0.024	873.2	0.011
430.2	0.021	873.7	0.014
430.8	0.026	874.2	0.012
431.2	0.026	874.7	0.013
431.7	0.028	875.2	0.007
432.2	0.026	875.7	0.009
432.7	0.021	876.5	0.011
433.2	0.026	876.7	0.01
433.7	0.021	877.2	0.007
434.2	0.026	877.7	0.012
434.7	0.026	878.2	0.01
435.2	0.02	878.7	0.013
435.8	0.028	879.2	0.005
436.2	0.024	879.7	0.012

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
436.7	0.026	880.2	0.014
437.2	0.024	880.7	0.007
437.7	0.023	881.5	0.012
438.2	0.024	881.7	0.011
438.7	0.019	882.2	0.011
439.2	0.024	882.7	0.011
439.7	0.026	883.2	0.008
440.2	0.021	883.7	0.011
440.8	0.022	884.2	0.011
441.2	0.021	884.7	0.012
441.7	0.023	885.2	0.017
442.2	0.019	885.7	0.012
442.7	0.025	886.5	0.011

SOLUTION

Slug Test

Aquifer Model: Unconfined

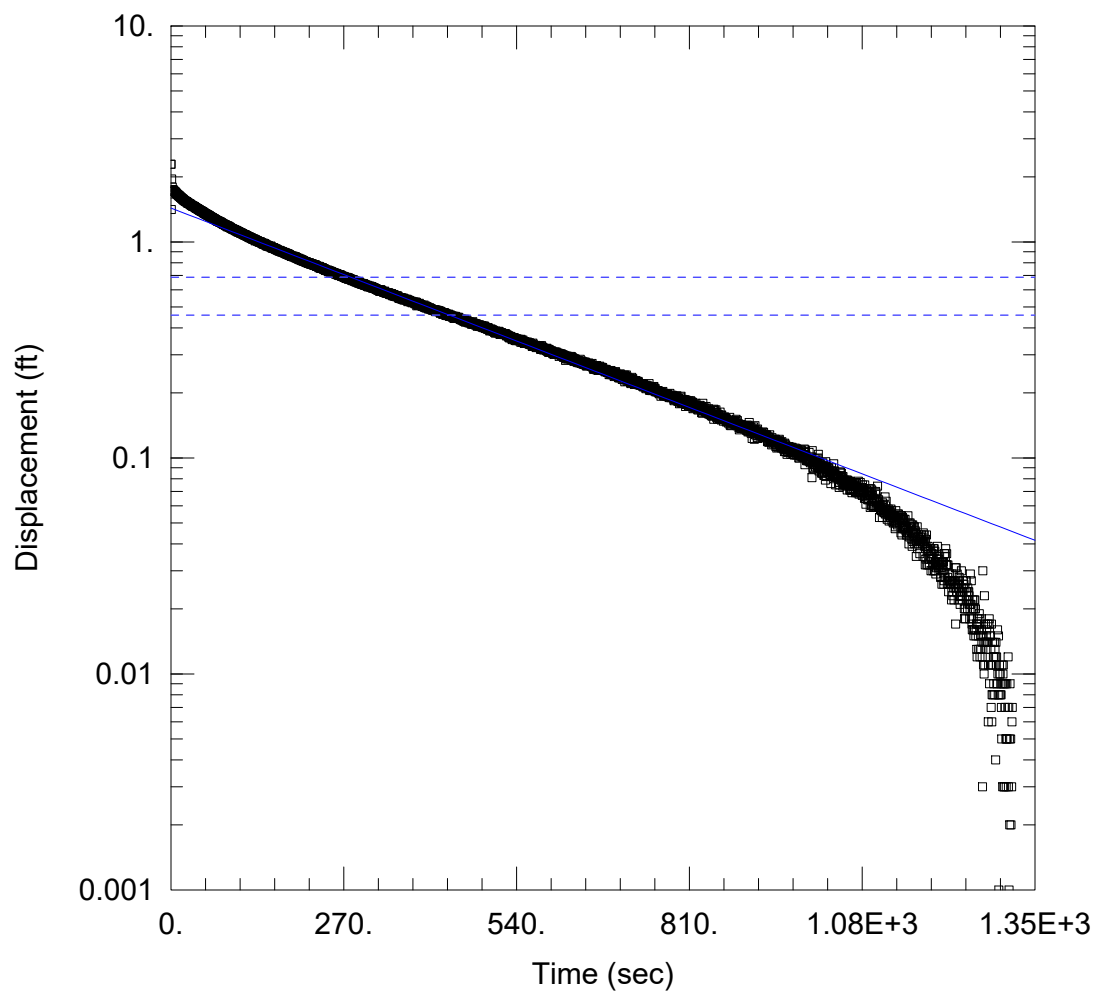
Solution Method: Bouwer-Rice

$\ln(R_e/r_w)$: 2.829

VISUAL ESTIMATION RESULTSEstimated Parameters

<u>Parameter</u>	<u>Estimate</u>	
K	0.0008627	cm/sec
y0	1.253	ft

$$T = K \cdot b = 0.6573 \text{ cm}^2/\text{sec}$$



WELL TEST ANALYSIS

Data Set: M:\active\21-7709\AQTESOLV\DW-3.aqt

Date: 03/04/22

Time: 09:39:38

PROJECT INFORMATION

Company: MECI

Client: SCDHEC

Project: 21-7709

Location: Florence

Test Well: DW-3

Test Date: 2/15/2022

AQUIFER DATA

Saturated Thickness: 25. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (DW-3)

Initial Displacement: 2.29 ft

Static Water Column Height: 22.31 ft

Total Well Penetration Depth: 25. ft

Screen Length: 5. ft

Casing Radius: 0.083 ft

Well Radius: 0.33 ft

SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 0.0001558$ cm/sec

$y_0 = 1.434$ ft

Data Set: M:\active\21-7709\AQTESOLV\DW-3.aqt

Date: 03/04/22

Time: 09:39:55

PROJECT INFORMATION

Company: MECI

Client: SCDHEC

Project: 21-7709

Location: Florence

Test Date: 2/15/2022

Test Well: DW-3

AQUIFER DATA

Saturated Thickness: 25. ft

Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATATest Well: DW-3

X Location: 0. ft

Y Location: 0. ft

Initial Displacement: 2.29 ft

Static Water Column Height: 22.31 ft

Casing Radius: 0.083 ft

Well Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 5. ft

Total Well Penetration Depth: 25. ft

No. of Observations: 2630

Observation Data

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
0.	2.29	657.5	0.265
0.5	1.412	658.	0.274
1.	1.955	658.5	0.264
1.5	1.667	659.	0.265
2.	1.795	659.5	0.262
2.5	1.735	660.	0.258
3.	1.747	660.5	0.263
3.5	1.739	661.	0.259
4.234	1.734	661.5	0.257
4.5	1.716	662.	0.261
5.	1.723	662.5	0.26
5.5	1.713	663.	0.259
6.	1.707	663.5	0.265
6.5	1.706	664.	0.264
7.	1.694	664.5	0.256
7.5	1.693	665.1	0.268
8.	1.679	665.5	0.263
8.5	1.68	666.	0.259
9.234	1.672	666.5	0.265
9.5	1.665	667.	0.254
10.	1.658	667.5	0.262
10.5	1.656	668.	0.264
11.	1.649	668.5	0.258
11.5	1.643	669.	0.259
12.	1.641	669.5	0.263
12.5	1.631	670.1	0.266
13.	1.629	670.5	0.262
13.5	1.631	671.	0.26
14.26	1.618	671.5	0.255
14.5	1.614	672.	0.259
15.	1.608	672.5	0.259
15.5	1.604	673.	0.26
16.	1.602	673.5	0.263
16.5	1.594	674.	0.258

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
17.	1.589	674.5	0.262
17.5	1.587	675.1	0.256
18.	1.583	675.5	0.257
18.5	1.571	676.	0.257
19.26	1.575	676.5	0.253
19.5	1.565	677.	0.253
20.	1.566	677.5	0.257
20.5	1.558	678.	0.253
21.	1.554	678.5	0.251
21.5	1.55	679.	0.25
22.	1.547	679.5	0.256
22.5	1.546	680.1	0.257
23.	1.538	680.5	0.253
23.5	1.533	681.	0.253
24.27	1.537	681.5	0.251
24.5	1.538	682.	0.249
25.	1.528	682.5	0.252
25.5	1.515	683.	0.249
26.	1.522	683.5	0.252
26.5	1.512	684.	0.253
27.	1.515	684.5	0.243
27.5	1.507	685.1	0.249
28.	1.505	685.5	0.25
28.5	1.504	686.	0.245
29.28	1.502	686.5	0.246
29.5	1.498	687.	0.243
30.	1.497	687.5	0.254
30.5	1.487	688.	0.251
31.	1.486	688.5	0.25
31.5	1.482	689.	0.246
32.	1.479	689.5	0.251
32.5	1.475	690.1	0.246
33.	1.472	690.5	0.242
33.52	1.464	691.	0.246
34.28	1.469	691.5	0.246
34.5	1.463	692.	0.245
35.	1.461	692.5	0.238
35.5	1.46	693.	0.248
36.	1.459	693.5	0.241
36.5	1.458	694.	0.244
37.	1.452	694.5	0.251
37.5	1.446	695.1	0.248
38.	1.441	695.5	0.244
38.5	1.441	696.	0.244
39.28	1.434	696.5	0.24
39.5	1.431	697.	0.24
40.	1.431	697.5	0.243
40.5	1.428	698.	0.243
41.	1.428	698.5	0.243
41.5	1.424	699.	0.236
42.	1.419	699.5	0.235
42.5	1.416	700.1	0.242
43.	1.415	700.5	0.235
43.5	1.408	701.	0.239
44.28	1.408	701.5	0.237
44.5	1.405	702.	0.245
45.	1.401	702.5	0.235
45.5	1.397	703.	0.242
46.	1.396	703.5	0.239
46.5	1.391	704.	0.238
47.	1.392	704.5	0.239
47.5	1.387	705.1	0.231
48.	1.389	705.5	0.237
48.5	1.382	706.	0.238
49.29	1.38	706.5	0.236
49.5	1.38	707.	0.236
50.	1.377	707.5	0.23
50.5	1.369	708.	0.238
51.	1.363	708.5	0.242
51.5	1.363	709.	0.225

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
52.	1.364	709.5	0.241
52.5	1.356	710.1	0.239
53.	1.356	710.5	0.237
53.5	1.348	711.	0.233
54.31	1.347	711.5	0.242
54.5	1.349	712.	0.231
55.	1.346	712.5	0.226
55.5	1.339	713.	0.237
56.	1.338	713.5	0.232
56.5	1.334	714.	0.227
57.	1.333	714.5	0.231
57.5	1.335	715.1	0.231
58.	1.331	715.5	0.228
58.5	1.324	716.	0.232
59.31	1.324	716.5	0.234
59.5	1.321	717.	0.233
60.	1.322	717.5	0.232
60.5	1.312	718.	0.223
61.	1.31	718.5	0.221
61.5	1.305	719.	0.23
62.	1.308	719.5	0.224
62.5	1.306	720.1	0.236
63.	1.3	720.5	0.223
63.5	1.298	721.	0.231
64.	1.294	721.5	0.233
64.5	1.296	722.	0.228
65.	1.293	722.5	0.227
65.5	1.285	723.	0.222
66.	1.286	723.5	0.225
66.5	1.278	724.	0.219
67.	1.282	724.5	0.219
67.5	1.277	725.1	0.228
68.	1.277	725.5	0.226
68.5	1.274	726.	0.223
69.	1.271	726.5	0.228
69.5	1.267	727.	0.22
70.	1.266	727.5	0.224
70.5	1.263	728.	0.226
71.	1.257	728.5	0.22
71.5	1.255	729.	0.222
72.	1.251	729.5	0.223
72.5	1.255	730.1	0.226
73.	1.244	730.5	0.223
73.5	1.246	731.	0.218
74.	1.248	731.5	0.219
74.5	1.247	732.	0.219
75.	1.243	732.5	0.221
75.5	1.237	733.	0.217
76.	1.236	733.5	0.219
76.5	1.234	734.	0.217
77.	1.236	734.5	0.221
77.5	1.234	735.2	0.221
78.	1.23	735.5	0.219
78.5	1.227	736.	0.218
79.	1.225	736.5	0.215
79.5	1.225	737.	0.219
80.	1.215	737.5	0.219
80.5	1.217	738.	0.213
81.	1.214	738.5	0.22
81.5	1.214	739.	0.217
82.	1.206	739.5	0.215
82.5	1.206	740.2	0.216
83.	1.206	740.5	0.213
83.5	1.205	741.	0.215
84.	1.201	741.5	0.213
84.58	1.199	742.	0.209
85.	1.194	742.5	0.217
85.5	1.199	743.	0.213
86.	1.19	743.5	0.212
86.5	1.184	744.	0.211

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
87.	1.188	744.5	0.213
87.5	1.188	745.2	0.215
88.	1.183	745.5	0.215
88.5	1.173	746.	0.215
89.	1.187	746.5	0.21
89.5	1.181	747.	0.221
90.	1.175	747.5	0.206
90.5	1.176	748.	0.206
91.	1.172	748.5	0.211
91.5	1.171	749.	0.206
92.	1.164	749.5	0.207
92.5	1.168	750.2	0.213
93.	1.162	750.5	0.21
93.5	1.161	751.	0.205
94.	1.153	751.5	0.21
94.5	1.155	752.	0.212
95.	1.154	752.5	0.207
95.5	1.154	753.	0.208
96.	1.15	753.5	0.209
96.5	1.146	754.	0.213
97.	1.145	754.5	0.214
97.5	1.142	755.2	0.21
98.	1.14	755.5	0.204
98.5	1.143	756.	0.21
99.	1.142	756.5	0.209
99.5	1.142	757.	0.204
100.	1.131	757.5	0.202
100.5	1.132	758.	0.203
101.	1.13	758.5	0.203
101.5	1.124	759.	0.203
102.	1.131	759.5	0.202
102.5	1.123	760.2	0.205
103.	1.124	760.5	0.205
103.5	1.121	761.	0.204
104.	1.122	761.5	0.204
104.5	1.11	762.	0.2
105.	1.115	762.5	0.203
105.5	1.116	763.	0.198
106.	1.112	763.5	0.202
106.5	1.108	764.	0.2
107.	1.109	764.5	0.202
107.5	1.107	765.2	0.202
108.	1.103	765.5	0.193
108.5	1.103	766.	0.201
109.	1.096	766.5	0.2
109.5	1.1	767.	0.199
110.	1.097	767.5	0.198
110.5	1.098	768.	0.2
111.	1.092	768.5	0.203
111.5	1.092	769.	0.199
112.	1.092	769.5	0.194
112.5	1.086	770.2	0.199
113.	1.082	770.5	0.194
113.5	1.084	771.	0.194
114.	1.079	771.5	0.197
114.5	1.081	772.	0.197
115.	1.075	772.5	0.198
115.5	1.08	773.	0.198
116.	1.078	773.5	0.196
116.5	1.074	774.	0.197
117.	1.07	774.5	0.193
117.5	1.072	775.2	0.196
118.	1.066	775.5	0.195
118.5	1.066	776.	0.198
119.	1.065	776.5	0.192
119.5	1.065	777.	0.192
120.	1.059	777.5	0.195
120.5	1.059	778.	0.192
121.	1.056	778.5	0.194
121.5	1.054	779.	0.19

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
122.	1.054	779.5	0.199
122.5	1.047	780.2	0.194
123.	1.053	780.5	0.192
123.5	1.05	781.	0.193
124.	1.048	781.5	0.19
124.5	1.044	782.	0.195
125.	1.04	782.5	0.194
125.5	1.043	783.	0.191
126.	1.043	783.5	0.195
126.5	1.034	784.	0.193
127.	1.034	784.5	0.194
127.5	1.032	785.2	0.192
128.	1.031	785.5	0.187
128.5	1.034	786.	0.184
129.	1.026	786.5	0.191
129.5	1.031	787.	0.188
130.	1.024	787.5	0.186
130.5	1.029	788.	0.19
131.	1.025	788.5	0.193
131.5	1.012	789.	0.188
132.	1.023	789.5	0.187
132.5	1.018	790.3	0.192
133.	1.018	790.5	0.194
133.5	1.014	791.	0.184
134.	1.014	791.5	0.185
134.5	1.013	792.	0.183
135.	1.009	792.5	0.183
135.5	1.011	793.	0.188
136.	1.006	793.5	0.187
136.5	1.005	794.	0.188
137.	1.005	794.5	0.178
137.5	0.998	795.3	0.185
138.	1.001	795.5	0.185
138.5	0.999	796.	0.191
139.	0.999	796.5	0.18
139.5	0.997	797.	0.193
140.	0.999	797.5	0.186
140.5	0.995	798.	0.179
141.	0.993	798.5	0.179
141.5	0.988	799.	0.187
142.	0.99	799.5	0.18
142.5	0.986	800.3	0.179
143.	0.983	800.5	0.183
143.5	0.981	801.	0.185
144.	0.978	801.5	0.186
144.5	0.988	802.	0.183
145.	0.976	802.5	0.185
145.5	0.98	803.	0.185
146.	0.973	803.5	0.186
146.5	0.982	804.	0.173
147.	0.977	804.5	0.177
147.5	0.969	805.3	0.185
148.	0.969	805.5	0.183
148.5	0.968	806.	0.184
149.	0.968	806.5	0.179
149.5	0.967	807.	0.177
150.	0.956	807.5	0.179
150.5	0.961	808.	0.182
151.	0.959	808.5	0.174
151.5	0.964	809.	0.176
152.	0.96	809.5	0.184
152.5	0.956	810.3	0.178
153.	0.954	810.5	0.174
153.5	0.951	811.	0.177
154.	0.953	811.5	0.178
154.5	0.95	812.	0.184
155.	0.951	812.5	0.174
155.5	0.95	813.	0.182
156.	0.957	813.5	0.178
156.5	0.952	814.	0.175

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
157.	0.939	814.5	0.18
157.5	0.943	815.3	0.181
158.	0.94	815.5	0.169
158.5	0.936	816.	0.178
159.	0.937	816.5	0.175
159.5	0.94	817.	0.17
160.	0.935	817.5	0.172
160.5	0.941	818.	0.173
161.	0.937	818.5	0.176
161.5	0.931	819.	0.171
162.	0.932	819.5	0.172
162.5	0.927	820.3	0.179
163.	0.928	820.5	0.175
163.5	0.925	821.	0.175
164.	0.926	821.5	0.172
164.5	0.928	822.	0.172
165.	0.919	822.5	0.174
165.5	0.921	823.	0.167
166.	0.919	823.5	0.173
166.5	0.919	824.	0.167
167.	0.914	824.5	0.17
167.5	0.912	825.	0.173
168.	0.912	825.5	0.171
168.5	0.912	826.	0.172
169.	0.91	826.5	0.175
169.5	0.915	827.	0.169
170.	0.903	827.5	0.174
170.5	0.909	828.	0.168
171.	0.908	828.5	0.172
171.5	0.902	829.	0.162
172.	0.907	829.5	0.165
172.5	0.899	830.3	0.171
173.	0.9	830.5	0.161
173.5	0.901	831.	0.179
174.	0.902	831.5	0.168
174.5	0.899	832.	0.165
175.	0.896	832.5	0.173
175.5	0.895	833.	0.166
176.	0.895	833.5	0.166
176.5	0.889	834.	0.17
177.	0.891	834.5	0.166
177.5	0.894	835.	0.165
178.	0.887	835.5	0.163
178.5	0.888	836.	0.173
179.	0.882	836.5	0.162
179.5	0.89	837.	0.166
180.	0.88	837.5	0.165
180.5	0.881	838.	0.166
181.	0.884	838.5	0.163
181.5	0.876	839.	0.163
182.	0.876	839.5	0.16
182.5	0.878	840.	0.169
183.	0.882	840.5	0.166
183.5	0.875	841.	0.164
184.	0.869	841.5	0.16
184.5	0.869	842.	0.159
185.	0.873	842.5	0.164
185.5	0.871	843.	0.164
186.	0.866	843.5	0.163
186.5	0.866	844.	0.157
187.	0.863	844.5	0.159
187.5	0.864	845.	0.157
188.	0.857	845.5	0.156
188.5	0.859	846.	0.16
189.	0.858	846.5	0.159
189.5	0.858	847.	0.158
190.	0.855	847.5	0.166
190.5	0.859	848.	0.151
191.	0.853	848.5	0.168
191.5	0.859	849.	0.166

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
192.	0.854	849.5	0.162
192.5	0.856	850.	0.162
193.	0.852	850.5	0.159
193.5	0.851	851.	0.163
194.	0.85	851.5	0.167
194.5	0.854	852.	0.156
195.	0.842	852.5	0.154
195.5	0.845	853.	0.162
196.	0.844	853.5	0.153
196.5	0.847	854.	0.151
197.	0.841	854.5	0.158
197.5	0.838	855.	0.159
198.	0.84	855.5	0.158
198.5	0.834	856.	0.153
199.	0.834	856.5	0.153
199.5	0.835	857.	0.152
200.	0.839	857.5	0.155
200.5	0.831	858.	0.163
201.	0.827	858.5	0.152
201.5	0.83	859.	0.157
202.	0.829	859.5	0.151
202.5	0.832	860.	0.15
203.	0.823	860.5	0.158
203.5	0.827	861.	0.152
204.	0.82	861.5	0.153
204.5	0.826	862.	0.152
205.	0.825	862.5	0.153
205.5	0.821	863.	0.148
206.	0.816	863.5	0.151
206.5	0.816	864.	0.154
207.	0.819	864.5	0.152
207.5	0.818	865.	0.155
208.	0.813	865.5	0.152
208.5	0.811	866.	0.152
209.	0.811	866.5	0.152
209.5	0.809	867.	0.153
210.	0.811	867.5	0.147
210.5	0.81	868.	0.147
211.	0.803	868.5	0.151
211.5	0.81	869.	0.149
212.	0.802	869.5	0.149
212.5	0.805	870.	0.148
213.	0.802	870.5	0.149
213.5	0.802	871.	0.145
214.	0.801	871.5	0.148
214.5	0.796	872.	0.149
215.	0.797	872.5	0.149
215.5	0.801	873.	0.154
216.	0.798	873.5	0.142
216.5	0.8	874.	0.144
217.	0.793	874.5	0.141
217.5	0.79	875.	0.142
218.	0.794	875.5	0.149
218.5	0.792	876.	0.146
219.	0.789	876.5	0.145
219.5	0.791	877.	0.146
220.	0.789	877.5	0.147
220.5	0.79	878.	0.148
221.	0.791	878.5	0.148
221.5	0.784	879.	0.146
222.	0.784	879.5	0.147
222.5	0.783	880.	0.144
223.	0.784	880.5	0.148
223.5	0.784	881.	0.143
224.	0.778	881.5	0.144
224.5	0.779	882.	0.144
225.	0.784	882.5	0.148
225.5	0.78	883.	0.151
226.	0.782	883.5	0.145
226.5	0.775	884.	0.141

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
227.	0.778	884.5	0.141
227.5	0.77	885.	0.149
228.	0.772	885.5	0.144
228.5	0.771	886.	0.142
229.	0.77	886.5	0.144
229.5	0.77	887.	0.143
230.	0.77	887.5	0.138
230.5	0.767	888.	0.135
231.	0.759	888.5	0.139
231.5	0.771	889.	0.141
232.	0.761	889.5	0.14
232.5	0.768	890.	0.137
233.	0.761	890.5	0.143
233.5	0.756	891.	0.137
234.	0.754	891.5	0.141
234.5	0.755	892.	0.142
235.	0.756	892.5	0.141
235.5	0.755	893.	0.141
236.	0.756	893.5	0.137
236.5	0.76	894.	0.14
237.	0.755	894.5	0.137
237.5	0.751	895.	0.14
238.	0.749	895.5	0.139
238.5	0.753	896.	0.136
239.	0.745	896.5	0.139
239.5	0.752	897.	0.139
240.	0.746	897.5	0.141
240.5	0.742	898.	0.136
241.	0.746	898.5	0.141
241.5	0.738	899.	0.139
242.	0.74	899.5	0.134
242.5	0.737	900.	0.136
243.	0.737	900.5	0.142
243.5	0.736	901.	0.139
244.	0.739	901.5	0.132
244.5	0.741	902.	0.133
245.	0.736	902.5	0.139
245.5	0.731	903.	0.14
246.	0.727	903.5	0.146
246.5	0.731	904.	0.14
247.	0.737	904.5	0.132
247.5	0.731	905.	0.136
248.	0.731	905.5	0.133
248.5	0.726	906.	0.139
249.	0.724	906.5	0.13
249.5	0.729	907.	0.133
250.	0.731	907.5	0.135
250.5	0.729	908.	0.123
251.	0.726	908.5	0.134
251.5	0.724	909.	0.136
252.	0.721	909.5	0.13
252.5	0.724	910.	0.136
253.	0.718	910.5	0.139
253.5	0.72	911.	0.131
254.	0.72	911.5	0.122
254.5	0.719	912.	0.135
255.	0.72	912.5	0.141
255.5	0.715	913.	0.128
256.	0.715	913.5	0.131
256.5	0.713	914.	0.131
257.	0.713	914.5	0.135
257.5	0.709	915.	0.133
258.	0.715	915.5	0.127
258.5	0.71	916.	0.124
259.	0.71	916.5	0.136
259.5	0.713	917.	0.123
260.	0.705	917.5	0.132
260.5	0.705	918.	0.13
261.	0.705	918.5	0.13
261.5	0.702	919.	0.13

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
262.	0.703	919.5	0.129
262.5	0.703	920.	0.128
263.	0.698	920.5	0.128
263.5	0.704	921.	0.127
264.	0.704	921.5	0.126
264.5	0.702	922.	0.127
265.	0.699	922.5	0.129
265.5	0.701	923.	0.13
266.	0.7	923.5	0.126
266.5	0.693	924.	0.127
267.	0.694	924.5	0.129
267.5	0.691	925.	0.132
268.	0.692	925.5	0.124
268.5	0.692	926.	0.131
269.	0.694	926.5	0.125
269.6	0.689	927.	0.126
270.	0.689	927.5	0.126
270.5	0.689	928.	0.125
271.	0.684	928.5	0.128
271.5	0.689	929.	0.127
272.	0.687	929.5	0.126
272.5	0.681	930.	0.124
273.	0.684	930.5	0.128
273.5	0.684	931.	0.127
274.	0.677	931.5	0.125
274.6	0.68	932.	0.119
275.	0.685	932.5	0.12
275.5	0.679	933.	0.12
276.	0.679	933.5	0.125
276.5	0.682	934.	0.118
277.	0.672	934.5	0.125
277.5	0.679	935.	0.122
278.	0.679	935.5	0.128
278.5	0.675	936.	0.119
279.	0.673	936.5	0.12
279.6	0.672	937.	0.122
280.	0.676	937.5	0.122
280.5	0.67	938.	0.119
281.	0.668	938.5	0.115
281.5	0.67	939.	0.124
282.	0.668	939.5	0.12
282.5	0.664	940.	0.12
283.	0.67	940.5	0.116
283.5	0.661	941.	0.121
284.	0.663	941.5	0.12
284.6	0.667	942.	0.121
285.	0.668	942.5	0.12
285.5	0.661	943.	0.118
286.	0.664	943.5	0.122
286.5	0.66	944.	0.116
287.	0.657	944.5	0.122
287.5	0.658	945.	0.113
288.	0.658	945.5	0.119
288.5	0.657	946.	0.115
289.	0.651	946.5	0.111
289.6	0.659	947.	0.118
290.	0.653	947.5	0.118
290.5	0.656	948.	0.12
291.	0.655	948.5	0.112
291.5	0.655	949.	0.119
292.	0.648	949.5	0.12
292.5	0.646	950.	0.119
293.	0.653	950.5	0.122
293.5	0.65	951.	0.12
294.	0.645	951.5	0.114
294.6	0.652	952.	0.114
295.	0.644	952.5	0.118
295.5	0.644	953.	0.112
296.	0.641	953.5	0.114
296.5	0.64	954.	0.111

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
297.	0.645	954.5	0.119
297.5	0.64	955.	0.113
298.	0.637	955.5	0.116
298.5	0.638	956.	0.115
299.	0.641	956.5	0.114
299.6	0.637	957.	0.11
300.	0.635	957.5	0.113
300.5	0.637	958.	0.116
301.	0.641	958.5	0.107
301.5	0.634	959.	0.117
302.	0.63	959.5	0.11
302.5	0.636	960.	0.107
303.	0.632	960.6	0.115
303.5	0.632	961.	0.11
304.	0.63	961.5	0.11
304.6	0.63	962.	0.11
305.	0.631	962.5	0.104
305.5	0.627	963.	0.108
306.	0.627	963.5	0.106
306.5	0.625	964.	0.112
307.	0.623	964.5	0.11
307.5	0.629	965.	0.11
308.	0.62	965.6	0.113
308.5	0.623	966.	0.112
309.	0.62	966.5	0.112
309.6	0.622	967.	0.11
310.	0.623	967.5	0.11
310.5	0.624	968.	0.112
311.	0.622	968.5	0.104
311.5	0.623	969.	0.106
312.	0.617	969.5	0.107
312.5	0.618	970.	0.107
313.	0.619	970.6	0.112
313.5	0.622	971.	0.106
314.	0.621	971.5	0.104
314.6	0.611	972.	0.108
315.	0.616	972.5	0.104
315.5	0.612	973.	0.107
316.	0.614	973.5	0.109
316.5	0.611	974.	0.103
317.	0.612	974.5	0.11
317.5	0.612	975.	0.106
318.	0.609	975.6	0.111
318.5	0.61	976.	0.11
319.	0.607	976.5	0.109
319.6	0.608	977.	0.106
320.	0.606	977.5	0.103
320.5	0.607	978.	0.11
321.	0.604	978.5	0.108
321.5	0.602	979.	0.105
322.	0.601	979.5	0.105
322.5	0.602	980.	0.105
323.	0.599	980.6	0.107
323.5	0.598	981.	0.1
324.	0.601	981.5	0.1
324.6	0.598	982.	0.103
325.	0.596	982.5	0.102
325.5	0.599	983.	0.106
326.	0.59	983.5	0.105
326.5	0.6	984.	0.102
327.	0.596	984.5	0.109
327.5	0.597	985.	0.108
328.	0.601	985.6	0.104
328.5	0.594	986.	0.102
329.	0.59	986.5	0.101
329.6	0.595	987.	0.103
330.	0.591	987.5	0.101
330.5	0.59	988.	0.104
331.	0.59	988.5	0.101
331.5	0.588	989.	0.106

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
332.	0.586	989.5	0.11
332.5	0.586	990.	0.103
333.	0.586	990.6	0.093
333.5	0.586	991.	0.109
334.	0.592	991.5	0.107
334.6	0.584	992.	0.103
335.	0.582	992.5	0.098
335.5	0.582	993.	0.097
336.	0.581	993.5	0.098
336.5	0.582	994.	0.098
337.	0.579	994.5	0.097
337.5	0.578	995.	0.099
338.	0.58	995.6	0.097
338.5	0.582	996.	0.098
339.	0.58	996.5	0.097
339.6	0.579	997.	0.106
340.	0.58	997.5	0.098
340.5	0.581	998.	0.096
341.	0.573	998.5	0.098
341.5	0.574	999.	0.095
342.	0.57	999.5	0.099
342.5	0.572	1000.	0.096
343.	0.571	1000.6	0.101
343.5	0.57	1001.	0.101
344.	0.57	1001.5	0.081
344.6	0.577	1002.	0.108
345.	0.57	1002.5	0.097
345.5	0.572	1003.	0.089
346.	0.566	1003.5	0.09
346.5	0.562	1004.	0.095
347.	0.569	1004.5	0.089
347.5	0.566	1005.	0.097
348.	0.565	1005.6	0.093
348.5	0.571	1006.	0.093
349.	0.561	1006.5	0.099
349.6	0.561	1007.	0.091
350.	0.563	1007.5	0.095
350.5	0.56	1008.	0.096
351.	0.562	1008.5	0.097
351.5	0.563	1009.	0.093
352.	0.558	1009.5	0.099
352.5	0.559	1010.	0.092
353.	0.563	1010.6	0.09
353.5	0.558	1011.	0.1
354.	0.56	1011.5	0.104
354.6	0.561	1012.	0.091
355.	0.556	1012.5	0.087
355.5	0.555	1013.	0.095
356.	0.549	1013.5	0.09
356.5	0.548	1014.	0.094
357.	0.552	1014.5	0.092
357.5	0.553	1015.	0.092
358.	0.547	1015.6	0.093
358.5	0.553	1016.	0.092
359.	0.545	1016.5	0.085
359.6	0.551	1017.	0.089
360.	0.552	1017.5	0.085
360.5	0.544	1018.	0.086
361.	0.545	1018.5	0.095
361.5	0.546	1019.	0.088
362.	0.543	1019.5	0.091
362.5	0.543	1020.	0.083
363.	0.55	1020.6	0.092
363.5	0.541	1021.	0.083
364.	0.538	1021.5	0.09
364.6	0.545	1022.	0.089
365.	0.541	1022.5	0.079
365.5	0.543	1023.	0.096
366.	0.542	1023.5	0.091
366.5	0.539	1024.	0.082

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
367.	0.541	1024.5	0.091
367.5	0.543	1025.	0.088
368.	0.538	1025.6	0.088
368.5	0.539	1026.	0.086
369.	0.543	1026.5	0.086
369.6	0.538	1027.	0.09
370.	0.529	1027.5	0.089
370.5	0.537	1028.	0.089
371.	0.534	1028.5	0.086
371.5	0.537	1029.	0.086
372.	0.532	1029.5	0.084
372.5	0.536	1030.	0.082
373.	0.533	1030.6	0.084
373.5	0.529	1031.	0.076
374.	0.529	1031.5	0.087
374.6	0.528	1032.	0.09
375.	0.531	1032.5	0.087
375.5	0.532	1033.	0.086
376.	0.528	1033.5	0.083
376.5	0.523	1034.	0.085
377.	0.528	1034.5	0.085
377.5	0.525	1035.	0.085
378.	0.525	1035.6	0.094
378.5	0.524	1036.	0.08
379.	0.527	1036.5	0.084
379.6	0.525	1037.	0.087
380.	0.524	1037.5	0.084
380.5	0.524	1038.	0.083
381.	0.517	1038.5	0.075
381.5	0.518	1039.	0.082
382.	0.527	1039.5	0.083
382.5	0.519	1040.	0.081
383.	0.517	1040.7	0.083
383.5	0.525	1041.	0.082
384.	0.506	1041.5	0.082
384.6	0.514	1042.	0.081
385.	0.517	1042.5	0.081
385.5	0.518	1043.	0.077
386.	0.508	1043.5	0.082
386.5	0.512	1044.	0.073
387.	0.517	1044.5	0.077
387.5	0.51	1045.	0.075
388.	0.52	1045.7	0.086
388.5	0.512	1046.	0.086
389.	0.513	1046.5	0.08
389.6	0.511	1047.	0.083
390.	0.512	1047.5	0.085
390.5	0.511	1048.	0.078
391.	0.509	1048.5	0.081
391.5	0.505	1049.	0.081
392.	0.508	1049.5	0.074
392.5	0.509	1050.	0.082
393.	0.503	1050.7	0.079
393.5	0.503	1051.	0.075
394.	0.502	1051.5	0.075
394.6	0.503	1052.	0.076
395.	0.504	1052.5	0.079
395.5	0.51	1053.	0.077
396.	0.499	1053.5	0.075
396.5	0.499	1054.	0.075
397.	0.497	1054.5	0.078
397.5	0.499	1055.	0.075
398.	0.505	1055.7	0.079
398.5	0.494	1056.	0.075
399.	0.502	1056.5	0.071
399.6	0.5	1057.	0.079
400.	0.5	1057.5	0.078
400.5	0.498	1058.	0.077
401.	0.495	1058.5	0.076
401.5	0.498	1059.	0.078

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
402.	0.491	1059.5	0.076
402.5	0.49	1060.	0.077
403.	0.491	1060.7	0.071
403.5	0.493	1061.	0.078
404.	0.496	1061.5	0.071
404.7	0.492	1062.	0.074
405.	0.49	1062.5	0.071
405.5	0.492	1063.	0.072
406.	0.487	1063.5	0.077
406.5	0.491	1064.	0.069
407.	0.486	1064.5	0.075
407.5	0.488	1065.	0.074
408.	0.485	1065.8	0.071
408.5	0.484	1066.	0.075
409.	0.485	1066.5	0.074
409.7	0.485	1067.	0.072
410.	0.486	1067.5	0.077
410.5	0.485	1068.	0.074
411.	0.482	1068.5	0.074
411.5	0.484	1069.	0.075
412.	0.484	1069.5	0.069
412.5	0.484	1070.	0.07
413.	0.476	1070.7	0.076
413.5	0.483	1071.	0.077
414.	0.476	1071.5	0.074
414.7	0.484	1072.	0.069
415.	0.481	1072.5	0.073
415.5	0.477	1073.	0.073
416.	0.478	1073.5	0.07
416.5	0.482	1074.	0.078
417.	0.477	1074.5	0.071
417.5	0.477	1075.	0.068
418.	0.476	1075.7	0.069
418.5	0.481	1076.	0.073
419.	0.474	1076.5	0.07
419.7	0.477	1077.	0.077
420.	0.477	1077.5	0.069
420.5	0.478	1078.	0.071
421.	0.467	1078.5	0.071
421.5	0.473	1079.	0.073
422.	0.476	1079.5	0.068
422.5	0.472	1080.	0.067
423.	0.47	1080.7	0.075
423.5	0.47	1081.	0.072
424.	0.465	1081.5	0.069
424.7	0.463	1082.	0.07
425.	0.462	1082.5	0.069
425.5	0.467	1083.	0.07
426.	0.466	1083.5	0.065
426.5	0.471	1084.	0.075
427.	0.469	1084.5	0.065
427.5	0.467	1085.	0.065
428.	0.469	1085.8	0.061
428.5	0.462	1086.	0.07
429.	0.458	1086.5	0.07
429.7	0.465	1087.	0.071
430.	0.457	1087.5	0.067
430.5	0.464	1088.	0.07
431.	0.461	1088.5	0.064
431.5	0.456	1089.	0.068
432.	0.462	1089.5	0.067
432.5	0.458	1090.	0.064
433.	0.461	1090.8	0.072
433.5	0.456	1091.	0.069
434.	0.463	1091.5	0.068
434.7	0.458	1092.	0.069
435.	0.453	1092.5	0.059
435.5	0.456	1093.	0.067
436.	0.452	1093.5	0.072
436.5	0.459	1094.	0.067

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
437.	0.457	1094.5	0.06
437.5	0.456	1095.	0.071
438.	0.453	1095.8	0.063
438.5	0.454	1096.	0.067
439.	0.45	1096.5	0.06
439.7	0.45	1097.	0.065
440.	0.45	1097.5	0.06
440.5	0.453	1098.	0.059
441.	0.449	1098.5	0.06
441.5	0.453	1099.	0.064
442.	0.442	1099.5	0.063
442.5	0.447	1100.	0.059
443.	0.445	1100.8	0.068
443.5	0.443	1101.	0.07
444.	0.452	1101.5	0.069
444.7	0.449	1102.	0.059
445.	0.452	1102.5	0.062
445.5	0.447	1103.	0.065
446.	0.447	1103.5	0.063
446.5	0.446	1104.	0.074
447.	0.444	1104.5	0.06
447.5	0.443	1105.	0.06
448.	0.442	1105.8	0.064
448.5	0.445	1106.	0.059
449.	0.448	1106.5	0.059
449.7	0.443	1107.	0.053
450.	0.443	1107.5	0.061
450.5	0.444	1108.	0.06
451.	0.443	1108.5	0.058
451.5	0.439	1109.	0.058
452.	0.439	1109.5	0.057
452.5	0.439	1110.	0.058
453.	0.436	1110.8	0.057
453.5	0.44	1111.	0.059
454.	0.436	1111.5	0.053
454.7	0.436	1112.	0.062
455.	0.439	1112.5	0.06
455.5	0.436	1113.	0.061
456.	0.434	1113.5	0.056
456.5	0.431	1114.	0.056
457.	0.433	1114.5	0.057
457.5	0.436	1115.	0.056
458.	0.429	1115.8	0.066
458.5	0.439	1116.	0.055
459.	0.432	1116.5	0.06
459.8	0.432	1117.	0.058
460.	0.426	1117.5	0.063
460.5	0.431	1118.	0.057
461.	0.428	1118.5	0.055
461.5	0.428	1119.	0.052
462.	0.425	1119.5	0.057
462.5	0.435	1120.	0.055
463.	0.427	1120.8	0.058
463.5	0.428	1121.	0.057
464.	0.427	1121.5	0.056
464.8	0.425	1122.	0.051
465.	0.422	1122.5	0.057
465.5	0.426	1123.	0.054
466.	0.422	1123.5	0.053
466.5	0.424	1124.	0.055
467.	0.426	1124.5	0.054
467.5	0.423	1125.	0.058
468.	0.423	1125.8	0.056
468.5	0.422	1126.	0.057
469.	0.418	1126.5	0.051
469.8	0.416	1127.	0.054
470.	0.42	1127.5	0.054
470.5	0.423	1128.	0.053
471.	0.417	1128.5	0.05
471.5	0.427	1129.	0.053

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
472.	0.419	1129.5	0.051
472.5	0.419	1130.	0.051
473.	0.415	1130.8	0.054
473.5	0.42	1131.	0.05
474.	0.416	1131.5	0.047
474.8	0.418	1132.	0.048
475.	0.416	1132.5	0.057
475.5	0.419	1133.	0.05
476.	0.412	1133.5	0.052
476.5	0.413	1134.	0.053
477.	0.417	1134.5	0.054
477.5	0.414	1135.	0.049
478.	0.416	1135.5	0.053
478.5	0.407	1136.	0.055
479.	0.411	1136.5	0.055
479.8	0.41	1137.	0.052
480.	0.411	1137.5	0.053
480.5	0.414	1138.	0.05
481.	0.409	1138.5	0.05
481.5	0.408	1139.	0.053
482.	0.408	1139.5	0.054
482.5	0.413	1140.	0.053
483.	0.406	1140.5	0.045
483.5	0.408	1141.	0.053
484.	0.405	1141.5	0.054
484.8	0.405	1142.	0.044
485.	0.409	1142.5	0.047
485.5	0.41	1143.	0.053
486.	0.406	1143.5	0.048
486.5	0.404	1144.	0.047
487.	0.403	1144.5	0.052
487.5	0.401	1145.	0.052
488.	0.408	1145.5	0.047
488.5	0.401	1146.	0.047
489.	0.403	1146.5	0.047
489.8	0.408	1147.	0.052
490.	0.401	1147.5	0.047
490.5	0.403	1148.	0.048
491.	0.398	1148.5	0.046
491.5	0.403	1149.	0.044
492.	0.399	1149.5	0.044
492.5	0.402	1150.	0.048
493.	0.397	1150.5	0.045
493.5	0.398	1151.	0.045
494.	0.395	1151.5	0.054
494.5	0.397	1152.	0.045
495.	0.394	1152.5	0.047
495.5	0.401	1153.	0.04
496.	0.396	1153.5	0.05
496.5	0.396	1154.	0.043
497.	0.395	1154.5	0.048
497.5	0.393	1155.	0.05
498.	0.387	1155.5	0.048
498.5	0.389	1156.	0.048
499.	0.392	1156.5	0.046
499.5	0.39	1157.	0.049
500.	0.396	1157.5	0.042
500.5	0.39	1158.	0.039
501.	0.392	1158.5	0.045
501.5	0.388	1159.	0.049
502.	0.39	1159.5	0.041
502.5	0.391	1160.	0.045
503.	0.391	1160.5	0.048
503.5	0.386	1161.	0.043
504.	0.389	1161.5	0.048
504.5	0.385	1162.	0.04
505.	0.384	1162.5	0.045
505.5	0.381	1163.	0.046
506.	0.385	1163.5	0.043
506.5	0.384	1164.	0.041

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
507.	0.378	1164.5	0.035
507.5	0.387	1165.	0.041
508.	0.384	1165.5	0.041
508.5	0.381	1166.	0.048
509.	0.381	1166.5	0.038
509.5	0.383	1167.	0.043
510.	0.382	1167.5	0.043
510.5	0.379	1168.	0.04
511.	0.38	1168.5	0.041
511.5	0.382	1169.	0.041
512.	0.386	1169.5	0.042
512.5	0.38	1170.	0.036
513.	0.384	1170.5	0.041
513.5	0.381	1171.	0.043
514.	0.373	1171.5	0.041
514.5	0.379	1172.	0.042
515.	0.376	1172.5	0.044
515.5	0.38	1173.	0.041
516.	0.379	1173.5	0.043
516.5	0.38	1174.	0.04
517.	0.375	1174.5	0.041
517.5	0.376	1175.	0.035
518.	0.377	1175.5	0.045
518.5	0.376	1176.	0.041
519.	0.376	1176.5	0.04
519.5	0.374	1177.	0.044
520.	0.372	1177.5	0.039
520.5	0.376	1178.	0.041
521.	0.374	1178.5	0.032
521.5	0.376	1179.	0.042
522.	0.375	1179.5	0.034
522.5	0.375	1180.	0.039
523.	0.374	1180.5	0.044
523.5	0.374	1181.	0.032
524.	0.367	1181.5	0.037
524.5	0.37	1182.	0.038
525.	0.369	1182.5	0.032
525.5	0.369	1183.	0.039
526.	0.37	1183.5	0.037
526.5	0.367	1184.	0.034
527.	0.366	1184.5	0.034
527.5	0.368	1185.	0.032
528.	0.361	1185.5	0.035
528.5	0.362	1186.	0.037
529.	0.359	1186.5	0.035
529.5	0.362	1187.	0.038
530.	0.365	1187.5	0.03
530.5	0.365	1188.	0.034
531.	0.361	1188.5	0.036
531.5	0.36	1189.	0.034
532.	0.363	1189.5	0.036
532.5	0.358	1190.	0.032
533.	0.353	1190.5	0.03
533.5	0.358	1191.	0.034
534.	0.359	1191.5	0.038
534.5	0.357	1192.	0.037
535.	0.361	1192.5	0.038
535.5	0.357	1193.	0.03
536.	0.355	1193.5	0.037
536.5	0.36	1194.	0.03
537.	0.353	1194.5	0.033
537.5	0.35	1195.	0.029
538.	0.357	1195.5	0.032
538.5	0.353	1196.	0.031
539.	0.349	1196.5	0.035
539.5	0.352	1197.	0.034
540.	0.354	1197.5	0.039
540.5	0.356	1198.	0.032
541.	0.353	1198.5	0.033
541.5	0.351	1199.	0.031

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
542.	0.352	1199.5	0.034
542.5	0.35	1200.	0.032
543.	0.354	1200.5	0.032
543.5	0.349	1201.	0.035
544.	0.349	1201.5	0.031
544.5	0.353	1202.	0.033
545.	0.353	1202.5	0.028
545.5	0.35	1203.	0.028
546.	0.349	1203.5	0.031
546.5	0.343	1204.	0.033
547.	0.354	1204.5	0.026
547.5	0.349	1205.	0.032
548.	0.35	1205.5	0.033
548.5	0.344	1206.	0.03
549.	0.346	1206.5	0.03
549.5	0.343	1207.	0.033
550.	0.351	1207.5	0.026
550.5	0.346	1208.	0.027
551.	0.346	1208.5	0.036
551.5	0.342	1209.	0.029
552.	0.339	1209.5	0.028
552.5	0.346	1210.	0.035
553.	0.344	1210.5	0.038
553.5	0.34	1211.	0.032
554.	0.343	1211.5	0.032
554.5	0.342	1212.	0.036
555.	0.339	1212.5	0.032
555.5	0.343	1213.	0.026
556.	0.342	1213.5	0.028
556.5	0.342	1214.	0.032
557.	0.344	1214.5	0.026
557.5	0.34	1215.	0.024
558.	0.341	1215.5	0.027
558.5	0.34	1216.	0.029
559.	0.337	1216.5	0.027
559.5	0.338	1217.	0.027
560.1	0.342	1217.5	0.027
560.5	0.335	1218.	0.026
561.	0.338	1218.5	0.026
561.5	0.338	1219.	0.026
562.	0.339	1219.5	0.022
562.5	0.334	1220.	0.024
563.	0.337	1220.5	0.029
563.5	0.335	1221.	0.027
564.	0.333	1221.5	0.023
564.5	0.328	1222.	0.026
565.	0.331	1222.5	0.025
565.5	0.34	1223.	0.027
566.	0.329	1223.5	0.022
566.5	0.334	1224.	0.027
567.	0.332	1224.5	0.026
567.5	0.331	1225.	0.025
568.	0.331	1225.5	0.031
568.5	0.329	1226.	0.017
569.	0.328	1226.5	0.025
569.5	0.33	1227.	0.031
570.	0.332	1227.5	0.024
570.5	0.324	1228.	0.024
571.	0.329	1228.5	0.029
571.5	0.329	1229.	0.026
572.	0.325	1229.5	0.026
572.5	0.331	1230.	0.022
573.	0.329	1230.5	0.025
573.5	0.328	1231.	0.026
574.	0.327	1231.5	0.028
574.5	0.324	1232.	0.027
575.	0.328	1232.5	0.024
575.5	0.33	1233.	0.021
576.	0.326	1233.5	0.023
576.5	0.325	1234.	0.023

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
577.	0.331	1234.5	0.023
577.5	0.318	1235.	0.03
578.	0.319	1235.5	0.025
578.5	0.319	1236.	0.024
579.	0.331	1236.5	0.022
579.5	0.323	1237.	0.024
580.	0.318	1237.5	0.024
580.5	0.326	1238.	0.027
581.	0.318	1238.5	0.026
581.5	0.317	1239.	0.026
582.	0.323	1239.5	0.02
582.5	0.316	1240.	0.018
583.	0.318	1240.5	0.025
583.5	0.318	1241.	0.02
584.	0.318	1241.5	0.018
584.5	0.319	1242.	0.027
585.	0.321	1242.5	0.027
585.5	0.319	1243.	0.024
586.	0.319	1243.5	0.022
586.5	0.314	1244.	0.022
587.	0.314	1244.5	0.02
587.5	0.322	1245.	0.025
588.	0.318	1245.5	0.024
588.5	0.311	1246.	0.022
589.	0.314	1246.5	0.024
589.5	0.315	1247.	0.023
590.	0.308	1247.5	0.021
590.5	0.318	1248.	0.018
591.	0.309	1248.5	0.02
591.5	0.316	1249.	0.029
592.	0.311	1249.5	0.021
592.5	0.308	1250.	0.021
593.	0.313	1250.5	0.027
593.5	0.311	1251.	0.018
594.	0.313	1251.5	0.017
594.5	0.308	1252.	0.016
595.	0.313	1252.5	0.022
595.5	0.309	1253.	0.02
596.	0.307	1253.5	0.016
596.5	0.304	1254.	0.02
597.	0.309	1254.5	0.015
597.5	0.308	1255.	0.022
598.	0.305	1255.5	0.016
598.5	0.301	1256.	0.022
599.	0.306	1256.5	0.02
599.5	0.309	1257.	0.02
600.	0.305	1257.5	0.015
600.5	0.309	1258.	0.016
601.	0.307	1258.5	0.017
601.5	0.305	1259.	0.013
602.	0.309	1259.5	0.012
602.5	0.304	1260.	0.018
603.	0.303	1260.5	0.017
603.5	0.305	1261.	0.017
604.	0.304	1261.5	0.015
604.5	0.306	1262.	0.013
605.	0.303	1262.5	0.018
605.5	0.304	1263.	0.019
606.	0.305	1263.5	0.016
606.5	0.295	1264.	0.012
607.	0.303	1264.5	0.013
607.5	0.303	1265.	0.015
608.	0.3	1265.5	0.013
608.5	0.302	1266.	0.018
609.	0.303	1266.5	0.016
609.5	0.298	1267.	0.014
610.	0.302	1267.5	0.012
610.5	0.302	1268.	0.003
611.	0.298	1268.5	0.03
611.5	0.297	1269.	0.015

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
612.	0.3	1269.5	0.011
612.5	0.299	1270.	0.014
613.	0.293	1270.5	0.01
613.5	0.292	1271.	0.023
614.	0.299	1271.5	0.011
614.5	0.297	1272.	0.014
615.	0.296	1272.5	0.017
615.5	0.296	1273.	0.013
616.	0.294	1273.5	0.014
616.5	0.283	1274.	0.015
617.	0.296	1274.5	0.016
617.5	0.289	1275.	0.014
618.	0.287	1275.5	0.014
618.5	0.294	1276.	0.017
619.	0.296	1276.5	0.014
619.5	0.29	1277.	0.006
620.	0.293	1277.5	0.011
620.5	0.287	1278.	0.017
621.	0.29	1278.5	0.018
621.5	0.29	1279.	0.009
622.	0.291	1279.5	0.015
622.5	0.289	1280.	0.015
623.	0.289	1280.5	0.011
623.5	0.287	1281.	0.013
624.	0.291	1281.5	0.007
624.5	0.295	1282.	0.017
625.	0.292	1282.5	0.006
625.5	0.284	1283.	0.008
626.	0.294	1283.5	0.014
626.5	0.29	1284.	0.011
627.	0.285	1284.5	0.008
627.5	0.29	1285.	0.012
628.	0.29	1285.5	0.009
628.5	0.288	1286.	0.012
629.	0.284	1286.5	0.014
629.5	0.28	1287.	0.008
630.	0.288	1287.5	0.013
630.5	0.282	1288.	0.012
631.	0.281	1288.5	0.004
631.5	0.287	1289.	0.014
632.	0.285	1289.5	0.011
632.5	0.282	1290.	0.012
633.	0.283	1290.5	0.009
633.5	0.28	1291.	0.009
634.	0.278	1291.5	0.016
634.5	0.283	1292.	0.01
635.	0.279	1292.5	0.008
635.5	0.276	1293.	0.015
636.	0.28	1293.5	0.001
636.5	0.281	1294.	0.008
637.	0.282	1294.5	0.011
637.5	0.28	1295.	0.01
638.	0.278	1295.5	0.01
638.5	0.275	1296.1	0.008
639.	0.279	1296.5	0.009
639.5	0.286	1297.	0.008
640.	0.279	1297.5	0.007
640.5	0.28	1298.	0.005
641.	0.274	1298.5	0.011
641.5	0.281	1299.	0.009
642.	0.279	1299.5	0.003
642.5	0.28	1300.	0.01
643.	0.276	1300.5	0.011
643.5	0.272	1301.1	0.009
644.	0.277	1301.5	0.003
644.5	0.272	1302.	0.003
645.	0.277	1302.5	0.009
645.5	0.271	1303.	0.007
646.	0.278	1303.5	0.007
646.5	0.273	1304.	0.009

<u>Time (sec)</u>	<u>Displacement (ft)</u>	<u>Time (sec)</u>	<u>Displacement (ft)</u>
647.	0.275	1304.5	0.005
647.5	0.277	1305.	0.003
648.	0.277	1305.5	0.005
648.5	0.268	1306.1	0.009
649.	0.273	1306.5	0.005
649.5	0.266	1307.	0.
650.	0.274	1307.5	0.007
650.5	0.27	1308.	0.012
651.	0.268	1308.5	0.003
651.5	0.272	1309.	0.007
652.	0.269	1309.5	0.001
652.5	0.275	1310.	0.005
653.	0.272	1310.5	0.002
653.5	0.27	1311.1	0.009
654.	0.269	1311.5	-0.003
654.5	0.269	1312.	0.005
655.	0.271	1312.5	0.002
655.5	0.267	1313.	0.
656.	0.269	1313.5	0.003
656.5	0.271	1314.	0.006
657.	0.266	1314.5	0.007

SOLUTION

Slug Test

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

ln(Re/rw): 2.829

VISUAL ESTIMATION RESULTSEstimated Parameters

<u>Parameter</u>	<u>Estimate</u>	
K	0.0001558	cm/sec
y0	1.434	ft

$$T = K \cdot b = 0.1188 \text{ cm}^2/\text{sec}$$

APPENDIX G:
DISPOSAL MANIFEST



March 3, 2022

Re: Treatment of Purge Water
Jake Huggins
Florence, South Carolina
SCDHEC UST Site ID Number 03423
MECI Project Number 21-7709

To Whom it May Concern;

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

Applicability:

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

Conditions:

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

All purge waters were treated on-site using an up-flow treatment drum loaded with 80 pounds of activated carbon. Carbon will be loaded to a maximum of 3 pounds of total organic compounds or 5,000 gallons of development/purge water, whichever occurs first.

March 3, 2022

156.0 Gallons of development water were treated on February 11, 2022 at the referenced site.

161.5 Gallons of Purge water were treated on February 14-15, 2022 at the referenced site.

A total of 317.5 Gallons were treated during the Tier II Assessment.

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

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

Sincerely,
Midlands Environmental Consultants, Inc.



Jeff L. Coleman
Senior Scientist



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

Reprint
Ticket# 1879453

Customer Name MIDLANDSENVIRON MIDLANDS ENVI Carrier MIDLANDSENVIRON MIDLANDS ENVIRONMENT
Ticket Date 02/09/2022 Vehicle# 1 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000469
State Waste Code Gen EPA ID
Manifest 0
Destination
PO
Profile VA2718 (SOIL FROM UST ASSESSMENT)
Generator 126-MIDLANDSENVIRONMENTAL MIDLANDS ENVIRONMENTAL

	Time	Scale	ScaleMaster	Gross	
In	02/09/2022 07:09:16	Inbound #1	kenny1	Tare	17020 lb
Out	02/09/2022 07:58:58	Outbound	kenny1	Net	14500 lb
				Tons	2520 lb
					1.26

Comments

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 SOIL-Cont. Soil -	100	1.26	Tons				21-FLORENC
2 FUEL-Fuel Surcharg	100		%				21-FLORENC
3 EVF-P-Standard Env	100		%				21-FLORENC
4 RCR-P-Regulatory C	100		%				21-FLORENC

Total Fees
Total Ticket

Driver's Signature



NON-HAZARDOUS MANIFEST

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No.		Manifest Doc No.		2. Page 1 of							
3. Generator's Mailing Address: MIDLANDS ENVIRONMENTAL CONSULTANTS, INC. 231 DOOLEY ROAD LEXINGTON, SC 29073				Generator's Site Address (if different than mailing): Jake Higgins 4925 Pamlico Hwy., Florence, SC US 03423 100%		A. Manifest Number							
4. Generator's Phone 803-808-2042 X2						B. State Generator's ID							
5. Transporter 1 Company Name				6. US EPA ID Number		C. State Transporter's ID							
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone							
9. Designated Facility Name and Site Address RICHLAND COUNTY LANDFILL, INC. 1047 HIGHWAY CHURCH ROAD ELGIN, SC 29045				10. US EPA ID Number		E. State Transporter's ID							
						F. Transporter's Phone							
						G. State Facility ID 402401-1101							
						H. State Facility Phone 803-744-3373							
G E N E R A T O R	11. Description of Waste Materials					12. Containers		13. Total Quantity		14. Unit Wt./Vol.		15. Misc. Comments	
	a. NON-HAZ GAS AND DIESEL CONTAMINATED SOIL					No. Type							
	WM Profile # VA2718												
	b.												
	WM Profile #												
	c.												
	WM Profile #												
	d.												
	WM Profile #												
	J. Additional Descriptions for Materials Listed Above					K. Disposal Location							
					Cell				Level				
					Grid								
15. Special Handling Instructions and Additional Information													
Purchase Order #													
EMERGENCY CONTACT / PHONE NO.:													
16. GENERATOR'S CERTIFICATE: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.													
Printed Name Trevor Brown Signature "On behalf of" Trevor Brown													
Month 2 Day 9 Year 22													
T R A N S P O R T E R	17. Transporter 1 Acknowledgement of Receipt of Materials												
	Printed Name Trevor Brown Signature Trevor Brown												
	Month 2 Day 9 Year 22												
	18. Transporter 2 Acknowledgement of Receipt of Materials												
Printed Name													
Signature													
Month													
Day													
Year													
F A C I L I T Y	19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.												
	20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.												
	Printed Name Kenneth Robb Signature												
	Month 2 Day 9 Year 22												
White- TREATMENT, STORAGE, DISPOSAL FACILITY COPY													
Pink- FACILITY USE ONLY													
Blue- GENERATOR #2 COPY													
Gold- TRANSPORTER #1 COPY													
Yellow- GENERATOR #1 COPY													



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

Reprint
Ticket# 1879880

Customer Name MIDLANDSENVIRON MIDLANDS ENVI Carrier MIDLANDSENVIRON MIDLANDS ENVIRONMENT
Ticket Date 02/10/2022 Vehicle# 1 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000469
State Waste Code Gen EPA ID
Manifest 0
Destination
PO
Profile VA2718 (SOIL FROM UST ASSESSMENT)
Generator 126-MIDLANDSENVIRONMENTAL MIDLANDS ENVIRONMENTAL

	Time	Scale	ScaleMaster	Gross	
In	02/10/2022 14:30:20	Inbound #2	briana	Tare	13320 lb
Out	02/10/2022 14:56:12	Outbound	briana	Net	10420 lb
				Tons	2900 lb
					1.45

Comments

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 SOIL-Cont. Soil -	100	1.45	Tons				32-LEXINGT
2 FUEL-Fuel Surcharg	100		%				32-LEXINGT
3 EVF-P-Standard Env	100		%				32-LEXINGT
4 RCR-P-Regulatory C	100		%				32-LEXINGT

Total Fees
Total Ticket

Driver's Signature *Briana*



NON-HAZARDOUS MANIFEST

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No.		Manifest Doc No.		2. Page 1 of		
3. Generator's Mailing Address: MIDLANDS ENVIRONMENTAL CONSULTANTS, INC. 231 DOOLEY ROAD LEXINGTON, SC 29073				Generator's Site Address (If different than mailing): Jake Huggins 4925 Pamplico Hwy, Florence SC UST 03423 100%		A. Manifest Number		
4. Generator's Phone 803-808-2042 X2				B. State Generator's ID				
5. Transporter 1 Company Name				6. US EPA ID Number		C. State Transporter's ID		
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone		
9. Designated Facility Name and Site Address RICHLAND COUNTY LANDFILL, INC. 1047 HIGHWAY CHURCH ROAD ELGIN, SC 29045				10. US EPA ID Number		E. State Transporter's ID		
						F. Transporter's Phone		
						G. State Facility ID 402401-1101		
						H. State Facility Phone 803-744-3373		
GENERATOR	11. Description of Waste Materials				12. Containers		13. Total Quantity	
	a. NON-HAZ GAS AND DIESEL CONTAMINATED SOIL				No. Type		14. Unit Wt./Vol.	
	WM Profile # VA2718						I. Misc. Comments	
	b.							
	WM Profile #							
	c.							
WM Profile #								
d.								
WM Profile #								
J. Additional Descriptions for Materials Listed Above				K. Disposal Location				
				Cell				
				Grid				
15. Special Handling Instructions and Additional Information				Level				
Purchase Order #				EMERGENCY CONTACT / PHONE NO.:				
16. GENERATOR'S CERTIFICATE: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.								
Printed Name Trevor Brown				Signature "On behalf of" Trevor Brown		Month Day Year 2 10 22		
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials							
	Printed Name Trevor Brown		Signature Trevor Brown		Month Day Year 2 10 22			
FACILITY	18. Transporter 2 Acknowledgement of Receipt of Materials							
	Printed Name		Signature		Month Day Year			
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.								
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.								
Printed Name Diana Scott				Signature		Month Day Year 2 10 20		
White- TREATMENT, STORAGE, DISPOSAL FACILITY COPY Pink- FACILITY USE ONLY Blue- GENERATOR #2 COPY Gold- TRANSPORTER #1 COPY Yellow- GENERATOR #1 COPY								

APPENDIX H:
LOCAL ZONING REGULATIONS
(Not Applicable)

APPENDIX I:
FATE AND TRANSPORT MODELING
(Not Applicable)

APPENDIX J:
ACCESS AGREEMENTS



PERMISSION TO ENTER PROPERTY

I, BARBARA WILLIAMS hereby certify that I am the owner of record or otherwise have the legal right to grant entry and access to the property for the purpose described below ("Owner") and do hereby grant Midlands Environmental Consultants, Inc. (MECI), and its agents, employees and subcontractors, and assigns the right to enter upon the properties located at the intersection of Pamplico Highway and Willow Creek Road (Florence County Tax Map Numbers 0213-01-017 & 00213-01-019) for the purpose of performing an environmental assessment, as directed by SCDHEC which will include the following categories of work:

- Temporary direct push field screening ONLY.
- Borings completed at 3309 Willow Creek Road, Florence, SC 29505 will take place outside of the fence.

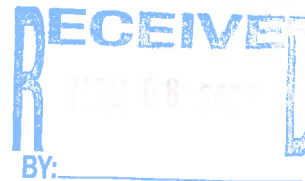
The property owner will be notified at least 48 hours in advance of any planned activities on the property. At any time, the property owner may contact MECI if there are any questions or concerns about work performed on the property.

The Permission to Enter Property is effective upon execution of this document.

This Permission to Enter Property is granted with consideration of MECI making reasonable restoration to the property resulting from MECI activities on the property.

Consented to giving access:

Barbara M. Williams Daytime Phone# 843-662-0808
Property Owner's Signature Date
BARBARA M. WILLIAMS 11-8-2021
Printed Name Date Evening Phone# 843 662-0808
843 687-9061
[Signature] 10-28-21
MECI Representative Date



PERMISSION TO ENTER PROPERTY

I, Linda T. Huggins, hereby certify that I am the owner of record or otherwise have the legal right to grant entry and access to the property for the purpose described below ("Owner") and do hereby grant Midlands Environmental Consultants, Inc. (MECI), and its agents, employees and subcontractors, and assigns the right to enter upon the properties located at Florence County Tax Map 00213-01-053 and 00213-01-054 for the purpose of performing an environmental assessment, as directed by SCDHEC which will include the following categories of work:

- Direct push field screening;
- Possible Installation of groundwater monitoring well(s);
- Measuring depth to groundwater, about once every three months;
- Collection of groundwater samples, about once every three months;
- Maintenance of the monitoring well(s).

Access to the monitoring well will be needed for a time period not likely to exceed three to five years after well installation has been completed. The property owner will be notified at least 48 hours in advance of any planned activities on the property. At any time, the property owner may contact MECI if there are any questions or concerns about work performed on the property.

The Permission to Enter Property is effective upon execution of this document.

This Permission to Enter Property is granted with consideration of MECI making reasonable restoration to the property resulting from MECI activities on the property.

Consented to giving access:

Linda T. Huggins 11-3-21
Property Owner's Signature Date

Daytime Phone# 864-992-1116 Gretchen Huggins
Daughter, Property Manager (on-site)

Linda T. Huggins 11-3-21
Printed Name Date

Evening Phone# 843-413-9709

[Signature] 11/28/21
MECI Representative Date



PERMISSION TO ENTER PROPERTY

I, William Huggins, hereby certify that I am the owner of record or otherwise have the legal right to grant entry and access to the property for the purpose described below ("Owner") and do hereby grant Midlands Environmental Consultants, Inc. (MECI), and its agents, employees and subcontractors, and assigns the right to enter upon the properties located at Florence County Tax Map 00213-01-149 and 00213-01-053 for the purpose of performing an environmental assessment, as directed by SCDHEC which will include the following categories of work:

- Temporary direct push field screening ONLY.

The property owner will be notified at least 48 hours in advance of any planned activities on the property. At any time, the property owner may contact MECI if there are any questions or concerns about work performed on the property.

The Permission to Enter Property is effective upon execution of this document.

This Permission to Enter Property is granted with consideration of MECI making reasonable restoration to the property resulting from MECI activities on the property.

Consented to giving access:

	<u>11-3-21</u>	Daytime Phone# <u>(843) 742-9800</u>
Property Owner's Signature	Date	
<u>William L. Huggins</u>	<u>11-3-21</u>	Evening Phone# <u>Same</u>
Printed Name	Date	
	<u>10-28-21</u>	
MECI Representative	Date	

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
Encroachment Permit

Permit No : 249669

Permit Decision Date :
11/9/2021

Expiration Date : 11/9/2022

Type

Permit : ENVIRONMENTAL

Location:

<u>District</u>	<u>Work County</u>	<u>Type</u>	<u>Route</u>	<u>Aux</u>	<u>Begin MP</u>	<u>End MP</u>
5	Florence, SC	SC	51	None	30.151	30.151

Contact Information

Applicant: MidlandsEnvironmentalConsultants

Phone:

Contact: Kyle Pudney

Address: 231 Dooley Rd,

City: Lexington

State: SC

Zip: 29072

Comments

Soil Borings will be conducted along the the eastern and western shoulders of Pamplico Highway (SC 51) in Florence, Florence County, SC. Permanent monitoring wells may be installed depending on results of field screening. See attached map for soil boring locations. Borings on the eastern shoulder of Pamplico Highway will be installed approximately 45 feet from center of road, approximately 10 feet from edge of pavement. Borings on the western shoulder of Pamplico Highway will also be installed approximately 45 feet from center of road, approximately 10 feet from edge of pavement. All borings will be out of wheel path.

Special Provisions:

9999 - See Attached for Additional Special Provisions

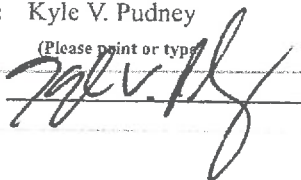
3. The undersigned applicant hereby requests the SCDOT to permit encroachment on the SCDOT right of way as described herein. It is expressly understood that the encroachment, if and when constructed, shall be installed in accordance with the sketch attached hereto and made a part hereof. The applicant agrees to comply with and be bound by the SCDOT's "A Policy for Accommodating Utilities on Highways Rights of way", "Standard Specifications for Highway Construction", the "General Provisions" and "Special Provisions", attached hereto or made a part hereof by reference, during the installation, operation and maintenance of said encroachment within the SCDOT's Right of Way. **DISCHARGES OF STORM WATER AND NON-STORM WATER:** Work within State Highway right-of-way shall be conducted in compliance with all applicable requirements of the National Pollutant Discharge Elimination System (NPDES) permit(s) issued to the Department of Transportation (Department), to govern the discharge of storm water and non-storm water from its properties. Work shall also be in compliance with all other applicable Federal, State and Local laws and regulations, and with the Department's Encroachment Permits Manual and encroachment permit. The encroachment permit will not be issued until the applicant has received an NPDES construction permit from SC Department of Health and Environmental Control.

The applicant agrees to comply with all current SCDOT Standards Specifications for Highway Construction including all Supplemental Technical Specifications. The applicant hereby further agrees, and binds his/her/its heirs, personal representatives, successors, assigns, to assume any and all liability for accidents or injuries to persons, or damage to property, including the highway, that may be caused by the construction, maintenance, use, moving or removing of the physical appurtenances contemplated herein, and the applicant agrees to indemnify and hold SCDOT harmless from and against any and all claims for personal injury and/or property damage, including attorney fees and costs, which may be sustained by reason of the construction, maintenance or existence of said encroachment on the SCDOT's right of way.

Applicant's Name: Kyle V. Pudney

Date: 11/03/2021

Applicant's Sig:

(Please print or type)


Title: Project Biologist

For Office Use Only

For Office Use Only

In accordance with your request and subject to all the provisions, terms, conditions, and restrictions stated in the application and the general and special provisions attached hereto, the SCDOT hereby approves your application for an encroachment permit. This permit shall become null and void unless the work contemplated herein shall have been completed prior to:

See Attached Special Provision and/or Permit Requirements

NPDES Permit

Nbr:

JA

RECEIVED NOV 03 2021

(Date received by res. Maint. Engr.)

(SCDOT Approval)

A. T. Myer

(Date)

11/5/21

APPENDIX K:
DATA VERIFICATION CHECKLIST

Contractor Checklist

Item#	Item	Yes	No	N/A
1	Are Facility Name, Permit #, and address provided?	X		
2	Is UST Owner/Operator name, address, & phone number provided?	X		
3	Is name, address, & phone number of current property owner provided?	X		
4	Is the DHEC Certified UST Site Rehabilitation Contractor's Name, Address, telephone number, and certification number provided?	X		
5	Is the name, address, telephone number, and certification number of the well driller that installed borings/monitoring wells provided?	X		
6	Is the name, address, telephone number, and certification number of the certified laboratory(ies) performing analytical analyses provided?	X		
7	Has the facility history been summarized?	X		
8	Has the regional geology and hydrogeology been described?	X		
9	Are the receptor survey results provided as required?	X		
10	Has current use of the site and adjacent land been described?	X		
11	Has the site-specific geology and hydrogeology been described?	X		
12	Has the primary soil type been described?	X		
13	Have field screening results been described?	X		
14	Has a description of the soil sample collection and preservation been detailed?	X		
15	Has the field screening methodology and procedure been detailed?	X		
16	Has the monitoring well installation and development dates been provided?	X		
17	Has the method of well development been detailed?	X		
18	Has justification been provided for the locations of the monitoring wells?	X		
19	Have the monitoring wells been labeled in accordance with the UST QAPP guidelines?	X		
20	Has the groundwater sampling methodology been detailed?	X		
21	Have the groundwater sampling dates and groundwater measurements been provided? (Table 2 & Figures 4-4A)	X		
22	Has the purging methodology been detailed?	X		
23	Has the volume of water purged from each well been provided along with measurements to verify that purging is complete? (Appendix B)	X		
24	If free-product is present, has the thickness been provided?		X	
25	Does the report include a brief discussion of the assessment done and the results?	X		
26	Does the report include a brief discussion of the aquifer evaluation and results?	X		
27	Does the report include a brief discussion of the fate & transport models used?			X

Item#	Item	Yes	No	N/A
28	Are the site-conceptual model tables included? (Tier 1 Risk Evaluation)			X
29	Have the exposure pathways been analyzed? (Tier 2 Risk Evaluation)			X
30	Have the SSTLs for each compound and pathway been calculated? (Tier 2 Risk Evaluation)			X
31	Have recommendations for further action been provided and explained?	X		
32	Has the soil analytical data for the site been provided in tabular format? (Table 1)			X
33	Has the potentiometric data for the site been provided in tabular format? (Table 2)	X		
34	Has the current and historical laboratory data been provided in tabular format? (Table 1A)	X		
35	Have the aquifer characteristics been provided and summarized on the appropriate form? (Appendix F)	X		
36	Have the Site conceptual model tables been included? (Tier 1 Risk Evaluation)			X
37	Has the topographic map been provided with all required elements? (Figure 1)	X		
38	Has the site base map been provided with all required elements? (Figure 2)	X		
39	Have the CoC site maps been provided?		X	
40	Has the site potentiometric map been provided? (Figure 4-4A)	X		
41	Have the geologic cross-sections been provided? (Figure 5-5B)	X		
42	Have maps showing the predicted migration of the CoCs through time been provided? (Tier 2 Risk Evaluation)			X
43	Has the site survey been provided and include all necessary elements? (Appendix A)	X		
44	Have the sampling logs, chain of custody forms, and the analytical data package been included with all required elements? (Appendix B)	X		
45	Is the laboratory performing the analyses properly certified?	X		
46	Has the tax map been included with all necessary elements? (Appendix C)	X		
47	Have the soil boring/field screening logs been provided? (Appendix E)	X		
48	Have the well completion logs and SCDHEC Form 1903 been provided? (Appendix E)	X		
49	Have the aquifer evaluation forms, data, graphs, equations, etc. been provided? (Appendix F)	X		
50	Have the disposal manifests been provided? (Appendix G)	X		
51	Has a copy of the local zoning regulations been provided? (Appendix H)			X
52	Has all fate and transport modeling been provided? (Appendix I)			X
53	Have copies of all access agreements obtained by the contractor been provided? (Appendix J)	X		
54	Has a copy of this form been attached to the final report and are explanations for any missing or incomplete data been provided? (Appendix K)	X		

APPENDIX L:
DETAILED RECEPTOR INFORMATION

	Permit#/Well Name: (03423-WSW01)
	Parcel ID: 00213-01-130
	Property Owner Name: Willie B Winchester Jr.
	Property Owner Address: 3101 Willow Creek Rd, Florence, SC 29505
	WSW Details: Well is inside barn building. Sample collected from spigot on water supply well. GPS: 34.096044, -79.701503

	Permit#/Well Name: (03423-WSW02)
	Parcel ID: 00213-01-130
	Property Owner Name: Willie B Winchester Jr.
	Property Owner Address: 3101 Willow Creek Rd, Florence, SC 29505
	WSW Details: Accessible spigot on front of house Personnel told by property owner not to sample the well due to tenants being unavailable during sampling activities GPS: 34.095156, -79.700508

	Permit#/Well Name: (03423-WSW03)
	Parcel ID: 00213-01-052
	Property Owner Name: Linda L Huggins
	Property Owner Address: 3695 Willow Creek Rd, Florence, SC 29505
	WSW Details: Well has been disconnected. Unable to sample with bailer due to metal elbow at well head. GPS: 34.096743, -79.701503

	Permit#/Well Name: (03423-Possible WSW)
	Parcel ID: 00214-01-016
	Property Owner Name: Trent P Stallings
	Property Owner Address: 3118 Willow Creek Rd, Florence, SC 29505
	WSW Details: Possible well house attached to residence. Resident did not respond to attempts to make contact. GPS: 34.094158, -79.700555

	Permit#/Well Name: (03423-SW01)	
	Parcel ID:	SCDOT Right of Way
	Property Owner Name:	SCDOT
	Property Owner Address:	PO Box 191, Columbia, SC 29201
SW Details: Surface water sample collected from drainage ditch. GPS: 34.095076, -79.696772		

	Permit#/Well Name: (03423-SW02)	
	Parcel ID:	SCDOT Right of Way
	Property Owner Name:	SCDOT
	Property Owner Address:	PO Box 191, Columbia, SC 29201
SW Details: Surface water sample collected from drainage ditch. GPS: 34.095847, -79.697296		

	Permit#/Well Name: (03423-SW03)	
	Parcel ID:	00213-01-017
	Property Owner Name:	Barbara M Williams
	Property Owner Address:	9296 Grays Highway, Ridgeland, SC 29936
SW Details: Surface water sample collected from stream. GPS: 34.094620, -79.698172		



Permit#/Well Name: (03423-SW04)
Parcel ID: 00213-01-017
Property Owner Name: Barbara M Williams
Property Owner Address: 9296 Grays Highway, Ridgeland, SC 29936
SW Details: Surface water sample collected from stream. GPS: 34.095389, -79.698409



Permit#/Well Name: (03423-SW05)
Parcel ID: 00213-01-017
Property Owner Name: Barbara M Williams
Property Owner Address: 9282 Grays Highway, Ridgeland, SC 29936
SW Details: Surface water sample collected from stream. GPS: 34.096050, -79.698577



Permit#/Well Name: (03423-SW06)
Parcel ID: 00213-01-017
Property Owner Name: Barbara M Williams
Property Owner Address: 9372 Grays Highway, Ridgeland, SC 29936
SW Details: Surface water sample collected from stream. GPS: 34.096699, -79.699359



10/25/2021

WILLIAMS BARBARA M
3309 WILLOW CREEK RD
Florence, SC 29505

Subject: Water Supply Well Survey and Request to Sample
Property Located at Florence County Tax Map # 00213-01-019
MECI Job No. 21-7709

To whom it may concern:

Midlands Environmental Consultants, Inc. is currently conducting work on behalf of the South Carolina Department of Health and Environmental Control (SCDHEC) to assess the extent of a historical gasoline release from Underground Storage Tank UST# 03423-Outpost at Willowcreek, LLC., located at 4925 Pamplico Highway in Florence, Florence County, South Carolina. As Part of the assessment, Midlands Environmental Consultants, Inc. is conducting a water supply well survey of properties located within a 1,000-foot radius of the UST system.

Please complete the information below to the best of your knowledge and return in the enclosed stamped envelope.

1. What is the source of drinking water for the subject property?
☒ Public Water ☐ Water Supply Well ☐ Stream ☐ Other- _____
2. Is there a water supply well on the subject property? ☐ Yes ☒ No
If "No", please disregard the remaining questions and return survey.
3. What is the well typically used for?
☐ Drinking ☐ Irrigation ☐ Livestock ☐ Not in Use
4. How many residences are connected to the well? ☐ Please list addresses:

5. Please provide well construction details (as much is known):
How deep is the well? _____ When was the well installed? _____
What is the casing depth/screened interval of the well? _____
6. As part of the assessment, Midlands Environmental Consultants, Inc. can sample your water supply well free-of-charge for the presence of petroleum compounds. Please indicate how you would like to receive the results:

Mail to: _____

Email to: _____

OWNER Barbara M. Williams DATE: 10-27-2021
PHONE 843 662-0808 EMAIL: bmwex1@gmail.com

Thank you in advance for your help. Please do not hesitate to contact us at 803.808.2043 if you have any questions.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman
Senior Scientist



WILLIAMS BARBARA M
3309 WILLOW CREEK RD
Florence, SC 29505

Subject: Water Supply Well Survey and Request to Sample
Property Located at Florence County Tax Map # 00213-01-017
MECI Job No. 21-7709

To whom it may concern:

Midlands Environmental Consultants, Inc. is currently conducting work on behalf of the South Carolina Department of Health and Environmental Control (SCDHEC) to assess the extent of a historical gasoline release from Underground Storage Tank UST# 03423-Outpost at Willowcreek, LLC., located at 4925 Pamplico Highway in Florence, Florence County, South Carolina. As Part of the assessment, Midlands Environmental Consultants, Inc. is conducting a water supply well survey of properties located within a 1,000-foot radius of the UST system.

Please complete the information below to the best of your knowledge and return in the enclosed stamped envelope.

1. What is the source of drinking water for the subject property?
☒ Public Water ☐ Water Supply Well ☐ Stream ☐ Other- _____
2. Is there a water supply well on the subject property? ☒ Yes ☐ No
If "No", please disregard the remaining questions and return survey.
3. What is the well typically used for?
☐ Drinking ☐ Irrigation ☐ Livestock ☒ Not in Use
4. How many residences are connected to the well? ☒ Please list addresses:

5. Please provide well construction details (as much is known):
How deep is the well? _____ When was the well installed? Agos 1990
What is the casing depth/screened interval of the well? _____
Functional
No longer functional
6. As part of the assessment, Midlands Environmental Consultants, Inc. can sample your water supply well free-of-charge for the presence of petroleum compounds. Please indicate how you would like to receive the results:

Mail to: _____

Email to: _____

OWNER: Barbara M. Williams DATE: 10-27-2021

PHONE: 843-662-0808 EMAIL: bmu201@gmail.com

Thank you in advance for your help. Please do not hesitate to contact us at 803.808.2043 if you have any questions.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman
Senior Scientist



10/25/2021

PREVATTE ROBERT G
2401 WILLOW CREEK RD
Effingham, SC 29505

Subject: Water Supply Well Survey and Request to Sample
Property Located at Florence County Tax Map # 00214-01-048
MECI Job No. 21-7709

To whom it may concern:

Midlands Environmental Consultants, Inc. is currently conducting work on behalf of the South Carolina Department of Health and Environmental Control (SCDHEC) to assess the extent of a historical gasoline release from Underground Storage Tank UST# 03423-Outpost at Willowcreek, LLC., located at 4925 Pamplico Highway in Florence, Florence County, South Carolina. As Part of the assessment, Midlands Environmental Consultants, Inc. is conducting a water supply well survey of properties located within a 1,000-foot radius of the UST system.

Please complete the information below to the best of your knowledge and return in the enclosed stamped envelope.

1. What is the source of drinking water for the subject property?
☒ Public Water ☐ Water Supply Well ☐ Stream ☐ Other- _____
2. Is there a water supply well on the subject property? ☒ Yes ☐ No
If "No", please disregard the remaining questions and return survey.
3. What is the well typically used for?
☐ Drinking ☐ Irrigation ☐ Livestock ☒ Not in Use
4. How many residences are connected to the well? ☒ Please list addresses:

5. Please provide well construction details (as much is known):
How deep is the well? _____ When was the well installed? _____
What is the casing depth/screened interval of the well? _____
6. As part of the assessment, Midlands Environmental Consultants, Inc. can sample your water supply well free-of-charge for the presence of petroleum compounds. Please indicate how you would like to receive the results:

Mail to: _____

Email to: rgprevatte@gmail.com

OWNER: ROBERT PREVATTE DATE: 11/28/2021

PHONE: _____ EMAIL: rgprevatte@gmail.com

Thank you in advance for your help. Please do not hesitate to contact us at 803.808.2043 if you have any questions.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman
Senior Scientist



10/25/2021

HUGGINS LINDA T
3695 WILLOW CREEK RD
Florence, SC 29505

Subject: Water Supply Well Survey and Request to Sample
Property Located at Florence County Tax Map # 00213-01-054 (Septic Leach Field)
MECI Job No. 21-7709

To whom it may concern:

Midlands Environmental Consultants, Inc. is currently conducting work on behalf of the South Carolina Department of Health and Environmental Control (SCDHEC) to assess the extent of a historical gasoline release from Underground Storage Tank UST# 03423-Outpost at Willowcreek, LLC., located at 4925 Pamplico Highway in Florence, Florence County, South Carolina. As Part of the assessment, Midlands Environmental Consultants, Inc. is conducting a water supply well survey of properties located within a 1,000-foot radius of the UST system.

Please complete the information below to the best of your knowledge and return in the enclosed stamped envelope.

1. What is the source of drinking water for the subject property?
☐ Public Water ☐ Water Supply Well ☐ Stream ☐ Other- _____
2. Is there a water supply well on the subject property? ☐ Yes ☒ No
If "No", please disregard the remaining questions and return survey.
3. What is the well typically used for?
☐ Drinking ☐ Irrigation ☐ Livestock ☐ Not in Use
4. How many residences are connected to the well? ☐ Please list addresses:

5. Please provide well construction details (as much is known):
How deep is the well? _____ When was the well installed? _____
What is the casing depth/screened interval of the well? _____
6. As part of the assessment, Midlands Environmental Consultants, Inc. can sample your water supply well free-of-charge for the presence of petroleum compounds. Please indicate how you would like to receive the results:

_____ Mail to: _____

_____ Email to: _____

OWNER: Contact Gretchen Huggins DATE: 10-28-2021
for Linda Huggins
PHONE: 864-992-1114 EMAIL: huggins.gretchen@gmail.com

Thank you in advance for your help. Please do not hesitate to contact us at 803.808.2043 if you have any questions.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman
Senior Scientist



10/25/2021

HUGGINS LINDA T
3695 WILLOW CREEK RD
Florence, SC 29505

Subject: Water Supply Well Survey and Request to Sample
Property Located at Florence County Tax Map # 00213-01-148 (Pinestand on Hwy 51)
MECI Job No. 21-7709

To whom it may concern:

Midlands Environmental Consultants, Inc. is currently conducting work on behalf of the South Carolina Department of Health and Environmental Control (SCDHEC) to assess the extent of a historical gasoline release from Underground Storage Tank UST# 03423-Outpost at Willowcreek, LLC., located at 4925 Pamplico Highway in Florence, Florence County, South Carolina. As Part of the assessment, Midlands Environmental Consultants, Inc. is conducting a water supply well survey of properties located within a 1,000-foot radius of the UST system.

Please complete the information below to the best of your knowledge and return in the enclosed stamped envelope.

1. What is the source of drinking water for the subject property?
☒ Public Water ___ Water Supply Well ___ Stream ___ Other- _____
2. Is there a water supply well on the subject property? ___ Yes ☒ No
If "No", please disregard the remaining questions and return survey.
3. What is the well typically used for?
___ Drinking ___ Irrigation ___ Livestock ___ Not in Use
4. How many residences are connected to the well? ___ Please list addresses:
None - Plat is planted pines and scrub
5. Please provide well construction details (as much is known):
How deep is the well? _____ When was the well installed? _____
What is the casing depth/screened interval of the well? _____
6. As part of the assessment, Midlands Environmental Consultants, Inc. can sample your water supply well free-of-charge for the presence of petroleum compounds. Please indicate how you would like to receive the results:

___ Mail to: _____

___ Email to: _____

OWNER: Gretchen Huggins NLR for L. Huggins DATE: 10-28-2021

PHONE: 864-992-1116 EMAIL: huggins.gretchen@gmail.com

Thank you in advance for your help. Please do not hesitate to contact us at 803.808.2043 if you have any questions.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman
Senior Scientist



10/25/2021

HUGGINS LINDA T
3695 WILLOW CREEK RD
Florence, SC 29505

Subject: Water Supply Well Survey and Request to Sample
Property Located at Florence County Tax Map # 00213-01-090 (Hay + Strawberry Fields)
MECI Job No. 21-7709

To whom it may concern:

Midlands Environmental Consultants, Inc. is currently conducting work on behalf of the South Carolina Department of Health and Environmental Control (SCDHEC) to assess the extent of a historical gasoline release from Underground Storage Tank UST# 03423-Outpost at Willowcreek, LLC., located at 4925 Pamplico Highway in Florence, Florence County, South Carolina. As Part of the assessment, Midlands Environmental Consultants, Inc. is conducting a water supply well survey of properties located within a 1,000-foot radius of the UST system.

Please complete the information below to the best of your knowledge and return in the enclosed stamped envelope.

1. What is the source of drinking water for the subject property?
☒ Public Water ☐ Water Supply Well ☐ Stream ☐ Other- _____
2. Is there a water supply well on the subject property? ☐ Yes
If "No", please disregard the remaining questions and return survey. ☒ No longer in use due to highway widening
Unsure if it was filled in / capped?
3. What is the well typically used for?
☐ Drinking ☒ Irrigation ☒ Livestock ☒ Not in Use
4. How many residences are connected to the well? ☐ Please list addresses:

5. Please provide well construction details (as much is known): Commercial size for irrigation
How deep is the well? _____ When was the well installed? ~2011
What is the casing depth/screened interval of the well? _____
6. As part of the assessment, Midlands Environmental Consultants, Inc. can sample your water supply well free-of-charge for the presence of petroleum compounds. Please indicate how you would like to receive the results:

Mail to: _____

Email to: _____

OWNER: Contact Gretchen Huggins for Linda Huggins DATE: 10-28-2021

PHONE: 864-992-1116 EMAIL: huggins.gretchen@gmail.com

Thank you in advance for your help. Please do not hesitate to contact us at 803.808.2043 if you have any questions.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman
Senior Scientist



10/25/2021

HUGGINS LINDA L
3695 WILLOW CREEK RD
Florence, SC 29505

Subject: Water Supply Well Survey and Request to Sample
Property Located at Florence County Tax Map # 00213-01-052 (Mobile Home Park)
MECI Job No. 21-7709

To whom it may concern:

Midlands Environmental Consultants, Inc. is currently conducting work on behalf of the South Carolina Department of Health and Environmental Control (SCDHEC) to assess the extent of a historical gasoline release from Underground Storage Tank UST# 03423-Outpost at Willowcreek, LLC., located at 4925 Pamplico Highway in Florence, Florence County, South Carolina. As Part of the assessment, Midlands Environmental Consultants, Inc. is conducting a water supply well survey of properties located within a 1,000-foot radius of the UST system.

Please complete the information below to the best of your knowledge and return in the enclosed stamped envelope.

1. What is the source of drinking water for the subject property?
☒ Public Water ☐ Water Supply Well ☐ Stream ☐ Other- _____
2. Is there a water supply well on the subject property? ☒ Yes (old, not in use on lot #10) ☐ No
If "No", please disregard the remaining questions and return survey.
3. What is the well typically used for?
☐ Drinking ☐ Irrigation ☐ Livestock ☒ Not in Use
4. How many residences are connected to the well? ☐ Please list addresses:
4905 Pamplico Hwy Lot #10
5. Please provide well construction details (as much is known): Unknown
How deep is the well? _____ When was the well installed? _____
What is the casing depth/screened interval of the well? _____
6. As part of the assessment, Midlands Environmental Consultants, Inc. can sample your water supply well free-of-charge for the presence of petroleum compounds. Please indicate how you would like to receive the results:

☒ Mail to: 3695 Willow Creek Rd. Florence, SC 29505

☒ Email to: huggins.gretchen@gmail.com

OWNER: Gretchen Huggins, NLR for Linda Huggins DATE: 10-28-2021

PHONE: 864-992-1116 EMAIL: huggins.gretchen@gmail.com

Thank you in advance for your help. Please do not hesitate to contact us at 803.808.2043 if you have any questions.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman
Senior Scientist



10/25/2021

WINCHESTER WILLIE B JR
3101 WILLOW CREEK RD
Florence, SC 29505

Subject: Water Supply Well Survey and Request to Sample
Property Located at Florence County Tax Map # 00213-01-130
MECI Job No. 21-7709

To whom it may concern:

Midlands Environmental Consultants, Inc. is currently conducting work on behalf of the South Carolina Department of Health and Environmental Control (SCDHEC) to assess the extent of a historical gasoline release from Underground Storage Tank UST# 03423-Outpost at Willowcreek, LLC., located at 4925 Pamplico Highway in Florence, Florence County, South Carolina. As Part of the assessment, Midlands Environmental Consultants, Inc. is conducting a water supply well survey of properties located within a 1,000-foot radius of the UST system.

Please complete the information below to the best of your knowledge and return in the enclosed stamped envelope.

1. What is the source of drinking water for the subject property?
☐ Public Water ☒ Water Supply Well ☐ Stream ☐ Other- _____
 2. Is there a water supply well on the subject property? ☒ Yes ☐ No
If "No", please disregard the remaining questions and return survey.
 3. What is the well typically used for?
☒ Drinking ☐ Irrigation ☒ Livestock ☐ Not in Use
 4. How many residences are connected to the well? 1 Please list addresses:

2 properties
3101 & 3119
Willow Crk Rd
 5. Please provide well construction details (as much is known):
How deep is the well? _____ When was the well installed? 1980's
What is the casing depth/screened interval of the well? _____
* 3101 water at BARN
 6. As part of the assessment, Midlands Environmental Consultants, Inc. can sample your water supply well free-of-charge for the presence of petroleum compounds. Please indicate how you would like to receive the results:
☒ Mail to: Willie Winchester (above Address)
☐ Email to: _____
- OWNER: Willie Winchester DATE: 11-1-21
PHONE: 843-992-4738 EMAIL: _____

Thank you in advance for your help. Please do not hesitate to contact us at 803.808.2043 if you have any questions.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman
Senior Scientist



WILLIAMS BARBARA M
3309 WILLOW CREEK RD
Florence, SC 29505

Subject: Water Supply Well Survey and Request to Sample
Property Located at Florence County Tax Map # 00214-01-013
MECI Job No. 21-7709

To whom it may concern:

Midlands Environmental Consultants, Inc. is currently conducting work on behalf of the South Carolina Department of Health and Environmental Control (SCDHEC) to assess the extent of a historical gasoline release from Underground Storage Tank UST# 03423-Outpost at Willowcreek, LLC., located at 4925 Pamplico Highway in Florence, Florence County, South Carolina. As Part of the assessment, Midlands Environmental Consultants, Inc. is conducting a water supply well survey of properties located within a 1,000-foot radius of the UST system.

Please complete the information below to the best of your knowledge and return in the enclosed stamped envelope.

1. What is the source of drinking water for the subject property?
☒ Public Water ☐ Water Supply Well ☐ Stream ☐ Other- _____
2. Is there a water supply well on the subject property? ☐ Yes ☒ No
If "No", please disregard the remaining questions and return survey.
3. What is the well typically used for?
☐ Drinking ☐ Irrigation ☐ Livestock ☐ Not in Use
4. How many residences are connected to the well? ☐ Please list addresses:

5. Please provide well construction details (as much is known):
How deep is the well? _____ When was the well installed? _____
What is the casing depth/screened interval of the well? _____
6. As part of the assessment, Midlands Environmental Consultants, Inc. can sample your water supply well free-of-charge for the presence of petroleum compounds. Please indicate how you would like to receive the results:

_____ Mail to: _____

_____ Email to: _____

OWNER: BARBARA M. WILLIAMS DATE: 10-27-2021

PHONE: 843-662-0808 EMAIL: bmw@eck10@gmail.com

Thank you in advance for your help. Please do not hesitate to contact us at 803.808.2043 if you have any questions.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman
Senior Scientist



03423



MR BRYAN SHANE PG
MIDLANDS ENVIRONMENTAL CONSULTANTS
PO BOX 854
LEXINGTON SC 29071

JUL 18 2022

Re: Site Specific Work Plan Request
Groundwater Sampling Contract
Solicitation #IFB-5400021335

Dear Mr. Shane:

In accordance with bid solicitation # IFB-5400021335, submission of a Site-Specific Work Plan (SSWP) based on each site information package provided is requested.

The SSWP must be submitted within 20 calendar days of the date of this correspondence. The project manager for each site will issue a notice to proceed once the plan has been reviewed and approved. A weekly update for each site should be emailed to the site's project manager and myself. If you have any questions or need further assistance, please contact me by phone (803) 898-0500 or email brownaj@dhec.sc.gov.

Sincerely,

Arthur Brown, Hydrogeologist
Corrective Action & Field Support Section
UST Management Division
Bureau of Land & Waste Management

Enc: Site Information Package Summary (SIPS)
Site Information Packages

Cc: Taylor Cannon, Pace Analytical Services, 9800 Kinney Ave. STE 100, Huntersville, NC 28078 (w/ SIPS)
Technical File (w/o Enc)



UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT
2600 Bull Street, Columbia, South Carolina 29201
Telephone: 803-898-2544

MEMORANDUM

TO: Statelead Groundwater Sampling Contractor

FROM: ROBERT A. DUNN

RE: Site Specific Work Plan Request

Facility Name: JAKE HUGGINS DBA OUTPOST AT WIL Contractor CA# 65748

Permit Number: 03423

PACE CA #: 65749

County: FLORENCE

RBCA CLASS: 2BB

List Monitoring Wells to be Sampled	Purging Method
Shallow MW01 thru MW10	Purge All
Intermediate N/A	
Deep DW01 thru DW04	

Surface Water Points to be Sampled (MUST BE ON MAP PROVIDED)

6

WSW Points to be Sampled (MUST BE ON MAP PROVIDED CONTACT INFO w TAX MAP INFO)

WSW01A, WSW02A PRIOR TO TIERII; WSW01, WSW02,

Sample Below Product N/A

Additional Potentiometric Maps Requested - See Below (Note: Shallow & Deep Included)

NONE REQUESTED

Isopleth Maps requested instead of CoC Map (Only for CoCs >RBSL or SSTL)

NONE REQUESTED

Other: QTRLY GWS OCT, JAN, APR, JULY

Total Groundwater Sample Points: 20

Analysis Being Requested: K. BTEXNM+Oxyg's+1,2 DCA+Eth(8260B), K7. EDB by EPA 8011

Total Water Supply Well Points: 4

Analysis Being Requested: K14. BTEXNM+1,2 DCA (524.2), K15. 7-OXYGENATES & ETHANOL (8260B), K16. EDB (504.1)

7/12/2022



November 15, 2022

RECEIVED
NOV 16 2022
UST DIVISION



Mr. Robert A. Dunn, Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Site-Specific Work Plan
Jake Huggins DBA Outpost at Willowcreek
Florence, South Carolina
UST Permit# 03423
MECI Project Number 22-7924
Certified Site Rehabilitation Contractor UCC-0009

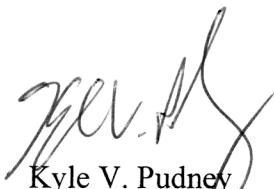
Dear Mr. Dunn,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Site-Specific Work Plan for the referenced site. Please be advised that the submittal of this SSWP has been discussed with our client Mr. Bennie Stokes.

On July 27, 2022, MECI personnel performed a site visit to the subject site to evaluate site conditions, locate monitoring wells and identify potential problems for future sampling activities.

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

Sincerely,
Midlands Environmental Consultants, Inc.



Kyle V. Pudney
Senior Biologist



Jeff L. Coleman
Senior Scientist



**Site-Specific Work Plan for Approved ACQAP
Underground Storage Tank Management Division**

To: Mr. Robert Dunn (SCDHEC Project Manager)
From: Jeff L. Coleman (Contractor Project Manager)
Contractor: Midlands Environmental Consultants, Inc. UST Contractor Certification Number: 009

Facility Name: Jake Huggins DBA Outpost at Willowcreek, LLC. UST Permit #: 03423
Facility Address: 4925 Pamplico Highway, Florence, SC 29505
Responsible Party: BW Stokes Oil Company Phone: (843) 621-5865
RP Address: 1001 Chase Street, Florence, SC 29501
Property Owner (if different): Barbara Williams
Property Owner Address: 3309 Willow Creek Road, Florence, SC 29505
Current Use of Property: Vacant Lot/Residence

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 (8260D)	☐ Lead	☐ BOD	☐ Methane
☒ Oxygenates (8260D)	☐ 8 RCRA Metals	☐ Nitrate	☐ Ethanol
☒ EDB (8011)	☐ TPH	☐ Sulfate	☐ Dissolved Iron
☐ PAH (8270E)	☐ pH	☐ Other _____	

Drinking Water Supply Wells:

☒ BTEXNMDCA (524.2)	☐ Mercury (200.8 245.1 or 245.2)	☒ EDB (504.1)
☒ Oxygenates & Ethanol (8260D)	☐ RCRA Metals (200.8)	

Soil:

☐ BTEXNM	☐ Lead	☐ RCRA Metals	☐ TPH-DRO (3550B/8015B)	☐ Grain Size
☐ PAH	☐ Oil & Grease (9071)	☐ TPH-GRO (5030B/8015B)	☐ TOC	

Air:

☐ BTEXN

Sample Collection (Estimate the number of samples of each matrix that are expected to be collected.)

_____ Soil	_____ 16 Water Supply Wells	_____ Air	_____ 8 Field Blank
_____ 56 Monitoring Wells	_____ 24 Surface Water	_____ 8 Duplicate	_____ 8 Trip Blank

Field Screening Methodology

Estimate number and total completed depth for each point, and include their proposed locations on the attached map.

of shallow points proposed: _____ Estimated Footage: _____ feet per point
of deep points proposed: _____ Estimated Footage: _____ feet per point

Field Screening Methodology: _____

Permanent Monitoring Wells

Estimate number and total completed depth for each well, and include their proposed locations on the attached map.

of shallow wells: _____ Estimated Footage: _____ feet per point
of deep wells: _____ Estimated Footage: _____ feet per point
of recovery wells: _____ Estimated Footage: _____ feet per point

Comments, if warranted:

UST Permit #: 03423 Facility Name: Jake Huggins DBA Outpost at Willowcreek

Implementation Schedule (Number of calendar days from approval)

Field Work Start-Up: 11/15/2022 Field Work Completion: TBD

Report Submittal: October-2023 # of Copies Provided to Property Owners: 16

Aquifer Characterization

Pump Test: ☐ Slug Test: ☐ (Check one and provide explanation below for choice)

Investigation Derived Waste Disposal

Soil: _____ Tons Purge Water: 500.0 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/repared, well pads/bolts/caps to replace, details of AFVR event, etc.

-This SSWP will cover four quarterly sampling events which will be based on the the 1st sampling event.

-All monitoring wells will be purged prior to sample collction during the 1st sampling event. Only monitoring wells which do not bracket the watertable will be purged during subsequent sampling events.

-During each sampling event, MECI will attempt to sample 6 surface water locations and 4 water supply wells.

Compliance With Annual Contractor Quality Assurance Plan (ACQAP)

Yes Laboratory as indicated in ACQAP? (Yes/No) If no, indicate laboratory information below.

Name of Laboratory: _____

SCDHEC Certification Number: _____

Name of Laboratory Director: _____

N/A Well Driller as indicated in ACQAP? (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	Proposed monitoring well locations
Location of property lines	Legend with facility name and address, UST permit number, and bar scale
Location of buildings	Streets or highways (indicate names and numbers)
Previous soil sampling locations	Location of all present and former ASTs and USTs
Previous monitoring well locations	Location of all potential receptors
Proposed soil boring locations	
3. Assessment Component Cost Agreement, SCDHEC Form D-3664



Healthy People. Healthy Communities.

ASSESSMENT COMPONENT INVOICE

South Carolina

Department of Health and Environmental Control

Underground Storage Tank Management Division

State Underground Petroleum Environmental Response Bank Account

July 1, 2022

Facility Name: Jake Huggins DBA Outpost at Willocreek

UST Permit #: 03423

Cost Agreement #: Proposal

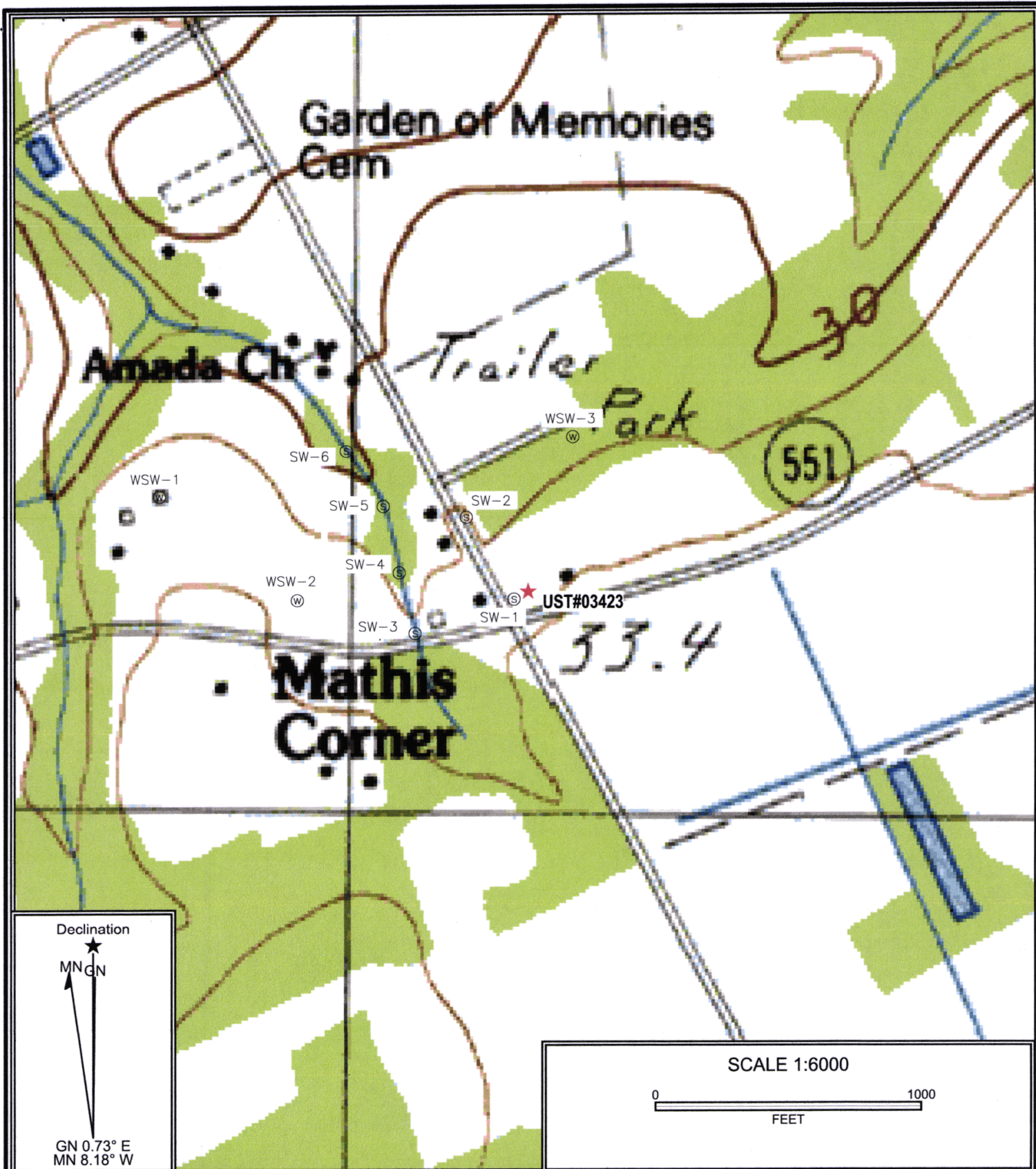
ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
A. Plan Preparation				
1.1 Site-specific Work Plan	1	each	\$169.65	\$169.65
2.1 Tax Map		each	\$79.17	\$0.00
3.1 QAPP Contractor Addendum (App B)		each	\$250.00	\$0.00
B. Survey *				
1. Receptor Survey		each	\$623.20	\$0.00
C. Survey				
1.1 Comprehensive Survey		each	\$1,176.26	\$0.00
5. Ground Penetrating Radar Survey (100 x 100)		each	\$1,029.23	\$0.00
D. Mob/Demob				
1.1 Equipment	8	each	\$1,153.64	\$0.00
2.1 Personnel		each	\$478.42	\$3,827.36
3.1 Adverse Terrain Vehicle		each	\$565.51	\$0.00
E. Soil Borings*				
1. Soil Borings (hand auger)		foot	\$5.66	\$0.00
F. Soil Borings (requiring equipment, push technology, etc) or Field Screening (including sampling and analyst)*				
1.1 Standard		per foot	\$16.97	\$0.00
2.1 Fractured Rock		per foot	\$21.84	\$0.00
G.				
H. Well Abandonment (does not include Field Screening)*				
1.1 2" diameter or less		per foot	\$3.51	\$0.00
2.1 Greater than 2" to 6" diameter		per foot	\$5.09	\$0.00
3.1 Dug/Bored well (up to 6 feet diameter)		per foot	\$16.96	\$0.00
I. Well Installation (In accordance with R.61-71)*				
1.1 Water Table (hand augered)		per foot	\$11.99	\$0.00
2.A Water Table (drill rig) 2" Diameter		per foot	\$42.98	\$0.00
2.1 Single-cased 2" Diameter Monitoring Well >50ft		per foot	\$43.46	\$0.00
3.1 Telescoping		per foot	\$56.55	\$0.00
4.1 Rock Drilling		per foot	\$65.60	\$0.00
5.1 2" Rock Coring		per foot	\$34.95	\$0.00
6.1 Multi-sampling ports/screens		per foot	\$37.78	\$0.00
7.1 Recovery Well (4" diameter)		per foot	\$50.90	\$0.00
9.1 Rotosonic (2" diameter)		per foot	\$49.77	\$0.00
10.1 Re-develop Existing Well		per foot	\$12.44	\$0.00
J. Groundwater Sample Collection / Gauging Depth to Water/Product *				
1.1 Groundwater Purge	30	per well	\$67.86	\$2,035.80
2.1 Air or Vapors		sample	\$13.57	\$0.00
3.1 Water Supply Sample	16	sample	\$24.88	\$398.08
4.1 HydraSleeve		sample	\$53.00	\$0.00
4.2A No-purge Groundwater Sample/Surface water	54	sample	\$31.67	\$1,710.18
5.1 Gauge Well only		sample	\$7.92	\$0.00
6.1 Sample Below Product		sample	\$13.57	\$0.00
7.1 Passive Diffusion Bag		sample	\$29.40	\$0.00
8.1 Field Duplicates (MWs & WSWs) and Field Blank	16	sample	\$27.83	\$445.28
9.1 Groundwater (low flow purge)		sample	\$102.93	\$0.00
10.1 Equipment Blank		sample	\$27.83	\$0.00
11. Sample Product		per well	\$48.76	\$0.00

K. Laboratory Analyses-Groundwater					
1.1 BTEXNM+Oxyg's+1,2 DCA+Eth(8260D)	92	per sample	\$137.98		\$12,694.16
2.1 Lead, Filtered		per sample	\$15.60		\$0.00
3.1 Rush EPA Method 8260B		per sample	\$173.72		\$0.00
4.1 Trimethal, Butyl, and Isopropyl Benzenes		per sample	\$31.67		\$0.00
5.1 PAH's		per sample	\$68.54		\$0.00
6.1 Lead		per sample	\$18.09		\$0.00
7.1 EDB by EPA 8011	88	per sample	\$51.12		\$4,498.56
8.1 EDB by EPA Method 8011 Rush		per sample	\$77.14		\$0.00
9.1 8 RCRA Metals		per sample	\$71.71		\$0.00
10.1 TPH (9070)		per sample	\$46.38		\$0.00
11.1 PH		per sample	\$5.88		\$0.00
12.1 BOD		per sample	\$22.62		\$0.00
13.1 Ethanol		per sample	\$16.74		\$0.00
K. Analyses-Drinking Water					
14.1 BTEXNM+1,2 DCA (524.2)	28	per sample	\$140.30		\$3,928.40
15.1 7-OXYGENATES & ETHANOL (8260D)	28	per sample	\$103.77		\$2,905.56
16.1 EDB (504.1)	24	per sample	\$89.92		\$2,158.08
17.1 RCRA METALS (200.8)		per sample	\$113.10		\$0.00
K. Analyses-Soil					
18.1 BTEX + Naphth.		per sample	\$72.39		\$0.00
19.1 PAH's		per sample	\$72.43		\$0.00
20.1 8 RCRA Metals		per sample	\$63.79		\$0.00
21.1 TPH-DRO (3550C/8015C)		per sample	\$45.24		\$0.00
22.1 TPH- GRO (5035B/8015C)		per sample	\$40.67		\$0.00
23.1 Grain size/hydrometer		per sample	\$117.63		\$0.00
24.1 Total Organic Carbon		per sample	\$34.61		\$0.00
K. Analyses-Air					
25.1 BTEX + Naphthalene		per sample	\$244.30		\$0.00
K. Hydrocarbon Fuel Identification					
27. C3-C44 Whole Oil (ASTM D3328)		per sample	\$431.42		\$0.00
28. Fuel Oxygenates (1624 Mod)		per sample	\$368.88		\$0.00
29. ALKYL Leads, EDB MMT (8080)		per sample	\$368.88		\$0.00
30. C8-C40 Full Scan (ASTM 5739)		per sample	\$583.00		\$0.00
31. Simulated Distillation (ASTM 2887)		per sample	\$368.88		\$0.00
32. Parent & Alk. PAH Com. (8270 SIM)		per sample	\$670.03		\$0.00
33. C3-C10 Piano (8260 MOD)		per sample	\$555.44		\$0.00
34. C10+Alkane Fingerprints		per sample	\$555.44		\$0.00
35. Expert Data Interpretation & Report		each	\$551.20		\$0.00
L. Aquifer Characterization*					
1.1 Pumping Test		per hour	\$26.01		\$0.00
2.1 Slug Test		per test	\$216.03		\$0.00
3.1 Fractured Rock		per test	\$113.10		\$0.00
M. Free Product *					
1. Free Product Recovery Rate Test		each	\$42.98		\$0.00
N.					

O. Risk Evaluation				
1.1 Tier I Risk Evaluation		each	\$339.31	\$0.00
2.1 Tier II Risk Evaluation		each	\$113.10	\$0.00
P. Survey*				
1. Subsequent Survey		each	\$275.60	\$0.00
Q. Disposal (gallons or tons)*				
1.1 Wastewater	500	gallon	\$0.64	\$320.00
2.1 Free Product		gallon	\$0.56	\$0.00
3.1 Soil Treatment/Disposal		ton	\$67.86	\$0.00
4.1 Drilling fluids		gallon	\$0.48	\$0.00
R. Miscellaneous (attach receipts)				
		each	\$0.00	\$0.00
		each	\$0.00	\$0.00
		each	\$0.00	\$0.00
T. Tier I Assessment (Use DHEC 3665 form)				
1.1 Southeast Region		standard	\$11,687.56	\$0.00
2.1 All Other Counties		standard	\$12,818.58	\$0.00
U. IGWA (Use DHEC 3666 form)				
1.1 Southeast Region		standard	\$4,031.18	\$0.00
2.1 All Other Counties		standard	\$4,370.38	\$0.00
22. Active Correction Action		PFP	Bid Cost	\$0.00
W. Aggressive Fluid & Vapor Recovery (AFVR)				
1.1 8-hour Event*		per event	\$1,655.00	\$0.00
2. 24-hour Event*		per event	\$4,081.28	\$0.00
3. 48-hour Event*		per event	\$6,706.10	\$0.00
4. 96-hour Event*		per event	\$13,409.52	\$0.00
5. Off-gas Treatment 8 hour		per event	\$130.71	\$0.00
6.1 Off-gas Treatment 24 hour		per event	\$272.50	\$0.00
7.1 Off-gas Treatment 48 hour		per event	\$357.50	\$0.00
8. Off-gas Treatment 96 hour		per event	\$832.26	\$0.00
9. Off-gas Treatment 8 hour (w/chlorinated compounds)		per event	\$430.00	\$0.00
10. Off-gas Treatment 24 hour (w/chlorinated compounds)		per event	\$500.00	\$0.00
11. Off-gas Treatment 48 hour (w/chlorinated compounds)		per event	\$1,000.00	\$0.00
12. Off-gas Treatment 96 hour (w/chlorinated compounds)		per event	\$2,000.00	\$0.00
13.1 AFVR Effluent Disposal(w/chlorinated compounds)		gallon	\$0.59	\$0.00
14.1 AFVR Site Reconnaissance		each	\$280.00	\$0.00
15. Additional Hook-ups		each	\$27.48	\$0.00
16.1 AFVR Effluent Disposal		gallon	\$0.49	\$0.00
17.1 AFVR Mobilization/Demobilization		each	\$720.00	\$0.00
18. Mobilization for absorbents/skimers		each	\$531.25	\$0.00
19. Well sock 2" ID well		each	\$34.20	\$0.00
20. Well sock 4" ID well		each	\$45.40	\$0.00
21. pad (per pad)		each	\$46.25	\$0.00
22. 3" diameter x 10' length boom		each	\$100.00	\$0.00
23. 5" diameter x 10' length boom		each	\$123.00	\$0.00
24. New FPP recovery skimmer (2" wells)		each	\$732.50	\$0.00
25. New FPP recovery skimmer (4" wells)		each	\$1,155.00	\$0.00
26. Refurbished FPP recovery skimmer (2" or 4" wells)		each	\$704.00	\$0.00
27. Disposal of Absorbents		pound	\$3.80	\$0.00
28. Disposal of product from skimmers		gallon	\$0.46	\$0.00

X. Granulated Activated Carbon (GAC) filter system installation & service:				
1.1 New GAC System Installation*		each	\$2,148.94	\$0.00
2.1 Refurbished GAC Sys. Install*		each	\$1,017.92	\$0.00
3.1 Filter replacement/removal*		each	\$395.86	\$0.00
4.1 GAC System removal, cleaning, & refurbishment*		each	\$311.04	\$0.00
5.1 GAC System housing*		each	\$282.76	\$0.00
6.1 In-line particulate filter		each	\$169.65	\$0.00
7.1 Additional piping & fittings		foot	\$1.70	\$0.00
Y. Well Repair				
1.1 Additional Copies of the Report Delivered	16	each	\$56.55	\$904.80
2.1 Repair 2x2 MW pad*		each	\$56.55	\$0.00
3.1 Repair 4x4 MW pad*		each	\$99.53	\$0.00
4.1 Replace well vault*		each	\$133.46	\$0.00
5.1 Replace well cover bolts		each	\$2.94	\$0.00
6.1 Replace locking well cap & lock		each	\$16.96	\$0.00
7.1 Replace/Repair stick-up*		each	\$151.56	\$0.00
8.1 Convert Flush-mount to Stick-up*		each	\$169.65	\$0.00
9.1 Convert Stick-up to Flush-mount*		each	\$147.03	\$0.00
10.1 Replace missing/illegible well ID plate		each	\$13.57	\$0.00
11. Down-hole Camera		per foot	\$27.08	\$0.00
Z. High Resolution Site Characterization				
1. HRSC Screening Equipment Mobilization		each	\$1,360.00	\$0.00
2. HRSC Drilling Category 1		per foot	\$29.00	\$0.00
3. HRSC Drilling Category 2		per foot	\$33.50	\$0.00
4. HRSC Drilling Category 3		per foot	\$27.00	\$0.00
5. HRSC 3-D Model		each	\$4,040.00	\$0.00
S. Report Prep & Project Management	12%	percent	\$35,995.91	\$4,319.51
TOTAL				\$40,315.42

DHEC D-4293 (06/2022) *The appropriate mobilization cost can be added to complete these tasks, as necessary



Reference: Evergreen, South Carolina
 USGS 7.5 Min. Quad
 Contour Interval - 2 Meters

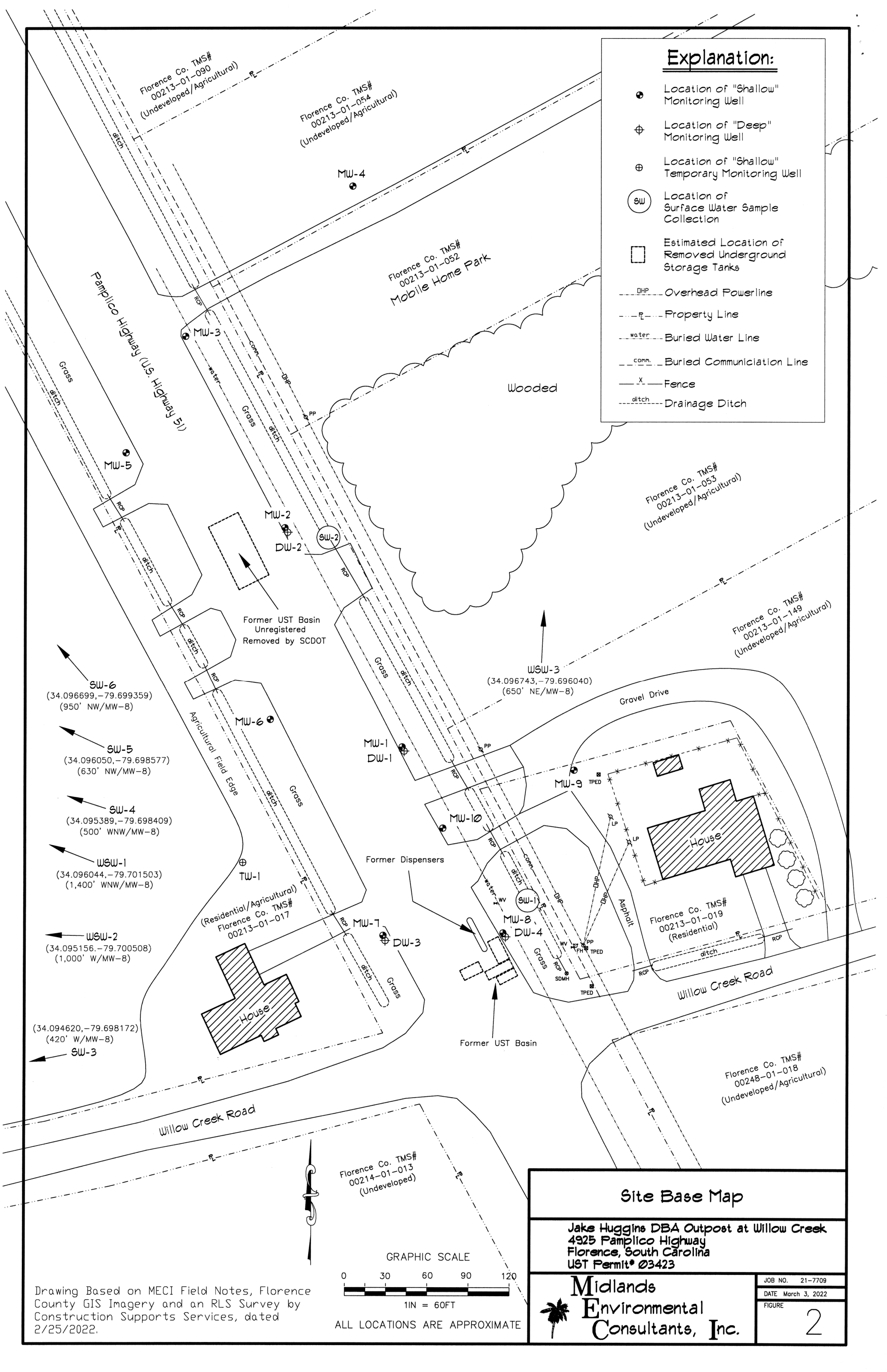
Midlands Environmental Consultants, Inc.

Site Location

Jake Huggins DBA Outpost at Willowcreek, LLC.
 4925 Pamplico Highway, Florence, SC
 UST Permit# 18419

Figure 1

MECI 21-7709



Explanation:

- Location of "Shallow" Monitoring Well
- ⊕ Location of "Deep" Monitoring Well
- ⊕ Location of "Shallow" Temporary Monitoring Well
- ⊙ (SW) Location of Surface Water Sample Collection
- Estimated Location of Removed Underground Storage Tanks
- DHP --- Overhead Powerline
- P --- Property Line
- water --- Buried Water Line
- comm --- Buried Communication Line
- X --- Fence
- ditch --- Drainage Ditch

Site Base Map

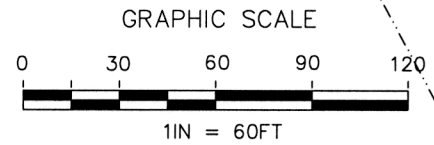
Jake Huggins DBA Outpost at Willow Creek
4925 Pamlico Highway
Florence, South Carolina
UST Permit# 03423

Midlands
Environmental
Consultants, Inc.

JOB NO. 21-7709
DATE March 3, 2022
FIGURE

2

Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.



ALL LOCATIONS ARE APPROXIMATE

Robert Dunn

RECEIVED

NOV 16 2022



dhec

UST DIVISION

Owner/Operator Contractor Selection Form

Underground Storage Tank (UST) Management Division

1. CONTRACTOR OF CHOICE

As the current or former UST Owner/Operator and the designated party responsible for the confirmed release reported on the date and permit number provided.

Release Report Date:
2/26/2002

Permit Number:
03423

I would like to use the contractor listed below to conduct all site rehabilitation work for the referenced release reported above.

Name of Contractor: Midlands Environmental Consultants, Inc.

Address: 231 Dooley Road

City: Lexington

State: SC

Zip: 29073

Telephone Number: 803-808-2043

Certification Number: 009

NOTE: Site rehabilitation activities must be performed by a S.C. Certified Site Rehabilitation Contractor per Section 44-2-120(A) of the SUPERB Act and Section IV(A) of the S.C. DHEC SUPERB Site Rehabilitation and Fund Access Regulation R.61-98.

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 ☒ No

O/O Initial: *BS*

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 fiancée.

3. PAYMENT

A. The first \$25,000.00 in eligible site rehabilitation costs for releases reported subsequent to July 1, 1993 will be applied against the applicable SUPERB deductible per Section 44-2-40(D) of the SUPERB Act, upon submittal of the canceled check (front and back) or a notarized statement from the contractor verifying payment.

B. For eligible costs exceeding the \$25,000.00 deductible, you can pay the contractor and, upon the submittal of the canceled check (front and back) or a notarized statement from the contractor verifying payment, be compensated from the SUPERB Account, or have payment issued directly from the SUPERB Account to the contractor. (Check one.)

☐ For eligible costs exceeding the deductible, I request that payment be made to me after I have paid the contractor.

O/O Initial:

- OR -

☒ For eligible costs exceeding the deductible, I request that payment be made directly to the contractor.

O/O Initial: *BS*

C. If the release qualifies under amnesty (reported prior to July 1, 1993) per Section 44-2-40(B) of the SUPERB Act, you can pay the contractor and be compensated from the SUPERB Account, or have payment issued directly from the SUPERB Account to the contractor. (Check one.)

☐ For eligible costs, I request that payment be made to me after I have paid the contractor.

O/O Initial:

- OR -

☒ For eligible costs, I request that payment be made directly to the contractor.

O/O Initial: *BS*

NOTE: As required by the SUPERB Act, all costs must receive prior financial approval from DHEC regardless of payment option.

4. UST OWNER/OPERATOR OR PARTY RESPONSIBLE FOR ABOVE REFERENCED RELEASE

Signature:

Bennie N. Stokes

Date Signed: 11-14-22

Printed Name:

Bennie N. Stokes

Telephone Number: (843) 621-5865

Affiliation (if applicable):

Email Address:



DEC 20 2022



B W STOKES OIL CO INC
ATTN BENNIE STOKES
PO BOX 1656
FLORENCE SC 29503

Re: Site-Specific Work Plan Approval for Groundwater Sampling
Jake Huggins Dba Outpost At Willowcreek; 4925 Pamplico Hwy., Florence, SC
UST Permit #03423; CA #65748
Release reported February 26, 2002
Site-Specific Work Plan (SSWP) received November 16, 2022
Florence County

Dear Mr. Stokes:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (DHEC) has reviewed and approved the referenced Site-Specific Work Plan (SSWP) submitted by your contractor with the following comments.

All scopes of work should be conducted in accordance with the most recent revision of the UST Quality Assurance Program Plan (QAPP), your contractor's Annual Contractor Quality Assurance Plan (ACQAP) and in compliance with all applicable regulations. Costs have been approved for the amount shown on the enclosed cost agreement form.

Groundwater sampling should be performed on a quarterly schedule as proposed. A Monitoring Report and Invoice for each event should be submitted to the UST Management Division within 30 days of the groundwater sampling event. All reports submitted for these activities should include the required information outlined in the UST QAPP. If any quality assurance problems arise, your contractor must contact me within 24 hours by email or phone.

Pursuant to S.C. Code Ann. Section 44-2-40(D), "The SUPERB Account and the SUPERB Financial Responsibility Fund shall provide combined coverage for site rehabilitation and third-party claims, respectively, not to exceed one million dollars per occurrence". According to DHEC records, approximately \$72,975.05 has been expended from the SUPERB Account to date. This scope of work, as proposed by your contractor, is anticipated to cost approximately \$40,315.42.

Your contractor may submit an invoice for direct payment from the Superb Account. The SUPERB Act (S.C. Code Ann. § 44-2-110(4) and 44-2-130) states no costs will be allowed unless prior approval is obtained from DHEC. If for any reason additional tasks will be completed, these additional tasks and the associated cost must be preapproved by DHEC to be paid.

DHEC reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria. Further, DHEC reserves the right to question and/or reject costs if deemed unreasonable and the right to audit project records at any time during the project or after completion of work. Applicable South Carolina certification requirements regarding laboratory services and report preparation must be satisfied. If the invoice is not submitted within 120 days from the date of this letter, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available.

If unnecessary dilutions are completed resulting in reporting limits of individual CoC in excess of RBSL, the data cannot be used. In those cases, DHEC may deny payment for any non-detect analysis where the reporting limit exceeds the RBSL. DHEC encourages the use of 'J' values as necessary so the appropriate action can be determined for a release.

DHEC grants pre-approval for transportation of virgin petroleum impacted soil and groundwater from the referenced site to a permitted treatment facility. There can be no spillage or leakage in transport. All Investigation-Derived Waste (IDW) must be properly contained and labeled prior to disposal. IDW should not be stored on-site longer than ninety (90) days. A copy of the disposal manifest and/or acceptance letter from the receiving facility that clearly designates the quantity received must be included as an appendix to the report. **If the CoC concentrations based on laboratory analysis are below RBSLs, please contact the project manager for approval to dispose of soil and/or groundwater on site.**

On all correspondence regarding this site, please reference UST Permit #03423. Should you have any questions, please contact me by phone (803) 898-0671, email dunnra@dhec.sc.gov, or fax (803) 898-0673.

Sincerely,



Robert A. Dunn, Hydrogeologist
Corrective Action and Field Support Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

Enc: Approved Cost Agreement

Cc: Midlands Environmental Consultants, PO Box 854, Lexington, SC 29071 (w/ Enc)
Technical File (w/ Enc)

Approved Cost Agreement 65748

Facility: 03423 JAKE HUGGINS DBA OUTPOST AT WILLOWCREEK LLC

DUNNRA

PO Number: 94894

<u>Task / Description</u>	<u>Categories</u>	<u>Item Description</u>	<u>Qty / Pct</u>	<u>Unit Price</u>	<u>Amount</u>
A PLAN PREPARATION					
		1.1 SITE SPECIFIC WORK PLAN	1.0000	\$169.650	169.65
D MOB/DEMOB					
		2.1 PERSONNEL	8.0000	\$478.420	3,827.36
J SAMPLE COLLECTION					
		1.1 GROUND WATER PURGE	30.0000	\$67.860	2,035.80
		3.1 WATER SUPPLY SAMPLE	16.0000	\$24.880	398.08
		4.2A NO-PURGE GW SAMPLE/SURFACE	54.0000	\$31.670	1,710.18
		8.1 FIELD DUPL. (MWS & WWS) & FB	16.0000	\$27.830	445.28
K ANALYSES					
	DW DRINKING WATER	14.1 BTEXNM+1,2 DCA (524.2) WSW	28.0000	\$140.300	3,928.40
		15.1 OXYGENATES & ETHANOL 8260B WSW	28.0000	\$103.770	2,905.56
		16.1 EDB (504.1) WSW	24.0000	\$89.920	2,158.08
	GW GROUNDWATER	1.1 BTEXNM+OXYGS+1,2 DCA+ETH-8260D	92.0000	\$137.980	12,694.16
		7.1 EDB BY EPA 8011	88.0000	\$51.120	4,498.56
Q DISPOSAL					
		1.1 WASTEWATER	500.0000	\$0.640	320.00
S REPORT PROJECT MANAGEMENT					
		S REPORT PREP & PROJ. MANAGEMENT	0.1200	\$35,995.910	4,319.51
Y WELL REPAIR					
		1.1 ADDITIONAL COPIES OF REPORT	16.0000	\$56.550	904.80
Total Amount					40,315.42

CD's Information

Date Received: 1/26/23

Permit Number: 03423

Project Manager: Robert Dunn

Contractor: MECI

Description: GWS & Chemical Analyses

Docket Number: 36T Initials: _____

Scanned by: _____

Verified by: _____

REPORT OF GROUNDWATER SAMPLING AND CHEMICAL ANALYSES

Jake Huggins DBA Outpost at Willowcreek
4925 Pamplico Highway
Florence, South Carolina
Florence County
UST Permit# 03423
CA# 65748

Prepared By:

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

January 19, 2023

MECI Project No. 22-7924A



January 19, 2023

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

Subject: Report of Groundwater Sampling and Chemical Analyses
Jake Huggins DBA Outpost at Willowcreek
4925 Pamlico Highway
Florence, South Carolina
Florence County
UST Permit# 03423; CA# 65748
MECI Project Number 22-7924A
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Dunn,

On behalf of BW Stokes Oil Company, Inc., Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Report of Groundwater Sampling and Chemical 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

Cc: SCDOT, PO Box 191, Columbia, SC 29201
Linda T. Huggins, 3695 Willow Creek Road, Florence, SC 29505
Barbara M. Williams, 3309 Willow Creek Road, Florence, SC 29505
Willie B. Winchester Jr., 3101 Willow Creek Road, Florence, SC 29505
William L. Huggins, 621 Mallard Pond Road, Murrells Inlet, SC 29576

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NOTE: ITEMS LISTED WITH AN ** BESIDE IT WERE NOT NEEDED AS A PART OF THIS SCOPE OF WORK

1.0 INTRODUCTION

i. Facility Information

Name: Jake Huggins DBA Outpost at Willowcreek
UST Permit# 03423
Address: 4925 Pamplico Highway, Florence SC 29505
Telephone #: N/A

ii. Owner/Operator Information

Name BW Stokes Oil Company, Inc.
Address P.O. Box 1656, Florence, SC 29503
Telephone # (843) 621-5865

iii. Property Owner Information

Name Barbara Williams
Tax Map #: Florence County Tax Map #: 00213-01-019
Address 3309 Willow Creek Road, Florence, SC 29505
Telephone # (843) 662-0808

iv. Contractor Information

Name: Midlands Environmental Consultants, Inc.
Certification #: 9
Address: P. O. Box 854, Lexington, SC 29072
Telephone #: (803) 808-2043

v. Well Driller Information

Name: N/A
Certification #: N/A
Address: N/A
Telephone #: N/A

vi. Laboratory Information

Name: Pace Analytical Services, LLC.
Certification #: 99006001
Address: 9800 Kinney Ave. Suite 100, Huntersville, NC 28078
Telephone #: (704) 875-9092

vii. Facility History

Release Date:	Release #1 reported 2/26/2002
Estimated Quantity of Release:	Unknown
Other Releases at Facility:	Release #2 (NFA'd 7/28/2020)
Release Ranking:	2BB
Current Site Usage:	Residence (SCDOT Right of Way)

Tank #	Capacity/Product	In Use/Abandoned	Tank Status
1	2,000 Gal. Regular/Unleaded Gasoline	Abandoned	Removed (6/30/2016)
2	4,000 Gal. Gasoline Plus	Abandoned	Removed (6/30/2016)
3	6,000 Gal. Gasoline Super/Premium	Abandoned	Removed (6/30/2016)
4	3,000 Gal. Regular/Unleaded Gasoline	Abandoned	Removed (6/30/2016)
5	500 Gal. Kerosene	Abandoned	Removed (6/30/2016)

The following table presents previous site activities performed at the site:

Date	Assessment Type	Notes:
Pre 2008	Unknown MWI	Completed by unknown contractor. Installation of MW-1 through MW-4.
8/26/2008	Tier II Assessment	Completed by Davis & Brown. Monitoring wells MW-5, MW-6 installed. MW-5 installed as IGWA associated with second release. Analytical results from MW-1, MW-4, MW-5 and MW-6 were above RBSL for Benzene, MTBE, Naphthalene.
5/12/2009	Tier II Assessment	Completed by Davis & Brown. Installation of MW-7 through MW-22, MW-1D, and MW-2D. Multiple wells detected concentrations above RBSL's.
6/4/2015	Groundwater Sampling Event	Completed by Davis & Brown. Monitoring wells MW-14 through 20 and MW-2D reported destroyed. Multiple wells detected concentrations above RBSL's.
Circa 2016	DOT Construction	SCDOT widening destroys remaining well network.
3/7/2022	Tier II Assessment	Completed by MECI. This assessment included field screening of soil and groundwater samples, the installation of monitoring wells MW-1 thru MW-10 and DW-1 thru DW-4, sampling and chemical analysis of monitoring wells and nearby receptors and aquifer slug test.

viii Regional Geology and Hydrogeology

The site is located in the Coastal Plain Physiographic Province, which is generally comprised of Upper Cretaceous to present aged, wedge-shaped formations that begin at the “Fall Line” and dip towards the Atlantic Ocean with ground surface elevations typically less than 300 feet. The sedimentary soils of these formations consist of unconsolidated sand, clay, gravel, marl, cemented sands, and limestone that were deposited unconformably over Mesozoic/Paleozoic age basement rock consisting of granite, schist, and gneiss similar to the rocks of the Piedmont Physiographic Province. The thickness of the Coastal Plain sediments varies from zero at the “Fall Line” to more than 4,000 feet at the southern tip of South Carolina near Hilton Head Island.

The Coastal Plain province was formed during Quaternary, Tertiary, and late Cretaceous geologic periods and can be divided generally into three subunits: Upper Coastal Plain, Middle Coastal Plain, and Lower Coastal Plain. The Lower Coastal Plain comprises approximately one-half of the entire Atlantic Coastal Plain of South Carolina and is separated from the middle coastal plain by the Surry Scarp, a seaward facing scarp with a toe elevation of 90 to 100 feet. The Middle Coastal Plain and the Upper Coastal Plain each compose approximately one fourth of the Coastal Plain area and are separated by the Orangeburg Scarp, a seaward facing scarp with a toe elevation of 250 to 270 feet.

The Lower Coastal Plain is typically identified as the area east of the Surry Scarp below elevation 100 feet, with a vertical stratigraphic sequence overlying the basement rock consisting of

unconsolidated Cretaceous, Tertiary, and Quaternary sedimentary deposits. The surface deposits of the Lower Coastal Plain were formed during the Quaternary period which was characterized by the formation of the Carolina Bays and scarps throughout the east coast due to sea level rise and fall, the formation of the barrier islands, and the formation of flood plains from major rivers. Preceding the Quaternary period, limestone was deposited in the Lower Coastal Plain.

The Middle Coastal Plain is typically identified as the area between the Orangeburg Scarp and the Surry Scarp and falls between elevation 100 feet and 270 feet. The vertical stratigraphic sequence overlying the basement rock consists of unconsolidated Cretaceous and Tertiary sedimentary deposits formed as a result of scouring from the regressive cycles of the Ocean as it retreated. During the Eocene epoch of the Tertiary period, limestone was deposited in the Middle Coastal Plain.

The Upper Coastal Plain is typically identified as the area between the “Fall Line” and the Orangeburg Scarp and falls between elevations 270 feet and 300 feet. The Upper Coastal Plain was formed during the Tertiary and late Cretaceous periods and is marked by the formation of the Sandhills dunes as a result of fluvial deposits over the Coastal Plain consisting of marine sediments, limestone, and sand.

Coastal Plain formations generally dip toward the Atlantic Ocean. Consequently, regional groundwater movement is to the southeast. On a regional scale, hydraulic gradients are relatively low. Locally, in the surficial aquifer, groundwater discharges into streams, lakes or springs where the groundwater table intersects lows occupied by these water bodies.

2.0 RECEPTOR SURVEY & SITE DATA

i. Known Potential Receptors

Receptor ID#	Notes
WSW-1	WSW-1 is located approximately 1,400' feet west-north of MW-8 at 3101 Willow Creek Road. Samples have historically been collected from the spigot on the water supply which is located inside one of the bran buildings at the property. GPS: 34.096044, -79.701503
WSW-2	WSW-2 is located approximately 1,000' feet west of MW-8 at 3119 Willow Creek Road. Samples have historically been collected from the spigot on the water supply. GPS: 34.095156, -79.700508
WSW-3	WSW-3 is located approximately 650' feet northeast of MW-8 at 4905 Legettes Road. Well Disconnected; Unable to sample with bailer due to metal elbow at well head. GPS: 34.096743, -79.696040
Possible WSW	According to Ms. Williams, there is no well on the property.
Possible WSW	According to Ms. Williams, there is no well on the property.
SW-1	Sampled collected from drainage ditch adjacent to MW-8. GPS: 34.095076, -79.696772
SW-2	Sampled collected from drainage ditch adjacent to MW-2. GPS: 34.095847, -79.697296
SW-3	Sampled collected approximately 420' feet west of MW-8 from a stream. GPS: 34.094620, -79.698172
SW-4	Sampled collected approximately 500' feet west-northwest of MW-8 from a stream. GPS: 34.095389, -79.698409
SW-5	Sampled collected approximately 630' feet west-northwest of MW-8 from a stream. GPS: 34.096050, -79.698577
SW-6	Sampled collected approximately 950' feet northwest of MW-8 from a stream. GPS: 34.096699, -79.699359
Underground Utilities	
Known underground utilities at the site include buried water, gas and telecommunication lines. Utilities are buried approximately 2'-4' feet below ground surface (BGS).	

ii. Receptor Survey Results

A receptor survey was not requested as part of the approved cost agreement.

iii. Site/Adjacent Land Usage (Residential, Commercial, Agricultural, Industrial, etc.)

Site	Residential
North	Residential
South	Agricultural
East	Agricultural
West	Residential
Permit #'s of UST Sites within 1,000' feet of site	N/A

iv. Site Specific Geology and Hydrogeology

The mean elevation of the property as depicted on the local USGS quadrangle (Evergreen, SC) appears to be approximately 33 meters (108 feet) above sea level. The subject site is located in the Middle Coastal Plain. According to Newell et al. (In Review), the subject site is located in the Bear Bluff Formation. The Bear Bluff Formation is a Pliocene age unit described as consisting of gray to cream, fossiliferous, coarse-grained calcareous sand and sandy limestones.

Coastal plain sediments were encountered during drilling activities conducted at the site during previous assessment activities. A generalized vertical profile to the investigated depth of 35' feet below ground surface (BGS) is as follows:

Depth (Feet BGS)	Generalized Soil Description
0.0'-6.0'	Brown/Yellow Fine SAND
6.0'-16.0'	Pink/Grey Silty Fine SAND
16.0'-34.0'	Tan, Medium SAND
34.0'-35.0'	Dark Grey, Fine Sandy CLAY

The following table presents grain size distribution results from samples analyzed for grain size during previous assessment activities:

Sample ID#	Sample Depth	% Gravel	% Coarse Sand	% Medium Sand	% Fine Sand	% Silt	% Clay
03423-SB01	8'-10'	0	0	38.0	40.2	4.2	17.6
03423-SB01	24'-26'	0	3.0	44.0	45.5	3.2	4.3
03423-SB01	32'-34'	0	4.0	3.0	3.7	49.7	39.6

On January 9, 2023, stabilized groundwater levels were measured in the monitoring well network. Depth to groundwater ranged from 3.01 feet below top of casing (BTOC) to 4.41 feet BTOC in the wells measured. The groundwater measurements are summarized in tabular form in Table 2 and presented on Figure 4/4A.

The potentiometric surface indicates that the groundwater flow beneath the site is generally to the northwest, toward drainage features associated with the Little Willow Creek. The February 2022 horizontal gradient was calculated to be approximately 0.0118 foot per foot (ft/ft). Calculated average

groundwater flow velocities based on aquifer testing was determine to be approximately 97.98 feet per year (ft/yr.).

Based on comparison between the “deep” wells and the close by water table bracketing monitoring wells, the vertical gradient appears to be generally flat.

3.0 GROUNDWATER SAMPLING AND CHEMICAL ANALYSES

On January 9, 2023, MECI personnel collected groundwater samples from fourteen (14) monitoring wells, six (6) surface water locations and two (2) water supply wells at the subject site. During sampling activities, water supply well WSW-3 was unable to be sampled due to the well being inactive with no electrical supply. As requested by SCDHEC, all monitoring wells were to be purged prior to sample collection. Fourteen (14) monitoring wells were purged prior to sample collection.

Prior to sampling, MECI personnel utilized an electronic water level indicator for water level measurements and an oil/water interface probe for free phase petroleum product level measurements. Where applicable, purging was completed by bailing at least five well volumes of water from the well, or until all water was evacuated from the well, whichever occurred first. Sampling/purging was completed utilizing a prepackaged, clear, disposable polyethylene bailer and nylon rope. A new set of nitrile gloves were worn at each monitoring well, and at all time samples were handled. Field measurements of pH, conductivity, dissolved oxygen, and water temperature were obtained before well sampling process. MECI utilized YSIPro20 meter for DO (mg/L) and temperature readings (°C) and YSI Pro 1030 meter for pH and conductivity (uS) readings and a MicroTPI turbidimeter for turbidity readings (NTU). The attached Monitoring Well Purge and Sampling Data Sheets present the results of the field measurements obtained. The wells were sampled in accordance with the most recent revision of SCDHEC’s Quality Assurance Program Plan for the Underground Storage Tank Management Division and the most recent revision of MECI’s Standard Operating Procedures.

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:

Sample ID	Purge	No Purge	Sampled Below Product	Low-Flow Sampling	Not Sampled	Not Located	BTEX, Naphthalene, MTBE (EPA Method 8260D)	EDB (EPA Method 8011)	1,2 DCA (EPA Method 8260D)	8 Oxygenates (EPA Method 8260D)	Total Lead (EPA Method 6010)	BTEX, Naphthalene, MTBE, 1,2 DCA (EPA Method 524.2)	EDB (EPA Method 504.1)
							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-6	X						X	X	X	X			
Notes: BTEX = Benzene, Toluene, Ethylbenzene, & Total Xylenes MTBE=Methyl tertiary butyl ether 1,2 DCA = 1,2 Dichloroethane EDB = Ethylene Dibromide													

Sample ID	Purge	No Purge	Sampled Below Product	Low-Flow Sampling	Not Sampled	Not Located	BTEX, Naphthalene, MTBE (EPA Method 8260D)	EDB (EPA Method 8011)	1,2 DCA (EPA Method 8260D)	8 Oxygenates (EPA Method 8260D)	Total Lead (EPA Method 6010)	BTEX, Naphthalene, MTBE, 1,2 DCA (EPA Method 524.2)	EDB (EPA Method 504.1)
							Analyte Sampled						
MW-7	X						X	X	X	X			
MW-8	X						X	X	X	X			
MW-9	X						X	X	X	X			
MW-10	X						X	X	X	X			
DW-1	X						X	X	X	X			
DW-2	X						X	X	X	X			
DW-3	X						X	X	X	X			
DW-4	X						X	X	X	X			
SW-1		X					X	X	X	X			
SW-2		X					X	X	X	X			
SW-3		X					X	X	X	X			
SW-4		X					X	X	X	X			
SW-5		X					X	X	X	X			
SW-6		X					X	X	X	X			
DUP-1							X	X	X	X			
Field Blank							X	X	X	X			
Trip Blank							X		X	X			
WSW-1										X		X	X
WSW-2										X		X	X
WSW-3					X								
DUP.										X		X	X
Field Blank										X		X	X
Trip Blank										X		X	
Notes: BTEX = Benzene, Toluene, Ethylbenzene, & Total Xylenes MTBE=Methyl tertiary butyl ether 1,2 DCA = 1,2 Dichloroethane EDB = Ethylene Dibromide													

The results of the laboratory analyses are summarized in Table 1 and presented in Appendix B.

Purge water produced by the purging process was treated on-site utilizing a granular activated carbon unit. A total of 63.50 gallons of purge water was disposed of in this manner. A disposal manifest for the referenced purge water is attached in Appendix G and the required post-GAC laboratory results in presented in Appendix B.

4.0 TEST RESULTS AND EVALUATION

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

4.1 GROUNDWATER ANALYTICAL RESULTS

Free phase petroleum product was not detected in any of the monitoring wells during sampling activities. The analytical results indicate petroleum impact to the surficial aquifer (“Shallow” Zone),

with the highest dissolved concentrations being detected in the area of MW-8. Of the twenty-two sampling locations analyzed, seven monitoring wells (MW-1, MW-2, MW-6, MW-8, MW-10, DW-1 and DW-4) detected petroleum constituents above Risk-Based Screening Levels (RBSL's). Petroleum constituents detected above the established RBSL include:

Compound	RBSL (ug/l)	Wells Above RBSL
Product	0.01'	N/A
Benzene	5	MW-1, MW-2, MW-6, MW-8 & DW-4
Toluene	1,000	MW-8
Ethylbenzene	700	MW-8 & MW-10
Total Xylenes	10,000	MW-8
Naphthalene	25	MW-1, MW-6, MW-8 & MW-10
MTBE	40	MW-1, MW-2, MW-6, MW-8, MW-10, DW-1 & DW-4
1,2 DCA	5	N/A
EDB	0.05	N/A
TAA	240	MW-1, MW-6, MW-8, MW-10 & DW-4
TAME	128	MW-10
ETBA	NE	RBSL Not Established
TBA	1,400	N/A
TBF	NE	RBSL Not Established
DIPE	150	MW-1, MW-8 & MW-10
Ethanol	10,000	N/A
ETBE	47	N/A

The analytical results from the remainder of the sampling points did not indicate petroleum impact above the RBSL. Results of the analyses for each sampling point and specific parameters are listed on Table 1 and provided in Appendix B.

5.0 MONITORING SUMMARY

- Groundwater flow is primarily to the northwest, toward drainage features associated with the Little Willow Creek
- Free phase petroleum product was not detected in any of the monitoring wells during sampling activities.
- Fourteen groundwater monitoring wells, six surface water locations and two water supply wells were sampled on January 9, 2023. Petroleum compounds were detected above RBSL's in groundwater monitoring wells MW-1, MW-2, MW-6, MW-8, MW-10, DW-1 and DW-4. Compounds above the established RBSL's include Benzene, Toluene, Ethylbenzene, Total Xylenes, Naphthalene, MTBE, TAA, TAME and DIPE.
- The analytical results also reported petroleum constituents above the laboratory method detection limit and/or "J" values in samples collected from MW-3, MW-5, MW-7, DW-2, SW-1 and SW-2; however, the concentrations did not exceed the RBSL.
- Analytical results from water supply wells WSW-1 and WSW-2 did not indicate petroleum impact.
- In order to assess precision, field duplicate samples were collected and analyzed along with the reviewed batch samples. The duplicated samples were analyzed for the same parameters

as the associated parent samples. Precision is determined by calculating the Relative Percent Differences (RPD) between each pair of samples. The RPD control limit for the groundwater samples is 20%. Duplicate samples were collected from the parent samples of MW-1 and WSW-1. The precision for the target analytes were met for these sample pairs and the analytical results detected the same compounds at similar concentrations. Furthermore, field blanks and trip blanks were collected and submitted during the groundwater sampling activities. No detectable concentrations of the requested method constituents were reported in any of the field or trip blanks.

6.0 COMMENTS & RECOMMENDATIONS

- With the exception of increased MTBE concentrations in monitoring well DW-1, analytical results have generally remained constant from the remainder of the monitoring locations.
- Data gaps currently persist horizontally west of MW-6 and south of MW-8. Vertically, data gaps persist east and west of DW-1 and south and east of DW-4. With the exception of the southerly direction from MW-8/DW-4, it appears these data gaps persist due to property access issues encountered at the site in 2022.
- MECI recommends installing “shallow”/“deep” monitoring well cluster south of MW-8/DW-4 to better define the contaminant plume emanating from the site to the south. If petroleum compounds show an increasing trend in any of the downgradient wells or if any of the nearby potential receptors become impacted, additional monitoring wells may be necessary.
- MECI request the site be modeled to current site conditions and the Site-Specific Target Levels (SSTL’s) be relinquished to our office. Based on the modeling, MECI will be able to better comment on further assessment or corrective action needs at the site.
- Unless otherwise directed by the SCDHEC UST Division, the next quarterly groundwater sampling event will be completed in April of 2023.

7.0 QUALIFICATIONS OF REPORT

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

-oOo-

TABLES

TABLE 1
GROUNDWATER COC CONCENTRATION DATA
JAKE HUGGINS
JANUARY 9, 2023 SAMPLING EVENT
FLORENCE, SOUTH CAROLINA
MECI PROJECT NUMBER 22-7924A
UST PERMIT# 03423

Well ID#	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Naphthalene (µg/L)	MTBE (µg/L)	1, 2 DCA (µg/L)	EDB (µg/L)	TAA (µg/L)	TAME (µg/L)	ETBA (µg/L)	TBA (µg/L)	TBF (µg/L)	DIPE (µg/L)	Ethanol (µg/L)	ETBE (µg/L)
		RBSL 5	RBSL 1,000	RBSL 700	RBSL 10,000	RBSL 25	RBSL 40	RBSL 5	RBSL 0.05	RBSL 240	RBSL 128	RBSL NE	RBSL 1,400	RBSL NE	RBSL 150	RBSL 10,000	RBSL 47
03423-MW01	2/15/2022	624	19.3	158	67.9	78.7	264	<0.250	<0.00512	3030	56.9	<7.00	169	<6.90	160	<50.0	<0.720
	1/9/2023	620	16.4	74.1	16.9	66.0	342	<1.6	<0.0075	3770	60.6	<260	200 J	<147	191	<361	<16.2
03423-MW02	2/15/2022	203	<0.250	0.522 J	1.34	25.7	405	<0.250	<0.00515	442	26.9	<7.00	83.3	<6.90	78.2	<50.0	<0.720
	1/9/2023	122	<0.97	<0.61	<0.68	10.9	256	<0.64	<0.0074	233	14.6 J	<104	<53.6	<58.8	44.4	<144	<6.5
03423-MW03	2/15/2022	<0.270	3.15	0.279 J	<0.230	<2.40	1.95 J	<0.250	<0.00486	<8.60	<0.780	<7.00	<6.90	<6.90	0.893 J	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	1.1	<0.32	<0.0076	<36.4	<2.7	<51.9	<26.8	<29.4	0.61 J	<72.2	<3.2
03423-MW04	2/15/2022	<0.270	<0.250	0.252 J	1.91	<2.40	<0.810	<0.250	<0.00509	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0075	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-MW05	2/15/2022	<0.270	<0.250	<0.200	<0.230	<2.40	14.3	<0.250	<0.00509	<8.60	<0.780	<7.00	<6.90	<6.90	3.06 J	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	22.2	<0.32	<0.0075	<36.4	<2.7	<51.9	<26.8	<29.4	3.8	<72.2	<3.2
03423-MW06	2/15/2022	356	30.1	134	11.6	87.5	166	<1.25	<0.00497	2410	46.4	<35.0	86.6 J	<34.5	122	<250	<3.60
	1/9/2023	83.3	4.6	4.5	3.3	26.7	126	<0.32	<0.0076	1640	29.6	<51.9	52.4 J	<29.4	88.1	<72.2	<3.2
03423-MW07	2/15/2022	37.2	0.699 J	82.1	3.95	58.3	15.8	<0.250	<0.00492	1030	4.67	<7.00	31.3 J	<6.90	20.3	<50.0	<0.720
	1/9/2023	<0.34	<0.48	1.8	<0.34	4.3	1.4	<0.32	<0.0075	<36.4	<2.7	<51.9	<26.8	<29.4	1.6	<72.2	<3.2
03423-MW08	2/15/2022	3720	21100	2200	12800	781	690	<12.5	0.121	8690	127	<350	370 J	<345	268 J	<2500	<36.0
	1/9/2023	4390	22300	2080	13300	766	531	<40.2	<0.0075	8510 J	<332	<6490	<3350	<3680	239	<9020	<405
03423-MW09	2/15/2022	0.278 J	3.89	4.80	27.4	<2.40	<0.810	<0.250	<0.00494	77.4	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0077	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-MW10	2/15/2022	1070	297	753	2380	342	510	<12.5	<0.00507	7950	120	<350	<345	<345	339 J	<2500	<36.0
	1/9/2023	2060	439	1100	2640	455	865	<4.0	<0.0077	11100	168	<649	535 J	<368	555	<902	<40.5
03423-DW01	2/15/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00529	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	52.9	<0.32	<0.0076	<36.4	4.2 J	<51.9	<26.8	<29.4	15.2	<72.2	<3.2
03423-DW02	2/15/2022	<0.270	<0.250	<0.200	<0.230	<2.40	7.40	<0.250	<0.00510	<8.60	<0.780	<7.00	<6.90	<6.90	2.61 J	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	6.1	<0.32	<0.0076	<36.4	<2.7	<51.9	<26.8	<29.4	2.0	<72.2	<3.2
03423-DW03	2/15/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00485	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0077	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-DW04	2/15/2022	67.5	1890	611	4230	181	<0.810	<0.250	<0.00489	<8.60	<0.780	<7.00	<6.90	<6.90	1.69 J	<50.0	<0.720
	1/9/2023	63.6	464	20.1	291	<2.6	51.8	<1.3	<0.0077	422	<10.6	<208	<107	<118	21.2	<289	<13.0
03423-TW01*	2/28/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00636	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
03423-SW01	2/15/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00503	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	0.43 J	<0.64	<0.42	<0.32	<0.0077	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2

TABLE 1 GROUNDWATER COC CONCENTRATION DATA JAKE HUGGINS JANUARY 9, 2023 SAMPLING EVENT FLORENCE, SOUTH CAROLINA MECI PROJECT NUMBER 22-7924A UST PERMIT# 03423																	
Well ID#	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Naphthalene (µg/L)	MTBE (µg/L)	1, 2 DCA (µg/L)	EDB (µg/L)	TAA (µg/L)	TAME (µg/L)	ETBA (µg/L)	TBA (µg/L)	TBF (µg/L)	DIPE (µg/L)	Ethanol (µg/L)	ETBE (µg/L)
		RBSL 5	RBSL 1,000	RBSL 700	RBSL 10,000	RBSL 25	RBSL 40	RBSL 5	RBSL 0.05	RBSL 240	RBSL 128	RBSL NE	RBSL 1,400	RBSL NE	RBSL 150	RBSL 10,000	RBSL 47
03423-SW02	2/15/2022	<0.270	<0.250	<0.200	<0.230	<2.40	0.832 J	<0.250	<0.00494	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	1.2	<0.32	<0.0077	<36.4	<2.7	<51.9	<26.8	<29.4	0.49 J	<72.2	<3.2
03423-SW03	2/15/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00497	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0077	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-SW04	2/28/2022	<0.270	15.9	0.228 J	<0.230	<2.40	<0.810	<0.250	<0.00492	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0080	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-SW05	2/28/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00503	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0079	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-SW06	2/28/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00507	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0076	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-WSW01	2/15/2022	<0.0820	<0.0860	<0.0990	<0.0860	<0.430	<0.0930	<0.0860	<0.00513	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0056	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-WSW02	2/15/2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	1/9/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0056	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-WSW03	2/15/2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	1/9/2023	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
DUP-1 (MW10) DUP. (WSW01) DUP-1 (TW01) DUP-1 (MW01) DUP. (WSW01)	2/15/2022	1090	359	783	2440	325	496	<2.50	<0.00499	7770	129	<70.0	298 J	<69.0	343	<500	<7.20
	2/15/2022	<0.0820	<0.0860	<0.0990	<0.0860	<0.430	<0.0930	<0.0860	<0.00501	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	2/28/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00581	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	736	19.2	93.2	21.4	78.8	429	<1.6	<0.0075	4900	64.8	<260	258 J	<147	240	<361	<16.2
	1/9/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0057	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
Field Blank	2/15/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00501	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	2/15/2022	<0.0820	<0.0860	<0.0990	<0.0860	<0.430	<0.0930	<0.0860	<0.00499	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	2/28/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00501	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0077	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	1/9/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0057	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
Trip Blank	2/15/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	NT	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	2/15/2022	<0.0820	<0.0860	<0.0990	<0.0860	<0.430	<0.0930	<0.0860	NT	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	2/28/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	NT	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	2/28/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	NT	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	NT	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	1/9/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	NT	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
Notes:		1. BDL = Below Practical Quantitative Limits 2. ug/l = micrograms per liter 3. mg/l = milligrams per liter 4. MTBE = Methyl-Tertiary-Butyl Ether 5. See Appendix for Laboratory Detection Limits 6. NL = Not Located 7. DRY = Well was Dry at the time of Sampling				8. NT = Not Tested 9. EDB = Ethylene Dibromide 10. 1,2 DCA = 1,2-Dichloroethane 11. FPP = Free Phase Petroleum Product 12. * = Wells Have Been Abandoned 13. "J" Values used in Total BTEX Calculations 14. B = Detected in Method Blank				15. "J" values report concentrations above the method detection limits (MDL) and below actual reporting limit (RL). 16. S = MS/MSD Failure 17. P = The RPD between the two columns exceeds 40%. 18. DIPE = Diisopropyl Ether 19. ETBE = Ethyl ter-butyl Ether 20. TAA = tert-Amyl Alcohol				21. TAME = tert-Amyl Methyl Ether 22. TBA = ter-Butyl Alcohol 23. TBF = tert-Butyl Formate 24. TAME = tert-Amyl Methyl Ether 25. * = TW-1 was a temporary well and has been abandoned. 26. NS = Not Sampled			

**TABLE 2
POTENTIOMETRIC DATA
JAKE HUGGINS
JANUARY 9, 2023 SAMPLING EVENT
FLORENCE, SOUTH CAROLINA
MECI PROJECT NUMBER 22-7924A
UST PERMIT# 03423**

Well Number	Sample Date	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	TOC Elevation	Groundwater Elevation
03423-MW01	2/15/2022	3-13	***	2.67	***	98.72	96.05
	1/9/2023		***	3.48	***	98.72	95.24
03423-MW02	2/15/2022	3-13	***	2.64	***	96.40	93.76
	1/9/2023		***	3.25	***	96.40	93.15
03423-MW03	2/15/2022	3-13	***	2.42	***	94.95	92.53
	1/9/2023		***	3.15	***	94.95	91.80
03423-MW04	2/15/2022	3-13	***	2.61	***	94.88	92.27
	1/9/2023		***	3.45	***	94.88	91.43
03423-MW05	2/15/2022	3-13	***	2.46	***	94.88	92.42
	1/9/2023		***	3.16	***	94.88	91.72
03423-MW06	2/15/2022	3-13	***	2.83	***	97.86	95.03
	1/9/2023		***	3.50	***	97.86	94.36
03423-MW07	2/15/2022	3-13	***	2.91	***	100.29	97.38
	1/9/2023		***	3.98	***	100.29	96.31
03423-MW08	2/15/2022	3-13	***	3.76	***	100.92	97.16
	1/9/2023		***	4.38	***	100.92	96.54
03423-MW09	2/15/2022	3-13	***	3.97	***	100.92	96.95
	1/9/2023		***	3.27	***	100.92	97.65
03423-MW10	2/15/2022	3-13	***	2.93	***	99.69	96.76
	1/9/2023		***	3.68	***	99.69	96.01
03423-DW01	2/15/2022	20-25	***	2.54	***	98.57	96.03
	1/9/2023		***	3.22	***	98.57	95.35
03423-DW02	2/15/2022	20-25	***	2.51	***	96.48	93.97
	1/9/2023		***	3.01	***	96.48	93.47
03423-DW03	2/15/2022	20-25	***	2.92	***	100.05	97.13
	1/9/2023		***	3.53	***	100.05	96.52
03423-DW04	2/15/2022	20-25	***	3.86	***	101.03	97.17
	1/9/2023		***	4.41	***	101.03	96.62

Notes:

1. Elevations are NAV88.

2. Groundwater depths were measured from the top of the PVC riser pipe.

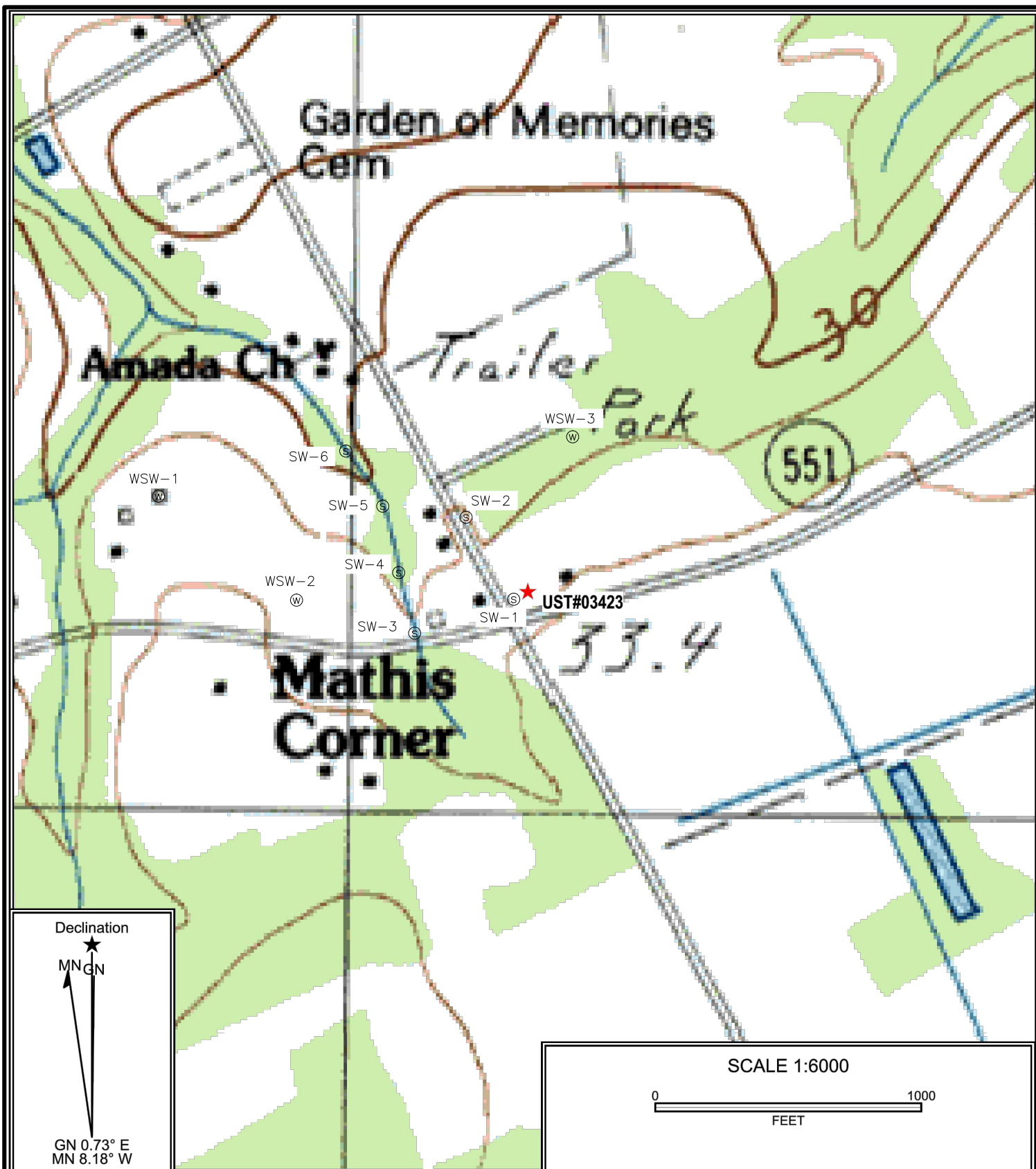
3. NM = Not Measured

4. DRY = Well Gauged DRY

5. TD = Total Depth

6. * = Groundwater elevation corrected for the presence of free product using a specific gravity of 0.85.

FIGURES



Reference: Evergreen, South Carolina
USGS 7.5 Min. Quad
Contour Interval - 2 Meters

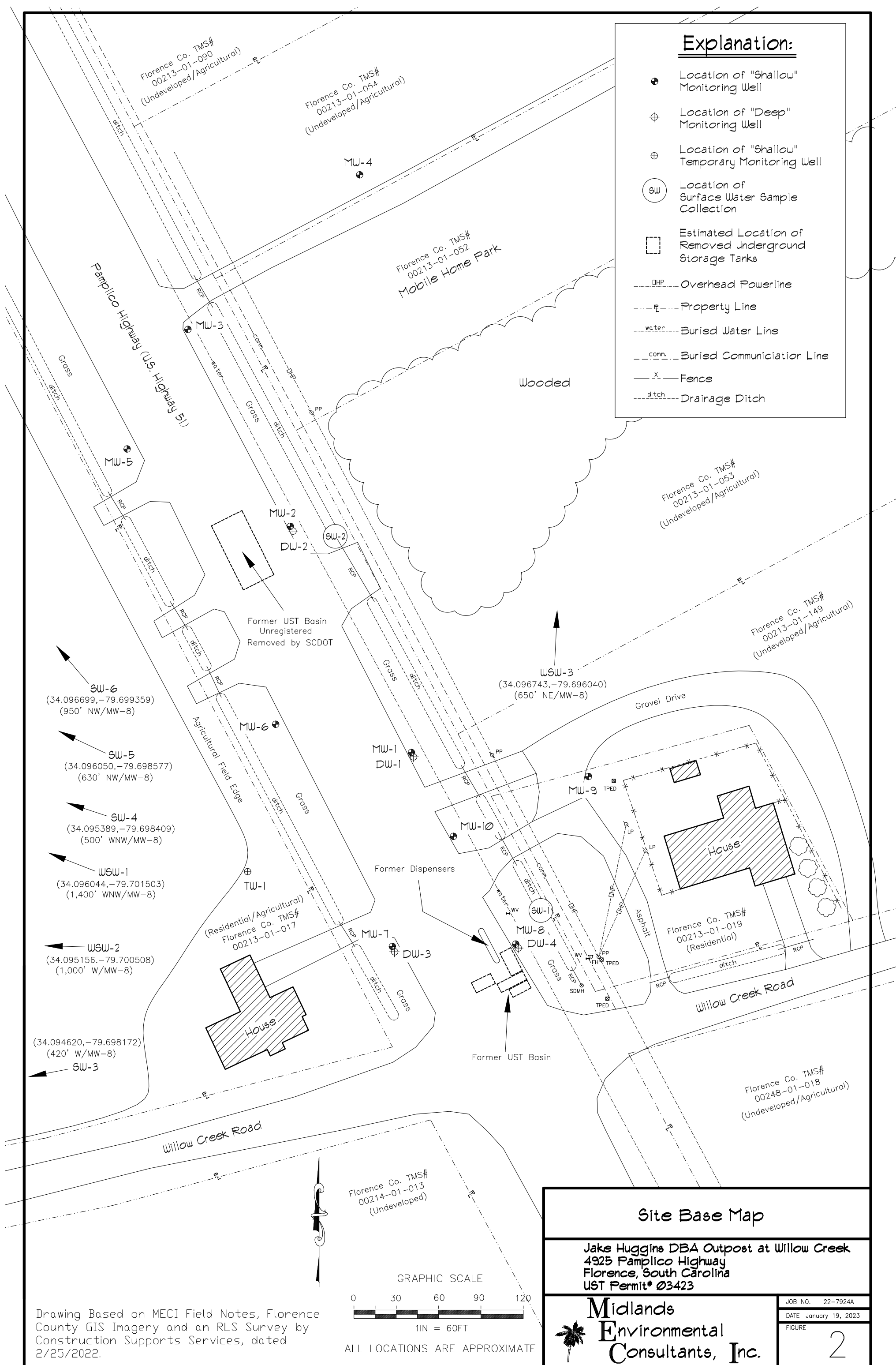
Midlands
Environmental
Consultants, Inc.

Site Location

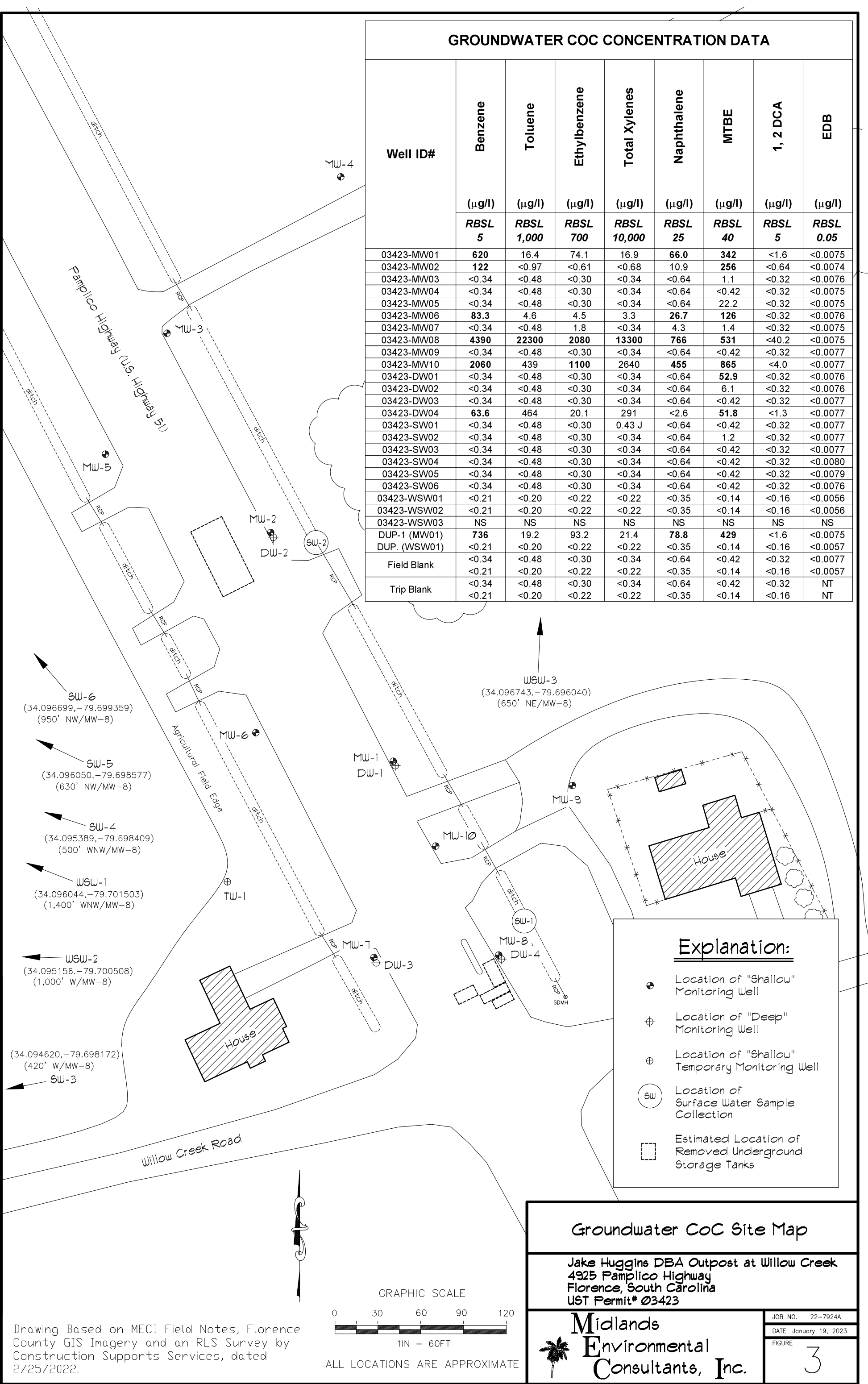
Jake Huggins DBA Outpost at Willowcreek, LLC.
4925 Pamplico Highway, Florence, SC
UST Permit# 18419

Figure 1

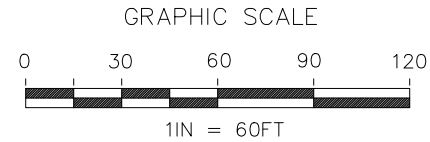
MECI 22-7924A



GROUNDWATER COC CONCENTRATION DATA								
Well ID#	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene	MTBE	1, 2 DCA	EDB
	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
	RBSL 5	RBSL 1,000	RBSL 700	RBSL 10,000	RBSL 25	RBSL 40	RBSL 5	RBSL 0.05
03423-MW01	620	16.4	74.1	16.9	66.0	342	<1.6	<0.0075
03423-MW02	122	<0.97	<0.61	<0.68	10.9	256	<0.64	<0.0074
03423-MW03	<0.34	<0.48	<0.30	<0.34	<0.64	1.1	<0.32	<0.0076
03423-MW04	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0075
03423-MW05	<0.34	<0.48	<0.30	<0.34	<0.64	22.2	<0.32	<0.0075
03423-MW06	83.3	4.6	4.5	3.3	26.7	126	<0.32	<0.0076
03423-MW07	<0.34	<0.48	1.8	<0.34	4.3	1.4	<0.32	<0.0075
03423-MW08	4390	22300	2080	13300	766	531	<40.2	<0.0075
03423-MW09	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0077
03423-MW10	2060	439	1100	2640	455	865	<4.0	<0.0077
03423-DW01	<0.34	<0.48	<0.30	<0.34	<0.64	52.9	<0.32	<0.0076
03423-DW02	<0.34	<0.48	<0.30	<0.34	<0.64	6.1	<0.32	<0.0076
03423-DW03	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0077
03423-DW04	63.6	464	20.1	291	<2.6	51.8	<1.3	<0.0077
03423-SW01	<0.34	<0.48	<0.30	0.43 J	<0.64	<0.42	<0.32	<0.0077
03423-SW02	<0.34	<0.48	<0.30	<0.34	<0.64	1.2	<0.32	<0.0077
03423-SW03	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0077
03423-SW04	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0080
03423-SW05	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0079
03423-SW06	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0076
03423-WSW01	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0056
03423-WSW02	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0056
03423-WSW03	NS	NS	NS	NS	NS	NS	NS	NS
DUP-1 (MW01)	736	19.2	93.2	21.4	78.8	429	<1.6	<0.0075
DUP. (WSW01)	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0057
Field Blank	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0077
	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0057
Trip Blank	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	NT
	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	NT



Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.



ALL LOCATIONS ARE APPROXIMATE

Groundwater CoC Site Map

Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
Florence, South Carolina
UST Permit# 03423

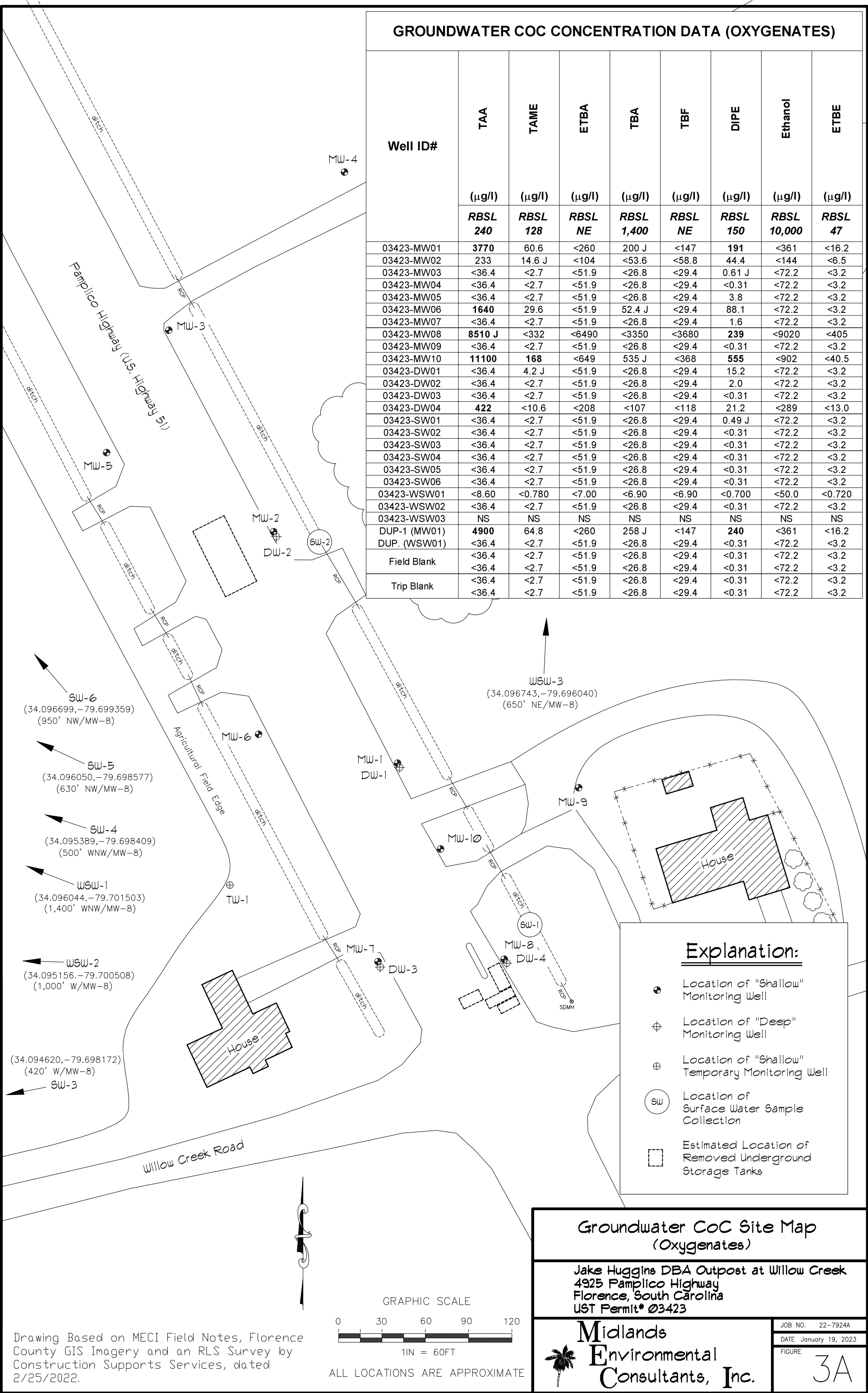


JOB NO. 22-7924A

DATE January 19, 2023

FIGURE
3

GROUNDWATER COC CONCENTRATION DATA (OXYGENATES)								
Well ID#	TAA	TAME	ETBA	TBA	TBF	DIPE	Ethanol	ETBE
	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
	RBSL 240	RBSL 128	RBSL NE	RBSL 1,400	RBSL NE	RBSL 150	RBSL 10,000	RBSL 47
03423-MW01	3770	60.6	<260	200 J	<147	191	<361	<16.2
03423-MW02	233	14.6 J	<104	<53.6	<58.8	44.4	<144	<6.5
03423-MW03	<36.4	<2.7	<51.9	<26.8	<29.4	0.61 J	<72.2	<3.2
03423-MW04	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-MW05	<36.4	<2.7	<51.9	<26.8	<29.4	3.8	<72.2	<3.2
03423-MW06	1640	29.6	<51.9	52.4 J	<29.4	88.1	<72.2	<3.2
03423-MW07	<36.4	<2.7	<51.9	<26.8	<29.4	1.6	<72.2	<3.2
03423-MW08	8510 J	<332	<6490	<3350	<3680	239	<9020	<405
03423-MW09	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-MW10	11100	168	<649	535 J	<368	555	<902	<40.5
03423-DW01	<36.4	4.2 J	<51.9	<26.8	<29.4	15.2	<72.2	<3.2
03423-DW02	<36.4	<2.7	<51.9	<26.8	<29.4	2.0	<72.2	<3.2
03423-DW03	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-DW04	422	<10.6	<208	<107	<118	21.2	<289	<13.0
03423-SW01	<36.4	<2.7	<51.9	<26.8	<29.4	0.49 J	<72.2	<3.2
03423-SW02	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-SW03	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-SW04	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-SW05	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-SW06	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-WSW01	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
03423-WSW02	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-WSW03	NS	NS	NS	NS	NS	NS	NS	NS
DUP-1 (MW01)	4900	64.8	<260	258 J	<147	240	<361	<16.2
DUP. (WSW01)	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
Field Blank	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
Trip Blank	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2



Explanation:

- Location of "Shallow" Monitoring Well
- Location of "Deep" Monitoring Well
- Location of "Shallow" Temporary Monitoring Well
- Location of Surface Water Sample Collection
- Estimated Location of Removed Underground Storage Tanks

Groundwater CoC Site Map (Oxygenates)

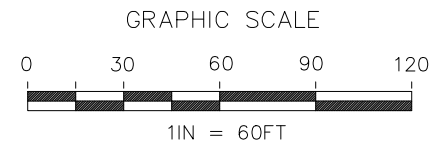
Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
Florence, South Carolina
UST Permit# 03423

Midlands Environmental Consultants, Inc.

JOB NO. 22-7924A
DATE January 19, 2023
FIGURE

3A

Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.



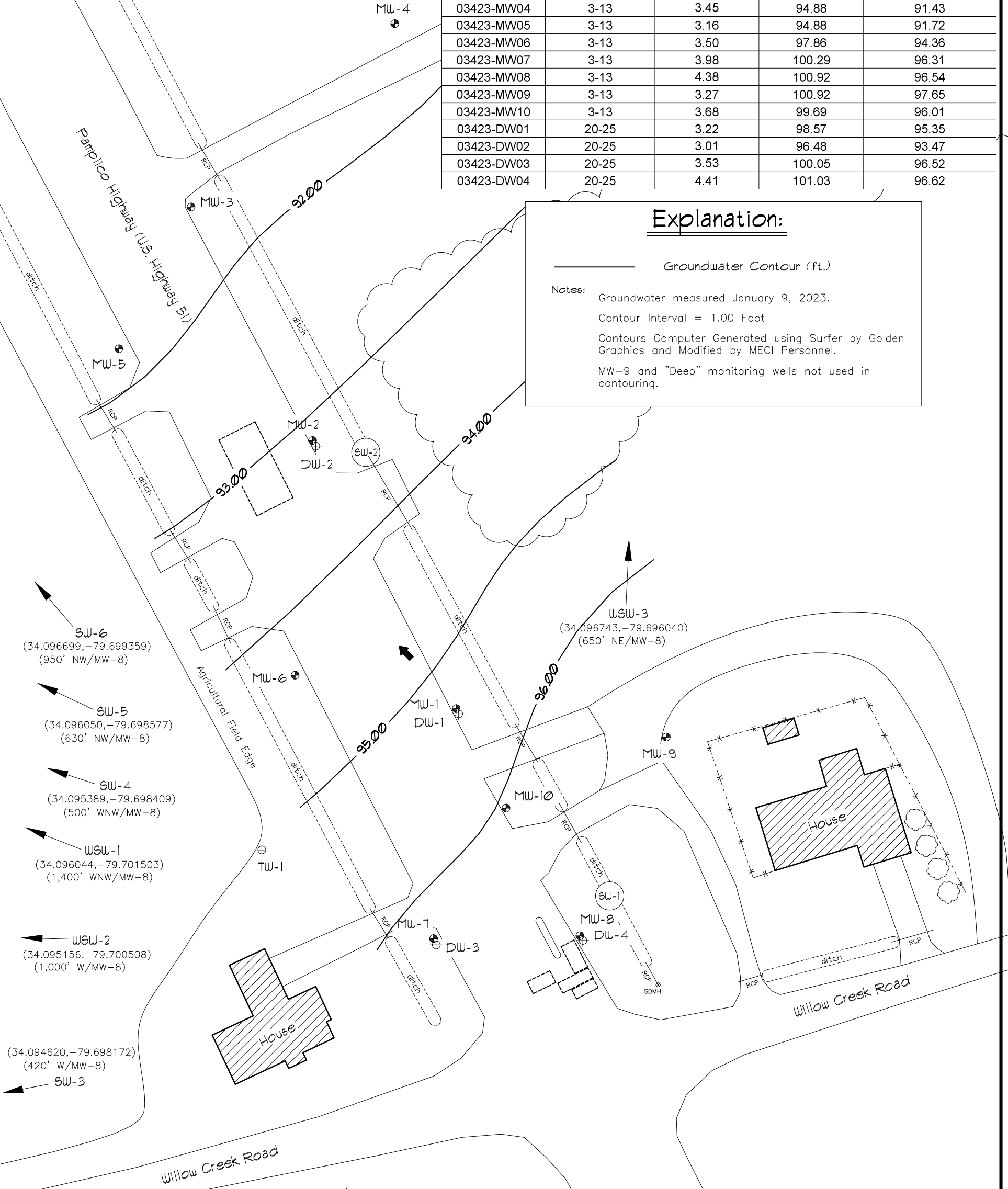
ALL LOCATIONS ARE APPROXIMATE

POTENTIOMETRIC DATA				
Well Number	Screened Interval	Depth to Water (ft.)	TOC Elevation	Groundwater Elevation
03423-MW01	3-13	3.48	98.72	95.24
03423-MW02	3-13	3.25	96.40	93.15
03423-MW03	3-13	3.15	94.95	91.80
03423-MW04	3-13	3.45	94.88	91.43
03423-MW05	3-13	3.16	94.88	91.72
03423-MW06	3-13	3.50	97.86	94.36
03423-MW07	3-13	3.98	100.29	96.31
03423-MW08	3-13	4.38	100.92	96.54
03423-MW09	3-13	3.27	100.92	97.65
03423-MW10	3-13	3.68	99.69	96.01
03423-DW01	20-25	3.22	98.57	95.35
03423-DW02	20-25	3.01	96.48	93.47
03423-DW03	20-25	3.53	100.05	96.52
03423-DW04	20-25	4.41	101.03	96.62

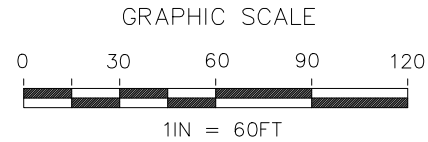
Explanation:

Groundwater Contour (ft.)

Notes: Groundwater measured January 9, 2023.
Contour Interval = 1.00 Foot
Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.
MW-9 and "Deep" monitoring wells not used in contouring.



Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.



ALL LOCATIONS ARE APPROXIMATE

Potentiometric Data Site Map
(Groundwater Contour/"Shallow" Zone)

Jake Huggins DBA Outpost at Willow Creek
4925 Pamlico Highway
Florence, South Carolina
UST Permit# 03423

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JOB NO. 22-7924A
DATE January 19, 2023
FIGURE

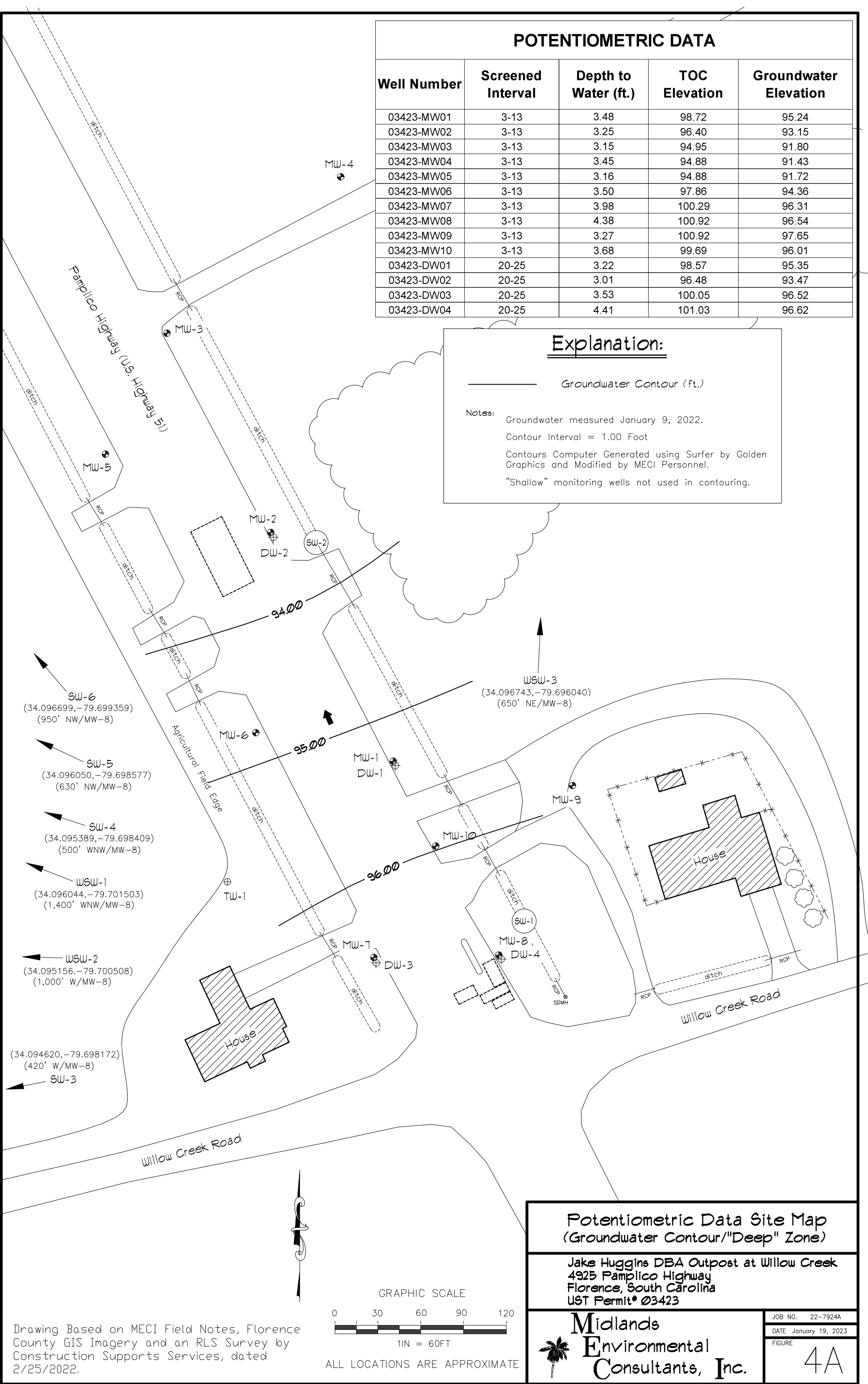
4

POTENTIOMETRIC DATA				
Well Number	Screened Interval	Depth to Water (ft.)	TOC Elevation	Groundwater Elevation
03423-MW01	3-13	3.48	98.72	95.24
03423-MW02	3-13	3.25	96.40	93.15
03423-MW03	3-13	3.15	94.95	91.80
03423-MW04	3-13	3.45	94.88	91.43
03423-MW05	3-13	3.16	94.88	91.72
03423-MW06	3-13	3.50	97.86	94.36
03423-MW07	3-13	3.98	100.29	96.31
03423-MW08	3-13	4.38	100.92	96.54
03423-MW09	3-13	3.27	100.92	97.65
03423-MW10	3-13	3.68	99.69	96.01
03423-DW01	20-25	3.22	98.57	95.35
03423-DW02	20-25	3.01	96.48	93.47
03423-DW03	20-25	3.53	100.05	96.52
03423-DW04	20-25	4.41	101.03	96.62

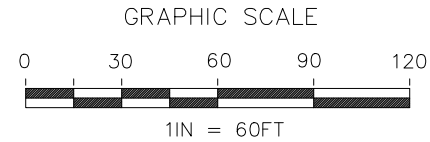
Explanation:

Groundwater Contour (ft.)

Notes: Groundwater measured January 9, 2022.
Contour Interval = 1.00 Foot
Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.
"Shallow" monitoring wells not used in contouring.



Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.



ALL LOCATIONS ARE APPROXIMATE

Potentiometric Data Site Map
(Groundwater Contour/"Deep" Zone)

Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
Florence, South Carolina
UST Permit# 03423

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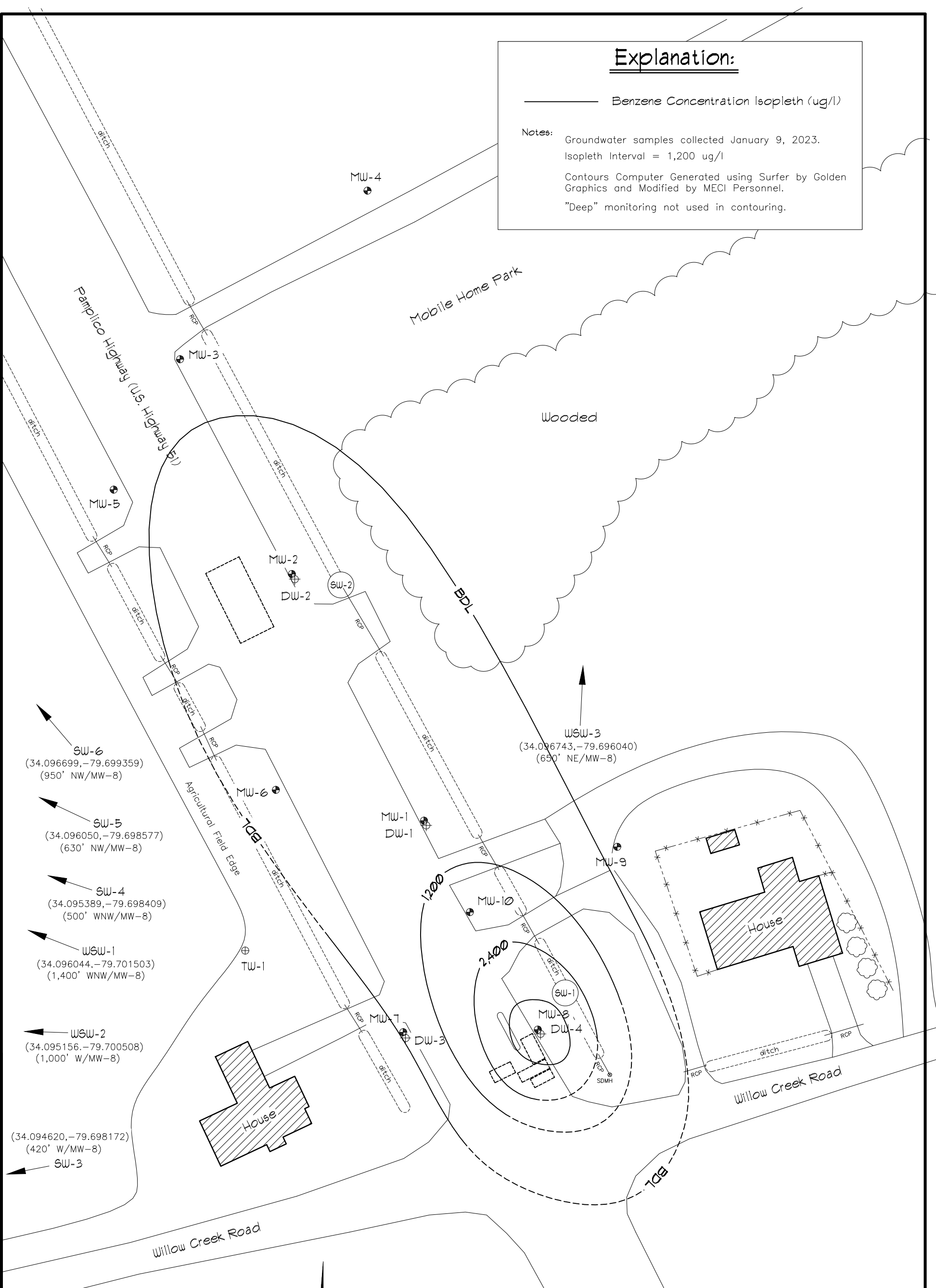
JOB NO. 22-7924A
DATE January 19, 2023
FIGURE

4A

Explanation:

Benzene Concentration Isopleth (ug/l)

Notes: Groundwater samples collected January 9, 2023.
Isopleth Interval = 1,200 ug/l
Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.
"Deep" monitoring not used in contouring.



Benzene Isopleth - "Shallow" Zone

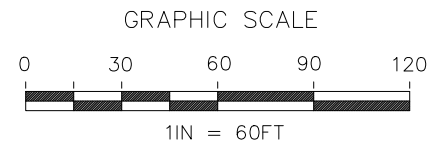
Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
Florence, South Carolina
UST Permit# 03423

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JOB NO. 22-7924A
DATE January 19, 2023
FIGURE

5

Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.



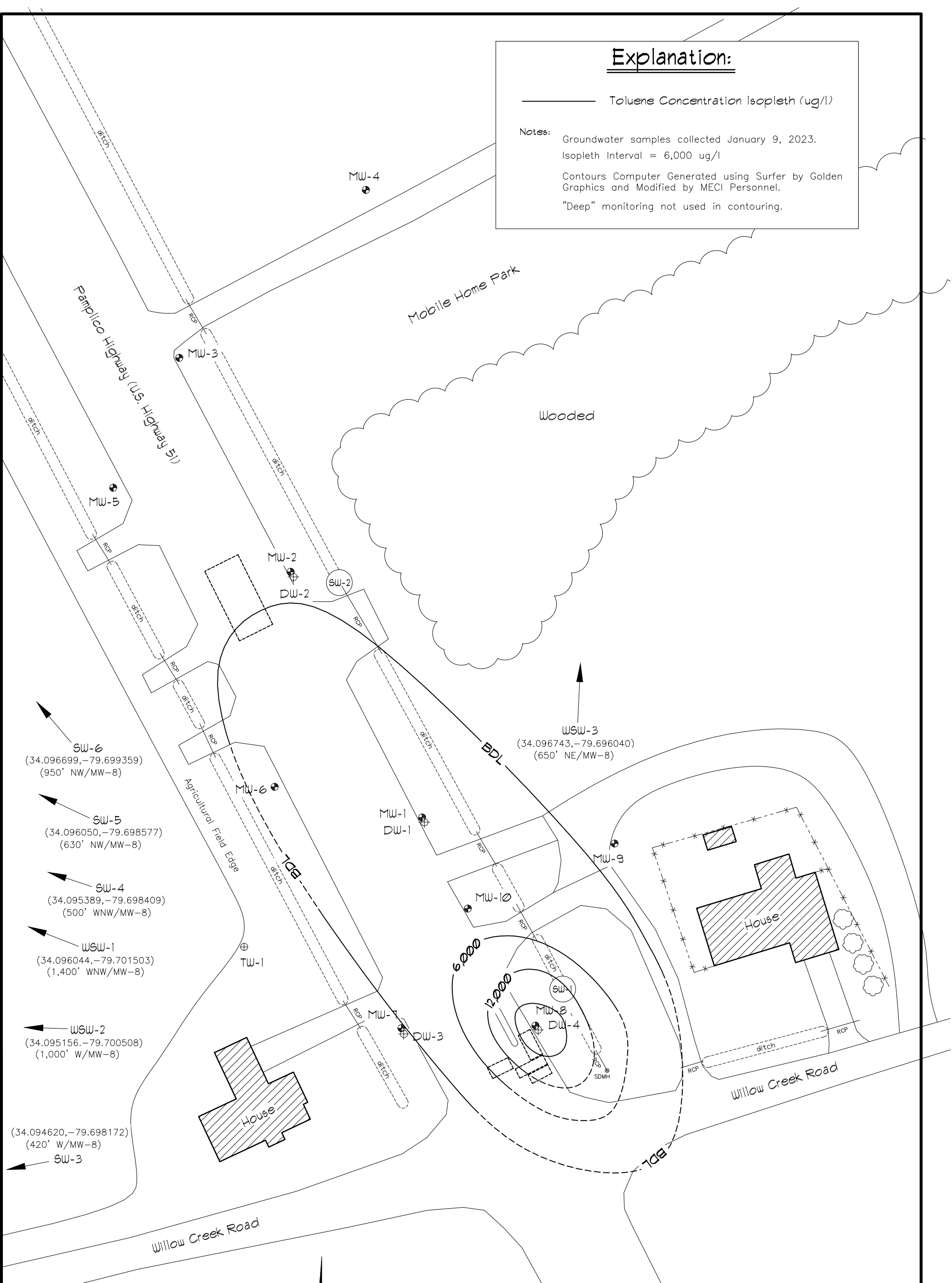
ALL LOCATIONS ARE APPROXIMATE

Explanation:

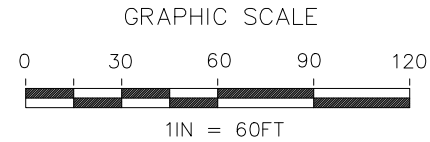
Toluene Concentration Isopleth (ug/l)

Notes: Groundwater samples collected January 9, 2023.
Isopleth Interval = 6,000 ug/l

Contours Computer Generated using Surfer by Golden
Graphics and Modified by MECI Personnel.
"Deep" monitoring not used in contouring.



Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.



ALL LOCATIONS ARE APPROXIMATE

Toluene Isopleth - "Shallow" Zone

Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
Florence, South Carolina
UST Permit# 03423

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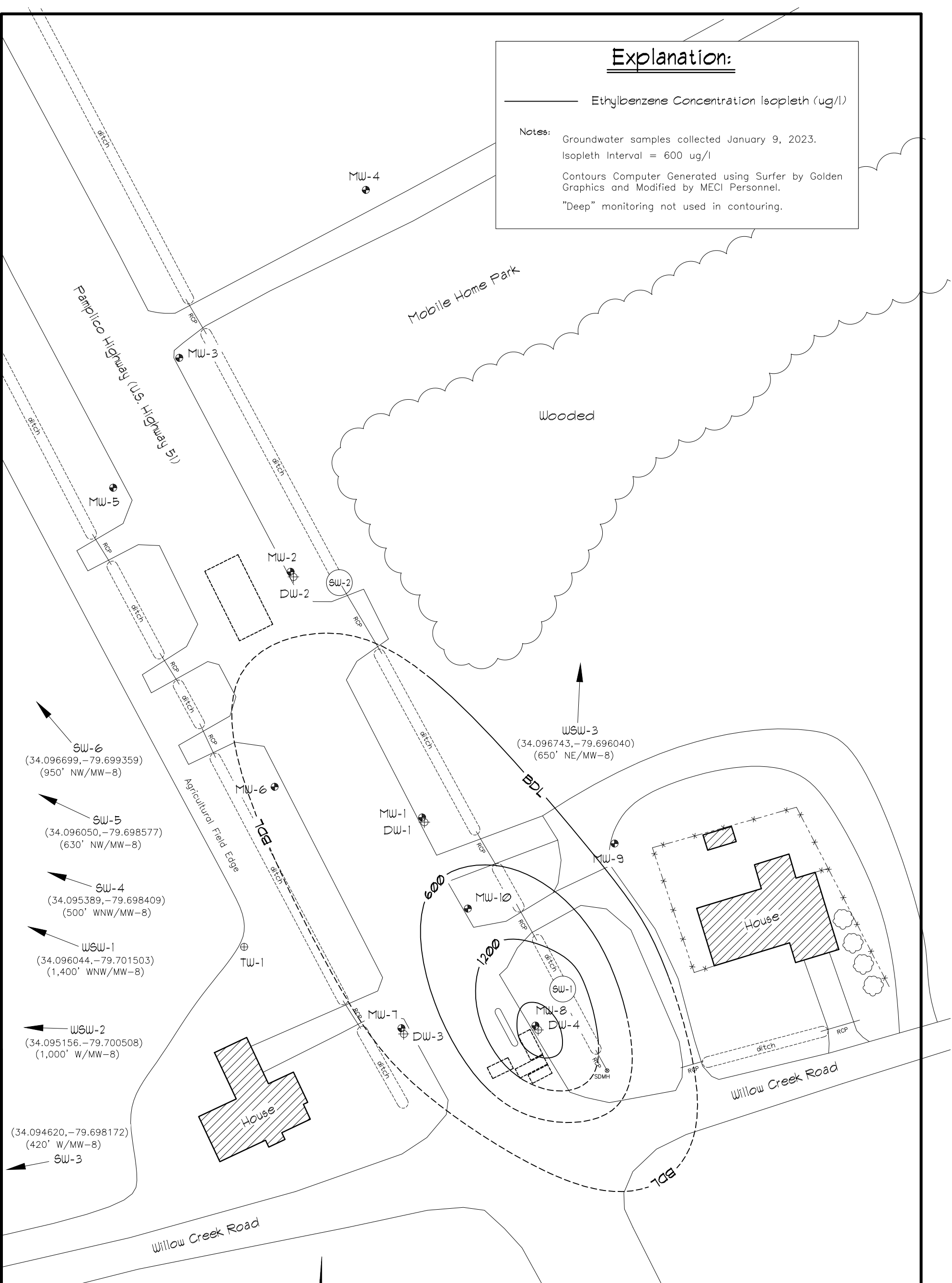
JOB NO. 22-7924A
DATE January 19, 2023
FIGURE

5A

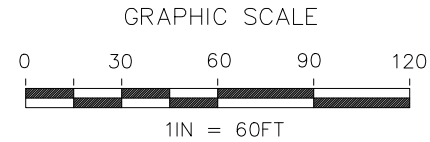
Explanation:

Ethylbenzene Concentration Isopleth (ug/l)

Notes: Groundwater samples collected January 9, 2023.
Isopleth Interval = 600 ug/l
Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.
"Deep" monitoring not used in contouring.



Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.



ALL LOCATIONS ARE APPROXIMATE

Ethylbenzene Isopleth - "Shallow" Zone

Jake Huggins DBA Outpost at Willow Creek
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UST Permit# 03423

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JOB NO. 22-7924A
DATE January 19, 2023
FIGURE

5B

Explanation:

_____ Xylenes Concentration Isopleth (ug/l)

Notes:

- Groundwater samples collected January 9, 2023.
- Isopleth Interval = 4,000 ug/l
- Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.
- "Deep" monitoring not used in contouring.

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

Explanation:

— Xylenes Concentration Isopleth (ug/l)

Notes:

Groundwater samples collected January 9, 2023.
Isopleth Interval = 4,000 ug/l

Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.
"Deep" monitoring not used in contouring.

Xylenes Isopleth - "Shallow" Zone

Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
Florence, South Carolina
UST Permit# 03423

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JOB NO. 22-7924A
DATE January 19, 2023
FIGURE 5C

Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.

GRAPHIC SCALE
0 30 60 90 120
1IN = 60FT
ALL LOCATIONS ARE APPROXIMATE

GRAPHIC SCALE

0 30 60 90 120

1" = 60FT

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FIGURE

5C

Explanation:

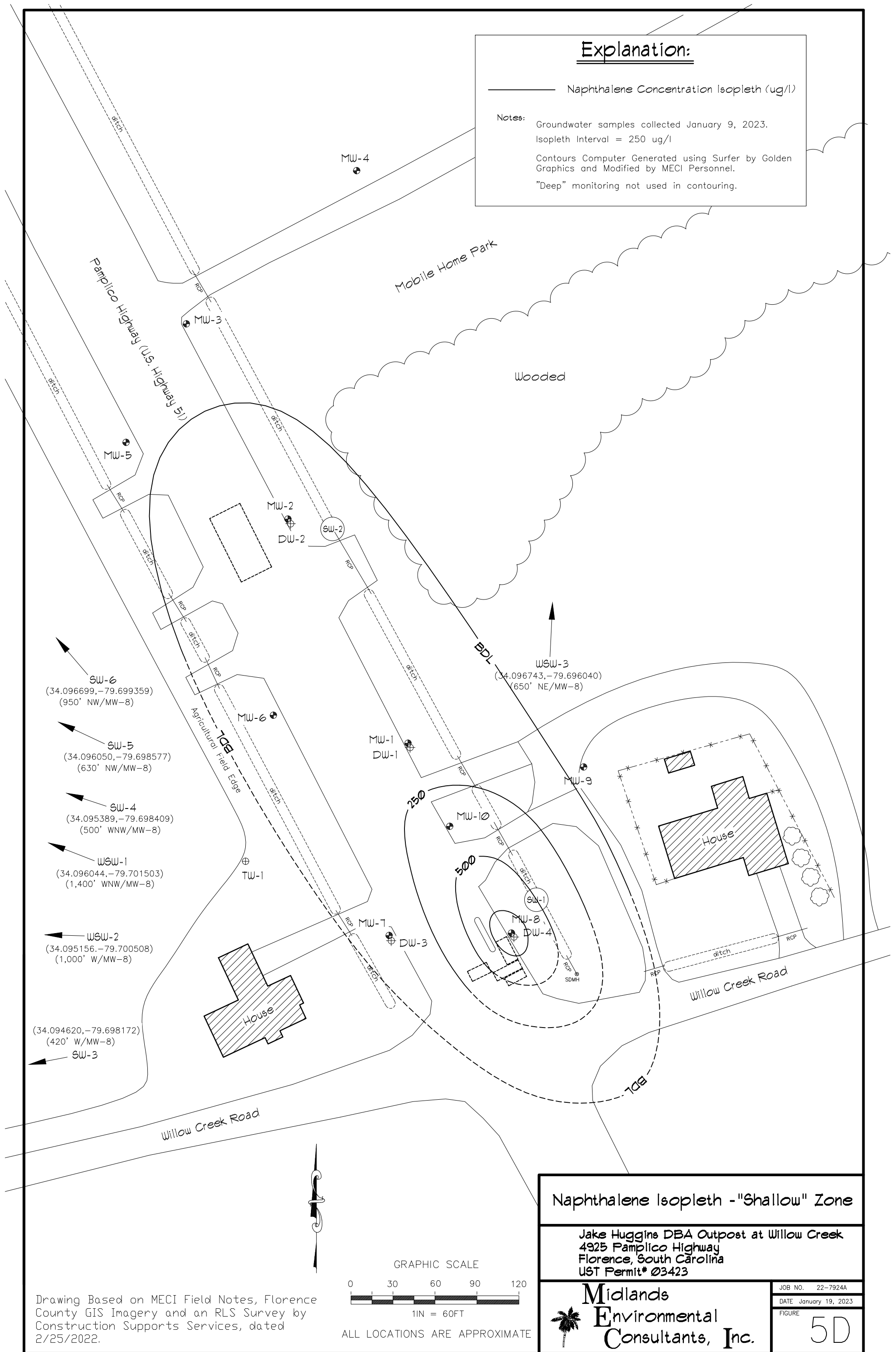
Naphthalene Concentration Isopleth ($\mu\text{g/l}$)

Notes:

- Groundwater samples collected January 9, 2023.
- Isopleth Interval = 250 $\mu\text{g/l}$
- Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.
- "Deep" monitoring not used in contouring.

Groundwater samples collected January 9, 2023.
Isopleth Interval = 250 ug/l

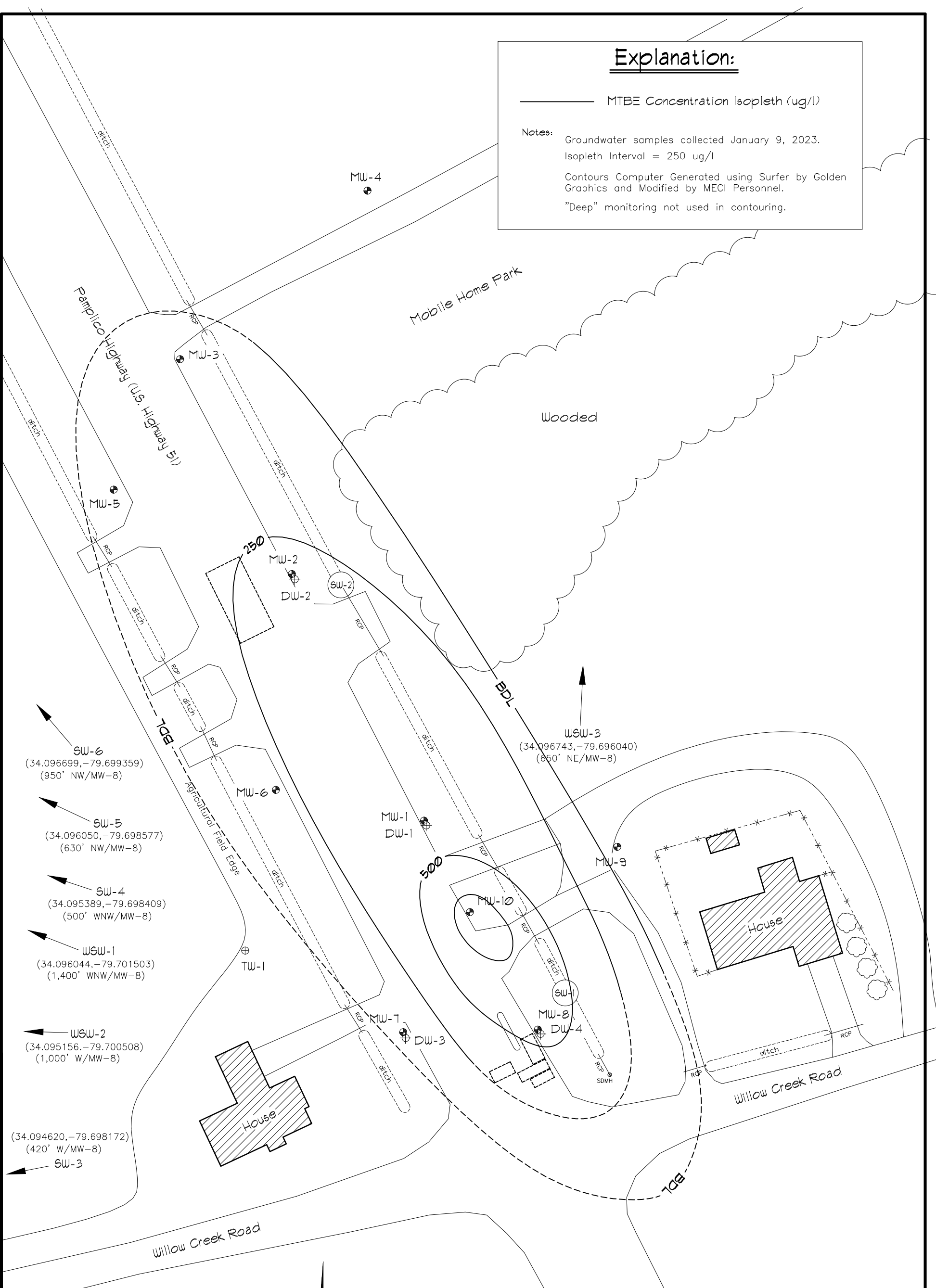
"Deep" monitoring not used in contouring.



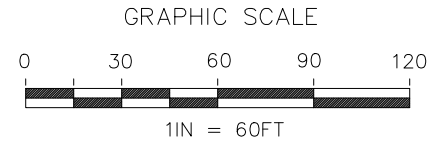
Explanation:

MTBE Concentration Isopleth (ug/l)

Notes: Groundwater samples collected January 9, 2023.
Isopleth Interval = 250 ug/l
Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.
"Deep" monitoring not used in contouring.



Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.



ALL LOCATIONS ARE APPROXIMATE

MTBE Isopleth - "Shallow" Zone

Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
Florence, South Carolina
UST Permit# 03423

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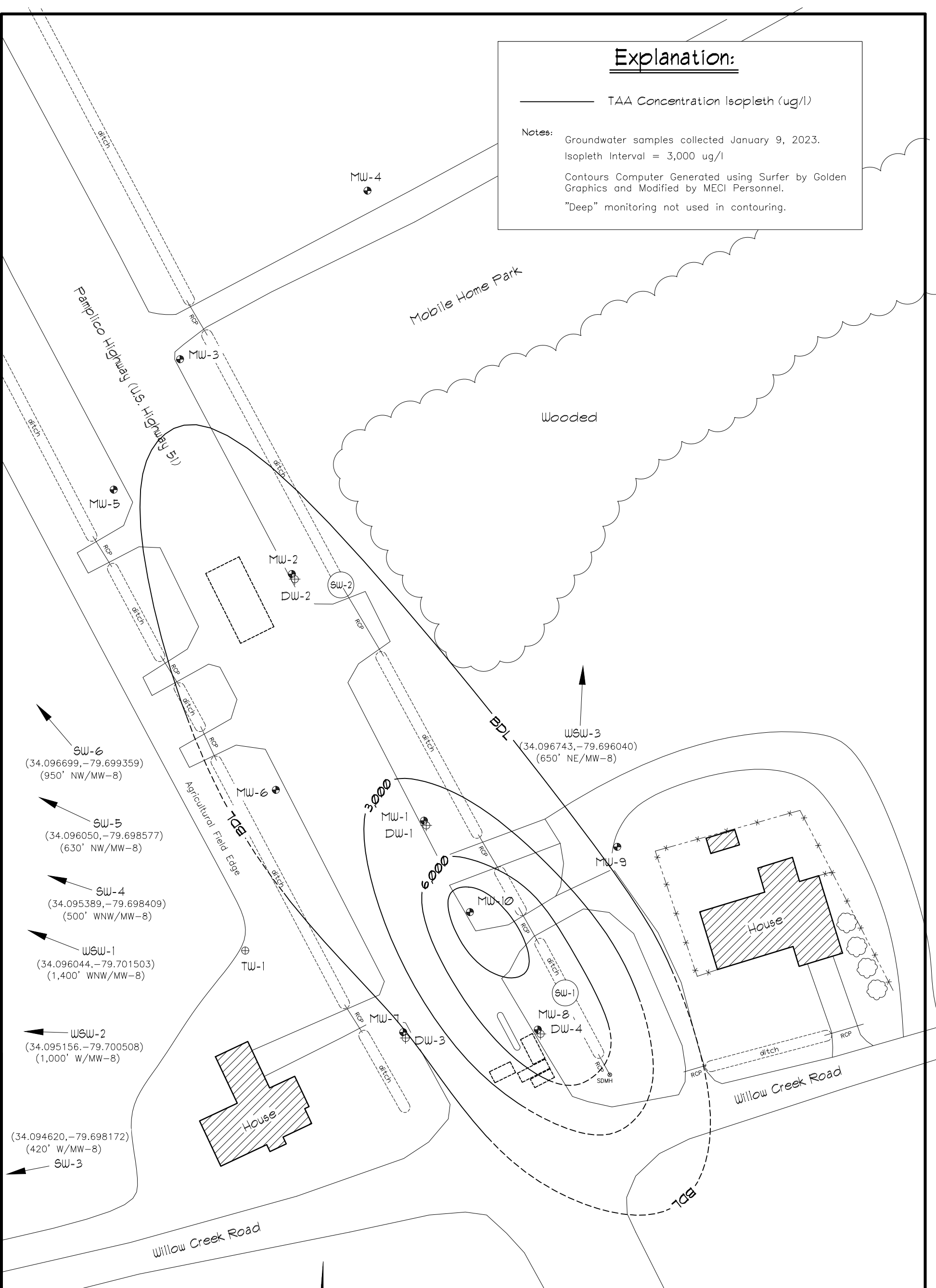
JOB NO. 22-7924A
DATE January 19, 2023
FIGURE

5E

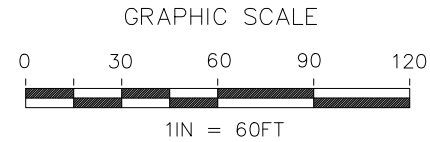
Explanation:

TAA Concentration Isopleth (ug/l)

Notes: Groundwater samples collected January 9, 2023.
Isopleth Interval = 3,000 ug/l
Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.
"Deep" monitoring not used in contouring.



Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.



TAA Isopleth - "Shallow" Zone

Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
Florence, South Carolina
UST Permit# 03423

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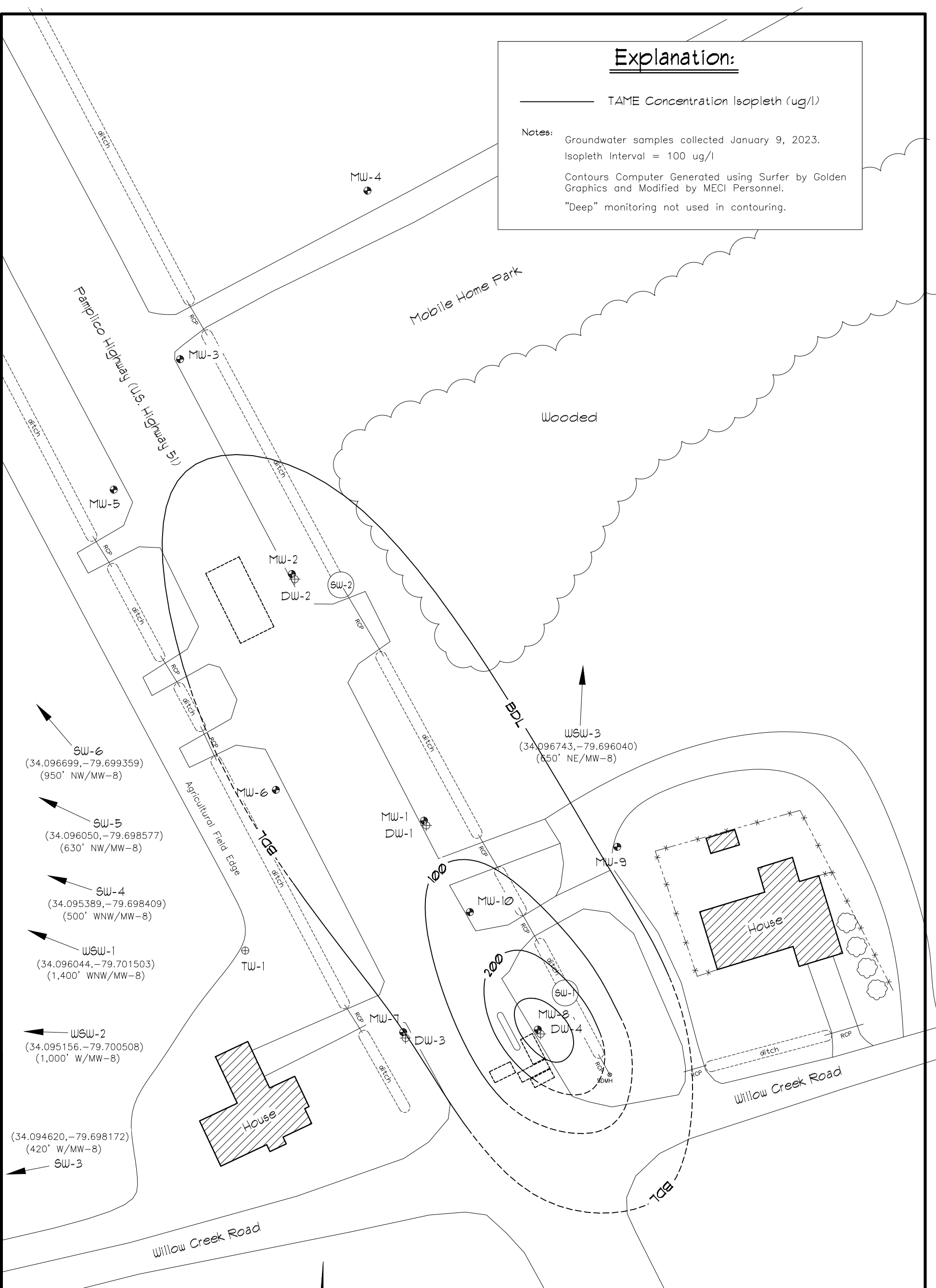
JOB NO. 22-7924A
DATE January 19, 2023
FIGURE

5F

Explanation:

TAME Concentration Isopleth (ug/l)

Notes: Groundwater samples collected January 9, 2023.
Isopleth Interval = 100 ug/l
Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.
"Deep" monitoring not used in contouring.



TAME Isopleth - "Shallow" Zone

Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
Florence, South Carolina
UST Permit# 03423

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JOB NO. 22-7924A
DATE January 19, 2023
FIGURE

5G

Explanation:

_____ DIPE Concentration Isopleth (ug/l)

Notes:

- Groundwater samples collected January 9, 2023.
- Isopleth Interval = 150 ug/l
- Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.
- "Deep" monitoring not used in contouring.

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

Explanation:

DIPE Concentration Isopleth (ug/l)

Notes:

Groundwater samples collected January 9, 2023.
Isopleth Interval = 150 ug/l

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

"Deep" monitoring not used in contouring.

The map displays the following features and data points:

- Isopleths:** Concentric lines representing DIPE concentrations of 150 ug/l and 300 ug/l.
- Monitoring Wells:** MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, MW-10.
- Detection Wells:** DW-1, DW-2, DW-3, DW-4.
- Soil Water Sampling Points:** SW-1, SW-2, SW-3, SW-4, SW-5, SW-6.
- Other Points:** WSW-1, WSW-2, WSW-3, TW-1, SDMH.
- Geographic Features:** Pamlico Highway (U.S. Highway 51), Willow Creek Road, Mobile Home Park, Wooded area, House, Agricultural Field Edge.
- Boundaries:** BDL (Boundary of Land), RCP (Right of Property), ditch.

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FIGURE 5.11

5H

GRAPHIC SCALE

0 30 60 90 120

1" = 60FT

ALL LOCATIONS ARE APPROXIMATE

APPENDIX A:

SITE SURVEY

(Not Applicable)

APPENDIX B:

SAMPLING LOGS, LABORATORY DATA SHEETS, & CHAIN-OF-CUSTODY FORMS

Monitoring Well Purge And Sampling Data

Field Personnel: SS, JC
Sampling Date(s): 1/9/2023
Sampling Case#: 2

Job Name: Jake Huggins
Job Number: 22-7924 A

Calibration Data for:
Calibration Successful? Yes or No (Please Circle)
pH: Yes No
Conductivity: Yes No
Dissolved Oxygen: Yes No
Turbidity: Conductivity Calibrated Every 3 Months by QA Manager

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet):			Well Depth (feet)	Water Height *(feet)	Gallons Purged		Notes
								product	Initial H ₂ O	final H ₂ O			**calc.	actual	
mw-01 Dup-1	Initial	11:36	6.26	90.9	16.0	2.99	15.41								
	1st	11:39	6.48	91.9	16.2	2.99	26.49								
	2nd	11:46	6.31	96.3	16.8	2.14	37.53								
	3rd														
	4th														
	5th														
	Sampling	15:00	6.02	99.4	16.2	2.48	14.02								
mw-02	Initial	10:18	5.71	136.5	15.4	2.03	16.09								
	1st	10:21	5.64	139.2	15.3	2.11	18.4								
	2nd	10:28	5.50	141.6	15.8	2.06	24.05								
	3rd														
	4th														
	5th														
	Sampling	14:55	5.29	148.3	15.9	2.12	18.93								
mw-03	Initial	10:05	7.12	149.13	14.4	3.40	16.53								
	1st	10:08	7.18	149.1	14.6	3.48	19.02								
	2nd	10:12	7.20	150.3	14.7	3.39	24.71								
	3rd														
	4th														
	5th														
	Sampling	14:18	7.24	151.6	14.9	3.60	18.30								
mw-04	Initial	10:00	8.31	99.8	15.2	2.73	18.04								
	1st	10:04	8.16	98.4	15.4	2.53	21.46								
	2nd	10:08	8.26	101.6	16.2	2.75	25.54								
	3rd														
	4th														
	5th														
	Sampling	14:13	8.45	119.2	16.7	2.40	20.04								

* = (Depth of Well) - (Depth to Water) = Water Height

One Well Volume = x.047 for 1" wells * x.163 for 2" wells, or * x.66 for 4" wells, 1.469 for 6" wells

** = One Well Volume x 5 = Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Monitoring Well Purge And Sampling Data

Field Personnel: SS, JC
Sampling Date(s): 1/9/2023
Sampling Case#: 2

Job Name: Jake Huggins
Job Number: 22-7924 A

Calibration Data for :

Calibration Successful? Yes or No (Please Circle)
pH: Yes No
Conductivity: Yes No
Dissolved Oxygen: Yes No

Turbidity: Conductivity Calibrated Every 3 Months by QA Manager

Well No.	Purge Volume	Sample Time	pH(I)	cond(I)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet):			Well Depth (feet)	Water Height *(feet)	Gallons Purged		Notes
								product	Initial H ₂ O	final H ₂ O			**calc.	actual	
mw-05	Initial	10:15	6.72	87.5	15.3	3.26	18.21								
	1st	10:21	6.71	89.2	15.9	3.60	21.04								
	2nd	10:26	6.73	90.5	15.3	3.41	25.16								
	3rd														
	4th														
	5th														
mw-06	Initial	10:21	6.83	96.1	15.4	3.50	16.21								
	1st	10:26	6.75	99.3	15.2	3.61	16.59								
	2nd	10:31	6.80	98.2	15.3	3.69	26.41								
	3rd														
	4th														
	5th														
mw-07	Initial	11:11	6.97	94.5	17.2	3.9	16.09								
	1st	11:16	6.20	73.1	17.4	3.50	26.59								
	2nd	11:22	6.48	76.9	17.6	3.48	39.06								
	3rd														
	4th														
	5th														
mw-08	Initial	12:19	7.15	177.8	17.8	1.90	16.90								
	1st	12:26	7.40	174.2	17.2	1.49	21.53								
	2nd	12:29	7.26	181.9	17.5	1.56	29.70								
	3rd														
	4th														
	5th														
mw-08	Initial	15:27	7.21	180.6	17.1	1.91	20.03								
	1st														
	2nd														
	3rd														
	4th														
	5th														

*= (Depth of Well) - (Depth to Water = Water Height)

One Well Volume = x.047 for 1" wells, x .163 for 2" wells, or * x .66 for 4" wells, 1.469 for 6" wells

**= One Well Volume x 5 = Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Monitoring Well Purge And Sampling Data

Field Personnel: SS, JC
Sampling Date(s): 1/9/2023
Sampling Case#: 2

Job Name: Jake Huggins
Job Number: 22-7924 A

Calibration Data for :
Calibration Successful? Yes or No (Please Circle)
pH: Yes No
Conductivity: Yes No
Dissolved Oxygen: Yes No
Turbidity: Conductivity Calibrated Every 3 Months by QA Manager

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet):			Well Depth (feet)	Water Height *(feet)	Gallons Purged		Notes
								product	Initial H ₂ O	final H ₂ O			**calc.	actual	
MW-09	Initial	11:29	6.25	93.8	16.4	5.75	13.50								
	1st	11:39	6.40	92.2	16.8	5.18	29.03								
	2nd	11:40	6.29	99.6	16.7	2.30	30.19								
	3rd														
	4th														
	5th														
	Sampling	15:06	6.15	100.2	16.8	2.19	21.03								
MW-10	Initial	11:41	6.63	222.1	17.2	1.98	14.38								
	1st	11:44	6.41	220.4	17.4	1.41	26.05								
	2nd	11:49	6.59	235.0	17.6	1.52	34.09								
	3rd														
	4th														
	5th														
	Sampling	15:10	6.40	249.7	17.4	1.46	30.02								
DW-01	Initial	11:19	6.20	89.6	16.4	5.30	17.02								
	1st	11:26	6.31	93.9	16.5	6.41	28.05								
	2nd	11:39	6.50	95.2	16.8	5.20	36.09								
	3rd														
	4th														
	5th														
	Sampling	16:03	6.53	94.2	16.3	5.23	18.30								
DW-02	Initial	10:43	6.10	103.0	16.1	5.21	16.05								
	1st	10:49	6.13	109.4	16.3	5.06	19.73								
	2nd	10:56	6.09	113.5	16.3	5.45	23.06								
	3rd														
	4th														
	5th														
	Sampling	14:41	6.15	119.1	16.9	5.30	20.05								

* = (Depth of Well) - (Depth to Water) = Water Height

One Well Volume = x.047 for 1" wells * x .163 for 2" wells, or * x .66 for 4" wells, 1.469 for 6" wells

** = One Well Volume x 5 = Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Monitoring Well Purge And Sampling Data

Field Personnel: SS, JC
Sampling Date(s): 1/9/2023
Sampling Case#: 2

Job Name: Jake Huggins
Job Number: 22-7924 A

Calibration Data for :
Calibration Successful? Yes or No (Please Circle)
pH: Yes No
Conductivity: Yes No
Dissolved Oxygen: Yes No
Turbidity: Conductivity Calibrated Every 3 Months by QA Manager

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet):			Well Depth (feet)	Water Height *(feet)	Gallons Purged		Notes
								product	initial H ₂ O	final H ₂ O			**calc.	actual	
Dw-03	Initial	11:28	6.45	66.1	16.8	2.82	14.02								
	1st	11:30	6.30	67.1	16.2	2.40	21.16								
	2nd	11:39	6.38	68.3	16.8	2.40	27.28								
	3rd														
	4th														
	5th														
	Sampling	14:50	6.81	70.2	16.9	2.51	19.40								
Dw-04	Initial	11:59	7.29	106.7	19.8	6.21	13.97								
	1st	12:09	7.29	109.7	19.4	6.50	21.09								
	2nd	12:10	7.45	106.3	19.8	6.54	29.56								
	3rd														
	4th														
	5th														
	Sampling	15:21	7.30	112.5	19.7	6.30	20.09								
Sw-1	Initial	-12:06	Sampled from ditch												
Sw-2	1st	-11:03	Sampled from ditch												
Sw-3	2nd	-13:58	Sampled from ditch												
Sw-4	3rd	-13:42	Sampled from ditch												
Sw-5	4th	-14:07	Sampled from ditch												
Sw-6	5th	-14:07	Sampled from ditch												
Dip-1	Sampling	-14:30	Sampled from ditch												
FB-1	Initial														
FB-2	1st														
FB-3	2nd														
FB-4	3rd														
FB-5	4th														
FB-6	5th														
FB-7	Sampling														

*= (Depth of Well) - (Depth to Water = Water Height)
One Well Volume = x.047 for 1" wells * x.163 for 2" wells, or * x.66 for 4" wells, 1.469 for 6" wells
**= One Well Volume x 5 = Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251



Monitoring Well Purge And Sampling Data

Sampling Case#: 2

Job Number: 22-7924 A

Calibration Successful? Yes or No (Please Circle)

Conductivity: ~~Yes~~ No

Dissolved Oxygen: Yes No
Turbidity: Yes No

Turbidity: Conductivity Calibrated Every 3 Months by QA Manager

* = (Depth of Well) - (Depth to Water) = Water Height

**= One Well Volume x 5 = Gallons Purged (calculated)
wells

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

January 18, 2023

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

RE: Project: JAKE HUGGINS 03423
Pace Project No.: 92646455

Dear Mr. Shane, P.G.:

Enclosed are the analytical results for sample(s) received by the laboratory on January 11, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Charlotte

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

Sincerely,



Taylor M Cannon
taylor.cannon@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Mr. Jeff Coleman, Midlands Environmental
Mr. Kyle Pudney, Midlands Environmental



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006

9800 Kinsey 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 Laboratory ID: 99006

South Carolina Certification #: 99006001

South Carolina Drinking Water Cert. #: 99006003

Florida/NELAP Certification #: E87627

Kentucky UST Certification #: 84

Louisiana DoH Drinking Water #: LA029

Virginia/VELAP Certification #: 460221

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92646455001	MW-01	Water	01/09/23 15:00	01/11/23 08:11
92646455002	MW-02	Water	01/09/23 14:55	01/11/23 08:11
92646455003	MW-03	Water	01/09/23 14:18	01/11/23 08:11
92646455004	MW-04	Water	01/09/23 14:13	01/11/23 08:11
92646455005	MW-05	Water	01/09/23 14:30	01/11/23 08:11
92646455006	MW-06	Water	01/09/23 14:32	01/11/23 08:11
92646455007	MW-07	Water	01/09/23 14:41	01/11/23 08:11
92646455008	MW-08	Water	01/09/23 15:27	01/11/23 08:11
92646455009	MW-09	Water	01/09/23 15:06	01/11/23 08:11
92646455010	MW-10	Water	01/09/23 15:10	01/11/23 08:11
92646455011	DW-01	Water	01/09/23 15:03	01/11/23 08:11
92646455012	DW-02	Water	01/09/23 14:41	01/11/23 08:11
92646455013	DW-03	Water	01/09/23 14:50	01/11/23 08:11
92646455014	DW-04	Water	01/09/23 15:21	01/11/23 08:11
92646455015	SW-1	Water	01/09/23 12:06	01/11/23 08:11
92646455016	SW-2	Water	01/09/23 12:03	01/11/23 08:11
92646455017	SW-3	Water	01/09/23 13:58	01/11/23 08:11
92646455018	SW-4	Water	01/09/23 13:42	01/11/23 08:11
92646455019	SW-5	Water	01/09/23 14:07	01/11/23 08:11
92646455020	SW-6	Water	01/09/23 14:39	01/11/23 08:11
92646455021	DUP-1	Water	01/09/23 00:00	01/11/23 08:11
92646455022	GAC	Water	01/09/23 14:28	01/11/23 08:11
92646455023	TB	Water	01/09/23 08:00	01/11/23 08:11
92646455024	FB	Water	01/09/23 14:30	01/11/23 08:11

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92646455001	MW-01	EPA 8011	HH	2	PASI-C
		EPA 8260D	CL	20	PASI-C
92646455002	MW-02	EPA 8011	HH	2	PASI-C
		EPA 8260D	CL	20	PASI-C
92646455003	MW-03	EPA 8011	HH	2	PASI-C
		EPA 8260D	CL	20	PASI-C
92646455004	MW-04	EPA 8011	HH	2	PASI-C
		EPA 8260D	CL	20	PASI-C
92646455005	MW-05	EPA 8011	HH	2	PASI-C
		EPA 8260D	CL	20	PASI-C
92646455006	MW-06	EPA 8011	HH	2	PASI-C
		EPA 8260D	CL	20	PASI-C
92646455007	MW-07	EPA 8011	HH	2	PASI-C
		EPA 8260D	CL	20	PASI-C
92646455008	MW-08	EPA 8011	HH	2	PASI-C
		EPA 8260D	TMH	20	PASI-C
92646455009	MW-09	EPA 8011	HH	2	PASI-C
		EPA 8260D	CL	20	PASI-C
92646455010	MW-10	EPA 8011	HH	2	PASI-C
		EPA 8260D	TMH	20	PASI-C
92646455011	DW-01	EPA 8011	HH	2	PASI-C
		EPA 8260D	CL	20	PASI-C
92646455012	DW-02	EPA 8011	HH	2	PASI-C
		EPA 8260D	CL	20	PASI-C
92646455013	DW-03	EPA 8011	HH	2	PASI-C
		EPA 8260D	CL	20	PASI-C
92646455014	DW-04	EPA 8011	HH	2	PASI-C
		EPA 8260D	CL	20	PASI-C
92646455015	SW-1	EPA 8011	HH	2	PASI-C
		EPA 8260D	CL	20	PASI-C
92646455016	SW-2	EPA 8011	HH	2	PASI-C
		EPA 8260D	CL	20	PASI-C
92646455017	SW-3	EPA 8011	HH	2	PASI-C
		EPA 8260D	CL	20	PASI-C
92646455018	SW-4	EPA 8011	HH	2	PASI-C
		EPA 8260D	CL	20	PASI-C
92646455019	SW-5	EPA 8011	HH	2	PASI-C

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92646455020	SW-6	EPA 8260D	CL	20	PASI-C
		EPA 8011	HH	2	PASI-C
92646455021	DUP-1	EPA 8260D	CL	20	PASI-C
		EPA 8011	HH	2	PASI-C
92646455022	GAC	EPA 8260D	TMH	20	PASI-C
		EPA 8011	HH	2	PASI-C
92646455023	TB	EPA 8260D	TMH	20	PASI-C
		EPA 8260D	CL	20	PASI-C
92646455024	FB	EPA 8011	HH	2	PASI-C
		EPA 8260D	CL	20	PASI-C

PASI-C = Pace Analytical Services - Charlotte

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

Sample: MW-01		Lab ID: 92646455001		Collected: 01/09/23 15:00		Received: 01/11/23 08:11		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0075	1	01/16/23 16:16	01/16/23 21:11	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	113	%	60-140		1	01/16/23 16:16	01/16/23 21:11	301-79-56	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	3770	ug/L	500	182	5		01/17/23 06:35	75-85-4	
tert-Amylmethyl ether	60.6	ug/L	50.0	13.3	5		01/17/23 06:35	994-05-8	
Benzene	620	ug/L	5.0	1.7	5		01/17/23 06:35	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	500	260	5		01/17/23 06:35	624-95-3	
tert-Butyl Alcohol	200J	ug/L	500	134	5		01/17/23 06:35	75-65-0	
tert-Butyl Formate	ND	ug/L	250	147	5		01/17/23 06:35	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.6	5		01/17/23 06:35	107-06-2	
Diisopropyl ether	191	ug/L	5.0	1.5	5		01/17/23 06:35	108-20-3	
Ethanol	ND	ug/L	1000	361	5		01/17/23 06:35	64-17-5	
Ethylbenzene	74.1	ug/L	5.0	1.5	5		01/17/23 06:35	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	50.0	16.2	5		01/17/23 06:35	637-92-3	
Methyl-tert-butyl ether	342	ug/L	5.0	2.1	5		01/17/23 06:35	1634-04-4	
Naphthalene	66.0	ug/L	5.0	3.2	5		01/17/23 06:35	91-20-3	
Toluene	16.4	ug/L	5.0	2.4	5		01/17/23 06:35	108-88-3	
Xylene (Total)	16.9	ug/L	5.0	1.7	5		01/17/23 06:35	1330-20-7	
m&p-Xylene	11.1	ug/L	10.0	3.5	5		01/17/23 06:35	179601-23-1	
o-Xylene	5.8	ug/L	5.0	1.7	5		01/17/23 06:35	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		5		01/17/23 06:35	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-130		5		01/17/23 06:35	17060-07-0	
Toluene-d8 (S)	97	%	70-130		5		01/17/23 06:35	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

Sample: MW-02		Lab ID: 92646455002		Collected: 01/09/23 14:55		Received: 01/11/23 08:11		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0074	1	01/16/23 16:16	01/16/23 21:22	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	91	%	60-140		1	01/16/23 16:16	01/16/23 21:22	301-79-56	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	233	ug/L	200	72.8	2		01/13/23 19:44	75-85-4	
tert-Amylmethyl ether	14.6J	ug/L	20.0	5.3	2		01/13/23 19:44	994-05-8	
Benzene	122	ug/L	2.0	0.69	2		01/13/23 19:44	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	200	104	2		01/13/23 19:44	624-95-3	
tert-Butyl Alcohol	ND	ug/L	200	53.6	2		01/13/23 19:44	75-65-0	v2
tert-Butyl Formate	ND	ug/L	100	58.8	2		01/13/23 19:44	762-75-4	
1,2-Dichloroethane	ND	ug/L	2.0	0.64	2		01/13/23 19:44	107-06-2	
Diisopropyl ether	44.4	ug/L	2.0	0.62	2		01/13/23 19:44	108-20-3	
Ethanol	ND	ug/L	400	144	2		01/13/23 19:44	64-17-5	
Ethylbenzene	ND	ug/L	2.0	0.61	2		01/13/23 19:44	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	20.0	6.5	2		01/13/23 19:44	637-92-3	
Methyl-tert-butyl ether	256	ug/L	2.0	0.84	2		01/13/23 19:44	1634-04-4	
Naphthalene	10.9	ug/L	2.0	1.3	2		01/13/23 19:44	91-20-3	
Toluene	ND	ug/L	2.0	0.97	2		01/13/23 19:44	108-88-3	
Xylene (Total)	ND	ug/L	2.0	0.68	2		01/13/23 19:44	1330-20-7	
m&p-Xylene	ND	ug/L	4.0	1.4	2		01/13/23 19:44	179601-23-1	
o-Xylene	ND	ug/L	2.0	0.68	2		01/13/23 19:44	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		2		01/13/23 19:44	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		2		01/13/23 19:44	17060-07-0	
Toluene-d8 (S)	99	%	70-130		2		01/13/23 19:44	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

Sample: MW-03		Lab ID: 92646455003		Collected: 01/09/23 14:18		Received: 01/11/23 08:11		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0076	1	01/16/23 16:16	01/16/23 22:15	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	99	%	60-140		1	01/16/23 16:16	01/16/23 22:15	301-79-56	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		01/13/23 18:48	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		01/13/23 18:48	994-05-8	
Benzene	ND	ug/L	1.0	0.34	1		01/13/23 18:48	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		01/13/23 18:48	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		01/13/23 18:48	75-65-0	v2
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		01/13/23 18:48	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		01/13/23 18:48	107-06-2	
Diisopropyl ether	0.61J	ug/L	1.0	0.31	1		01/13/23 18:48	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		01/13/23 18:48	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/13/23 18:48	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		01/13/23 18:48	637-92-3	
Methyl-tert-butyl ether	1.1	ug/L	1.0	0.42	1		01/13/23 18:48	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		01/13/23 18:48	91-20-3	
Toluene	ND	ug/L	1.0	0.48	1		01/13/23 18:48	108-88-3	
Xylene (Total)	ND	ug/L	1.0	0.34	1		01/13/23 18:48	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		01/13/23 18:48	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		01/13/23 18:48	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		01/13/23 18:48	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		1		01/13/23 18:48	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		01/13/23 18:48	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

Sample: MW-04		Lab ID: 92646455004		Collected: 01/09/23 14:13		Received: 01/11/23 08:11		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0075	1	01/16/23 16:16	01/16/23 22:37	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	76	%	60-140		1	01/16/23 16:16	01/16/23 22:37	301-79-56	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		01/13/23 07:04	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		01/13/23 07:04	994-05-8	
Benzene	ND	ug/L	1.0	0.34	1		01/13/23 07:04	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		01/13/23 07:04	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		01/13/23 07:04	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		01/13/23 07:04	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		01/13/23 07:04	107-06-2	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		01/13/23 07:04	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		01/13/23 07:04	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/13/23 07:04	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		01/13/23 07:04	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		01/13/23 07:04	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		01/13/23 07:04	91-20-3	
Toluene	ND	ug/L	1.0	0.48	1		01/13/23 07:04	108-88-3	
Xylene (Total)	ND	ug/L	1.0	0.34	1		01/13/23 07:04	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		01/13/23 07:04	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		01/13/23 07:04	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		01/13/23 07:04	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130		1		01/13/23 07:04	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		01/13/23 07:04	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

Sample: MW-05		Lab ID: 92646455005		Collected: 01/09/23 14:30		Received: 01/11/23 08:11		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0075	1	01/16/23 16:16	01/16/23 23:09	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	99	%	60-140		1	01/16/23 16:16	01/16/23 23:09	301-79-56	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		01/13/23 07:22	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		01/13/23 07:22	994-05-8	
Benzene	ND	ug/L	1.0	0.34	1		01/13/23 07:22	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		01/13/23 07:22	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		01/13/23 07:22	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		01/13/23 07:22	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		01/13/23 07:22	107-06-2	
Diisopropyl ether	3.8	ug/L	1.0	0.31	1		01/13/23 07:22	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		01/13/23 07:22	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/13/23 07:22	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		01/13/23 07:22	637-92-3	
Methyl-tert-butyl ether	22.2	ug/L	1.0	0.42	1		01/13/23 07:22	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		01/13/23 07:22	91-20-3	
Toluene	ND	ug/L	1.0	0.48	1		01/13/23 07:22	108-88-3	
Xylene (Total)	ND	ug/L	1.0	0.34	1		01/13/23 07:22	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		01/13/23 07:22	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		01/13/23 07:22	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		01/13/23 07:22	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130		1		01/13/23 07:22	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		01/13/23 07:22	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

Sample: MW-06		Lab ID: 92646455006		Collected: 01/09/23 14:32		Received: 01/11/23 08:11		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0076	1	01/16/23 16:16	01/16/23 23:19	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	107	%	60-140		1	01/16/23 16:16	01/16/23 23:19	301-79-56	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	1640	ug/L	100	36.4	1		01/13/23 07:41	75-85-4	
tert-Amylmethyl ether	29.6	ug/L	10.0	2.7	1		01/13/23 07:41	994-05-8	
Benzene	83.3	ug/L	1.0	0.34	1		01/13/23 07:41	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		01/13/23 07:41	624-95-3	
tert-Butyl Alcohol	52.4J	ug/L	100	26.8	1		01/13/23 07:41	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		01/13/23 07:41	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		01/13/23 07:41	107-06-2	
Diisopropyl ether	88.1	ug/L	1.0	0.31	1		01/13/23 07:41	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		01/13/23 07:41	64-17-5	
Ethylbenzene	4.5	ug/L	1.0	0.30	1		01/13/23 07:41	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		01/13/23 07:41	637-92-3	
Methyl-tert-butyl ether	126	ug/L	1.0	0.42	1		01/13/23 07:41	1634-04-4	
Naphthalene	26.7	ug/L	1.0	0.64	1		01/13/23 07:41	91-20-3	
Toluene	4.6	ug/L	1.0	0.48	1		01/13/23 07:41	108-88-3	
Xylene (Total)	3.3	ug/L	1.0	0.34	1		01/13/23 07:41	1330-20-7	
m&p-Xylene	1.1J	ug/L	2.0	0.71	1		01/13/23 07:41	179601-23-1	
o-Xylene	2.2	ug/L	1.0	0.34	1		01/13/23 07:41	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		01/13/23 07:41	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		1		01/13/23 07:41	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		01/13/23 07:41	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

Sample: MW-07		Lab ID: 92646455007		Collected: 01/09/23 14:41		Received: 01/11/23 08:11		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0075	1	01/16/23 16:16	01/16/23 23:30	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	92	%	60-140		1	01/16/23 16:16	01/16/23 23:30	301-79-56	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		01/13/23 07:59	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		01/13/23 07:59	994-05-8	
Benzene	ND	ug/L	1.0	0.34	1		01/13/23 07:59	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		01/13/23 07:59	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		01/13/23 07:59	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		01/13/23 07:59	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		01/13/23 07:59	107-06-2	
Diisopropyl ether	1.6	ug/L	1.0	0.31	1		01/13/23 07:59	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		01/13/23 07:59	64-17-5	
Ethylbenzene	1.8	ug/L	1.0	0.30	1		01/13/23 07:59	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		01/13/23 07:59	637-92-3	
Methyl-tert-butyl ether	1.4	ug/L	1.0	0.42	1		01/13/23 07:59	1634-04-4	
Naphthalene	4.3	ug/L	1.0	0.64	1		01/13/23 07:59	91-20-3	
Toluene	ND	ug/L	1.0	0.48	1		01/13/23 07:59	108-88-3	
Xylene (Total)	ND	ug/L	1.0	0.34	1		01/13/23 07:59	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		01/13/23 07:59	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		01/13/23 07:59	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		01/13/23 07:59	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130		1		01/13/23 07:59	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		01/13/23 07:59	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

Sample: MW-08		Lab ID: 92646455008		Collected: 01/09/23 15:27		Received: 01/11/23 08:11		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 Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0075	1	01/16/23 16:16	01/16/23 23:41	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	111	%	60-140		1	01/16/23 16:16	01/16/23 23:41	301-79-56	
8260 MSV Low Level SC Analytical Method: EPA 8260D Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	8510J	ug/L	12500	4550	125		01/13/23 20:03	75-85-4	
tert-Amylmethyl ether	ND	ug/L	1250	332	125		01/13/23 20:03	994-05-8	
Benzene	4390	ug/L	125	43.1	125		01/13/23 20:03	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	12500	6490	125		01/13/23 20:03	624-95-3	
tert-Butyl Alcohol	ND	ug/L	12500	3350	125		01/13/23 20:03	75-65-0	
tert-Butyl Formate	ND	ug/L	6250	3680	125		01/13/23 20:03	762-75-4	
1,2-Dichloroethane	ND	ug/L	125	40.2	125		01/13/23 20:03	107-06-2	
Diisopropyl ether	239	ug/L	125	38.5	125		01/13/23 20:03	108-20-3	
Ethanol	ND	ug/L	25000	9020	125		01/13/23 20:03	64-17-5	
Ethylbenzene	2080	ug/L	125	38.0	125		01/13/23 20:03	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	1250	405	125		01/13/23 20:03	637-92-3	
Methyl-tert-butyl ether	531	ug/L	125	52.8	125		01/13/23 20:03	1634-04-4	
Naphthalene	766	ug/L	125	80.6	125		01/13/23 20:03	91-20-3	
Toluene	22300	ug/L	125	60.6	125		01/13/23 20:03	108-88-3	
Xylene (Total)	13300	ug/L	125	42.2	125		01/13/23 20:03	1330-20-7	
m&p-Xylene	8940	ug/L	250	88.6	125		01/13/23 20:03	179601-23-1	
o-Xylene	4360	ug/L	125	42.2	125		01/13/23 20:03	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		125		01/13/23 20:03	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130		125		01/13/23 20:03	17060-07-0	
Toluene-d8 (S)	100	%	70-130		125		01/13/23 20:03	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

Sample: MW-09		Lab ID: 92646455009		Collected: 01/09/23 15:06		Received: 01/11/23 08:11		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.021	0.0077	1	01/16/23 16:16	01/16/23 23:51	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	101	%	60-140		1	01/16/23 16:16	01/16/23 23:51	301-79-56	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		01/13/23 08:17	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		01/13/23 08:17	994-05-8	
Benzene	ND	ug/L	1.0	0.34	1		01/13/23 08:17	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		01/13/23 08:17	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		01/13/23 08:17	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		01/13/23 08:17	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		01/13/23 08:17	107-06-2	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		01/13/23 08:17	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		01/13/23 08:17	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/13/23 08:17	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		01/13/23 08:17	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		01/13/23 08:17	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		01/13/23 08:17	91-20-3	
Toluene	ND	ug/L	1.0	0.48	1		01/13/23 08:17	108-88-3	
Xylene (Total)	ND	ug/L	1.0	0.34	1		01/13/23 08:17	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		01/13/23 08:17	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		01/13/23 08:17	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		01/13/23 08:17	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130		1		01/13/23 08:17	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		01/13/23 08:17	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

Sample: MW-10		Lab ID: 92646455010		Collected: 01/09/23 15:10		Received: 01/11/23 08:11		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 Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0077	1	01/16/23 16:16	01/17/23 00:02	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	104	%	60-140		1	01/16/23 16:16	01/17/23 00:02	301-79-56	
8260 MSV Low Level SC Analytical Method: EPA 8260D Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	11100	ug/L	1250	455	12.5		01/13/23 19:28	75-85-4	
tert-Amylmethyl ether	168	ug/L	125	33.2	12.5		01/13/23 19:28	994-05-8	
Benzene	2060	ug/L	12.5	4.3	12.5		01/13/23 19:28	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	1250	649	12.5		01/13/23 19:28	624-95-3	
tert-Butyl Alcohol	535J	ug/L	1250	335	12.5		01/13/23 19:28	75-65-0	
tert-Butyl Formate	ND	ug/L	625	368	12.5		01/13/23 19:28	762-75-4	
1,2-Dichloroethane	ND	ug/L	12.5	4.0	12.5		01/13/23 19:28	107-06-2	
Diisopropyl ether	555	ug/L	12.5	3.8	12.5		01/13/23 19:28	108-20-3	
Ethanol	ND	ug/L	2500	902	12.5		01/13/23 19:28	64-17-5	
Ethylbenzene	1100	ug/L	12.5	3.8	12.5		01/13/23 19:28	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	125	40.5	12.5		01/13/23 19:28	637-92-3	
Methyl-tert-butyl ether	865	ug/L	12.5	5.3	12.5		01/13/23 19:28	1634-04-4	
Naphthalene	455	ug/L	12.5	8.1	12.5		01/13/23 19:28	91-20-3	
Toluene	439	ug/L	12.5	6.1	12.5		01/13/23 19:28	108-88-3	
Xylene (Total)	2640	ug/L	12.5	4.2	12.5		01/13/23 19:28	1330-20-7	
m&p-Xylene	1810	ug/L	25.0	8.9	12.5		01/13/23 19:28	179601-23-1	
o-Xylene	833	ug/L	12.5	4.2	12.5		01/13/23 19:28	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		12.5		01/13/23 19:28	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-130		12.5		01/13/23 19:28	17060-07-0	
Toluene-d8 (S)	100	%	70-130		12.5		01/13/23 19:28	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

Sample: DW-01		Lab ID: 92646455011		Collected: 01/09/23 15:03		Received: 01/11/23 08:11		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0076	1	01/16/23 16:16	01/17/23 00:13	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	105	%	60-140		1	01/16/23 16:16	01/17/23 00:13	301-79-56	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		01/13/23 08:36	75-85-4	
tert-Amylmethyl ether	4.2J	ug/L	10.0	2.7	1		01/13/23 08:36	994-05-8	
Benzene	ND	ug/L	1.0	0.34	1		01/13/23 08:36	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		01/13/23 08:36	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		01/13/23 08:36	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		01/13/23 08:36	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		01/13/23 08:36	107-06-2	
Diisopropyl ether	15.2	ug/L	1.0	0.31	1		01/13/23 08:36	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		01/13/23 08:36	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/13/23 08:36	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		01/13/23 08:36	637-92-3	
Methyl-tert-butyl ether	52.9	ug/L	1.0	0.42	1		01/13/23 08:36	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		01/13/23 08:36	91-20-3	
Toluene	ND	ug/L	1.0	0.48	1		01/13/23 08:36	108-88-3	
Xylene (Total)	ND	ug/L	1.0	0.34	1		01/13/23 08:36	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		01/13/23 08:36	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		01/13/23 08:36	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		01/13/23 08:36	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		1		01/13/23 08:36	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		01/13/23 08:36	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

Sample: DW-02		Lab ID: 92646455012		Collected: 01/09/23 14:41		Received: 01/11/23 08:11		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0076	1	01/16/23 16:16	01/17/23 00:23	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	106	%	60-140		1	01/16/23 16:16	01/17/23 00:23	301-79-56	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		01/13/23 08:54	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		01/13/23 08:54	994-05-8	
Benzene	ND	ug/L	1.0	0.34	1		01/13/23 08:54	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		01/13/23 08:54	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		01/13/23 08:54	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		01/13/23 08:54	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		01/13/23 08:54	107-06-2	
Diisopropyl ether	2.0	ug/L	1.0	0.31	1		01/13/23 08:54	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		01/13/23 08:54	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/13/23 08:54	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		01/13/23 08:54	637-92-3	
Methyl-tert-butyl ether	6.1	ug/L	1.0	0.42	1		01/13/23 08:54	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		01/13/23 08:54	91-20-3	
Toluene	ND	ug/L	1.0	0.48	1		01/13/23 08:54	108-88-3	
Xylene (Total)	ND	ug/L	1.0	0.34	1		01/13/23 08:54	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		01/13/23 08:54	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		01/13/23 08:54	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		01/13/23 08:54	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130		1		01/13/23 08:54	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		01/13/23 08:54	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

Sample: DW-03		Lab ID: 92646455013		Collected: 01/09/23 14:50		Received: 01/11/23 08:11		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0077	1	01/16/23 16:16	01/17/23 00:34	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	86	%	60-140		1	01/16/23 16:16	01/17/23 00:34	301-79-56	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		01/13/23 09:12	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		01/13/23 09:12	994-05-8	
Benzene	ND	ug/L	1.0	0.34	1		01/13/23 09:12	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		01/13/23 09:12	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		01/13/23 09:12	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		01/13/23 09:12	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		01/13/23 09:12	107-06-2	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		01/13/23 09:12	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		01/13/23 09:12	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/13/23 09:12	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		01/13/23 09:12	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		01/13/23 09:12	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		01/13/23 09:12	91-20-3	
Toluene	ND	ug/L	1.0	0.48	1		01/13/23 09:12	108-88-3	
Xylene (Total)	ND	ug/L	1.0	0.34	1		01/13/23 09:12	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		01/13/23 09:12	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		01/13/23 09:12	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		01/13/23 09:12	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130		1		01/13/23 09:12	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		01/13/23 09:12	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

Sample: DW-04		Lab ID: 92646455014		Collected: 01/09/23 15:21		Received: 01/11/23 08:11		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0077	1	01/16/23 16:16	01/17/23 00:45	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	79	%	60-140		1	01/16/23 16:16	01/17/23 00:45	301-79-56	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	422	ug/L	400	146	4		01/13/23 20:02	75-85-4	
tert-Amylmethyl ether	ND	ug/L	40.0	10.6	4		01/13/23 20:02	994-05-8	
Benzene	63.6	ug/L	4.0	1.4	4		01/13/23 20:02	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	400	208	4		01/13/23 20:02	624-95-3	
tert-Butyl Alcohol	ND	ug/L	400	107	4		01/13/23 20:02	75-65-0	v2
tert-Butyl Formate	ND	ug/L	200	118	4		01/13/23 20:02	762-75-4	
1,2-Dichloroethane	ND	ug/L	4.0	1.3	4		01/13/23 20:02	107-06-2	
Diisopropyl ether	21.2	ug/L	4.0	1.2	4		01/13/23 20:02	108-20-3	
Ethanol	ND	ug/L	800	289	4		01/13/23 20:02	64-17-5	
Ethylbenzene	20.1	ug/L	4.0	1.2	4		01/13/23 20:02	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	40.0	13.0	4		01/13/23 20:02	637-92-3	
Methyl-tert-butyl ether	51.8	ug/L	4.0	1.7	4		01/13/23 20:02	1634-04-4	
Naphthalene	ND	ug/L	4.0	2.6	4		01/13/23 20:02	91-20-3	
Toluene	464	ug/L	4.0	1.9	4		01/13/23 20:02	108-88-3	
Xylene (Total)	291	ug/L	4.0	1.4	4		01/13/23 20:02	1330-20-7	
m&p-Xylene	18.1	ug/L	8.0	2.8	4		01/13/23 20:02	179601-23-1	
o-Xylene	273	ug/L	4.0	1.4	4		01/13/23 20:02	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		4		01/13/23 20:02	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130		4		01/13/23 20:02	17060-07-0	
Toluene-d8 (S)	99	%	70-130		4		01/13/23 20:02	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

Sample: SW-1		Lab ID: 92646455015		Collected: 01/09/23 12:06		Received: 01/11/23 08:11		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.021	0.0077	1	01/16/23 16:16	01/17/23 00:55	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	94	%	60-140		1	01/16/23 16:16	01/17/23 00:55	301-79-56	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		01/13/23 09:49	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		01/13/23 09:49	994-05-8	
Benzene	ND	ug/L	1.0	0.34	1		01/13/23 09:49	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		01/13/23 09:49	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		01/13/23 09:49	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		01/13/23 09:49	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		01/13/23 09:49	107-06-2	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		01/13/23 09:49	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		01/13/23 09:49	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/13/23 09:49	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		01/13/23 09:49	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		01/13/23 09:49	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		01/13/23 09:49	91-20-3	
Toluene	ND	ug/L	1.0	0.48	1		01/13/23 09:49	108-88-3	C8
Xylene (Total)	0.43J	ug/L	1.0	0.34	1		01/13/23 09:49	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		01/13/23 09:49	179601-23-1	
o-Xylene	0.43J	ug/L	1.0	0.34	1		01/13/23 09:49	95-47-6	C8
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		01/13/23 09:49	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130		1		01/13/23 09:49	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		01/13/23 09:49	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

Sample: SW-2		Lab ID: 92646455016		Collected: 01/09/23 12:03		Received: 01/11/23 08:11		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0077	1	01/16/23 16:16	01/17/23 01:06	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	88	%	60-140		1	01/16/23 16:16	01/17/23 01:06	301-79-56	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		01/13/23 10:08	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		01/13/23 10:08	994-05-8	
Benzene	ND	ug/L	1.0	0.34	1		01/13/23 10:08	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		01/13/23 10:08	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		01/13/23 10:08	75-65-0	v3
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		01/13/23 10:08	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		01/13/23 10:08	107-06-2	
Diisopropyl ether	0.49J	ug/L	1.0	0.31	1		01/13/23 10:08	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		01/13/23 10:08	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/13/23 10:08	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		01/13/23 10:08	637-92-3	
Methyl-tert-butyl ether	1.2	ug/L	1.0	0.42	1		01/13/23 10:08	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		01/13/23 10:08	91-20-3	
Toluene	ND	ug/L	1.0	0.48	1		01/13/23 10:08	108-88-3	
Xylene (Total)	ND	ug/L	1.0	0.34	1		01/13/23 10:08	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		01/13/23 10:08	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		01/13/23 10:08	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		01/13/23 10:08	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130		1		01/13/23 10:08	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		01/13/23 10:08	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

Sample: SW-3		Lab ID: 92646455017		Collected: 01/09/23 13:58		Received: 01/11/23 08:11		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.021	0.0077	1	01/16/23 16:16	01/17/23 01:17	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	103	%	60-140		1	01/16/23 16:16	01/17/23 01:17	301-79-56	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		01/13/23 10:26	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		01/13/23 10:26	994-05-8	
Benzene	ND	ug/L	1.0	0.34	1		01/13/23 10:26	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		01/13/23 10:26	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		01/13/23 10:26	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		01/13/23 10:26	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		01/13/23 10:26	107-06-2	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		01/13/23 10:26	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		01/13/23 10:26	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/13/23 10:26	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		01/13/23 10:26	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		01/13/23 10:26	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		01/13/23 10:26	91-20-3	
Toluene	ND	ug/L	1.0	0.48	1		01/13/23 10:26	108-88-3	
Xylene (Total)	ND	ug/L	1.0	0.34	1		01/13/23 10:26	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		01/13/23 10:26	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		01/13/23 10:26	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		01/13/23 10:26	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130		1		01/13/23 10:26	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		01/13/23 10:26	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

Sample: SW-4		Lab ID: 92646455018		Collected: 01/09/23 13:42		Received: 01/11/23 08:11		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.021	0.0080	1	01/16/23 16:16	01/17/23 01:28	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	96	%	60-140		1	01/16/23 16:16	01/17/23 01:28	301-79-56	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		01/13/23 10:45	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		01/13/23 10:45	994-05-8	
Benzene	ND	ug/L	1.0	0.34	1		01/13/23 10:45	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		01/13/23 10:45	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		01/13/23 10:45	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		01/13/23 10:45	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		01/13/23 10:45	107-06-2	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		01/13/23 10:45	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		01/13/23 10:45	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/13/23 10:45	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		01/13/23 10:45	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		01/13/23 10:45	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		01/13/23 10:45	91-20-3	
Toluene	ND	ug/L	1.0	0.48	1		01/13/23 10:45	108-88-3	
Xylene (Total)	ND	ug/L	1.0	0.34	1		01/13/23 10:45	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		01/13/23 10:45	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		01/13/23 10:45	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		01/13/23 10:45	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	70-130		1		01/13/23 10:45	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		01/13/23 10:45	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

Sample: SW-5		Lab ID: 92646455019		Collected: 01/09/23 14:07		Received: 01/11/23 08:11		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.021	0.0079	1	01/16/23 16:16	01/17/23 01:38	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	86	%	60-140		1	01/16/23 16:16	01/17/23 01:38	301-79-56	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		01/13/23 11:03	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		01/13/23 11:03	994-05-8	
Benzene	ND	ug/L	1.0	0.34	1		01/13/23 11:03	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		01/13/23 11:03	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		01/13/23 11:03	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		01/13/23 11:03	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		01/13/23 11:03	107-06-2	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		01/13/23 11:03	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		01/13/23 11:03	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/13/23 11:03	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		01/13/23 11:03	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		01/13/23 11:03	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		01/13/23 11:03	91-20-3	
Toluene	ND	ug/L	1.0	0.48	1		01/13/23 11:03	108-88-3	
Xylene (Total)	ND	ug/L	1.0	0.34	1		01/13/23 11:03	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		01/13/23 11:03	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		01/13/23 11:03	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		01/13/23 11:03	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	70-130		1		01/13/23 11:03	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		01/13/23 11:03	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

Sample: SW-6		Lab ID: 92646455020		Collected: 01/09/23 14:39		Received: 01/11/23 08:11		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0076	1	01/16/23 16:16	01/17/23 01:49	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	88	%	60-140		1	01/16/23 16:16	01/17/23 01:49	301-79-56	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		01/13/23 11:21	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		01/13/23 11:21	994-05-8	
Benzene	ND	ug/L	1.0	0.34	1		01/13/23 11:21	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		01/13/23 11:21	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		01/13/23 11:21	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		01/13/23 11:21	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		01/13/23 11:21	107-06-2	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		01/13/23 11:21	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		01/13/23 11:21	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/13/23 11:21	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		01/13/23 11:21	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		01/13/23 11:21	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		01/13/23 11:21	91-20-3	
Toluene	ND	ug/L	1.0	0.48	1		01/13/23 11:21	108-88-3	
Xylene (Total)	ND	ug/L	1.0	0.34	1		01/13/23 11:21	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		01/13/23 11:21	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		01/13/23 11:21	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		01/13/23 11:21	460-00-4	
1,2-Dichloroethane-d4 (S)	92	%	70-130		1		01/13/23 11:21	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		01/13/23 11:21	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

Sample: DUP-1		Lab ID: 92646455021		Collected: 01/09/23 00:00		Received: 01/11/23 08:11		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0075	1	01/16/23 16:16	01/17/23 02:00	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	111	%	60-140		1	01/16/23 16:16	01/17/23 02:00	301-79-56	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	4900	ug/L	500	182	5		01/13/23 19:11	75-85-4	
tert-Amylmethyl ether	64.8	ug/L	50.0	13.3	5		01/13/23 19:11	994-05-8	
Benzene	736	ug/L	5.0	1.7	5		01/13/23 19:11	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	500	260	5		01/13/23 19:11	624-95-3	
tert-Butyl Alcohol	258J	ug/L	500	134	5		01/13/23 19:11	75-65-0	
tert-Butyl Formate	ND	ug/L	250	147	5		01/13/23 19:11	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	1.6	5		01/13/23 19:11	107-06-2	
Diisopropyl ether	240	ug/L	5.0	1.5	5		01/13/23 19:11	108-20-3	
Ethanol	ND	ug/L	1000	361	5		01/13/23 19:11	64-17-5	
Ethylbenzene	93.2	ug/L	5.0	1.5	5		01/13/23 19:11	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	50.0	16.2	5		01/13/23 19:11	637-92-3	
Methyl-tert-butyl ether	429	ug/L	5.0	2.1	5		01/13/23 19:11	1634-04-4	
Naphthalene	78.8	ug/L	5.0	3.2	5		01/13/23 19:11	91-20-3	
Toluene	19.2	ug/L	5.0	2.4	5		01/13/23 19:11	108-88-3	
Xylene (Total)	21.4	ug/L	5.0	1.7	5		01/13/23 19:11	1330-20-7	
m&p-Xylene	14.0	ug/L	10.0	3.5	5		01/13/23 19:11	179601-23-1	
o-Xylene	7.4	ug/L	5.0	1.7	5		01/13/23 19:11	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		5		01/13/23 19:11	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-130		5		01/13/23 19:11	17060-07-0	
Toluene-d8 (S)	96	%	70-130		5		01/13/23 19:11	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

Sample: GAC		Lab ID: 92646455022		Collected: 01/09/23 14:28		Received: 01/11/23 08:11		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0076	1	01/16/23 16:16	01/17/23 02:10	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	90	%	60-140		1	01/16/23 16:16	01/17/23 02:10	301-79-56	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		01/13/23 16:18	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		01/13/23 16:18	994-05-8	
Benzene	ND	ug/L	1.0	0.34	1		01/13/23 16:18	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		01/13/23 16:18	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		01/13/23 16:18	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		01/13/23 16:18	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		01/13/23 16:18	107-06-2	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		01/13/23 16:18	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		01/13/23 16:18	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/13/23 16:18	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		01/13/23 16:18	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		01/13/23 16:18	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		01/13/23 16:18	91-20-3	
Toluene	ND	ug/L	1.0	0.48	1		01/13/23 16:18	108-88-3	
Xylene (Total)	ND	ug/L	1.0	0.34	1		01/13/23 16:18	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		01/13/23 16:18	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		01/13/23 16:18	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		01/13/23 16:18	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130		1		01/13/23 16:18	17060-07-0	
Toluene-d8 (S)	104	%	70-130		1		01/13/23 16:18	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

Sample: TB		Lab ID: 92646455023		Collected: 01/09/23 08:00		Received: 01/11/23 08:11		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		01/13/23 04:00	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		01/13/23 04:00	994-05-8	
Benzene	ND	ug/L	1.0	0.34	1		01/13/23 04:00	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		01/13/23 04:00	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		01/13/23 04:00	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		01/13/23 04:00	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		01/13/23 04:00	107-06-2	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		01/13/23 04:00	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		01/13/23 04:00	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/13/23 04:00	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		01/13/23 04:00	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		01/13/23 04:00	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		01/13/23 04:00	91-20-3	
Toluene	ND	ug/L	1.0	0.48	1		01/13/23 04:00	108-88-3	
Xylene (Total)	ND	ug/L	1.0	0.34	1		01/13/23 04:00	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		01/13/23 04:00	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		01/13/23 04:00	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		01/13/23 04:00	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130		1		01/13/23 04:00	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		01/13/23 04:00	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

Sample: FB		Lab ID: 92646455024		Collected: 01/09/23 14:30		Received: 01/11/23 08:11		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0077	1	01/17/23 10:16	01/17/23 12:37	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	97	%	60-140		1	01/17/23 10:16	01/17/23 12:37	301-79-56	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		01/13/23 04:18	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		01/13/23 04:18	994-05-8	
Benzene	ND	ug/L	1.0	0.34	1		01/13/23 04:18	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		01/13/23 04:18	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		01/13/23 04:18	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		01/13/23 04:18	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		01/13/23 04:18	107-06-2	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		01/13/23 04:18	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		01/13/23 04:18	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		01/13/23 04:18	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		01/13/23 04:18	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		01/13/23 04:18	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		01/13/23 04:18	91-20-3	
Toluene	ND	ug/L	1.0	0.48	1		01/13/23 04:18	108-88-3	
Xylene (Total)	ND	ug/L	1.0	0.34	1		01/13/23 04:18	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		01/13/23 04:18	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		01/13/23 04:18	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		01/13/23 04:18	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130		1		01/13/23 04:18	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		01/13/23 04:18	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: JAKE HUGGINS 03423
Pace Project No.: 92646455

QC Batch:	749146	Analysis Method:	EPA 8260D
QC Batch Method:	EPA 8260D	Analysis Description:	8260 MSV Low Level SC
		Laboratory:	Pace Analytical Services - Charlotte
Associated Lab Samples:	92646455004, 92646455005, 92646455006, 92646455007, 92646455009, 92646455011, 92646455012, 92646455013, 92646455015, 92646455023, 92646455024		

METHOD BLANK: 3894626 Matrix: Water
Associated Lab Samples: 92646455004, 92646455005, 92646455006, 92646455007, 92646455009, 92646455011, 92646455012, 92646455013, 92646455015, 92646455023, 92646455024

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	1.0	0.32	01/13/23 03:41	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	51.9	01/13/23 03:41	
Benzene	ug/L	ND	1.0	0.34	01/13/23 03:41	
Diisopropyl ether	ug/L	ND	1.0	0.31	01/13/23 03:41	
Ethanol	ug/L	ND	200	72.2	01/13/23 03:41	
Ethyl-tert-butyl ether	ug/L	ND	10.0	3.2	01/13/23 03:41	
Ethylbenzene	ug/L	ND	1.0	0.30	01/13/23 03:41	
m&p-Xylene	ug/L	ND	2.0	0.71	01/13/23 03:41	
Methyl-tert-butyl ether	ug/L	ND	1.0	0.42	01/13/23 03:41	
Naphthalene	ug/L	ND	1.0	0.64	01/13/23 03:41	
o-Xylene	ug/L	ND	1.0	0.34	01/13/23 03:41	
tert-Amyl Alcohol	ug/L	ND	100	36.4	01/13/23 03:41	
tert-Amylmethyl ether	ug/L	ND	10.0	2.7	01/13/23 03:41	
tert-Butyl Alcohol	ug/L	ND	100	26.8	01/13/23 03:41	
tert-Butyl Formate	ug/L	ND	50.0	29.4	01/13/23 03:41	
Toluene	ug/L	ND	1.0	0.48	01/13/23 03:41	
Xylene (Total)	ug/L	ND	1.0	0.34	01/13/23 03:41	
1,2-Dichloroethane-d4 (S)	%	96	70-130		01/13/23 03:41	
4-Bromofluorobenzene (S)	%	100	70-130		01/13/23 03:41	
Toluene-d8 (S)	%	98	70-130		01/13/23 03:41	

LABORATORY CONTROL SAMPLE: 3894627

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	20	19.6	98	70-130	
3,3-Dimethyl-1-Butanol	ug/L	400	390	97	70-130	
Benzene	ug/L	20	18.8	94	70-130	
Diisopropyl ether	ug/L	20	17.4	87	70-130	
Ethanol	ug/L	800	805	101	70-130	
Ethyl-tert-butyl ether	ug/L	40	36.5	91	70-130	
Ethylbenzene	ug/L	20	19.7	99	70-130	
m&p-Xylene	ug/L	40	39.7	99	70-130	
Methyl-tert-butyl ether	ug/L	20	17.9	90	70-130	
Naphthalene	ug/L	20	19.9	99	70-130	
o-Xylene	ug/L	20	19.8	99	70-130	
tert-Amyl Alcohol	ug/L	400	400	100	70-130	
tert-Amylmethyl ether	ug/L	40	39.9	100	70-130	

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QUALITY CONTROL DATA

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

LABORATORY CONTROL SAMPLE: 3894627

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
tert-Butyl Alcohol	ug/L	200	159	79	70-130	
tert-Butyl Formate	ug/L	160	154	96	70-130	
Toluene	ug/L	20	19.5	98	70-130	
Xylene (Total)	ug/L	60	59.6	99	70-130	
1,2-Dichloroethane-d4 (S)	%			101	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3894628 3894629

Parameter	Units	92646450001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dichloroethane	ug/L	ND	20	20	21.8	20.7	109	104	70-137	5	30	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	400	426	441	107	110	39-157	3	30	
Benzene	ug/L	ND	20	20	23.0	22.0	115	110	70-151	4	30	
Diisopropyl ether	ug/L	ND	20	20	19.3	18.5	97	93	63-144	4	30	
Ethanol	ug/L	ND	800	800	826	798	103	100	39-176	3	30	
Ethyl-tert-butyl ether	ug/L	ND	40	40	40.3	38.6	101	96	66-137	4	30	
Ethylbenzene	ug/L	ND	20	20	24.3	23.3	121	116	66-153	4	30	
m&p-Xylene	ug/L	ND	40	40	48.8	46.5	122	116	69-152	5	30	
Methyl-tert-butyl ether	ug/L	ND	20	20	20.2	19.5	101	97	54-156	3	30	
Naphthalene	ug/L	ND	20	20	23.0	22.8	115	114	61-148	1	30	
o-Xylene	ug/L	ND	20	20	23.8	22.6	119	113	70-148	5	30	
tert-Amyl Alcohol	ug/L	ND	400	400	378	402	94	101	54-153	6	30	
tert-Amylmethyl ether	ug/L	ND	40	40	44.7	44.2	112	110	69-139	1	30	
tert-Butyl Alcohol	ug/L	ND	200	200	228	233	114	117	43-188	2	30	v3
tert-Butyl Formate	ug/L	ND	160	160	ND	ND	6	4	10-170		30	P5
Toluene	ug/L	ND	20	20	24.3	23.1	121	115	59-148	5	30	
Xylene (Total)	ug/L	ND	60	60	72.6	69.1	121	115	63-158	5	30	
1,2-Dichloroethane-d4 (S)	%						93	93	70-130			
4-Bromofluorobenzene (S)	%						97	98	70-130			
Toluene-d8 (S)	%						99	99	70-130			

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QUALITY CONTROL DATA

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

QC Batch:	749147	Analysis Method:	EPA 8260D
QC Batch Method:	EPA 8260D	Analysis Description:	8260 MSV Low Level SC
		Laboratory:	Pace Analytical Services - Charlotte

Associated Lab Samples: 92646455016, 92646455017, 92646455018, 92646455019, 92646455020

METHOD BLANK: 3894633

Matrix: Water

Associated Lab Samples: 92646455016, 92646455017, 92646455018, 92646455019, 92646455020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	1.0	0.32	01/13/23 03:23	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	51.9	01/13/23 03:23	
Benzene	ug/L	ND	1.0	0.34	01/13/23 03:23	
Diisopropyl ether	ug/L	ND	1.0	0.31	01/13/23 03:23	
Ethanol	ug/L	ND	200	72.2	01/13/23 03:23	
Ethyl-tert-butyl ether	ug/L	ND	10.0	3.2	01/13/23 03:23	
Ethylbenzene	ug/L	ND	1.0	0.30	01/13/23 03:23	
m&p-Xylene	ug/L	ND	2.0	0.71	01/13/23 03:23	
Methyl-tert-butyl ether	ug/L	ND	1.0	0.42	01/13/23 03:23	
Naphthalene	ug/L	ND	1.0	0.64	01/13/23 03:23	
o-Xylene	ug/L	ND	1.0	0.34	01/13/23 03:23	
tert-Amyl Alcohol	ug/L	ND	100	36.4	01/13/23 03:23	
tert-Amylmethyl ether	ug/L	ND	10.0	2.7	01/13/23 03:23	
tert-Butyl Alcohol	ug/L	ND	100	26.8	01/13/23 03:23	
tert-Butyl Formate	ug/L	ND	50.0	29.4	01/13/23 03:23	
Toluene	ug/L	ND	1.0	0.48	01/13/23 03:23	
Xylene (Total)	ug/L	ND	1.0	0.34	01/13/23 03:23	
1,2-Dichloroethane-d4 (S)	%	96	70-130		01/13/23 03:23	
4-Bromofluorobenzene (S)	%	100	70-130		01/13/23 03:23	
Toluene-d8 (S)	%	100	70-130		01/13/23 03:23	

LABORATORY CONTROL SAMPLE: 3894634

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	20	19.7	98	70-130	
3,3-Dimethyl-1-Butanol	ug/L	400	381	95	70-130	
Benzene	ug/L	20	19.0	95	70-130	
Diisopropyl ether	ug/L	20	17.9	90	70-130	
Ethanol	ug/L	800	774	97	70-130	
Ethyl-tert-butyl ether	ug/L	40	36.6	92	70-130	
Ethylbenzene	ug/L	20	19.5	98	70-130	
m&p-Xylene	ug/L	40	38.7	97	70-130	
Methyl-tert-butyl ether	ug/L	20	18.1	90	70-130	
Naphthalene	ug/L	20	21.4	107	70-130	
o-Xylene	ug/L	20	19.6	98	70-130	
tert-Amyl Alcohol	ug/L	400	398	99	70-130	
tert-Amylmethyl ether	ug/L	40	40.0	100	70-130	
tert-Butyl Alcohol	ug/L	200	161	81	70-130	
tert-Butyl Formate	ug/L	160	154	96	70-130	

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QUALITY CONTROL DATA

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

LABORATORY CONTROL SAMPLE: 3894634

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene	ug/L	20	19.8	99	70-130	
Xylene (Total)	ug/L	60	58.3	97	70-130	
1,2-Dichloroethane-d4 (S)	%			102	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3894635 3894636

Parameter	Units	92646455016		MS		MSD		MS		MSD		% Rec		Max RPD	Qual
		Result	Conc.	Spike Conc.	Result	Spike Conc.	Result	% Rec	Result	% Rec	Result	Limits	RPD		
1,2-Dichloroethane	ug/L	ND	20	20	21.7	22.4	108	112	70-137	3	30				
3,3-Dimethyl-1-Butanol	ug/L	ND	400	400	417	474	104	118	39-157	13	30				
Benzene	ug/L	ND	20	20	22.8	23.3	114	117	70-151	2	30				
Diisopropyl ether	ug/L	0.49J	20	20	19.9	20.8	97	102	63-144	4	30				
Ethanol	ug/L	ND	800	800	773	846	97	106	39-176	9	30				
Ethyl-tert-butyl ether	ug/L	ND	40	40	39.6	41.4	99	103	66-137	4	30				
Ethylbenzene	ug/L	ND	20	20	24.0	24.4	120	122	66-153	2	30				
m&p-Xylene	ug/L	ND	40	40	48.0	48.7	120	122	69-152	2	30				
Methyl-tert-butyl ether	ug/L	1.2	20	20	21.4	22.0	101	104	54-156	3	30				
Naphthalene	ug/L	ND	20	20	22.2	23.6	111	118	61-148	6	30				
o-Xylene	ug/L	ND	20	20	23.6	23.8	118	119	70-148	0	30				
tert-Amyl Alcohol	ug/L	ND	400	400	388	438	97	110	54-153	12	30				
tert-Amylmethyl ether	ug/L	ND	40	40	43.7	46.3	109	116	69-139	6	30				
tert-Butyl Alcohol	ug/L	ND	200	200	204	249	102	125	43-188	20	30				
tert-Butyl Formate	ug/L	ND	160	160	52.0	33.0J	32	21	10-170		30				
Toluene	ug/L	ND	20	20	23.4	23.9	117	119	59-148	2	30				
Xylene (Total)	ug/L	ND	60	60	71.6	72.5	119	121	63-158	1	30				
1,2-Dichloroethane-d4 (S)	%							92	93	70-130					
4-Bromofluorobenzene (S)	%							97	97	70-130					
Toluene-d8 (S)	%							98	98	70-130					

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QUALITY CONTROL DATA

Project: JAKE HUGGINS 03423
Pace Project No.: 92646455

QC Batch:	749316	Analysis Method:	EPA 8260D
QC Batch Method:	EPA 8260D	Analysis Description:	8260 MSV Low Level SC
		Laboratory:	Pace Analytical Services - Charlotte

Associated Lab Samples: 92646455002, 92646455003, 92646455014

METHOD BLANK: 3895390 Matrix: Water
Associated Lab Samples: 92646455002, 92646455003, 92646455014

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	1.0	0.32	01/13/23 17:35	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	51.9	01/13/23 17:35	
Benzene	ug/L	ND	1.0	0.34	01/13/23 17:35	
Diisopropyl ether	ug/L	ND	1.0	0.31	01/13/23 17:35	
Ethanol	ug/L	ND	200	72.2	01/13/23 17:35	
Ethyl-tert-butyl ether	ug/L	ND	10.0	3.2	01/13/23 17:35	
Ethylbenzene	ug/L	ND	1.0	0.30	01/13/23 17:35	
m&p-Xylene	ug/L	ND	2.0	0.71	01/13/23 17:35	
Methyl-tert-butyl ether	ug/L	ND	1.0	0.42	01/13/23 17:35	
Naphthalene	ug/L	ND	1.0	0.64	01/13/23 17:35	
o-Xylene	ug/L	ND	1.0	0.34	01/13/23 17:35	
tert-Amyl Alcohol	ug/L	ND	100	36.4	01/13/23 17:35	
tert-Amylmethyl ether	ug/L	ND	10.0	2.7	01/13/23 17:35	
tert-Butyl Alcohol	ug/L	ND	100	26.8	01/13/23 17:35	v2
tert-Butyl Formate	ug/L	ND	50.0	29.4	01/13/23 17:35	
Toluene	ug/L	ND	1.0	0.48	01/13/23 17:35	
Xylene (Total)	ug/L	ND	1.0	0.34	01/13/23 17:35	
1,2-Dichloroethane-d4 (S)	%	97	70-130		01/13/23 17:35	
4-Bromofluorobenzene (S)	%	96	70-130		01/13/23 17:35	
Toluene-d8 (S)	%	98	70-130		01/13/23 17:35	

LABORATORY CONTROL SAMPLE: 3895391

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	20	20.6	103	70-130	
3,3-Dimethyl-1-Butanol	ug/L	400	386	97	70-130	
Benzene	ug/L	20	19.7	98	70-130	
Diisopropyl ether	ug/L	20	18.1	90	70-130	
Ethanol	ug/L	800	772	97	70-130	
Ethyl-tert-butyl ether	ug/L	40	37.8	95	70-130	
Ethylbenzene	ug/L	20	20.9	105	70-130	
m&p-Xylene	ug/L	40	42.5	106	70-130	
Methyl-tert-butyl ether	ug/L	20	18.7	93	70-130	
Naphthalene	ug/L	20	22.3	111	70-130	
o-Xylene	ug/L	20	20.9	104	70-130	
tert-Amyl Alcohol	ug/L	400	384	96	70-130	
tert-Amylmethyl ether	ug/L	40	40.8	102	70-130	
tert-Butyl Alcohol	ug/L	200	153	77	70-130 v3	
tert-Butyl Formate	ug/L	160	160	100	70-130	

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QUALITY CONTROL DATA

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

LABORATORY CONTROL SAMPLE: 3895391

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene	ug/L	20	20.4	102	70-130	
Xylene (Total)	ug/L	60	63.4	106	70-130	
1,2-Dichloroethane-d4 (S)	%			100	70-130	
4-Bromofluorobenzene (S)	%			98	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3895392 3895393

Parameter	Units	92646674001		MS		MSD		MS		MSD		% Rec		Max RPD	Qual
		Result	Conc.	Spike Conc.	Conc.	Result	Conc.	% Rec	Conc.	% Rec	Conc.	Limits	RPD		
1,2-Dichloroethane	ug/L	ND	20	20	20	24.8	24.2	124	121	121	121	70-137	2	30	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	400	400	476	475	119	119	119	119	39-157	0	30	
Benzene	ug/L	ND	20	20	20	24.9	24.4	124	122	122	122	70-151	2	30	
Diisopropyl ether	ug/L	ND	20	20	20	26.8	25.9	134	130	130	130	63-144	3	30	
Ethanol	ug/L	ND	800	800	800	1230	1190	154	149	149	149	39-176	3	30	v1
Ethyl-tert-butyl ether	ug/L	ND	40	40	40	50.2	48.6	126	121	121	121	66-137	3	30	
Ethylbenzene	ug/L	ND	20	20	20	24.4	24.4	122	122	122	122	66-153	0	30	
m&p-Xylene	ug/L	ND	40	40	40	49.7	49.2	124	123	123	123	69-152	1	30	
Methyl-tert-butyl ether	ug/L	ND	20	20	20	23.8	23.0	119	115	115	115	54-156	4	30	
Naphthalene	ug/L	ND	20	20	20	24.1	23.2	121	116	116	116	61-148	4	30	
o-Xylene	ug/L	ND	20	20	20	24.4	24.9	122	125	125	125	70-148	2	30	
tert-Amyl Alcohol	ug/L	ND	400	400	400	523	516	131	129	129	129	54-153	1	30	
tert-Amylmethyl ether	ug/L	ND	40	40	40	48.8	47.1	122	118	118	118	69-139	4	30	
tert-Butyl Alcohol	ug/L	ND	200	200	200	357	367	179	184	184	184	43-188	3	30	
tert-Butyl Formate	ug/L	ND	160	160	160	76.8	59.2	48	37	37	37	10-170	26	30	
Toluene	ug/L	ND	20	20	20	25.0	24.6	125	123	123	123	59-148	2	30	
Xylene (Total)	ug/L	ND	60	60	60	74.2	74.1	124	123	123	123	63-158	0	30	
1,2-Dichloroethane-d4 (S)	%							94	94	94	94	70-130			
4-Bromofluorobenzene (S)	%							93	97	97	97	70-130			
Toluene-d8 (S)	%							99	100	100	100	70-130			

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QUALITY CONTROL DATA

Project: JAKE HUGGINS 03423
Pace Project No.: 92646455

QC Batch: 749373 Analysis Method: EPA 8260D
QC Batch Method: EPA 8260D Analysis Description: 8260 MSV Low Level SC
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92646455008, 92646455010, 92646455021, 92646455022

METHOD BLANK: 3895593 Matrix: Water
Associated Lab Samples: 92646455008, 92646455010, 92646455021, 92646455022

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	1.0	0.32	01/13/23 15:44	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	51.9	01/13/23 15:44	
Benzene	ug/L	ND	1.0	0.34	01/13/23 15:44	
Diisopropyl ether	ug/L	ND	1.0	0.31	01/13/23 15:44	
Ethanol	ug/L	ND	200	72.2	01/13/23 15:44	
Ethyl-tert-butyl ether	ug/L	ND	10.0	3.2	01/13/23 15:44	
Ethylbenzene	ug/L	ND	1.0	0.30	01/13/23 15:44	
m&p-Xylene	ug/L	ND	2.0	0.71	01/13/23 15:44	
Methyl-tert-butyl ether	ug/L	ND	1.0	0.42	01/13/23 15:44	
Naphthalene	ug/L	ND	1.0	0.64	01/13/23 15:44	
o-Xylene	ug/L	ND	1.0	0.34	01/13/23 15:44	
tert-Amyl Alcohol	ug/L	ND	100	36.4	01/13/23 15:44	
tert-Amylmethyl ether	ug/L	ND	10.0	2.7	01/13/23 15:44	
tert-Butyl Alcohol	ug/L	ND	100	26.8	01/13/23 15:44	
tert-Butyl Formate	ug/L	ND	50.0	29.4	01/13/23 15:44	
Toluene	ug/L	ND	1.0	0.48	01/13/23 15:44	
Xylene (Total)	ug/L	ND	1.0	0.34	01/13/23 15:44	
1,2-Dichloroethane-d4 (S)	%	100	70-130		01/13/23 15:44	
4-Bromofluorobenzene (S)	%	101	70-130		01/13/23 15:44	
Toluene-d8 (S)	%	102	70-130		01/13/23 15:44	

LABORATORY CONTROL SAMPLE: 3895594

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	20	20.4	102	70-130	
3,3-Dimethyl-1-Butanol	ug/L	400	442	111	70-130	
Benzene	ug/L	20	19.8	99	70-130	
Diisopropyl ether	ug/L	20	19.8	99	70-130	
Ethanol	ug/L	800	799	100	70-130	
Ethyl-tert-butyl ether	ug/L	40	39.6	99	70-130	
Ethylbenzene	ug/L	20	21.7	108	70-130	
m&p-Xylene	ug/L	40	43.4	109	70-130	
Methyl-tert-butyl ether	ug/L	20	20.0	100	70-130	
Naphthalene	ug/L	20	23.6	118	70-130	
o-Xylene	ug/L	20	21.0	105	70-130	
tert-Amyl Alcohol	ug/L	400	413	103	70-130	
tert-Amylmethyl ether	ug/L	40	40.9	102	70-130	
tert-Butyl Alcohol	ug/L	200	209	105	70-130	
tert-Butyl Formate	ug/L	160	170	106	70-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

LABORATORY CONTROL SAMPLE: 3895594

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene	ug/L	20	19.9	100	70-130	
Xylene (Total)	ug/L	60	64.5	107	70-130	
1,2-Dichloroethane-d4 (S)	%			101	70-130	
4-Bromofluorobenzene (S)	%			101	70-130	
Toluene-d8 (S)	%			97	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3895595 3895596

Parameter	Units	92646737015 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dichloroethane	ug/L	ND	20	20	23.3	22.4	116	112	70-137	4	30	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	400	412	409	103	102	39-157	1	30	
Benzene	ug/L	ND	20	20	22.8	22.3	114	112	70-151	2	30	
Diisopropyl ether	ug/L	ND	20	20	22.3	21.6	112	108	63-144	3	30	
Ethanol	ug/L	ND	800	800	905	839	113	105	39-176	8	30	
Ethyl-tert-butyl ether	ug/L	ND	40	40	43.9	41.9	110	105	66-137	5	30	
Ethylbenzene	ug/L	ND	20	20	22.8	22.4	114	112	66-153	2	30	
m&p-Xylene	ug/L	ND	40	40	45.4	45.1	113	113	69-152	1	30	
Methyl-tert-butyl ether	ug/L	ND	20	20	22.6	20.6	113	103	54-156	9	30	
Naphthalene	ug/L	ND	20	20	20.6	19.9	103	99	61-148	3	30	
o-Xylene	ug/L	ND	20	20	22.3	22.0	112	110	70-148	1	30	
tert-Amyl Alcohol	ug/L	ND	400	400	418	393	105	98	54-153	6	30	
tert-Amylmethyl ether	ug/L	ND	40	40	46.0	43.4	115	109	69-139	6	30	
tert-Butyl Alcohol	ug/L	ND	200	200	297	275	148	138	43-188	8	30	
tert-Butyl Formate	ug/L	ND	160	160	ND	ND	13	10	10-170		30	
Toluene	ug/L	ND	20	20	22.6	21.8	113	109	59-148	3	30	
Xylene (Total)	ug/L	ND	60	60	67.7	67.1	113	112	63-158	1	30	
1,2-Dichloroethane-d4 (S)	%						100	98	70-130			
4-Bromofluorobenzene (S)	%						101	101	70-130			
Toluene-d8 (S)	%						100	98	70-130			

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QUALITY CONTROL DATA

Project: JAKE HUGGINS 03423
Pace Project No.: 92646455

QC Batch:	749494	Analysis Method:	EPA 8260D
QC Batch Method:	EPA 8260D	Analysis Description:	8260 MSV Low Level SC
		Laboratory:	Pace Analytical Services - Charlotte

Associated Lab Samples: 92646455001

METHOD BLANK: 3896228 Matrix: Water

Associated Lab Samples: 92646455001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	1.0	0.32	01/17/23 01:25	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	51.9	01/17/23 01:25	
Benzene	ug/L	ND	1.0	0.34	01/17/23 01:25	
Diisopropyl ether	ug/L	ND	1.0	0.31	01/17/23 01:25	
Ethanol	ug/L	ND	200	72.2	01/17/23 01:25	
Ethyl-tert-butyl ether	ug/L	ND	10.0	3.2	01/17/23 01:25	
Ethylbenzene	ug/L	ND	1.0	0.30	01/17/23 01:25	
m&p-Xylene	ug/L	ND	2.0	0.71	01/17/23 01:25	
Methyl-tert-butyl ether	ug/L	ND	1.0	0.42	01/17/23 01:25	
Naphthalene	ug/L	ND	1.0	0.64	01/17/23 01:25	
o-Xylene	ug/L	ND	1.0	0.34	01/17/23 01:25	
tert-Amyl Alcohol	ug/L	ND	100	36.4	01/17/23 01:25	
tert-Amylmethyl ether	ug/L	ND	10.0	2.7	01/17/23 01:25	
tert-Butyl Alcohol	ug/L	ND	100	26.8	01/17/23 01:25	
tert-Butyl Formate	ug/L	ND	50.0	29.4	01/17/23 01:25	
Toluene	ug/L	ND	1.0	0.48	01/17/23 01:25	
Xylene (Total)	ug/L	ND	1.0	0.34	01/17/23 01:25	
1,2-Dichloroethane-d4 (S)	%	97	70-130		01/17/23 01:25	
4-Bromofluorobenzene (S)	%	94	70-130		01/17/23 01:25	
Toluene-d8 (S)	%	102	70-130		01/17/23 01:25	

LABORATORY CONTROL SAMPLE: 3896229

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	20	21.1	106	70-130	
3,3-Dimethyl-1-Butanol	ug/L	400	379	95	70-130	
Benzene	ug/L	20	20.0	100	70-130	
Diisopropyl ether	ug/L	20	16.2	81	70-130	
Ethanol	ug/L	800	677	85	70-130	
Ethyl-tert-butyl ether	ug/L	40	35.4	88	70-130	
Ethylbenzene	ug/L	20	20.4	102	70-130	
m&p-Xylene	ug/L	40	41.2	103	70-130	
Methyl-tert-butyl ether	ug/L	20	17.3	87	70-130	
Naphthalene	ug/L	20	23.9	120	70-130	
o-Xylene	ug/L	20	20.3	102	70-130	
tert-Amyl Alcohol	ug/L	400	350	88	70-130	
tert-Amylmethyl ether	ug/L	40	39.5	99	70-130	
tert-Butyl Alcohol	ug/L	200	166	83	70-130	
tert-Butyl Formate	ug/L	160	142	89	70-130	

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QUALITY CONTROL DATA

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

LABORATORY CONTROL SAMPLE: 3896229

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene	ug/L	20	20.7	103	70-130	
Xylene (Total)	ug/L	60	61.5	102	70-130	
1,2-Dichloroethane-d4 (S)	%			100	70-130	
4-Bromofluorobenzene (S)	%			97	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE SAMPLE: 3896231

Parameter	Units	92646746020 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	20.7	104	70-137	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	382	95	39-157	
Benzene	ug/L	ND	20	21.2	106	70-151	
Diisopropyl ether	ug/L	ND	20	22.4	112	63-144	
Ethanol	ug/L	ND	800	936	117	39-176	
Ethyl-tert-butyl ether	ug/L	ND	40	40.8	102	66-137	
Ethylbenzene	ug/L	ND	20	21.6	108	66-153	
m&p-Xylene	ug/L	ND	40	43.1	108	69-152	
Methyl-tert-butyl ether	ug/L	ND	20	19.5	98	54-156	
Naphthalene	ug/L	ND	20	19.6	98	61-148	
o-Xylene	ug/L	ND	20	21.4	107	70-148	
tert-Amyl Alcohol	ug/L	ND	400	415	104	54-153	
tert-Amylmethyl ether	ug/L	ND	40	41.1	103	69-139	
tert-Butyl Alcohol	ug/L	ND	200	242	121	43-188	
tert-Butyl Formate	ug/L	ND	160	117	73	10-170	
Toluene	ug/L	ND	20	21.5	107	59-148	
Xylene (Total)	ug/L	ND	60	64.4	107	63-158	
1,2-Dichloroethane-d4 (S)	%				91	70-130	
4-Bromofluorobenzene (S)	%				98	70-130	
Toluene-d8 (S)	%				98	70-130	

SAMPLE DUPLICATE: 3896230

Parameter	Units	92646746019 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	

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QUALITY CONTROL DATA

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

SAMPLE DUPLICATE: 3896230

Parameter	Units	92646746019 Result	Dup Result	RPD	Max RPD	Qualifiers
tert-Amyl Alcohol	ug/L	ND	ND		30	
tert-Amylmethyl ether	ug/L	ND	ND		30	
tert-Butyl Alcohol	ug/L	ND	ND		30	
tert-Butyl Formate	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	100	93			
4-Bromofluorobenzene (S)	%	96	93			
Toluene-d8 (S)	%	102	100			

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QUALITY CONTROL DATA

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

QC Batch:	749569	Analysis Method:	EPA 8011
QC Batch Method:	EPA 8011	Analysis Description:	GCS 8011 EDB DBCP
		Laboratory:	Pace Analytical Services - Charlotte

Associated Lab Samples: 92646455001, 92646455002

METHOD BLANK: 3896667 Matrix: Water

Associated Lab Samples: 92646455001, 92646455002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	0.0076	01/16/23 16:55	
1-Chloro-2-bromopropane (S)	%	97	60-140		01/16/23 16:55	

LABORATORY CONTROL SAMPLE & LCSD: 3896668

3896669

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	0.25	0.31	0.33	122	130	60-140	7	20	
1-Chloro-2-bromopropane (S)	%				107	98	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3896671

3896672

Parameter	Units	92646424021 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	0.25	0.25	0.31	0.38	121	151	60-140	22	20	M1, R1
1-Chloro-2-bromopropane (S)	%						98	117	60-140			

SAMPLE DUPLICATE: 3896670

Parameter	Units	92646424020 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	0.11	0.031	114	20	D6
1-Chloro-2-bromopropane (S)	%	109	85			

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QUALITY CONTROL DATA

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

QC Batch:	749570	Analysis Method:	EPA 8011
QC Batch Method:	EPA 8011	Analysis Description:	GCS 8011 EDB DBCP
		Laboratory:	Pace Analytical Services - Charlotte
Associated Lab Samples:	92646455003, 92646455004, 92646455005, 92646455006, 92646455007, 92646455008, 92646455009, 92646455010, 92646455011, 92646455012, 92646455013, 92646455014, 92646455015, 92646455016, 92646455017, 92646455018, 92646455019, 92646455020, 92646455021, 92646455022		

METHOD BLANK:	3896673	Matrix:	Water
Associated Lab Samples:	92646455003, 92646455004, 92646455005, 92646455006, 92646455007, 92646455008, 92646455009, 92646455010, 92646455011, 92646455012, 92646455013, 92646455014, 92646455015, 92646455016, 92646455017, 92646455018, 92646455019, 92646455020, 92646455021, 92646455022		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	0.0075	01/16/23 21:43	
1-Chloro-2-bromopropane (S)	%	89	60-140		01/16/23 21:43	

LABORATORY CONTROL SAMPLE & LCSD:		3896674	3896675							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	0.25	0.25	0.26	100	104	60-140	4	20	
1-Chloro-2-bromopropane (S)	%				94	85	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:				3896677	3896678							
Parameter	Units	92646455004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	0.25	0.25	0.29	0.31	116	123	60-140	6	20	
1-Chloro-2-bromopropane (S)	%						78	80	60-140			

SAMPLE DUPLICATE: 3896676

Parameter	Units	92646455003 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%	99	93			

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QUALITY CONTROL DATA

Project: JAKE HUGGINS 03423
Pace Project No.: 92646455

QC Batch:	749713	Analysis Method:	EPA 8011
QC Batch Method:	EPA 8011	Analysis Description:	GCS 8011 EDB DBCP
		Laboratory:	Pace Analytical Services - Charlotte

Associated Lab Samples: 92646455024

METHOD BLANK: 3897175 Matrix: Water

Associated Lab Samples: 92646455024

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	0.0074	01/17/23 12:06	
1-Chloro-2-bromopropane (S)	%	134	60-140		01/17/23 12:06	

LABORATORY CONTROL SAMPLE & LCSD: 3897176

3897177

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	0.25	0.34	0.30	136	122	60-140	11	20	
1-Chloro-2-bromopropane (S)	%				116	112	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3897179

3897180

Parameter	Units	92646685002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	0.25	0.26	0.30	0.31	116	119	60-140	4	20	
1-Chloro-2-bromopropane (S)	%						105	104	60-140			

SAMPLE DUPLICATE: 3897178

Parameter	Units	92646685001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%	112	104			

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QUALIFIERS

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

C8	Result may be biased high due to carryover from previously analyzed sample.
D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
P5	The EPA or method required sample preservation degrades this compound, therefore acceptable recoveries may not be achieved in sample matrix spikes.
R1	RPD value was outside control limits.
v1	The continuing calibration verification was above the method acceptance limit. Any detection for the analyte in the associated samples may have a high bias.
v2	The continuing calibration verification was below the method acceptance limit. The analyte was not detected in the associated samples and the sensitivity of the instrument was verified with a reporting limit check standard.
v3	The continuing calibration verification was below the method acceptance limit. Any detection for the analyte in the associated samples may have low bias.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92646455001	MW-01	EPA 8011	749569	EPA 8011	749640
92646455002	MW-02	EPA 8011	749569	EPA 8011	749640
92646455003	MW-03	EPA 8011	749570	EPA 8011	749641
92646455004	MW-04	EPA 8011	749570	EPA 8011	749641
92646455005	MW-05	EPA 8011	749570	EPA 8011	749641
92646455006	MW-06	EPA 8011	749570	EPA 8011	749641
92646455007	MW-07	EPA 8011	749570	EPA 8011	749641
92646455008	MW-08	EPA 8011	749570	EPA 8011	749641
92646455009	MW-09	EPA 8011	749570	EPA 8011	749641
92646455010	MW-10	EPA 8011	749570	EPA 8011	749641
92646455011	DW-01	EPA 8011	749570	EPA 8011	749641
92646455012	DW-02	EPA 8011	749570	EPA 8011	749641
92646455013	DW-03	EPA 8011	749570	EPA 8011	749641
92646455014	DW-04	EPA 8011	749570	EPA 8011	749641
92646455015	SW-1	EPA 8011	749570	EPA 8011	749641
92646455016	SW-2	EPA 8011	749570	EPA 8011	749641
92646455017	SW-3	EPA 8011	749570	EPA 8011	749641
92646455018	SW-4	EPA 8011	749570	EPA 8011	749641
92646455019	SW-5	EPA 8011	749570	EPA 8011	749641
92646455020	SW-6	EPA 8011	749570	EPA 8011	749641
92646455021	DUP-1	EPA 8011	749570	EPA 8011	749641
92646455022	GAC	EPA 8011	749570	EPA 8011	749641
92646455024	FB	EPA 8011	749713	EPA 8011	749808
92646455001	MW-01	EPA 8260D	749494		
92646455002	MW-02	EPA 8260D	749316		
92646455003	MW-03	EPA 8260D	749316		
92646455004	MW-04	EPA 8260D	749146		
92646455005	MW-05	EPA 8260D	749146		
92646455006	MW-06	EPA 8260D	749146		
92646455007	MW-07	EPA 8260D	749146		
92646455008	MW-08	EPA 8260D	749373		
92646455009	MW-09	EPA 8260D	749146		
92646455010	MW-10	EPA 8260D	749373		
92646455011	DW-01	EPA 8260D	749146		
92646455012	DW-02	EPA 8260D	749146		
92646455013	DW-03	EPA 8260D	749146		
92646455014	DW-04	EPA 8260D	749316		
92646455015	SW-1	EPA 8260D	749146		
92646455016	SW-2	EPA 8260D	749147		
92646455017	SW-3	EPA 8260D	749147		
92646455018	SW-4	EPA 8260D	749147		
92646455019	SW-5	EPA 8260D	749147		
92646455020	SW-6	EPA 8260D	749147		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: JAKE HUGGINS 03423

Pace Project No.: 92646455

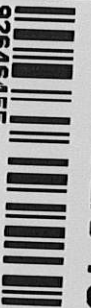
Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92646455021	DUP-1	EPA 8260D	749373		
92646455022	GAC	EPA 8260D	749373		
92646455023	TB	EPA 8260D	749146		
92646455024	FB	EPA 8260D	749146		

REPORT OF LABORATORY ANALYSIS

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W0#: 92646455

ist Pace Workorder Number or re



92646455

AB USE ONLY

ject Manager:

Pace Analytical

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

Company: <u>Meci</u>		Billing Information:				
Address: <u>831 Dooley rd</u>		Email To: <u>SLC@mece.mt</u>				
Report To: <u>B Shawe</u>		Site Collection Info/Address: <u>4985 Lemmon hwy</u>				
Copy To:		State: <u>MT</u> County/City: <u>Missoula</u> Time Zone Collected: <u>MT</u>				
Customer Project Name/Number: <u>Joe Haggas</u>		State: <u>MT</u> County/City: <u>Missoula</u> Time Zone Collected: <u>MT</u>				
Phone: _____	Site/Facility ID #: <u>03423</u>	Compliance Monitoring? ☐ Yes ☐ No				
Email: _____	Purchase Order #: _____	DW PWS ID #: _____				
Collected By (print): <u>Julien C</u>	Quote #: _____	DW Location Code: _____				
Collected By (signature): _____	Turnaround Date Required: _____	Immediately Packed on Ice: ☒ Yes ☐ No				
Sample Disposal: ☐ Dispose as appropriate ☐ Return ☐ Archive: _____	Rush: ☐ Same Day ☐ Next Day ☐ 2 Day ☐ 3 Day ☐ 4 Day ☐ 5 Day	Field Filtered (if applicable): ☐ Yes ☐ No				
☐ Hold: _____	(Expedite Charges Apply)	Analysis: _____				
* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)						
Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date Time	Composite End Date Time	Res Cl	# of Cns
MW-01	gw	g	11/13/23 15:00			6
MW-02			14:55			
MW-03			14:18			
MW-04			14:13			
MW-05			14:30			
MW-06			14:32			
MW-07			14:41			
MW-08			15:27			
MW-09			15:06			
MW-10			15:10			
Customer Remarks / Special Conditions / Possible Hazards:						
Type of Ice Used: <u>MET</u> Blue Dry None						
Packing Material Used: <u>Bubble Bags</u>						
Radchem sample(s) screened (<500 cpm): Y N NA						
SHORT HOLDS PRESENT (<72 hours): Y N N/A						
Lab Tracking #: <u>2621675</u>						
Samples received via: FEDEX UPS Client Courier Pace Courier						
Date/Time: <u>11/13/23 8:11</u> Received by/Company: (Signature) <u>Adel Mulla</u> HAZ						
Date/Time: <u>1-11-23 1539</u> Received by/Company: (Signature) <u>Michelle Hiv</u>						
Date/Time: _____ Received by/Company: (Signature)						
Date/Time: _____ Received by/Company: (Signature)						

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Analyses

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact Y N NA
Custody Signatures Present Y N NA
Collector Signatures Present Y N NA
Bottles Intact Y N NA
Correct Bottles Y N NA
Sufficient Volume Y N NA
Samples Received on Ice Y N NA
VOA - Headspace Acceptable Y N NA
USDA Regulated Soils Y N NA
Resamples in Holding Time Y N NA
Residual Chlorine Present Y N NA
Cl Strips: _____ Y N NA
Sample pH Acceptable Y N NA
pH Strips: _____ Y N NA
Sulfide Present Y N NA
Lead Acetate Strips: _____ Y N NA

LAB USE ONLY:

Lab Sample # / Comments:

Lab Sample # / Comments: 92646455
odor 001
Slight odor 002
no odor 003
no odor 004
no odor 005
no odor 006
no odor 007
odor 008
no odor 009
odor 010

Lab Sample Temperature Info:

Temp Blank Received: Y N NA
Therm ID#: 12070
Cooler 1 Temp Upon Receipt: 15.0 OC
Cooler 1 Therm Corr. Factor: 0.0 OC
Cooler 1 Corrected Temp: 15.0 OC
Comments:

Table #:

MTL LAB USE ONLY

Accum:

Template:

Prelign:

Tripp Blank Received: ☒ Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO Page: _____ of: _____

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

Billing Information:

Company: MECI

Address: 831 Doolittle Rd

Report To: B Shave

Copy To: Site Collection Info/Address: 4925 Pacifico Hwy

Customer Project Name/Number: 506 Hugs Ins

State: SC Address: [] PT [] MT [] CT [] ET

Phone: [] Site/Facility ID #: 03423

Email: [] Compliance Monitoring? [] Yes [] No

Collected By (print): [] Purchase Order #: [] DW PWS ID #: []

Collected By (Signature): [] Quote #: [] DW Location Code: []

Turnaround Date Required: [] Immediately Packed on Ice: []

Sample Disposal: [] Rush: [] Same Day [] Next Day [] 2 Day [] 3 Day [] 4 Day [] 5 Day

[] Archive: [] Field Filtered (if applicable): [] Yes [] No

[] Hold: [] Analysis: []

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start)		Composite End		Res CI	# of Ctns
			Date	Time	Date	Time		
DW-01	g	g	1/9/23	15:03				6
DW-02	g	g	1/9/23	14:41				4
DW-03	g	g	1/9/23	14:50				1
DW-04	g	g	1/9/23	15:21				1
DW-05	g	g	1/9/23	12:03				1
DW-06	g	g	1/9/23	13:58				1
DW-07	g	g	1/9/23	13:42				1
DW-08	g	g	1/9/23	14:07				1
DW-09	g	g	1/9/23	14:39				1

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: Wet Blue Dry None	Y N NA
Packing Material Used: Bubble Bag	
Radchem sample(s) screened (<500 cpm):	Y N NA

Relinquished by/Company: (Signature)

Date/Time: 1/11/23 811

Received by/Company: (Signature) [Signature]

Relinquished by/Company: (Signature)

Date/Time: 1-11-23 1539

Received by/Company: (Signature) [Signature]

Relinquished by/Company: (Signature)

Date/Time:

LAB USE ONLY - Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

ALL SHADED AREAS are for LAB USE ONLY

Container Preservative Type **

Lab Project Manager:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact Y N NA

Custody Signatures Present Y N NA

Collector Signatures Present Y N NA

Bottles Intact Y N NA

Correct Bottles Y N NA

Sufficient Volume Y N NA

Samples Received on Ice Y N NA

VOA - Headspace Acceptable Y N NA

USDA Regulated Soils Y N NA

Samples in Holding Time Y N NA

Residual Chlorine Present Y N NA

Cl Strips: Y N NA

Sample pH Acceptable Y N NA

pH Strips: Y N NA

Sulfide Present Y N NA

Lead Acetate Strips: Y N NA

LAB USE ONLY:

Lab Sample # / Comments: 92646455

Temp Blank Received: Y N NA

Therm ID#: 11-10-20

Cooler 1 Temp Upon Receipt: 07 oc

Cooler 1 Therm Corr. Factor: 0.0 oc

Cooler 1 Corrected Temp: 07 oc

Comments:

Temp Blank Received: Y N NA

Therm ID#: 11-10-20

Cooler 1 Temp Upon Receipt: 07 oc

Cooler 1 Therm Corr. Factor: 0.0 oc

Cooler 1 Corrected Temp: 07 oc

Comments:

Temp Blank Received: Y N NA

Therm ID#: 11-10-20

Cooler 1 Temp Upon Receipt: 07 oc

Cooler 1 Therm Corr. Factor: 0.0 oc

Cooler 1 Corrected Temp: 07 oc

Comments:

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

Billing Information:

Container Preservative Type **

ALL SHADED AREAS are for LAB USE ONLY

LAB USE ONLY - Affix Workorder/Login Label Here or List Pace Workorder Number or MTL Log-in Number Here

Lab Project Manager:

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Analyses

Lab Profile/Line:

Company: Meci

Address: 231 Dooley Rd

Report To: B Shawe

Copy To:

Customer Project Name/Number: State Highways

State: SC County/City: Florence Time Zone Collected: PT MT CT UT

Phone: 803 423

Site/Facility ID #: 03423

Compliance Monitoring? ☐ Yes ☐ No

Collected By (print): Jelene C Purchase Order #: 03423 DW PWS ID #: 03423 DW Location Code: 03423

Collected By (signature): Jelene C Turnaround Date Required: 1/11/23 Immediately Packed on Ice: ☐ Yes ☐ No

Sample Disposal: ☐ Same Day ☐ Next Day ☐ 2 Day ☐ 3 Day ☐ 4 Day ☐ 5 Day Field Filtered (if applicable): ☐ Yes ☐ No

☐ Dispose as appropriate ☐ Return ☐ Archive: 1/11/23 Analysis: 1/11/23

☐ Hold: 1/11/23 (Expedite Charges Apply)

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Custody Seals Present/Intact ☐ Yes ☐ No

Custody Signatures Present ☐ Yes ☐ No

Collector Signatures Present ☐ Yes ☐ No

Bottles Intact ☐ Yes ☐ No

Correct Bottles ☐ Yes ☐ No

Sufficient Volume ☐ Yes ☐ No

Samples Received on Ice ☐ Yes ☐ No

VOA - Headspace Acceptable ☐ Yes ☐ No

USDA Regulated Soils ☐ Yes ☐ No

Samples in Holding Time ☐ Yes ☐ No

Residual Chlorine Present ☐ Yes ☐ No

CI Strips: 021 ☐ Yes ☐ No

Sample pH Acceptable ☐ Yes ☐ No

pH Strips: 022 ☐ Yes ☐ No

Sulfide Present ☐ Yes ☐ No

Lead Acetate Strips: 023 ☐ Yes ☐ No

LAB USE ONLY: Lab Sample # / Comments: 92646455

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Time	Composite End Date	Time	Res CI	# of Cms
<u>021</u>	<u>3w</u>	<u>8</u>	<u>1/11/23</u>	<u>14:28</u>				<u>6</u>
<u>022</u>	<u>3w</u>	<u>8</u>	<u>1/11/23</u>	<u>14:28</u>				<u>6</u>
<u>023</u>	<u>3w</u>	<u>8</u>	<u>1/11/23</u>	<u>14:28</u>				<u>6</u>
<u>024</u>	<u>3w</u>	<u>8</u>	<u>1/11/23</u>	<u>14:28</u>				<u>6</u>

Customer Remarks / Special Conditions / Possible Hazards:	Type of Ice Used:	Wet	Blue	Dry	None
	Packing Material Used:				
	Radchem sample(s) screened (<500 cpm):	Y	N	NA	

SHORT HOLDS PRESENT (<72 hours):	Y	N	NA
Lab Tracking #:			
2857979			

Relinquished by/Company: (Signature) Meci Date/Time: 1/11/23 8:11

Received by/Company: (Signature) Abel Mundy Date/Time: 1/11/23 15:39

Samples received via: FEDEX UPS Client AB11

Courier Pace Courier

MTL LAB USE ONLY

Relinquished by/Company: (Signature) Meci Date/Time: 1/11/23 15:39

Received by/Company: (Signature) Abel Mundy Date/Time: 1/11/23 15:39

Temp Blank Received: ☐ Y ☐ N ☒ NA

Therm ID#: 92646455

Cooler 1 Temp Upon Receipt: 12.5 °C

Cooler 1 Therm Corr. Factor: 0.0 °C

Cooler 1 Corrected Temp: 12.5 °C

Comments:

Relinquished by/Company: (Signature) Meci Date/Time: 1/11/23 15:39

Received by/Company: (Signature) Abel Mundy Date/Time: 1/11/23 15:39

Non Conformance(s): YES / NO Page: 49 of: 52

Effective Date: 05/12/202205/12/2022

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, L/Hg

**Bottom half of box is to list number of bottles

***Check all unpreserved Nitrates for chlorine

Project #

WO#: 92646455

PM: TMC

Due Date: 01/18/23

CLIENT: 92-MIDLAND

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	DG9S-40 mL VOA H2SO4 (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
1																6													
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3																6													
4																6													
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12																6													

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Project #

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

**Bottom half of box is to list number of bottles

***Check all unpreserved Nitrates for chlorine

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	DG9S-40 mL VOA H2SO4 (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1																6												
2																6												
3																6												
4																6												
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10																6												
11																6												
12																												

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

**Bottom half of box is to list number of bottles

***Check all unpreserved Nitrates for chlorine

Project #

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	DG9S-40 mL VOA H2SO4 (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
1																6													
2																6													
3																2													
4																6													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

January 17, 2023

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

RE: Project: JAKE HUGGINS 03423 WSW
Pace Project No.: 92646450

Dear Mr. Shane, P.G.:

Enclosed are the analytical results for sample(s) received by the laboratory on January 11, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Charlotte

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

Sincerely,



Taylor M Cannon
taylor.cannon@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Mr. Jeff Coleman, Midlands Environmental
Mr. Kyle Pudney, Midlands Environmental



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: JAKE HUGGINS 03423 WSW

Pace Project No.: 92646450

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006

9800 Kinsey 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 Laboratory ID: 99006

South Carolina Certification #: 99006001

South Carolina Drinking Water Cert. #: 99006003

Florida/NELAP Certification #: E87627

Kentucky UST Certification #: 84

Louisiana DoH Drinking Water #: LA029

Virginia/VELAP Certification #: 460221

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: JAKE HUGGINS 03423 WSW

Pace Project No.: 92646450

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92646450001	WSW-1	Water	01/09/23 14:19	01/11/23 08:11
92646450002	WSW-2	Water	01/09/23 14:43	01/11/23 08:11
92646450003	WSW-DUP	Water	01/09/23 00:00	01/11/23 08:11
92646450004	WSW-TB	Water	01/09/23 08:00	01/11/23 08:11
92646450005	WSW-FB	Water	01/09/23 15:00	01/11/23 08:11

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SAMPLE ANALYTE COUNT

Project: JAKE HUGGINS 03423 WSW

Pace Project No.: 92646450

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92646450001	WSW-1	EPA 504.1	HH	2	PASI-C
		EPA 524.2	LMB	11	PASI-C
		EPA 8260D	CL	11	PASI-C
92646450002	WSW-2	EPA 504.1	HH	2	PASI-C
		EPA 524.2	LMB	11	PASI-C
		EPA 8260D	CL	11	PASI-C
92646450003	WSW-DUP	EPA 504.1	HH	2	PASI-C
		EPA 524.2	LMB	11	PASI-C
		EPA 8260D	CL	11	PASI-C
92646450004	WSW-TB	EPA 524.2	LMB	11	PASI-C
		EPA 8260D	CL	11	PASI-C
92646450005	WSW-FB	EPA 504.1	HH	2	PASI-C
		EPA 524.2	LMB	11	PASI-C
		EPA 8260D	CL	11	PASI-C

PASI-C = Pace Analytical Services - Charlotte

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ANALYTICAL RESULTS

Project: JAKE HUGGINS 03423 WSW

Pace Project No.: 92646450

Sample: WSW-1		Lab ID: 92646450001		Collected: 01/09/23 14:19		Received: 01/11/23 08:11		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
504 GCS EDB and DBCP Analytical Method: EPA 504.1 Preparation Method: EPA 504.1 Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0056	1	01/16/23 16:08	01/16/23 23:27	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	105	%	70-130		1	01/16/23 16:08	01/16/23 23:27	301-79-56	
524.2 MSV SC List Analytical Method: EPA 524.2 Pace Analytical Services - Charlotte									
Benzene	ND	ug/L	0.50	0.21	1		01/12/23 18:59	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	0.16	1		01/12/23 18:59	107-06-2	
Ethylbenzene	ND	ug/L	0.50	0.22	1		01/12/23 18:59	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	0.14	1		01/12/23 18:59	1634-04-4	
Naphthalene	ND	ug/L	0.50	0.35	1		01/12/23 18:59	91-20-3	
Toluene	ND	ug/L	0.50	0.20	1		01/12/23 18:59	108-88-3	
Xylene (Total)	ND	ug/L	0.50	0.22	1		01/12/23 18:59	1330-20-7	
m&p-Xylene	ND	ug/L	1.0	0.39	1		01/12/23 18:59	179601-23-1	
o-Xylene	ND	ug/L	0.50	0.22	1		01/12/23 18:59	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	92	%	70-130		1		01/12/23 18:59	2199-69-1	
4-Bromofluorobenzene (S)	88	%	70-130		1		01/12/23 18:59	460-00-4	
8260 MSV Low Level SC Analytical Method: EPA 8260D Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		01/13/23 05:14	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		01/13/23 05:14	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		01/13/23 05:14	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		01/13/23 05:14	75-65-0	v3
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		01/13/23 05:14	762-75-4	P5
Diisopropyl ether	ND	ug/L	1.0	0.31	1		01/13/23 05:14	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		01/13/23 05:14	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		01/13/23 05:14	637-92-3	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		01/13/23 05:14	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	70-130		1		01/13/23 05:14	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		01/13/23 05:14	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: JAKE HUGGINS 03423 WSW

Pace Project No.: 92646450

Sample: WSW-2		Lab ID: 92646450002		Collected: 01/09/23 14:43		Received: 01/11/23 08:11		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
504 GCS EDB and DBCP		Analytical Method: EPA 504.1 Preparation Method: EPA 504.1 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0056	1	01/16/23 16:08	01/16/23 23:38	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	109	%	70-130		1	01/16/23 16:08	01/16/23 23:38	301-79-56	
524.2 MSV SC List		Analytical Method: EPA 524.2 Pace Analytical Services - Charlotte							
Benzene	ND	ug/L	0.50	0.21	1		01/12/23 19:25	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	0.16	1		01/12/23 19:25	107-06-2	
Ethylbenzene	ND	ug/L	0.50	0.22	1		01/12/23 19:25	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	0.14	1		01/12/23 19:25	1634-04-4	
Naphthalene	ND	ug/L	0.50	0.35	1		01/12/23 19:25	91-20-3	
Toluene	ND	ug/L	0.50	0.20	1		01/12/23 19:25	108-88-3	
Xylene (Total)	ND	ug/L	0.50	0.22	1		01/12/23 19:25	1330-20-7	
m&p-Xylene	ND	ug/L	1.0	0.39	1		01/12/23 19:25	179601-23-1	
o-Xylene	ND	ug/L	0.50	0.22	1		01/12/23 19:25	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	93	%	70-130		1		01/12/23 19:25	2199-69-1	
4-Bromofluorobenzene (S)	87	%	70-130		1		01/12/23 19:25	460-00-4	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		01/13/23 05:32	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		01/13/23 05:32	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		01/13/23 05:32	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		01/13/23 05:32	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		01/13/23 05:32	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		01/13/23 05:32	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		01/13/23 05:32	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		01/13/23 05:32	637-92-3	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		01/13/23 05:32	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	70-130		1		01/13/23 05:32	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		01/13/23 05:32	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: JAKE HUGGINS 03423 WSW

Pace Project No.: 92646450

Sample: WSW-DUP		Lab ID: 92646450003		Collected: 01/09/23 00:00		Received: 01/11/23 08:11		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
504 GCS EDB and DBCP		Analytical Method: EPA 504.1 Preparation Method: EPA 504.1 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0057	1	01/16/23 16:08	01/16/23 23:49	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	107	%	70-130		1	01/16/23 16:08	01/16/23 23:49	301-79-56	
524.2 MSV SC List		Analytical Method: EPA 524.2 Pace Analytical Services - Charlotte							
Benzene	ND	ug/L	0.50	0.21	1		01/12/23 19:51	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	0.16	1		01/12/23 19:51	107-06-2	
Ethylbenzene	ND	ug/L	0.50	0.22	1		01/12/23 19:51	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	0.14	1		01/12/23 19:51	1634-04-4	
Naphthalene	ND	ug/L	0.50	0.35	1		01/12/23 19:51	91-20-3	
Toluene	ND	ug/L	0.50	0.20	1		01/12/23 19:51	108-88-3	
Xylene (Total)	ND	ug/L	0.50	0.22	1		01/12/23 19:51	1330-20-7	
m&p-Xylene	ND	ug/L	1.0	0.39	1		01/12/23 19:51	179601-23-1	
o-Xylene	ND	ug/L	0.50	0.22	1		01/12/23 19:51	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	95	%	70-130		1		01/12/23 19:51	2199-69-1	
4-Bromofluorobenzene (S)	89	%	70-130		1		01/12/23 19:51	460-00-4	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		01/13/23 05:50	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		01/13/23 05:50	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		01/13/23 05:50	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		01/13/23 05:50	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		01/13/23 05:50	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		01/13/23 05:50	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		01/13/23 05:50	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		01/13/23 05:50	637-92-3	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		01/13/23 05:50	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	70-130		1		01/13/23 05:50	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		01/13/23 05:50	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS 03423 WSW

Pace Project No.: 92646450

Sample: WSW-TB		Lab ID: 92646450004		Collected: 01/09/23 08:00		Received: 01/11/23 08:11		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
524.2 MSV SC List									
Analytical Method: EPA 524.2									
Pace Analytical Services - Charlotte									
Benzene	ND	ug/L	0.50	0.21	1		01/12/23 17:14	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	0.16	1		01/12/23 17:14	107-06-2	
Ethylbenzene	ND	ug/L	0.50	0.22	1		01/12/23 17:14	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	0.14	1		01/12/23 17:14	1634-04-4	
Naphthalene	ND	ug/L	0.50	0.35	1		01/12/23 17:14	91-20-3	
Toluene	ND	ug/L	0.50	0.20	1		01/12/23 17:14	108-88-3	
Xylene (Total)	ND	ug/L	0.50	0.22	1		01/12/23 17:14	1330-20-7	
m&p-Xylene	ND	ug/L	1.0	0.39	1		01/12/23 17:14	179601-23-1	
o-Xylene	ND	ug/L	0.50	0.22	1		01/12/23 17:14	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	91	%	70-130		1		01/12/23 17:14	2199-69-1	
4-Bromofluorobenzene (S)	87	%	70-130		1		01/12/23 17:14	460-00-4	
8260 MSV Low Level SC									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		01/13/23 04:55	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		01/13/23 04:55	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		01/13/23 04:55	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		01/13/23 04:55	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		01/13/23 04:55	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		01/13/23 04:55	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		01/13/23 04:55	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		01/13/23 04:55	637-92-3	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		01/13/23 04:55	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130		1		01/13/23 04:55	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		01/13/23 04:55	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS 03423 WSW

Pace Project No.: 92646450

Sample: WSW-FB		Lab ID: 92646450005		Collected: 01/09/23 15:00		Received: 01/11/23 08:11		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
504 GCS EDB and DBCP Analytical Method: EPA 504.1 Preparation Method: EPA 504.1 Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0057	1	01/16/23 16:08	01/16/23 23:59	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	109	%	70-130		1	01/16/23 16:08	01/16/23 23:59	301-79-56	
524.2 MSV SC List Analytical Method: EPA 524.2 Pace Analytical Services - Charlotte									
Benzene	ND	ug/L	0.50	0.21	1		01/12/23 17:40	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	0.16	1		01/12/23 17:40	107-06-2	
Ethylbenzene	ND	ug/L	0.50	0.22	1		01/12/23 17:40	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	0.14	1		01/12/23 17:40	1634-04-4	
Naphthalene	ND	ug/L	0.50	0.35	1		01/12/23 17:40	91-20-3	
Toluene	ND	ug/L	0.50	0.20	1		01/12/23 17:40	108-88-3	
Xylene (Total)	ND	ug/L	0.50	0.22	1		01/12/23 17:40	1330-20-7	
m&p-Xylene	ND	ug/L	1.0	0.39	1		01/12/23 17:40	179601-23-1	
o-Xylene	ND	ug/L	0.50	0.22	1		01/12/23 17:40	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	91	%	70-130		1		01/12/23 17:40	2199-69-1	
4-Bromofluorobenzene (S)	88	%	70-130		1		01/12/23 17:40	460-00-4	
8260 MSV Low Level SC Analytical Method: EPA 8260D Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		01/13/23 04:37	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		01/13/23 04:37	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		01/13/23 04:37	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		01/13/23 04:37	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		01/13/23 04:37	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		01/13/23 04:37	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		01/13/23 04:37	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		01/13/23 04:37	637-92-3	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		01/13/23 04:37	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130		1		01/13/23 04:37	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		01/13/23 04:37	2037-26-5	

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QUALITY CONTROL DATA

Project: JAKE HUGGINS 03423 WSW

Pace Project No.: 92646450

QC Batch:	749097	Analysis Method:	EPA 524.2
QC Batch Method:	EPA 524.2	Analysis Description:	524.2 MSV
		Laboratory:	Pace Analytical Services - Charlotte

Associated Lab Samples: 92646450001, 92646450002, 92646450003, 92646450004, 92646450005

METHOD BLANK: 3894307

Matrix: Water

Associated Lab Samples: 92646450001, 92646450002, 92646450003, 92646450004, 92646450005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	0.50	0.16	01/12/23 16:48	
Benzene	ug/L	ND	0.50	0.21	01/12/23 16:48	
Ethylbenzene	ug/L	ND	0.50	0.22	01/12/23 16:48	
m&p-Xylene	ug/L	ND	1.0	0.39	01/12/23 16:48	
Methyl-tert-butyl ether	ug/L	ND	0.50	0.14	01/12/23 16:48	
Naphthalene	ug/L	ND	0.50	0.35	01/12/23 16:48	
o-Xylene	ug/L	ND	0.50	0.22	01/12/23 16:48	
Toluene	ug/L	ND	0.50	0.20	01/12/23 16:48	
Xylene (Total)	ug/L	ND	0.50	0.22	01/12/23 16:48	
1,2-Dichlorobenzene-d4 (S)	%	92	70-130		01/12/23 16:48	
4-Bromofluorobenzene (S)	%	90	70-130		01/12/23 16:48	

LABORATORY CONTROL SAMPLE: 3894308

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	20	20.3	102	70-130	
Benzene	ug/L	20	17.7	89	70-130	
Ethylbenzene	ug/L	20	18.0	90	70-130	
m&p-Xylene	ug/L	40	37.1	93	70-130	
Methyl-tert-butyl ether	ug/L	20	17.7	88	70-130	
Naphthalene	ug/L	20	17.3	87	70-130	
o-Xylene	ug/L	20	18.3	91	70-130	
Toluene	ug/L	20	17.7	89	70-130	
Xylene (Total)	ug/L	60	55.3	92		
1,2-Dichlorobenzene-d4 (S)	%			106	70-130	
4-Bromofluorobenzene (S)	%			101	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: JAKE HUGGINS 03423 WSW
Pace Project No.: 92646450

QC Batch: 749146 Analysis Method: EPA 8260D
QC Batch Method: EPA 8260D Analysis Description: 8260 MSV Low Level SC
Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92646450001, 92646450002, 92646450003, 92646450004, 92646450005

METHOD BLANK: 3894626 Matrix: Water
Associated Lab Samples: 92646450001, 92646450002, 92646450003, 92646450004, 92646450005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
3,3-Dimethyl-1-Butanol	ug/L	ND	100	51.9	01/13/23 03:41	
Diisopropyl ether	ug/L	ND	1.0	0.31	01/13/23 03:41	
Ethanol	ug/L	ND	200	72.2	01/13/23 03:41	
Ethyl-tert-butyl ether	ug/L	ND	10.0	3.2	01/13/23 03:41	
tert-Amyl Alcohol	ug/L	ND	100	36.4	01/13/23 03:41	
tert-Amylmethyl ether	ug/L	ND	10.0	2.7	01/13/23 03:41	
tert-Butyl Alcohol	ug/L	ND	100	26.8	01/13/23 03:41	
tert-Butyl Formate	ug/L	ND	50.0	29.4	01/13/23 03:41	
1,2-Dichloroethane-d4 (S)	%	96	70-130		01/13/23 03:41	
4-Bromofluorobenzene (S)	%	100	70-130		01/13/23 03:41	
Toluene-d8 (S)	%	98	70-130		01/13/23 03:41	

LABORATORY CONTROL SAMPLE: 3894627

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
3,3-Dimethyl-1-Butanol	ug/L	400	390	97	70-130	
Diisopropyl ether	ug/L	20	17.4	87	70-130	
Ethanol	ug/L	800	805	101	70-130	
Ethyl-tert-butyl ether	ug/L	40	36.5	91	70-130	
tert-Amyl Alcohol	ug/L	400	400	100	70-130	
tert-Amylmethyl ether	ug/L	40	39.9	100	70-130	
tert-Butyl Alcohol	ug/L	200	159	79	70-130	
tert-Butyl Formate	ug/L	160	154	96	70-130	
1,2-Dichloroethane-d4 (S)	%			101	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3894628 3894629

Parameter	Units	92646450001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
3,3-Dimethyl-1-Butanol	ug/L	ND	400	400	426	441	107	110	39-157	3	30	
Diisopropyl ether	ug/L	ND	20	20	19.3	18.5	97	93	63-144	4	30	
Ethanol	ug/L	ND	800	800	826	798	103	100	39-176	3	30	
Ethyl-tert-butyl ether	ug/L	ND	40	40	40.3	38.6	101	96	66-137	4	30	
tert-Amyl Alcohol	ug/L	ND	400	400	378	402	94	101	54-153	6	30	
tert-Amylmethyl ether	ug/L	ND	40	40	44.7	44.2	112	110	69-139	1	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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QUALITY CONTROL DATA

Project: JAKE HUGGINS 03423 WSW

Pace Project No.: 92646450

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3894628 3894629												
Parameter	Units	92646450001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
tert-Butyl Alcohol	ug/L	ND	200	200	228	233	114	117	43-188	2	30	v3
tert-Butyl Formate	ug/L	ND	160	160	ND	ND	6	4	10-170		30	P5
1,2-Dichloroethane-d4 (S)	%						93	93	70-130			
4-Bromofluorobenzene (S)	%						97	98	70-130			
Toluene-d8 (S)	%						99	99	70-130			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: JAKE HUGGINS 03423 WSW
Pace Project No.: 92646450

QC Batch: 749567 Analysis Method: EPA 504.1
QC Batch Method: EPA 504.1 Analysis Description: GCS 504 EDB DBCP
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92646450001, 92646450002, 92646450003, 92646450005

METHOD BLANK: 3896655 Matrix: Water
Associated Lab Samples: 92646450001, 92646450002, 92646450003, 92646450005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.021	0.0059	01/16/23 21:51	
1-Chloro-2-bromopropane (S)	%	108	70-130		01/16/23 21:51	

LABORATORY CONTROL SAMPLE & LCSD: 3896656		3896657								
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	0.26	0.30	0.29	115	115	70-130	3	20	
1-Chloro-2-bromopropane (S)	%				107	112	70-130			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3896659				3896660								
Parameter	Units	92645832003 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	0.0057U	0.24	0.24	0.30	0.32	124	133	65-135	7	20	
1-Chloro-2-bromopropane (S)	%						110	119	70-130			P4

SAMPLE DUPLICATE: 3896658		92645832002					Max RPD		Qualifiers
Parameter	Units	Result	Dup Result	RPD					
1,2-Dibromoethane (EDB)	ug/L	0.0057U	ND				20		
1-Chloro-2-bromopropane (S)	%	109	109					P4	

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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QUALIFIERS

Project: JAKE HUGGINS 03423 WSW

Pace Project No.: 92646450

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

- | | |
|----|---|
| P4 | Sample field preservation does not meet EPA or method recommendations for this analysis. |
| P5 | The EPA or method required sample preservation degrades this compound, therefore acceptable recoveries may not be achieved in sample matrix spikes. |
| v3 | The continuing calibration verification was below the method acceptance limit. Any detection for the analyte in the associated samples may have low bias. |

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: JAKE HUGGINS 03423 WSW

Pace Project No.: 92646450

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92646450001	WSW-1	EPA 504.1	749567	EPA 504.1	749637
92646450002	WSW-2	EPA 504.1	749567	EPA 504.1	749637
92646450003	WSW-DUP	EPA 504.1	749567	EPA 504.1	749637
92646450005	WSW-FB	EPA 504.1	749567	EPA 504.1	749637
92646450001	WSW-1	EPA 524.2	749097		
92646450002	WSW-2	EPA 524.2	749097		
92646450003	WSW-DUP	EPA 524.2	749097		
92646450004	WSW-TB	EPA 524.2	749097		
92646450005	WSW-FB	EPA 524.2	749097		
92646450001	WSW-1	EPA 8260D	749146		
92646450002	WSW-2	EPA 8260D	749146		
92646450003	WSW-DUP	EPA 8260D	749146		
92646450004	WSW-TB	EPA 8260D	749146		
92646450005	WSW-FB	EPA 8260D	749146		

REPORT OF LABORATORY ANALYSIS

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CHAIN-OF-CUSTODY Analytical Request Document

MO#: 92646450

ist Pace Workorder Number or
re



AB USE ONLY

Face Analytical

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

Billing Information:

92646450

Container Preservative Type

Lab Project Manager:

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Company: MECC
Address: 231 dooly rd
Report To: B shane
Copy To:
Customer Project Name/Number: State High W5
State: SC County/City: Greenville Time Zone Collected: ET
Email To: JCC@mecc.net
Site Collection Info/Address:

Phone: Site/Facility ID #: 03423
Collected By (print): Jalgon C Purchase Order #:
Collected By (signature): Jalgon C Turnaround Date Required:

Sample Disposal: Rush: ☐ Same Day ☐ Next Day ☐ 2 Day ☐ 3 Day ☐ 4 Day ☐ 5 Day
☐ Archive: ☐ Hold: (Expedite Charges Apply)
Field Filtered (if applicable): ☐ Yes ☐ No
Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start)		Composite End		Res C	# of Cns
			Date	Time	Date	Time		
W500-1	DW	9	11/9/22	14:19				9
W500-2								
W500-3								
W500-Dep								
W500-TB								
W500-TB								

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: Wet Blue Dry None
Packing Material Used: Bubble Baggy
Radchem sample(s) screened (<500 cpm): Y N NA

Lab Tracking #: 2621677
Samples received via: FEDEX UPS Client Courier Face Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#: 92646450
Cooler 1 Temp Upon Receipt: 12 oc
Cooler 1 Therm Corr. Factor: 00 oc
Cooler 1 Corrected Temp: 12 oc
Comments:

Relinquished by/Company: (Signature) Date/Time: 11/11/23 811
Received by/Company: (Signature) John M. Hays

Date/Time: 1-15-23 0811
Table #:
MTUL LAB USE ONLY

Accrual:
Template:
PrelogIn:
PM:
PB:

Relinquished by/Company: (Signature) Date/Time: 1-11-23 1539
Received by/Company: (Signature) John M. Hays

Date/Time: 1-11-23 1539
Table #:
MTUL LAB USE ONLY

Accrual:
Template:
PrelogIn:
PM:
PB:

Non Conformance(s): Page:
YES / NO of:

Analyses

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact Y N NA
Custody Signatures Present Y N NA
Collector Signatures Present Y N NA
Bottles Intact Y N NA
Correct Bottles Y N NA
Sufficient Volume Y N NA
Samples Received on Ice Y N NA
VOA - Headspace Acceptable Y N NA
USDA Regulated Soils Y N NA
Residual Chlorine Present Y N NA
Cl Strips: Y N NA
Sample pH Acceptable Y N NA
pH Strips: Y N NA
Sulfide Present Y N NA
Lead Acetate Strips: Y N NA

LAB USE ONLY:
Lab Sample # / Comments:

92646450

DNS

001

002

003

004

005

Effective Date: 05/12/202205/12/2022

WO#: 92646450

PM: TMC

Due Date: 01/18/23

CLIENT: 92-MIDLAND

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

**Bottom half of box is to list number of bottles

***Check all unpreserved Nitrates for chlorine

Project #

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	DG9S-40 mL VOA H2SO4 (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
1																6	3												
2																6	3												
3																6	3												
4																6	3												
5																6													
6																6	3												
7																													
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

APPENDIX C:

TAX MAP

(Not Applicable)

APPENDIX D:

SOIL BORING/FIELD SCREENING LOGS & 1903 FORMS

(Not Applicable)

APPENDIX E:
WELL COMPLETION LOGS & 1903 FORMS
(Not Applicable)

APPENDIX F:
AQUIFER EVALUATION SUMMARY FORMS, DATA, GRAPHS, EQUATIONS
(Not Applicable)

APPENDIX G:
DISPOSAL MANIFEST



January 19, 2023

Re: Treatment of Purge Water
Jake Huggins DBA Outpost at Willowcreek
Florence, South Carolina
UST Permit# 03423
MECI Project Number 22-7924A

To Whom it May Concern;

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

Applicability:

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

Conditions:

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

All purge waters were treated on-site using an up-flow treatment drum loaded with 80 pounds of activated carbon. Carbon will be loaded to a maximum of 3 pounds of total organic compounds or 5,000 gallons of development/purge water, whichever occurs first.

January 19, 2023

63.50 Gallons of Purge water were treated on January 9,2023 at the referenced site.

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

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

Sincerely,
Midlands Environmental Consultants, Inc.



Jeff L. Coleman
Senior Scientist

APPENDIX H:
LOCAL ZONING REGULATIONS
(Not Applicable)

APPENDIX I:
FATE AND TRANSPORT MODELING
(Not Applicable)

APPENDIX J:
ACCESS AGREEMENTS
(Not Applicable)

APPENDIX K:
DATA VERIFICATION CHECKLIST

Contractor Checklist

Item#	Item	Yes	No	N/A
1	Are Facility Name, Permit #, and address provided?	X		
2	Is UST Owner/Operator name, address, & phone number provided?	X		
3	Is name, address, & phone number of current property owner provided?	X		
4	Is the DHEC Certified UST Site Rehabilitation Contractor's Name, Address, telephone number, and certification number provided?	X		
5	Is the name, address, telephone number, and certification number of the well driller that installed borings/monitoring wells provided?			X
6	Is the name, address, telephone number, and certification number of the certified laboratory(ies) performing analytical analyses provided?	X		
7	Has the facility history been summarized?	X		
8	Has the regional geology and hydrogeology been described?	X		
9	Are the receptor survey results provided as required?			X
10	Has current use of the site and adjacent land been described?	X		
11	Has the site-specific geology and hydrogeology been described?	X		
12	Has the primary soil type been described?	X		
13	Have field screening results been described?			X
14	Has a description of the soil sample collection and preservation been detailed?			X
15	Has the field screening methodology and procedure been detailed?			X
16	Has the monitoring well installation and development dates been provided?			X
17	Has the method of well development been detailed?			X
18	Has justification been provided for the locations of the monitoring wells?			X
19	Have the monitoring wells been labeled in accordance with the UST QAPP guidelines?	X		
20	Has the groundwater sampling methodology been detailed?	X		
21	Have the groundwater sampling dates and groundwater measurements been provided? (Table 2 & Figures 4-4A)	X		
22	Has the purging methodology been detailed?	X		
23	Has the volume of water purged from each well been provided along with measurements to verify that purging is complete? (Appendix B)	X		
24	If free-product is present, has the thickness been provided?		X	
25	Does the report include a brief discussion of the assessment done and the results?	X		
26	Does the report include a brief discussion of the aquifer evaluation and results?			X
27	Does the report include a brief discussion of the fate & transport models used?			X

Item#	Item	Yes	No	N/A
28	Are the site-conceptual model tables included? (Tier 1 Risk Evaluation)			X
29	Have the exposure pathways been analyzed? (Tier 2 Risk Evaluation)			X
30	Have the SSTLs for each compound and pathway been calculated? (Tier 2 Risk Evaluation)			X
31	Have recommendations for further action been provided and explained?	X		
32	Has the soil analytical data for the site been provided in tabular format?			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? (Table 1)	X		
35	Have the aquifer characteristics been provided and summarized on the appropriate form? (Appendix F)			X
36	Have the Site conceptual model tables been included? (Tier 1 Risk Evaluation)			X
37	Has the topographic map been provided with all required elements? (Figure 1)	X		
38	Has the site base map been provided with all required elements? (Figure 2)	X		
39	Have the CoC site maps been provided? (Figure 3-3A)	X		
40	Has the site potentiometric map been provided? (Figure 4-4A)	X		
41	Have the geologic cross-sections been provided?			X
42	Have maps showing the predicted migration of the CoCs through time been provided? (Tier 2 Risk Evaluation)			X
43	Has the site survey been provided and include all necessary elements? (Appendix A)			X
44	Have the sampling logs, chain of custody forms, and the analytical data package been included with all required elements? (Appendix B)	X		
45	Is the laboratory performing the analyses properly certified?	X		
46	Has the tax map been included with all necessary elements? (Appendix C)			X
47	Have the soil boring/field screening logs been provided? (Appendix E)			X
48	Have the well completion logs and SCDHEC Form 1903 been provided? (Appendix E)			X
49	Have the aquifer evaluation forms, data, graphs, equations, etc. been provided? (Appendix F)			X
50	Have the disposal manifests been provided? (Appendix G)	X		
51	Has a copy of the local zoning regulations been provided? (Appendix H)			X
52	Has all fate and transport modeling been provided? (Appendix I)			X
53	Have copies of all access agreements obtained by the contractor been provided? (Appendix J)			X
54	Has a copy of this form been attached to the final report and are explanations for any missing or incomplete data been provided? (Appendix K)	X		

APPENDIX L:
DETAILED RECEPTOR INFORMATION

	Receptor ID: (03423-WSW01)
	Parcel ID: 00213-01-130
	Property Owner Name: Willie B Winchester Jr.
	Property Owner Address: 3101 Willow Creek Rd, Florence, SC 29505
	WSW Details: Well is inside barn building. Sample collected from spigot on water supply well. GPS: 34.096044, -79.701503

	Receptor ID: (03423-WSW02)
	Parcel ID: 00213-01-130
	Property Owner Name: Willie B Winchester Jr.
	Property Owner Address: 3101 Willow Creek Rd, Florence, SC 29505
	WSW Details: Sample collected from spigot on WSW. GPS: 34.095156, -79.700508

	Receptor ID: (03423-WSW03)
	Parcel ID: 00213-01-052
	Property Owner Name: Linda L Huggins
	Property Owner Address: 3695 Willow Creek Rd, Florence, SC 29505
	WSW Details: Well has been disconnected. Unable to sample with bailer due to metal elbow at well head. GPS: 34.096743, -79.701503

	Receptor ID: (03423-Possible WSW)
	Parcel ID: 00214-01-016
	Property Owner Name: Trent P Stallings
	Property Owner Address: 3118 Willow Creek Rd, Florence, SC 29505
	WSW Details: Possible well house attached to residence. Resident did not respond to attempts to make contact. GPS: 34.094158, -79.700555

	Receptor ID: (03423-SW01)	
	Parcel ID: SCDOT Right of Way	
	Property Owner Name: SCDOT	
	Property Owner Address: PO Box 191, Columbia, SC 29201	
SW Details: Surface water sample collected from drainage ditch. GPS: 34.095076, -79.696772		

	Receptor ID: (03423-SW02)	
	Parcel ID: SCDOT Right of Way	
	Property Owner Name: SCDOT	
	Property Owner Address: PO Box 191, Columbia, SC 29201	
	SW Details: Surface water sample collected from drainage ditch. GPS: 34.095847, -79.697296	

	Receptor ID: (03423-SW03)	
	Parcel ID: 00213-01-017	
	Property Owner Name: Barbara M Williams	
	Property Owner Address: 9296 Grays Highway, Ridgeland, SC 29936	
	SW Details: Surface water sample collected from stream. GPS: 34.094620, -79.698172	



Receptor ID: (03423-SW04)
Parcel ID: 00213-01-017
Property Owner Name: Barbara M Williams
Property Owner Address: 9296 Grays Highway, Ridgeland, SC 29936
SW Details: Surface water sample collected from stream. GPS: 34.095389, -79.698409



Receptor ID: (03423-SW05)
Parcel ID: 00213-01-017
Property Owner Name: Barbara M Williams
Property Owner Address: 9282 Grays Highway, Ridgeland, SC 29936
SW Details: Surface water sample collected from stream. GPS: 34.096050, -79.698577



Receptor ID: (03423-SW06)
Parcel ID: 00213-01-017
Property Owner Name: Barbara M Williams
Property Owner Address: 9372 Grays Highway, Ridgeland, SC 29936
SW Details: Surface water sample collected from stream. GPS: 34.096699, -79.699359



B W STOKES OIL CO INC
ATTN MR BENNIE STOKES
PO BOX 1656
FLORENCE SC 29503

FEB 07 2023



Re: First Quarter 2023 Monitoring Report Review
Jake Huggins Dba Outpost At Willowcreek; 4925 Pamplico Hwy., Florence, SC
UST Permit #03423; CA #65748
Release reported February 26, 2002
Site-Specific Work Plan (SSWP) received November 16, 2022
Report of First Quarter Groundwater Monitoring[1 of 4] received January 26, 2023
Florence County

Dear Mr. Stokes:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (DHEC) has reviewed the referenced Report of Groundwater Monitoring with the following comments.

In accordance with the approved Site-Specific Work Plan (SSWP), the next groundwater sampling event may proceed in April 2023 as proposed. **The next quarterly Monitoring Report and invoice should be submitted on or before June 02, 2023.** All reports submitted for these activities should include the required information outlined in the UST QAPP. If any quality assurance problems arise, your contractor must contact me within 24 hours by email or phone.

Pursuant to S.C. Code Ann. Section 44-2-40(D), "The SUPERB Account and the SUPERB Financial Responsibility Fund shall provide combined coverage for site rehabilitation and third-party claims, respectively, not to exceed one million dollars per occurrence". According to DHEC records, approximately \$72,975.05 has been expended from the SUPERB Account to date. This scope of work, as proposed by your contractor, is anticipated to cost approximately \$40,315.42.

On all correspondence regarding this site, please reference UST Permit #03423. Should you have any questions, please contact me by phone (803) 898-0671, email dunnra@dhec.sc.gov, or fax (803) 898-0673.

Sincerely,

Robert Dunn

Robert A. Dunn, Hydrogeologist
Corrective Action and Field Support Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

Cc: Midlands Environmental Consultants, PO Box 854, Lexington, SC 29071 (w/ Enc)
Technical File (w/ Enc)



BILLY HUGGINS
621 MALLARD POND ROAD
MURRELLS INLET, SC 29576

March 24, 2023

Re: Site History Summary

Jake Huggins DBA Outpost at Willowcreek, 4925 Pamplico Hwy, Florence, SC
Florence County
UST Permit #03423
Request for Site History Summary received March 14, 2023

Dear Mr. Huggins:

In response to your request for information about the environmental conditions associated with the referenced facility, the following is provided.

The Underground Storage Tank (UST) Management Division (Division) records indicate five (5) USTs is registered with the South Carolina Department of Health and Environmental Control (DHEC). USTs 1 through 4 are registered to Jake Huggins and were removed on June 30, 2016. UST-5 is registered to B W Stokes Oil Co Inc. and was removed on May 20, 2002.

Release 1

On February 26, 2002, a petroleum release was reported at the facility assigned the UST permit number referenced above. Division records indicate that B W Stokes Oil Co Inc., the tank owner at the time of the above referenced release, complied with the regulatory requirements and performed the initial response actions outlined in R.61-92, Section 280.61. B W Stokes Oil Co Inc. is monitoring the petroleum chemicals of concern.

The release of petroleum products from the facility assigned the UST permit number referenced above is qualified to receive funding under the conditions of the State Underground Petroleum Environmental Response Bank (SUPERB) Act. This means that reasonable costs can be paid by the SUPERB Account for a combined coverage of \$1,000,000 for site rehabilitation actions and third-party claims associated with this release. B W Stokes Oil Co Inc., as the tank owner at the time of the above referenced release, currently retains responsibility under state and federal law for any additional actions and associated costs should site rehabilitation cost exceed \$1,000,000.

Release 2

On September 17, 2002, a petroleum release was reported at the facility assigned the UST permit number referenced above. The Division issued a No Further Action of this release on

July 28, 2020, indicating that chemicals of concern were below risk-based screening levels, and no further work is anticipated under this release.

The SUPERB Act does not preclude or restrict the use or redevelopment of property where a petroleum release has occurred. However, DHEC advises against installing a water supply well for drinking, cooking, or bathing purposes until rehabilitation activities are completed to achieve no further action status or as otherwise approved by DHEC.

To obtain a better understanding of the statutory and regulatory framework regarding releases and/or UST systems, please use the following links:

South Carolina UST Control Regulations R.61-92

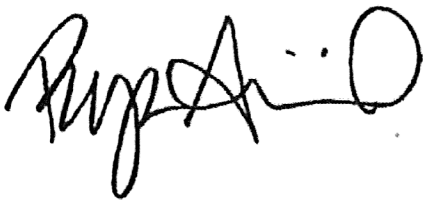
https://scdhec.gov/sites/default/files/media/document/R.61-92_0.pdf

State Underground Petroleum Environmental Response Bank Act

<https://www.scstatehouse.gov/code/t44c002.php>

If you have any questions, please contact me at (803) 898-9418. I can also be reached by email at ariailrd@dhec.sc.gov or by fax at 803-898-0673.

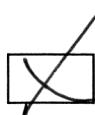
Sincerely,

A handwritten signature in black ink, appearing to read 'Ryan D. Ariail', with a stylized circular flourish at the end.

Ryan D. Ariail, Customer Service Liaison
Underground Storage Tank Management Division
Bureau of Land and Waste Management

cc: Technical File

Document Receipt Information



Hard Copy



CD

Date Received

5-3-23

Permit Number

03473

Project Manager

Robert Dunn

Name of Contractor

MECI

Docket Title

GWS / Chemical Analyses

39 Tech

Document Number

Scanned

REPORT OF GROUNDWATER SAMPLING AND CHEMICAL ANALYSES

Jake Huggins DBA Outpost at Willowcreek
4925 Pamplico Highway
Florence, South Carolina
Florence County
UST Permit# 03423
CA# 65748

Prepared By:

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

April 28, 2023

MECI Project No. 22-7924B



April 28, 2023

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

Subject: Report of Groundwater Sampling and Chemical Analyses
Jake Huggins DBA Outpost at Willowcreek
4925 Pamlico Highway
Florence, South Carolina
Florence County
UST Permit# 03423; CA# 65748
MECI Project Number 22-7924B
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Dunn,

On behalf of BW Stokes Oil Company, Inc., Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Report of Groundwater Sampling and Chemical 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

Cc: SCDOT, PO Box 191, Columbia, SC 29201
Linda T. Huggins, 3695 Willow Creek Road, Florence, SC 29505
Barbara M. Williams, 3309 Willow Creek Road, Florence, SC 29505
Willie B. Winchester Jr., 3101 Willow Creek Road, Florence, SC 29505
William L. Huggins, 621 Mallard Pond Road, Murrells Inlet, SC 29576

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NOTE: ITEMS LISTED WITH AN ** BESIDE IT WERE NOT NEEDED AS A PART OF THIS SCOPE OF WORK

1.0 INTRODUCTION

i. Facility Information

Name: Jake Huggins DBA Outpost at Willowcreek
UST Permit# 03423
Address: 4925 Pamplico Highway, Florence SC 29505
Telephone #: N/A

ii. Owner/Operator Information

Name BW Stokes Oil Company, Inc.
Address P.O. Box 1656, Florence, SC 29503
Telephone # (843) 621-5865

iii. Property Owner Information

Name Barbara Williams
Tax Map #: Florence County Tax Map #: 00213-01-019
Address 3309 Willow Creek Road, Florence, SC 29505
Telephone # (843) 662-0808

iv. Contractor Information

Name: Midlands Environmental Consultants, Inc.
Certification #: 9
Address: P. O. Box 854, Lexington, SC 29072
Telephone #: (803) 808-2043

v. Well Driller Information

Name: N/A
Certification #: N/A
Address: N/A
Telephone #: N/A

vi. Laboratory Information

Name: Pace Analytical Services, LLC.
Certification #: 99006001
Address: 9800 Kinney Ave. Suite 100, Huntersville, NC 28078
Telephone #: (704) 875-9092

vii. Facility History

Release Date:	Release #1 reported 2/26/2002
Estimated Quantity of Release:	Unknown
Other Releases at Facility:	Release #2 (NFA'd 7/28/2020)
Release Ranking:	2BB
Current Site Usage:	Residence (SCDOT Right of Way)

Tank #	Capacity/Product	In Use/Abandoned	Tank Status
1	2,000 Gal. Regular/Unleaded Gasoline	Abandoned	Removed (6/30/2016)
2	4,000 Gal. Gasoline Plus	Abandoned	Removed (6/30/2016)
3	6,000 Gal. Gasoline Super/Premium	Abandoned	Removed (6/30/2016)
4	3,000 Gal. Regular/Unleaded Gasoline	Abandoned	Removed (6/30/2016)
5	500 Gal. Kerosene	Abandoned	Removed (6/30/2016)

The following table presents previous site activities performed at the site:

Date	Assessment Type	Notes:
Pre 2008	Unknown MWI	Completed by unknown contractor. Installation of MW-1 through MW-4.
8/26/2008	Tier II Assessment	Completed by Davis & Brown. Monitoring wells MW-5, MW-6 installed. MW-5 installed as IGWA associated with second release. Analytical results from MW-1, MW-4, MW-5 and MW-6 were above RBSL for Benzene, MTBE, Naphthalene.
5/12/2009	Tier II Assessment	Completed by Davis & Brown. Installation of MW-7 through MW-22, MW-1D, and MW-2D. Multiple wells detected concentrations above RBSL's.
6/4/2015	Groundwater Sampling Event	Completed by Davis & Brown. Monitoring wells MW-14 through 20 and MW-2D reported destroyed. Multiple wells detected concentrations above RBSL's.
Circa 2016	DOT Construction	SCDOT widening destroys remaining well network.
3/7/2022	Tier II Assessment	Completed by MECI. This assessment included field screening of soil and groundwater samples, the installation of monitoring wells MW-1 thru MW-10 and DW-1 thru DW-4, sampling and chemical analysis of monitoring wells and nearby receptors and aquifer slug test.
1/19/2023	Groundwater Sampling Event	Completed by MECI.

viii Regional Geology and Hydrogeology

The site is located in the Coastal Plain Physiographic Province, which is generally comprised of Upper Cretaceous to present aged, wedge-shaped formations that begin at the “Fall Line” and dip towards the Atlantic Ocean with ground surface elevations typically less than 300 feet. The sedimentary soils of these formations consist of unconsolidated sand, clay, gravel, marl, cemented sands, and limestone that were deposited unconformably over Mesozoic/Paleozoic age basement rock consisting of granite, schist, and gneiss similar to the rocks of the Piedmont Physiographic Province. The thickness of the Coastal Plain sediments varies from zero at the “Fall Line” to more than 4,000 feet at the southern tip of South Carolina near Hilton Head Island.

The Coastal Plain province was formed during Quaternary, Tertiary, and late Cretaceous geologic periods and can be divided generally into three subunits: Upper Coastal Plain, Middle Coastal Plain, and Lower Coastal Plain. The Lower Coastal Plain comprises approximately one-half of the entire Atlantic Coastal Plain of South Carolina and is separated from the middle coastal plain by the Surry Scarp, a seaward facing scarp with a toe elevation of 90 to 100 feet. The Middle Coastal Plain and the Upper Coastal Plain each compose approximately one fourth of the Coastal Plain area and are separated by the Orangeburg Scarp, a seaward facing scarp with a toe elevation of 250 to 270 feet.

The Lower Coastal Plain is typically identified as the area east of the Surry Scarp below elevation 100 feet, with a vertical stratigraphic sequence overlying the basement rock consisting of unconsolidated Cretaceous, Tertiary, and Quaternary sedimentary deposits. The surface deposits of the Lower Coastal Plain were formed during the Quaternary period which was characterized by the formation of the Carolina Bays and scarps throughout the east coast due to sea level rise and fall, the formation of the barrier islands, and the formation of flood plains from major rivers. Preceding the Quaternary period, limestone was deposited in the Lower Coastal Plain.

The Middle Coastal Plain is typically identified as the area between the Orangeburg Scarp and the Surry Scarp and falls between elevation 100 feet and 270 feet. The vertical stratigraphic sequence overlying the basement rock consists of unconsolidated Cretaceous and Tertiary sedimentary deposits formed as a result of scouring from the regressive cycles of the Ocean as it retreated. During the Eocene epoch of the Tertiary period, limestone was deposited in the Middle Coastal Plain.

The Upper Coastal Plain is typically identified as the area between the “Fall Line” and the Orangeburg Scarp and falls between elevations 270 feet and 300 feet. The Upper Coastal Plain was formed during the Tertiary and late Cretaceous periods and is marked by the formation of the Sandhills dunes as a result of fluvial deposits over the Coastal Plain consisting of marine sediments, limestone, and sand.

Coastal Plain formations generally dip toward the Atlantic Ocean. Consequently, regional groundwater movement is to the southeast. On a regional scale, hydraulic gradients are relatively low. Locally, in the surficial aquifer, groundwater discharges into streams, lakes or springs where the groundwater table intersects lows occupied by these water bodies.

2.0 RECEPTOR SURVEY & SITE DATA

i. Known Potential Receptors

Receptor ID#	Notes
WSW-1	WSW-1 is located approximately 1,400' feet west-north of MW-8 at 3101 Willow Creek Road. Samples have historically been collected from the spigot on the water supply which is located inside one of the bran buildings at the property. GPS: 34.096044, -79.701503
WSW-2	WSW-2 is located approximately 1,000' feet west of MW-8 at 3119 Willow Creek Road. Samples have historically been collected from the spigot on the water supply. GPS: 34.095156, -79.700508
WSW-3	WSW-3 is located approximately 650' feet northeast of MW-8 at 4905 Legettes Road. Well Disconnected; Unable to sample with bailer due to metal elbow at well head. GPS: 34.096743, -79.696040
Possible WSW	According to Ms. Williams, there is no well on the property.
Possible WSW	According to Ms. Williams, there is no well on the property.
SW-1	Sampled collected from drainage ditch adjacent to MW-8. GPS: 34.095076, -79.696772
SW-2	Sampled collected from drainage ditch adjacent to MW-2. GPS: 34.095847, -79.697296
SW-3	Sampled collected approximately 420' west of MW-8 from a stream. GPS: 34.094620, -79.698172
SW-4	Sampled collected approximately 500' west-northwest of MW-8 from a stream. GPS: 34.095389, -79.698409
SW-5	Sampled collected approximately 630' west-northwest of MW-8 from a stream. GPS: 34.096050, -79.698577
SW-6	Sampled collected approximately 950' northwest of MW-8 from a stream. GPS: 34.096699, -79.699359
Underground Utilities	
Known underground utilities at the site include buried water, gas and telecommunication lines. Utilities are buried approximately 2'-4' feet below ground surface (BGS).	

ii. Receptor Survey Results

A receptor survey was not requested as part of the approved cost agreement.

iii. Site/Adjacent Land Usage (Residential, Commercial, Agricultural, Industrial, etc.)

Site	Residential
North	Residential
South	Agricultural
East	Agricultural
West	Residential
Permit #'s of UST Sites within 1,000' feet of site	N/A

iv. Site Specific Geology and Hydrogeology

The mean elevation of the property as depicted on the local USGS quadrangle (Evergreen, SC) appears to be approximately 33 meters (108 feet) above sea level. The subject site is located in the Middle Coastal Plain. According to Newell et al. (In Review), the subject site is located in the Bear Bluff Formation. The Bear Bluff Formation is a Pliocene age unit described as consisting of gray to cream, fossiliferous, coarse-grained calcareous sand and sandy limestones.

Coastal plain sediments were encountered during drilling activities conducted at the site during previous assessment activities. A generalized vertical profile to the investigated depth of 35' feet below ground surface (BGS) is as follows:

Depth (Feet BGS)	Generalized Soil Description
0.0'-6.0'	Brown/Yellow Fine SAND
6.0'-16.0'	Pink/Grey Silty Fine SAND
16.0'-34.0'	Tan, Medium SAND
34.0'-35.0'	Dark Grey, Fine Sandy CLAY

The following table presents grain size distribution results from samples analyzed for grain size during previous assessment activities:

Sample ID#	Sample Depth	% Gravel	% Coarse Sand	% Medium Sand	% Fine Sand	% Silt	% Clay
03423-SB01	8'-10'	0	0	38.0	40.2	4.2	17.6
03423-SB01	24'-26'	0	3.0	44.0	45.5	3.2	4.3
03423-SB01	32'-34'	0	4.0	3.0	3.7	49.7	39.6

On April 14, 2023, stabilized groundwater levels were measured in the monitoring well network. Depth to groundwater ranged from 3.03 feet below top of casing (BTOC) to 4.36 feet BTOC in the wells measured. The groundwater measurements are summarized in tabular form in Table 2 and presented on Figure 4/4A.

The potentiometric surface indicates that the groundwater flow beneath the site is generally to the northwest, toward drainage features associated with the Little Willow Creek. The February 2022 horizontal gradient was calculated to be approximately 0.0118 foot per foot (ft/ft). Calculated average

groundwater flow velocities based on aquifer testing was determine to be approximately 97.98 feet per year (ft/yr.).

Based on comparison between the “deep” wells and the close by water table bracketing monitoring wells, the vertical gradient appears to be generally flat.

3.0 GROUNDWATER SAMPLING AND CHEMICAL ANALYSES

On April 14, 2023, MECI personnel collected groundwater samples from fourteen (14) monitoring wells, six (6) surface water locations and two (2) water supply wells at the subject site. During sampling activities, water supply well WSW-3 was unable to be sampled due to the well being inactive with no electrical supply. As requested by SCDHEC, only monitoring wells which did not bracket the water table were to be purged prior to sample collection. Four (4) monitoring wells were purged prior to sample collection.

Prior to sampling, MECI personnel utilized an electronic water level indicator for water level measurements and an oil/water interface probe for free phase petroleum product level measurements. Where applicable, purging was completed by bailing at least five well volumes of water from the well, or until all water was evacuated from the well, whichever occurred first. Sampling/purging was completed utilizing a prepackaged, clear, disposable polyethylene bailer and nylon rope. A new set of nitrile gloves were worn at each monitoring well, and at all time samples were handled. Field measurements of pH, conductivity, dissolved oxygen, and water temperature were obtained before well sampling process. MECI utilized YSIPro20 meter for DO (mg/L) and temperature readings (°C) and YSI Pro 1030 meter for pH and conductivity (uS) readings and a MicroTPI turbidimeter for turbidity readings (NTU). The attached Monitoring Well Purge and Sampling Data Sheets present the results of the field measurements obtained. The wells were sampled in accordance with the most recent revision of SCDHEC’s Quality Assurance Program Plan for the Underground Storage Tank Management Division and the most recent revision of MECI’s Standard Operating Procedures.

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:

Sample ID	Purge	No Purge	Sampled Below Product	Low-Flow Sampling	Not Sampled	Not Located	BTEX, Naphthalene, MTBE (EPA Method 8260D)	EDB (EPA Method 8011)	1,2 DCA (EPA Method 8260D)	8 Oxygenates (EPA Method 8260D)	Total Lead (EPA Method 6010)	BTEX, Naphthalene, MTBE, 1,2 DCA (EPA Method 524.2)	EDB (EPA Method 504.1)
							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-6		X					X	X	X	X			
Notes: BTEX = Benzene, Toluene, Ethylbenzene, & Total Xylenes MTBE=Methyl tertiary butyl ether 1,2 DCA = 1,2 Dichloroethane EDB = Ethylene Dibromide													

Sample ID	Purge	No Purge	Sampled Below Product	Low-Flow Sampling	Not Sampled	Not Located	BTEX, Naphthalene, MTBE (EPA Method 8260D)	EDB (EPA Method 8011)	1,2 DCA (EPA Method 8260D)	8 Oxygenates (EPA Method 8260D)	Total Lead (EPA Method 6010)	BTEX, Naphthalene, MTBE, 1,2 DCA (EPA Method 524.2)	EDB (EPA Method 504.1)
							Analyte Sampled						
MW-7		X					X	X	X	X			
MW-8		X					X	X	X	X			
MW-9		X					X	X	X	X			
MW-10		X					X	X	X	X			
DW-1	X						X	X	X	X			
DW-2	X						X	X	X	X			
DW-3	X						X	X	X	X			
DW-4	X						X	X	X	X			
SW-1		X					X	X	X	X			
SW-2		X					X	X	X	X			
SW-3		X					X	X	X	X			
SW-4		X					X	X	X	X			
SW-5		X					X	X	X	X			
SW-6		X					X	X	X	X			
DUP-1							X	X	X	X			
Field Blank							X	X	X	X			
Trip Blank							X		X	X			
WSW-1										X		X	X
WSW-2										X		X	X
WSW-3					X								
DUP.										X		X	X
Field Blank										X		X	X
Trip Blank										X		X	
Notes: BTEX = Benzene, Toluene, Ethylbenzene, & Total Xylenes MTBE=Methyl tertiary butyl ether 1,2 DCA = 1,2 Dichloroethane EDB = Ethylene Dibromide													

The results of the laboratory analyses are summarized in Table 1 and presented in Appendix B.

Purge water produced by the purging process was treated on-site utilizing a granular activated carbon unit. A total of 29.50 gallons of purge water was disposed of in this manner. A disposal manifest for the referenced purge water is attached in Appendix G and the required post-GAC laboratory results in presented in Appendix B.

4.0 TEST RESULTS AND EVALUATION

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

4.1 GROUNDWATER ANALYTICAL RESULTS

Free phase petroleum product was not detected in any of the monitoring wells during sampling activities. The analytical results indicate petroleum impact to the surficial aquifer (“Shallow” Zone),

with the highest dissolved concentrations being detected in the area of MW-8. Of the twenty-two sampling locations analyzed, five monitoring wells (MW-1, MW-2, MW-6, MW-8 and MW-10) detected petroleum constituents above Risk-Based Screening Levels (RBSL's). Petroleum constituents detected above the established RBSL include:

Compound	RBSL (ug/l)	Wells Above RBSL
Product	0.01'	N/A
Benzene	5	MW-1, MW-2, MW-6, MW-8 & MW-10
Toluene	1,000	MW-8
Ethylbenzene	700	MW-8
Total Xylenes	10,000	MW-8
Naphthalene	25	MW-1, MW-8 & MW-10
MTBE	40	MW-1, MW-2, MW-6, MW-8 & MW-10
1,2 DCA	5	N/A
EDB	0.05	N/A
TAA	240	MW-1 & MW-10
TAME	128	N/A
ETBA	NE	RBSL Not Established
TBA	1,400	N/A
TBF	NE	RBSL Not Established
DIPE	150	MW-1 & MW-10
Ethanol	10,000	N/A
ETBE	47	N/A

The analytical results from the remainder of the sampling points did not indicate petroleum impact above the RBSL. Results of the analyses for each sampling point and specific parameters are listed on Table 1 and provided in Appendix B.

5.0 MONITORING SUMMARY

- Groundwater flow is primarily to the northwest, toward drainage features associated with the Little Willow Creek
- Free phase petroleum product was not detected in any of the monitoring wells during sampling activities.
- Fourteen groundwater monitoring wells, six surface water locations and two water supply wells were sampled on April 14, 2023. Petroleum compounds were detected above RBSL's in groundwater monitoring wells MW-1, MW-2, MW-6, MW-8 and MW-10. Compounds above the established RBSL's include Benzene, Toluene, Ethylbenzene, Total Xylenes, Naphthalene, MTBE, TAA and DIPE.
- The analytical results also reported petroleum constituents above the laboratory method detection limit and/or "J" values in samples collected from MW-5, DW-2 and SW-1; however, the concentrations did not exceed the RBSL.
- Analytical results from water supply wells WSW-1 and WSW-2 did not indicate petroleum impact.
- In order to assess precision, field duplicate samples were collected and analyzed along with the reviewed batch samples. The duplicated samples were analyzed for the same parameters

as the associated parent samples. Precision is determined by calculating the Relative Percent Differences (RPD) between each pair of samples. The RPD control limit for the groundwater samples is 20%. Duplicate samples were collected from the parent samples of MW-8 and WSW-1. The precision for the target analytes were met for these sample pairs and the analytical results detected the same compounds at similar concentrations. Furthermore, field blanks and trip blanks were collected and submitted during the groundwater sampling activities. No detectable concentrations of the requested method constituents were reported in any of the field or trip blanks.

6.0 COMMENTS & RECOMMENDATIONS

- With the exception of decreased concentrations in monitoring wells DW-1 and DW-4, analytical results have generally remained constant from the remainder of the monitoring locations.
- Data gaps currently persist horizontally west of MW-6 and south of MW-8. With the exception of the southerly direction from MW-8/DW-4, it appears these data gaps persist due to property access issues encountered at the site in 2022.
- MECI recommends installing “shallow”/ “deep” monitoring well cluster south of MW-8/DW-4 to better define the contaminant plume emanating from the site to the south. If petroleum compounds show an increasing trend in any of the downgradient wells or if any of the nearby potential receptors become impacted, additional monitoring wells may be necessary.
- MECI request the site be modeled to current site conditions and the Site-Specific Target Levels (SSTL’s) be relinquished to our office. Based on the modeling, MECI will be able to better comment on further assessment or corrective action needs at the site.
- Unless otherwise directed by the SCDHEC UST Division, the next quarterly groundwater sampling event will be completed in July of 2023.

7.0 QUALIFICATIONS OF REPORT

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

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TABLES

TABLE 1
GROUNDWATER COC CONCENTRATION DATA
JAKE HUGGINS
APRIL 14, 2023 SAMPLING EVENT
FLORENCE, SOUTH CAROLINA
MECI PROJECT NUMBER 22-7924B
UST PERMIT# 03423

Well ID#	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Naphthalene (µg/L)	MTBE (µg/L)	1, 2 DCA (µg/L)	EDB (µg/L)	TAA (µg/L)	TAME (µg/L)	ETBA (µg/L)	TBA (µg/L)	TBF (µg/L)	DIPE (µg/L)	Ethanol (µg/L)	ETBE (µg/L)
		RBSL 5	RBSL 1,000	RBSL 700	RBSL 10,000	RBSL 25	RBSL 40	RBSL 5	RBSL 0.05	RBSL 240	RBSL 128	RBSL NE	RBSL 1,400	RBSL NE	RBSL 150	RBSL 10,000	RBSL 47
03423-MW01	2/15/2022	624	19.3	158	67.9	78.7	264	<0.250	<0.00512	3030	56.9	<7.00	169	<6.90	160	<50.0	<0.720
	1/9/2023	620	16.4	74.1	16.9	66.0	342	<1.6	<0.0075	3770	60.6	<260	200 J	<147	191	<361	<16.2
	4/14/2023	749	11.5 J	39.7	<25.0	51.1	343	<10.3	<0.0073	4640	59.9	<270	<455	<120	178	<720	<42.3
03423-MW02	2/15/2022	203	<0.250	0.522 J	1.34	25.7	405	<0.250	<0.00515	442	26.9	<7.00	83.3	<6.90	78.2	<50.0	<0.720
	1/9/2023	122	<0.97	<0.61	<0.68	10.9	256	<0.64	<0.0074	233	14.6 J	<104	<53.6	<58.8	44.4	<144	<6.5
	4/14/2023	90.2	<4.0	<3.7	<10.0	10.2	195	<4.1	<0.0074	225	10.5 J	<108	<182	<48.2	33.0	<288	<16.9
03423-MW03	2/15/2022	<0.270	3.15	0.279 J	<0.230	<2.40	1.95 J	<0.250	<0.00486	<8.60	<0.780	<7.00	<6.90	<6.90	0.893 J	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	1.1	<0.32	<0.0076	<36.4	<2.7	<51.9	<26.8	<29.4	0.61 J	<72.2	<3.2
	4/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0075	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
03423-MW04	2/15/2022	<0.270	<0.250	0.252 J	1.91	<2.40	<0.810	<0.250	<0.00509	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0075	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	4/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0074	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
03423-MW05	2/15/2022	<0.270	<0.250	<0.200	<0.230	<2.40	14.3	<0.250	<0.00509	<8.60	<0.780	<7.00	<6.90	<6.90	3.06 J	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	22.2	<0.32	<0.0075	<36.4	<2.7	<51.9	<26.8	<29.4	3.8	<72.2	<3.2
	4/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	22.3	<2.1	<0.0073	<65.6	<3.0	<53.9	<91.0	<24.1	4.1 J	<144	<8.5
03423-MW06	2/15/2022	356	30.1	134	11.6	87.5	166	<1.25	<0.00497	2410	46.4	<35.0	86.6 J	<34.5	122	<250	<3.60
	1/9/2023	83.3	4.6	4.5	3.3	26.7	126	<0.32	<0.0076	1640	29.6	<51.9	52.4 J	<29.4	88.1	<72.2	<3.2
	4/14/2023	68.1	2.9 J	3.3 J	<5.0	23.0	132	<2.1	<0.0072	1570	26.1	<53.9	<91.0	<24.1	80.1	<144	<8.5
03423-MW07	2/15/2022	37.2	0.699 J	82.1	3.95	58.3	15.8	<0.250	<0.00492	1030	4.67	<7.00	31.3 J	<6.90	20.3	<50.0	<0.720
	1/9/2023	<0.34	<0.48	1.8	<0.34	4.3	1.4	<0.32	<0.0075	<36.4	<2.7	<51.9	<26.8	<29.4	1.6	<72.2	<3.2
	4/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0074	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
03423-MW08	2/15/2022	3720	21100	2200	12800	781	690	<12.5	0.121	8690	127	<350	370 J	<345	268 J	<2500	<36.0
	1/9/2023	4390	22300	2080	13300	766	531	<40.2	<0.0075	8510 J	<332	<6490	<3350	<3680	239	<9020	<405
	4/14/2023	3620	19200	1840	10800	661	435 J	<258	<0.0074	<8200	<380	<6740	<11400	<3010	<436	<18000	<1060
03423-MW09	2/15/2022	0.278 J	3.89	4.80	27.4	<2.40	<0.810	<0.250	<0.00494	77.4	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0077	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	4/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0070	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5

TABLE 1
GROUNDWATER COC CONCENTRATION DATA
JAKE HUGGINS
APRIL 14, 2023 SAMPLING EVENT
FLORENCE, SOUTH CAROLINA
MECI PROJECT NUMBER 22-7924B
UST PERMIT# 03423

Well ID#	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Naphthalene (µg/L)	MTBE (µg/L)	1, 2 DCA (µg/L)	EDB (µg/L)	TAA (µg/L)	TAME (µg/L)	ETBA (µg/L)	TBA (µg/L)	TBF (µg/L)	DIPE (µg/L)	Ethanol (µg/L)	ETBE (µg/L)
		RBSL 5	RBSL 1,000	RBSL 700	RBSL 10,000	RBSL 25	RBSL 40	RBSL 5	RBSL 0.05	RBSL 240	RBSL 128	RBSL NE	RBSL 1,400	RBSL NE	RBSL 150	RBSL 10,000	RBSL 47
03423-MW10	2/15/2022	1070	297	753	2380	342	510	<12.5	<0.00507	7950	120	<350	<345	<345	339 J	<2500	<36.0
	1/9/2023	2060	439	1100	2640	455	865	<4.0	<0.0077	11100	168	<649	535 J	<368	555	<902	<40.5
	4/14/2023	634	49.9	428	308	216	260	<10.3	<0.0075	3350	56.9	<270	<455	<120	165	<720	<42.3
03423-DW01	2/15/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00529	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	52.9	<0.32	<0.0076	<36.4	4.2 J	<51.9	<26.8	<29.4	15.2	<72.2	<3.2
	4/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0072	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
03423-DW02	2/15/2022	<0.270	<0.250	<0.200	<0.230	<2.40	7.40	<0.250	<0.00510	<8.60	<0.780	<7.00	<6.90	<6.90	2.61 J	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	6.1	<0.32	<0.0076	<36.4	<2.7	<51.9	<26.8	<29.4	2.0	<72.2	<3.2
	4/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	5.2	<2.1	<0.0073	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
03423-DW03	2/15/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00485	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0077	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	4/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0074	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
03423-DW04	2/15/2022	67.5	1890	611	4230	181	<0.810	<0.250	<0.00489	<8.60	<0.780	<7.00	<6.90	<6.90	1.69 J	<50.0	<0.720
	1/9/2023	63.6	464	20.1	291	<2.6	51.8	<1.3	<0.0077	422	<10.6	<208	<107	<118	21.2	<289	<13.0
	4/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0074	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
03423-TW01*	2/28/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00636	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
03423-SW01	2/15/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00503	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	0.43 J	<0.64	<0.42	<0.32	<0.0077	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	4/14/2023	<0.34	0.98 J	<0.30	<0.34	<0.64	0.68 J	<0.32	<0.0078	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-SW02	2/15/2022	<0.270	<0.250	<0.200	<0.230	<2.40	0.832 J	<0.250	<0.00494	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	1.2	<0.32	<0.0077	<36.4	<2.7	<51.9	<26.8	<29.4	0.49 J	<72.2	<3.2
	4/14/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0073	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-SW03	2/15/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00497	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0077	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	4/14/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0076	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-SW04	2/28/2022	<0.270	15.9	0.228 J	<0.230	<2.40	<0.810	<0.250	<0.00492	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0080	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	4/14/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0074	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-SW05	2/28/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00503	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0079	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	4/14/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0074	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-SW06	2/28/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00507	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0076	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	4/14/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0073	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2

TABLE 1
GROUNDWATER COC CONCENTRATION DATA
JAKE HUGGINS
APRIL 14, 2023 SAMPLING EVENT
FLORENCE, SOUTH CAROLINA
MECI PROJECT NUMBER 22-7924B
UST PERMIT# 03423

Well ID#	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Naphthalene (µg/L)	MTBE (µg/L)	1, 2 DCA (µg/L)	EDB (µg/L)	TAA (µg/L)	TAME (µg/L)	ETBA (µg/L)	TBA (µg/L)	TBF (µg/L)	DIPE (µg/L)	Ethanol (µg/L)	ETBE (µg/L)
		RBSL 5	RBSL 1,000	RBSL 700	RBSL 10,000	RBSL 25	RBSL 40	RBSL 5	RBSL 0.05	RBSL 240	RBSL 128	RBSL NE	RBSL 1,400	RBSL NE	RBSL 150	RBSL 10,000	RBSL 47
03423-WSW01	2/15/2022	<0.0820	<0.0860	<0.0990	<0.0860	<0.430	<0.0930	<0.0860	<0.00513	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0056	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	4/14/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0055	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-WSW02	2/15/2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	1/9/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0056	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	4/14/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0056	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-WSW03	2/15/2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	1/9/2023	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/14/2023	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
DUP-1 (MW10)	2/15/2022	1090	359	783	2440	325	496	<2.50	<0.00499	7770	129	<70.0	298 J	<69.0	343	<500	<7.20
DUP. (WSW01)	2/15/2022	<0.0820	<0.0860	<0.0990	<0.0860	<0.430	<0.0930	<0.0860	<0.00501	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
DUP-1 (TW01)	2/28/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00581	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
DUP-1 (MW01)	1/9/2023	736	19.2	93.2	21.4	78.8	429	<1.6	<0.0075	4900	64.8	<260	258 J	<147	240	<361	<16.2
DUP. (WSW01)	1/9/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0057	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
DUP. (MW08)	4/14/2023	4400	21900	2110	13000	765	614 J	<258	<0.0075	<8200	<380	<6740	<11400	<3010	<436	<18000	<1060
DUP. (WSW01)	4/14/2023	<0.21	0.21 J	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0056	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
Field Blank	2/15/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00501	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	2/15/2022	<0.0820	<0.0860	<0.0990	<0.0860	<0.430	<0.0930	<0.0860	<0.00499	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	2/28/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00501	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0077	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	1/9/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0057	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	4/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0075	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
	4/14/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0056	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
Trip Blank	2/15/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	NT	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	2/15/2022	<0.0820	<0.0860	<0.0990	<0.0860	<0.430	<0.0930	<0.0860	NT	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	2/28/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	NT	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	2/28/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	NT	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	NT	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	1/9/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	NT	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	4/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	NT	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
	4/14/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	NT	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2

Notes:

1. BDL = Below Practical Quantitative Limits

2. ug/l = micrograms per liter

3. mg/l = milligrams per liter

4. MTBE = Methyl-Tertiary-Butyl Ether

5. See Appendix for Laboratory Detection Limits

6. NL = Not Located

7. DRY = Well was Dry at the time of Sampling

8. NT = Not Tested

9. EDB = Ethylene Dibromide

10. 1,2 DCA = 1,2-Dichloroethane

11. FPP = Free Phase Petroleum Product

12. * = Wells Have Been Abandoned

13. "J" Values used in Total BTEX Calculations

14. B = Detected in Method Blank

15. "J" values report concentrations above the method detection limits (MDL) and below actual reporting limit (RL).

16. S = MS/MSD Failure

17. P = The RPD between the two columns exceeds 40%.

18. DIPE = Diisopropyl Ether

19. ETBE = Ethyl ter-butyl Ether

20. TAA = tert-Amyl Alcohol

21. TAME = tert-Amyl Methyl Ether

22. TBA = ter-Butyl Alcohol

23. TBF = tert-Butyl Formate

24. TAME = tert-Amyl Methyl Ether

25. * = TW-1 was a temporary well and has been abandoned.

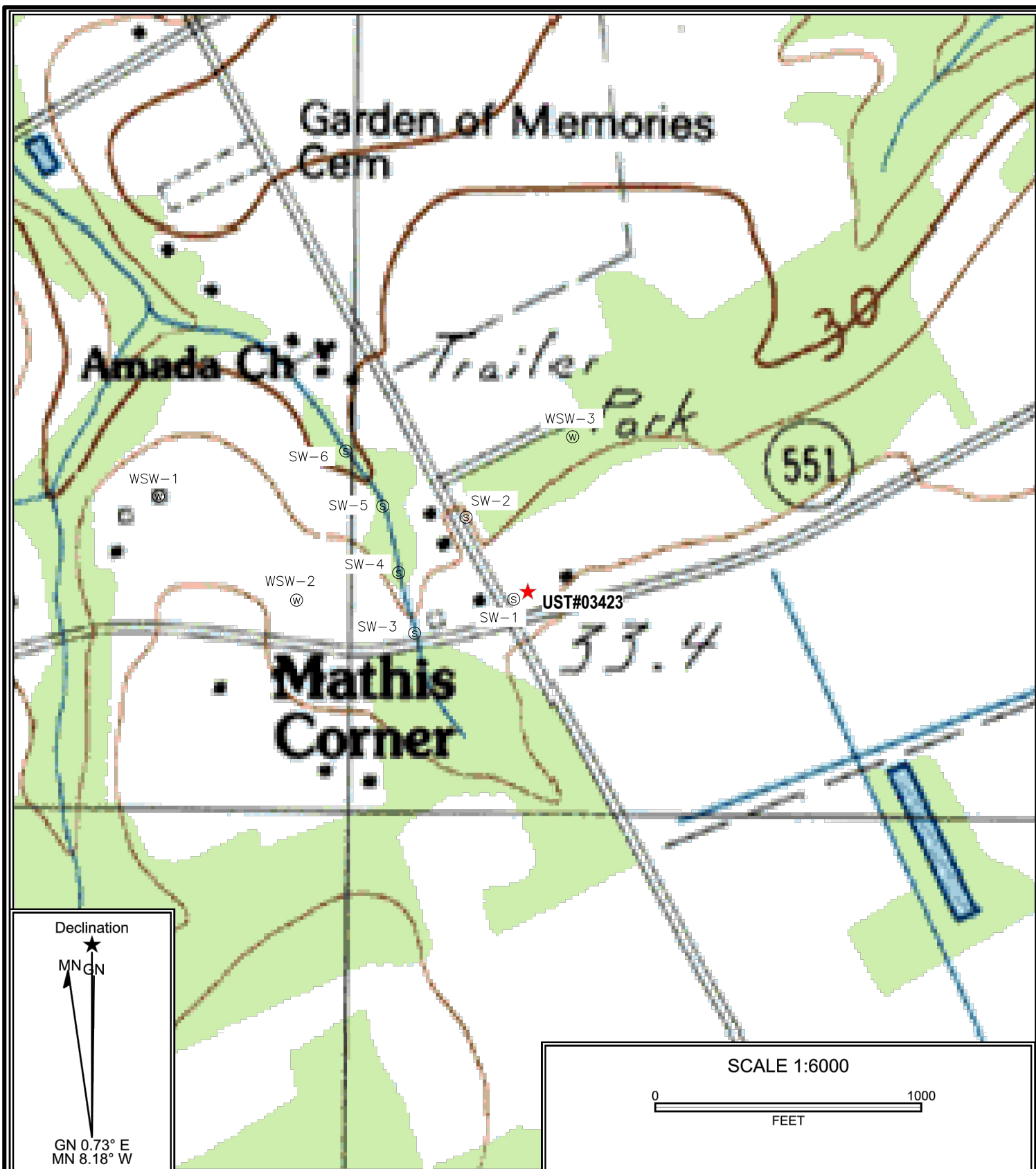
26. NS = Not Sampled

**TABLE 2
POTENTIOMETRIC DATA
JAKE HUGGINS
APRIL 14, 2023 SAMPLING EVENT
FLORENCE, SOUTH CAROLINA
MECI PROJECT NUMBER 22-7924B
UST PERMIT# 03423**

Well Number	Sample Date	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	TOC Elevation	Groundwater Elevation
03423-MW01	2/15/2022	3-13	***	2.67	***	98.72	96.05
	1/9/2023		***	3.48	***	98.72	95.24
	4/14/2023		***	3.41	***	98.72	95.31
03423-MW02	2/15/2022	3-13	***	2.64	***	96.40	93.76
	1/9/2023		***	3.25	***	96.40	93.15
	4/14/2023		***	3.23	***	96.40	93.17
03423-MW03	2/15/2022	3-13	***	2.42	***	94.95	92.53
	1/9/2023		***	3.15	***	94.95	91.80
	4/14/2023		***	3.06	***	94.95	91.89
03423-MW04	2/15/2022	3-13	***	2.61	***	94.88	92.27
	1/9/2023		***	3.45	***	94.88	91.43
	4/14/2023		***	3.39	***	94.88	91.49
03423-MW05	2/15/2022	3-13	***	2.46	***	94.88	92.42
	1/9/2023		***	3.16	***	94.88	91.72
	4/14/2023		***	3.07	***	94.88	91.81
03423-MW06	2/15/2022	3-13	***	2.83	***	97.86	95.03
	1/9/2023		***	3.50	***	97.86	94.36
	4/14/2023		***	3.32	***	97.86	94.54
03423-MW07	2/15/2022	3-13	***	2.91	***	100.29	97.38
	1/9/2023		***	3.98	***	100.29	96.31
	4/14/2023		***	3.78	***	100.29	96.51
03423-MW08	2/15/2022	3-13	***	3.76	***	100.92	97.16
	1/9/2023		***	4.38	***	100.92	96.54
	4/14/2023		***	4.13	***	100.92	96.79
03423-MW09	2/15/2022	3-13	***	3.97	***	100.92	96.95
	1/9/2023		***	3.27	***	100.92	97.65
	4/14/2023		***	3.19	***	100.92	97.73
03423-MW10	2/15/2022	3-13	***	2.93	***	99.69	96.76
	1/9/2023		***	3.68	***	99.69	96.01
	4/14/2023		***	3.56	***	99.69	96.13
03423-DW01	2/15/2022	20-25	***	2.54	***	98.57	96.03
	1/9/2023		***	3.22	***	98.57	95.35
	4/14/2023		***	3.17	***	98.57	95.40
03423-DW02	2/15/2022	20-25	***	2.51	***	96.48	93.97
	1/9/2023		***	3.01	***	96.48	93.47
	4/14/2023		***	3.03	***	96.48	93.45
03423-DW03	2/15/2022	20-25	***	2.92	***	100.05	97.13
	1/9/2023		***	3.53	***	100.05	96.52
	4/14/2023		***	3.41	***	100.05	96.64
03423-DW04	2/15/2022	20-25	***	3.86	***	101.03	97.17
	1/9/2023		***	4.41	***	101.03	96.62
	4/14/2023		***	4.36	***	101.03	96.67

Notes: 1. Elevations are NAV88. 2. Groundwater depths were measured from the top of the PVC riser pipe. 3. NM = Not Measured 4. DRY = Well Gauged DRY	5. TD = Total Depth 6. * = Groundwater elevation corrected for the presence of free product using a specific gravity of 0.85.
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FIGURES



Reference: Evergreen, South Carolina
 USGS 7.5 Min. Quad
 Contour Interval - 2 Meters

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Site Location

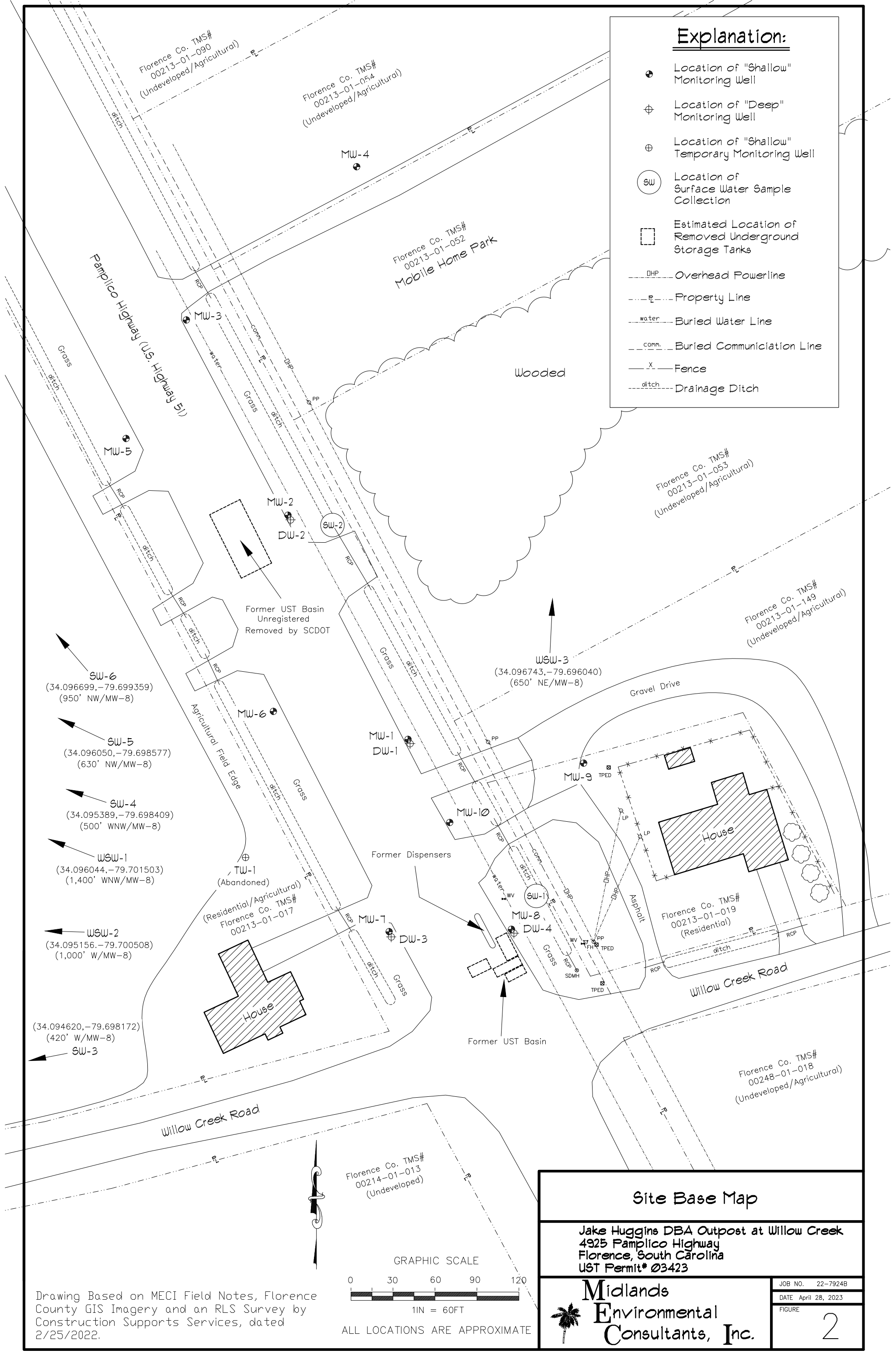
Jake Huggins DBA Outpost at Willowcreek, LLC.
 4925 Pamplico Highway, Florence, SC
 UST Permit# 18419

Figure 1

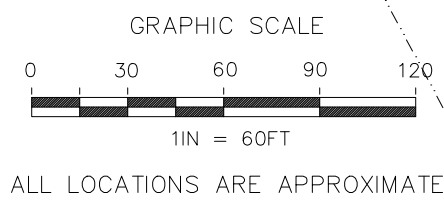
MECI 22-7924B

Explanation:

- Location of "Shallow" Monitoring Well
- Location of "Deep" Monitoring Well
- Location of "Shallow" Temporary Monitoring Well
- Location of Surface Water Sample Collection
- Estimated Location of Removed Underground Storage Tanks
- Overhead Powerline
- Property Line
- Buried Water Line
- Buried Communication Line
- Fence
- Drainage Ditch



Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.



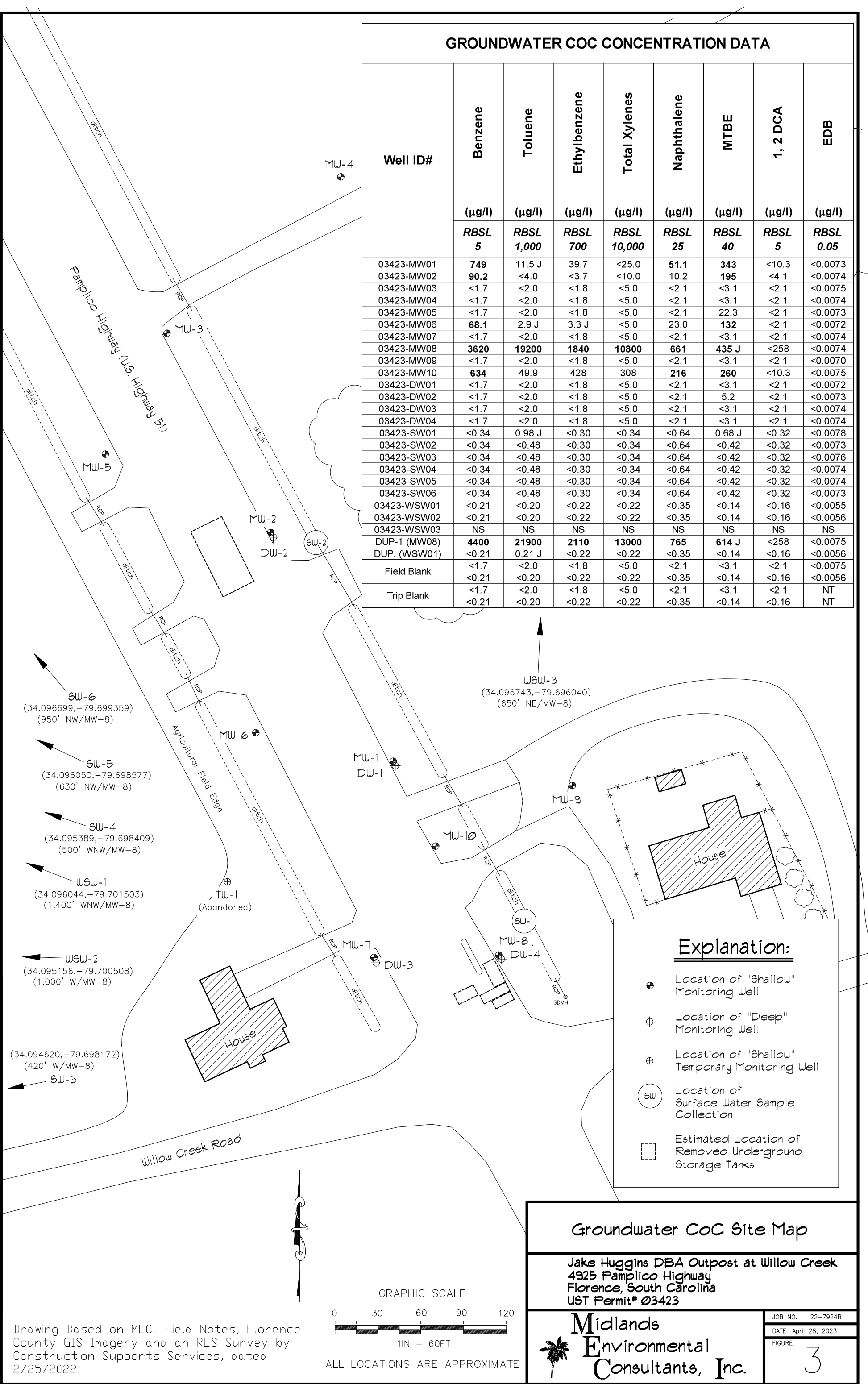
Site Base Map

Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
Florence, South Carolina
UST Permit# 03423

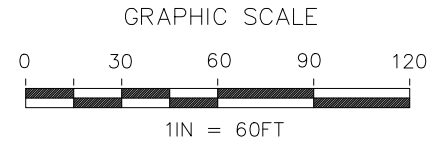
Midlands
Environmental
Consultants, Inc.

JOB NO. 22-7924B
DATE April 28, 2023
FIGURE 2

GROUNDWATER COC CONCENTRATION DATA								
Well ID#	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene	MTBE	1, 2 DCA	EDB
	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
	RBSL 5	RBSL 1,000	RBSL 700	RBSL 10,000	RBSL 25	RBSL 40	RBSL 5	RBSL 0.05
03423-MW01	749	11.5 J	39.7	<25.0	51.1	343	<10.3	<0.0073
03423-MW02	90.2	<4.0	<3.7	<10.0	10.2	195	<4.1	<0.0074
03423-MW03	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0075
03423-MW04	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0074
03423-MW05	<1.7	<2.0	<1.8	<5.0	<2.1	22.3	<2.1	<0.0073
03423-MW06	68.1	2.9 J	3.3 J	<5.0	23.0	132	<2.1	<0.0072
03423-MW07	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0074
03423-MW08	3620	19200	1840	10800	661	435 J	<258	<0.0074
03423-MW09	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0070
03423-MW10	634	49.9	428	308	216	260	<10.3	<0.0075
03423-DW01	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0072
03423-DW02	<1.7	<2.0	<1.8	<5.0	<2.1	5.2	<2.1	<0.0073
03423-DW03	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0074
03423-DW04	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0074
03423-SW01	<0.34	0.98 J	<0.30	<0.34	<0.64	0.68 J	<0.32	<0.0078
03423-SW02	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0073
03423-SW03	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0076
03423-SW04	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0074
03423-SW05	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0074
03423-SW06	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0073
03423-WSW01	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0055
03423-WSW02	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0056
03423-WSW03	NS	NS	NS	NS	NS	NS	NS	NS
DUP-1 (MW08)	4400	21900	2110	13000	765	614 J	<258	<0.0075
DUP. (WSW01)	<0.21	0.21 J	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0056
Field Blank	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0075
Trip Blank	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	NT
	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	NT



Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.



ALL LOCATIONS ARE APPROXIMATE

Groundwater CoC Site Map

Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
Florence, South Carolina
UST Permit# 03423

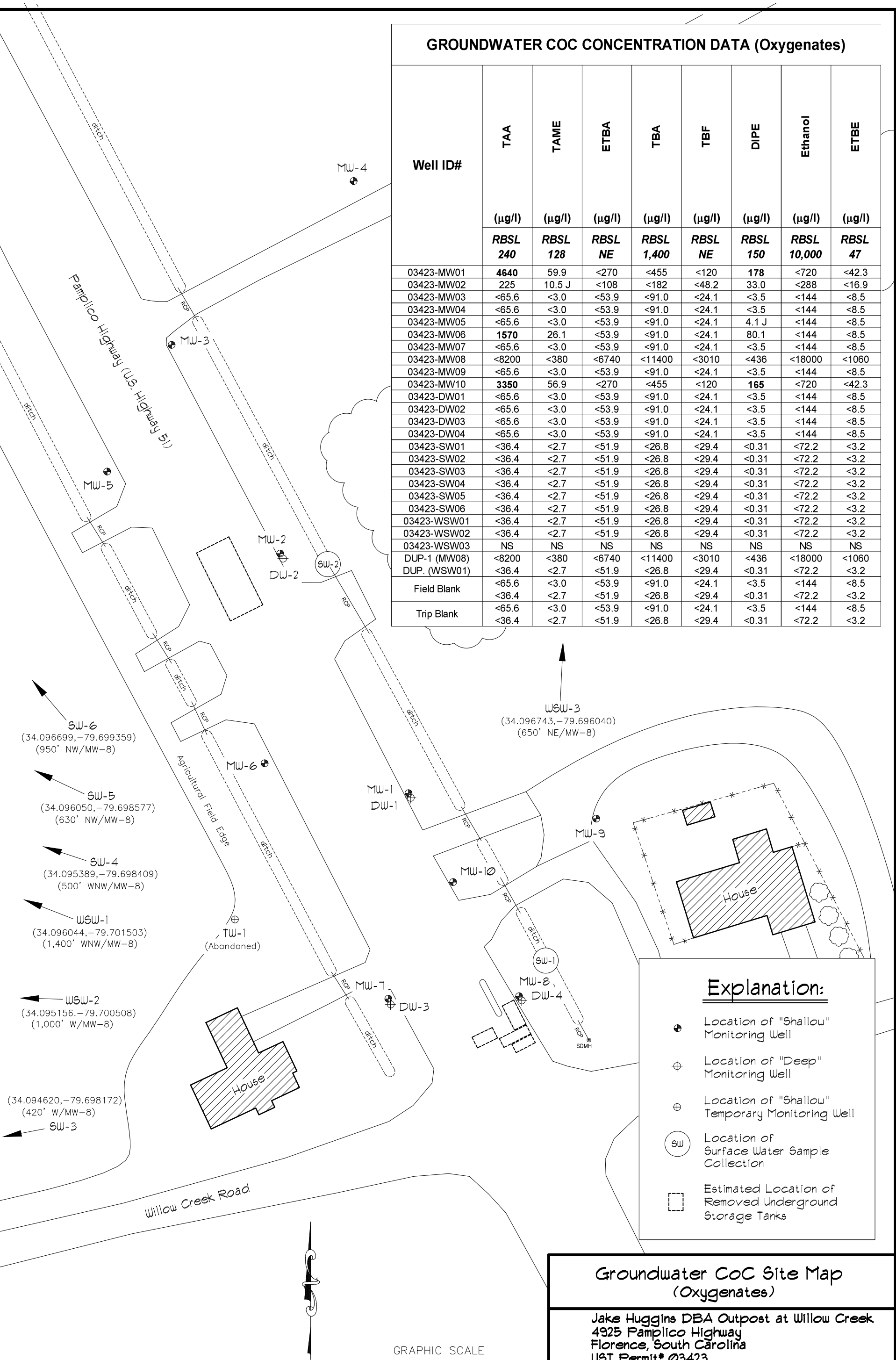
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JOB NO. 22-7924B
DATE April 28, 2023
FIGURE

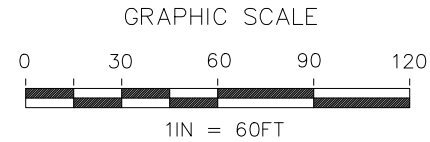
3

GROUNDWATER COC CONCENTRATION DATA (Oxygenates)

Well ID#	TAA	TAME	ETBA	TBA	TBF	DIPE	Ethanol	ETBE
	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
	RBSL 240	RBSL 128	RBSL NE	RBSL 1,400	RBSL NE	RBSL 150	RBSL 10,000	RBSL 47
03423-MW01	4640	59.9	<270	<455	<120	178	<720	<42.3
03423-MW02	225	10.5 J	<108	<182	<48.2	33.0	<288	<16.9
03423-MW03	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
03423-MW04	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
03423-MW05	<65.6	<3.0	<53.9	<91.0	<24.1	4.1 J	<144	<8.5
03423-MW06	1570	26.1	<53.9	<91.0	<24.1	80.1	<144	<8.5
03423-MW07	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
03423-MW08	<8200	<380	<6740	<11400	<3010	<436	<18000	<1060
03423-MW09	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
03423-MW10	3350	56.9	<270	<455	<120	165	<720	<42.3
03423-DW01	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
03423-DW02	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
03423-DW03	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
03423-DW04	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
03423-SW01	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-SW02	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-SW03	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-SW04	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-SW05	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-SW06	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-WSW01	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-WSW02	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-WSW03	NS	NS	NS	NS	NS	NS	NS	NS
DUP-1 (MW08)	<8200	<380	<6740	<11400	<3010	<436	<18000	<1060
DUP. (WSW01)	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
Field Blank	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
Trip Blank	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5



Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.



ALL LOCATIONS ARE APPROXIMATE

Groundwater CoC Site Map
(Oxygenates)

Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
Florence, South Carolina
UST Permit# 03423

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JOB NO. 22-7924B

DATE April 28, 2023

FIGURE

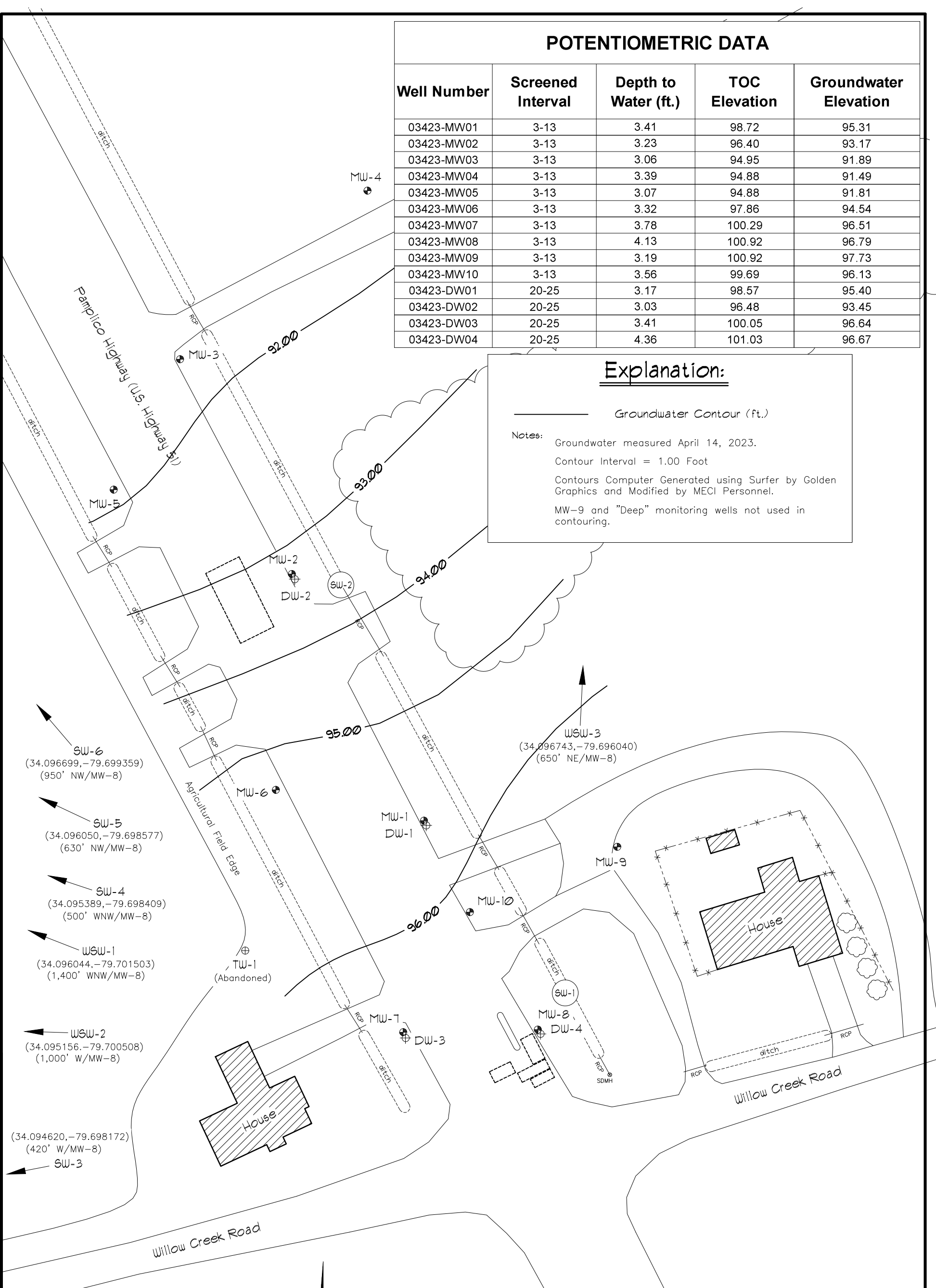
3A

POTENTIOMETRIC DATA				
Well Number	Screened Interval	Depth to Water (ft.)	TOC Elevation	Groundwater Elevation
03423-MW01	3-13	3.41	98.72	95.31
03423-MW02	3-13	3.23	96.40	93.17
03423-MW03	3-13	3.06	94.95	91.89
03423-MW04	3-13	3.39	94.88	91.49
03423-MW05	3-13	3.07	94.88	91.81
03423-MW06	3-13	3.32	97.86	94.54
03423-MW07	3-13	3.78	100.29	96.51
03423-MW08	3-13	4.13	100.92	96.79
03423-MW09	3-13	3.19	100.92	97.73
03423-MW10	3-13	3.56	99.69	96.13
03423-DW01	20-25	3.17	98.57	95.40
03423-DW02	20-25	3.03	96.48	93.45
03423-DW03	20-25	3.41	100.05	96.64
03423-DW04	20-25	4.36	101.03	96.67

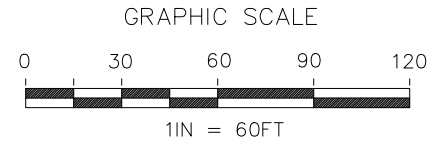
Explanation:

Groundwater Contour (ft.)

Notes: Groundwater measured April 14, 2023.
Contour Interval = 1.00 Foot
Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.
MW-9 and "Deep" monitoring wells not used in contouring.



Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.



Potentiometric Data Site Map
(Groundwater Contour/"Shallow" Zone)

Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
Florence, South Carolina
UST Permit# 03423

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Consultants, Inc.

JOB NO. 22-7924B
DATE April 28, 2023
FIGURE

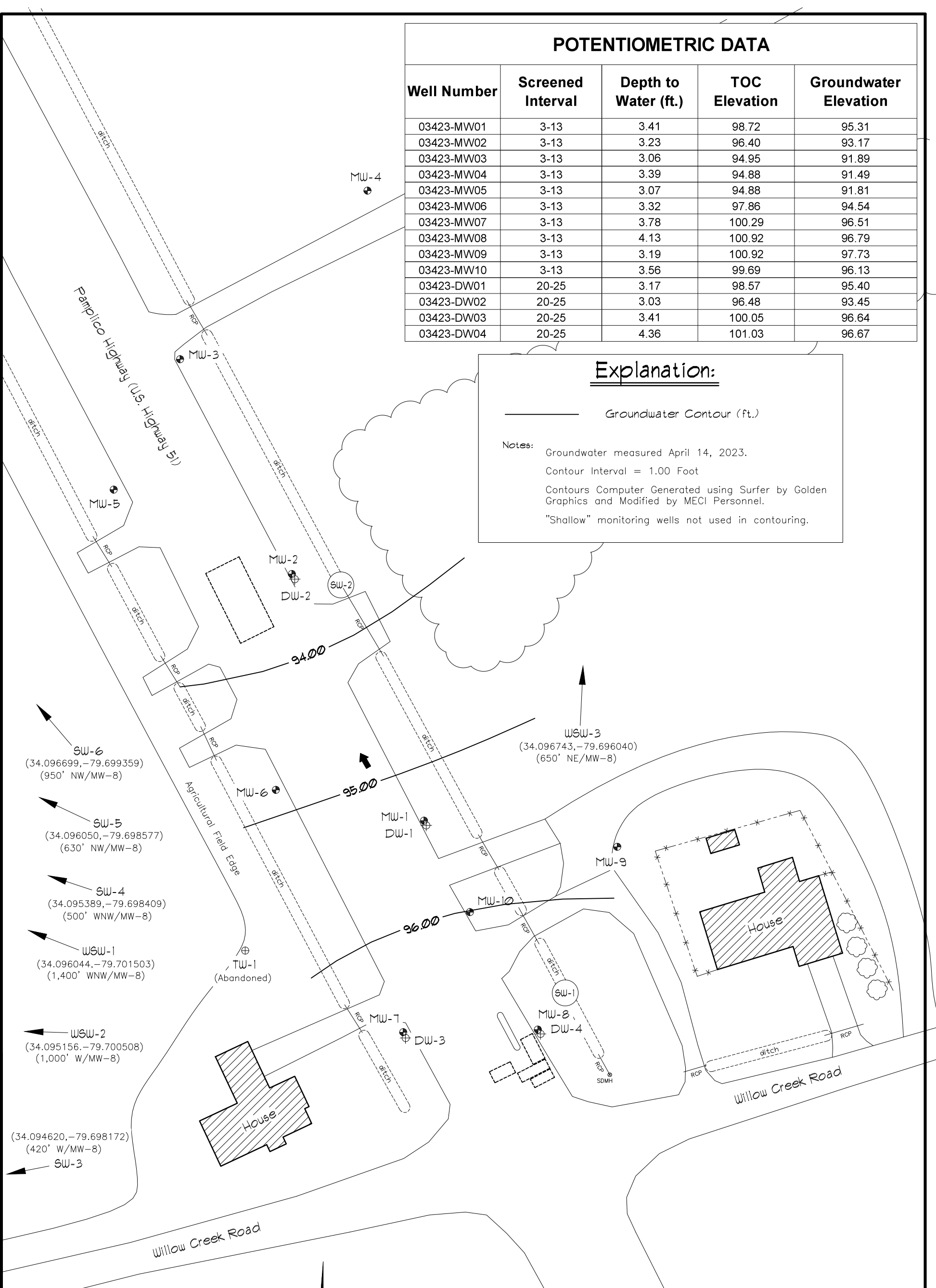
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POTENTIOMETRIC DATA				
Well Number	Screened Interval	Depth to Water (ft.)	TOC Elevation	Groundwater Elevation
03423-MW01	3-13	3.41	98.72	95.31
03423-MW02	3-13	3.23	96.40	93.17
03423-MW03	3-13	3.06	94.95	91.89
03423-MW04	3-13	3.39	94.88	91.49
03423-MW05	3-13	3.07	94.88	91.81
03423-MW06	3-13	3.32	97.86	94.54
03423-MW07	3-13	3.78	100.29	96.51
03423-MW08	3-13	4.13	100.92	96.79
03423-MW09	3-13	3.19	100.92	97.73
03423-MW10	3-13	3.56	99.69	96.13
03423-DW01	20-25	3.17	98.57	95.40
03423-DW02	20-25	3.03	96.48	93.45
03423-DW03	20-25	3.41	100.05	96.64
03423-DW04	20-25	4.36	101.03	96.67

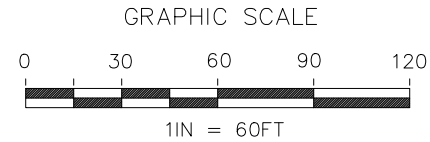
Explanation:

Groundwater Contour (ft.)

Notes:
Groundwater measured April 14, 2023.
Contour Interval = 1.00 Foot
Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.
"Shallow" monitoring wells not used in contouring.



Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.



ALL LOCATIONS ARE APPROXIMATE

Potentiometric Data Site Map
(Groundwater Contour/"Deep" Zone)

Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
Florence, South Carolina
UST Permit# 03423

Midlands
Environmental
Consultants, Inc.

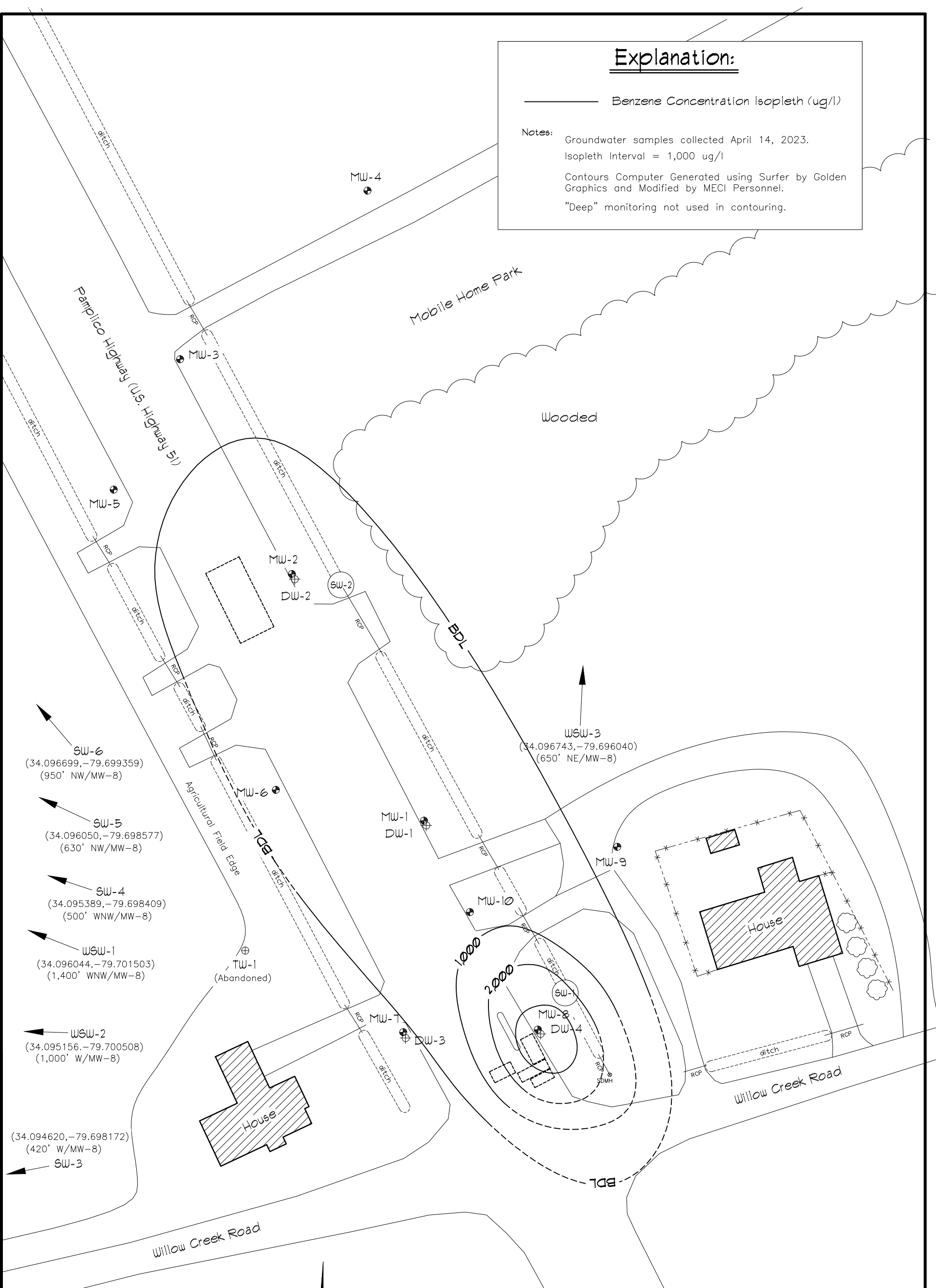
JOB NO. 22-7924B
DATE April 28, 2023
FIGURE

4A

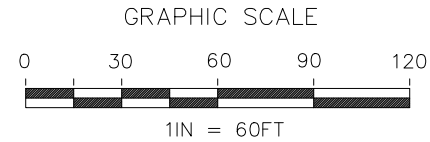
Explanation:

Benzene Concentration Isopleth (ug/l)

Notes: Groundwater samples collected April 14, 2023.
Isopleth Interval = 1,000 ug/l
Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.
"Deep" monitoring not used in contouring.



Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.



ALL LOCATIONS ARE APPROXIMATE

Benzene Isopleth - "Shallow" Zone

Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
Florence, South Carolina
UST Permit# 03423

Midlands
Environmental
Consultants, Inc.

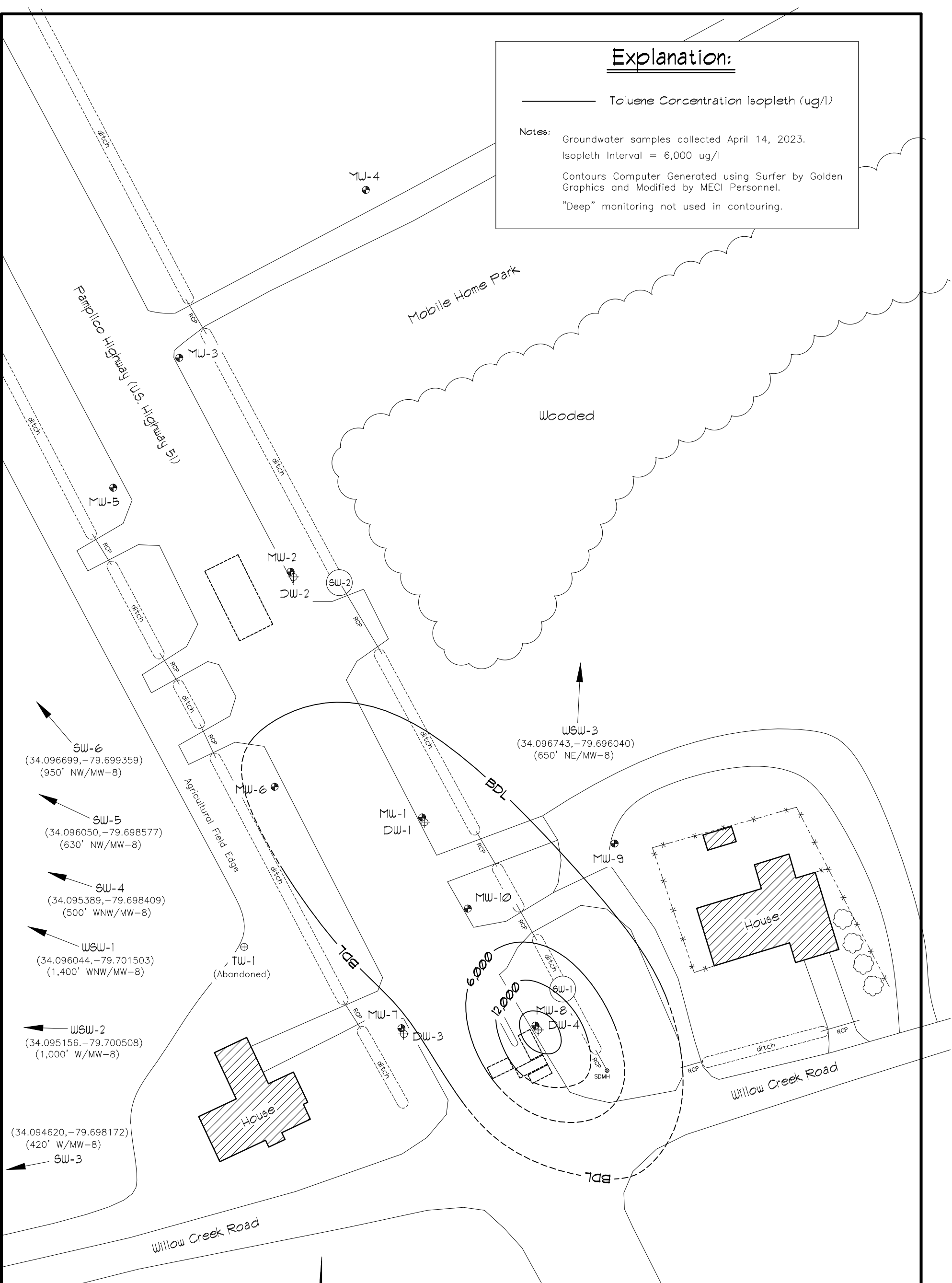
JOB NO. 22-7924B
DATE April 28, 2023
FIGURE

5

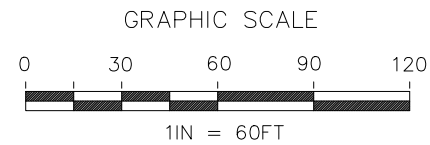
Explanation:

Toluene Concentration Isopleth (ug/l)

Notes: Groundwater samples collected April 14, 2023.
Isopleth Interval = 6,000 ug/l
Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.
"Deep" monitoring not used in contouring.



Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.



ALL LOCATIONS ARE APPROXIMATE

Toluene Isopleth - "Shallow" Zone

Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
Florence, South Carolina
UST Permit# 03423

Midlands
Environmental
Consultants, Inc.

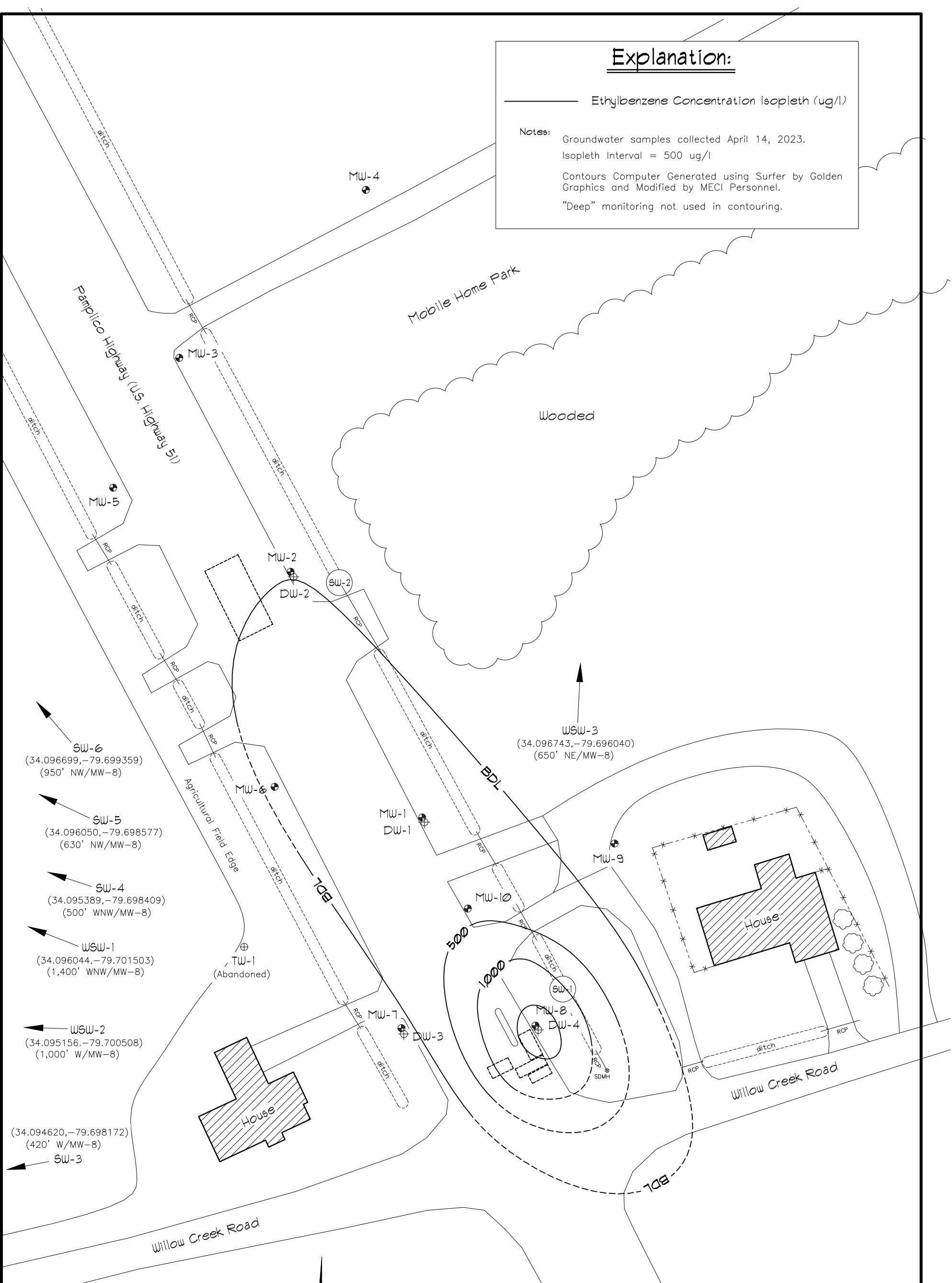
JOB NO. 22-7924B
DATE April 28, 2023
FIGURE

5A

Explanation:

Ethylbenzene Concentration Isopleth (ug/l)

Notes: Groundwater samples collected April 14, 2023.
Isopleth Interval = 500 ug/l
Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.
"Deep" monitoring not used in contouring.



Ethylbenzene Isopleth - "Shallow" Zone

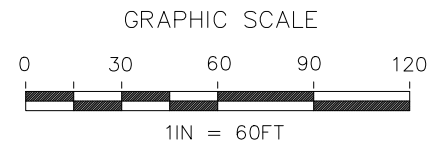
Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
Florence, South Carolina
UST Permit# 03423

Midlands
Environmental
Consultants, Inc.

JOB NO. 22-7924B
DATE April 28, 2023
FIGURE

5B

Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.

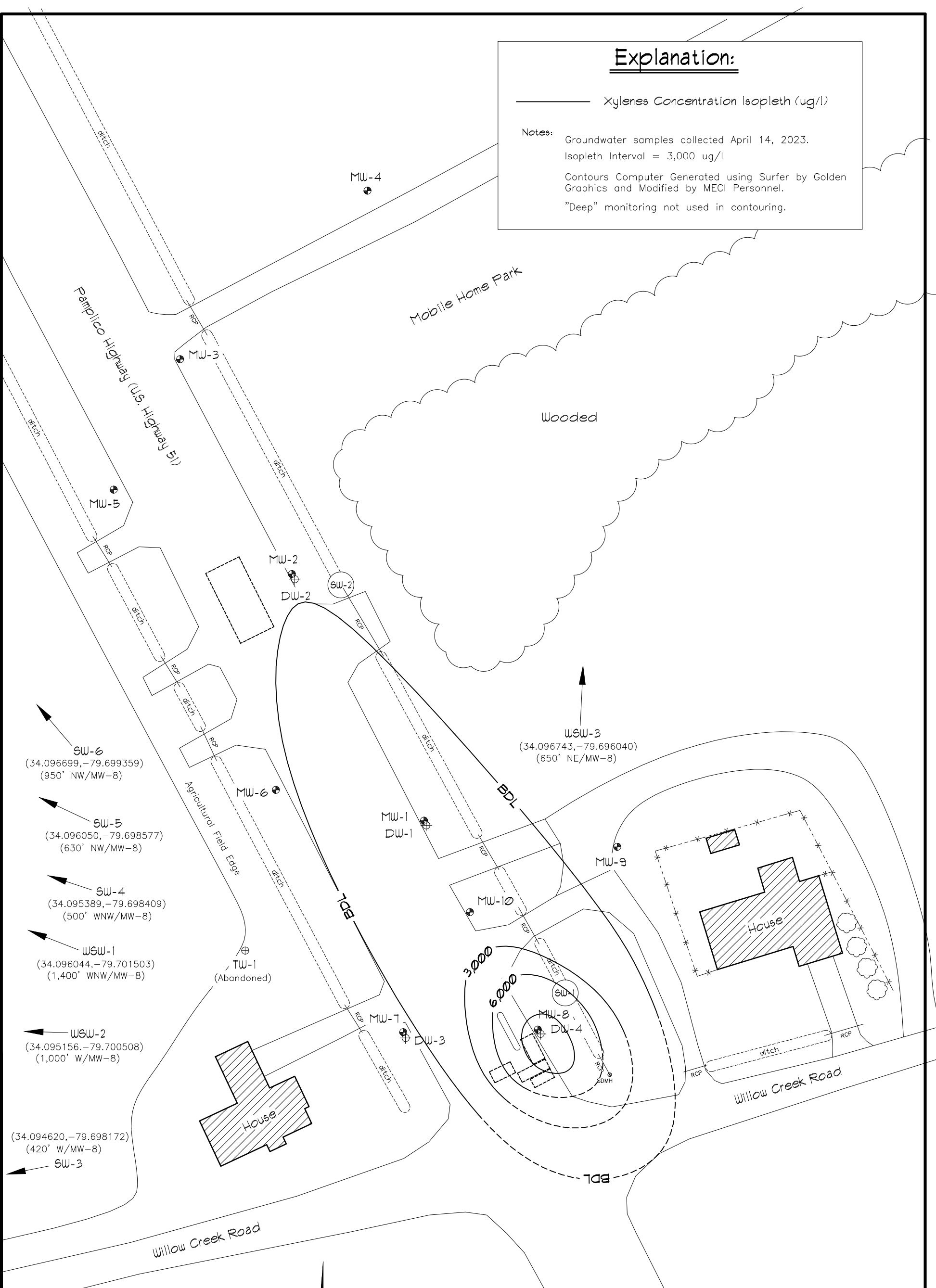


ALL LOCATIONS ARE APPROXIMATE

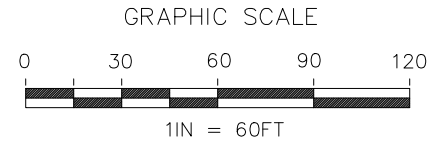
Explanation:

Xylenes Concentration Isopleth (ug/l)

Notes: Groundwater samples collected April 14, 2023.
Isopleth Interval = 3,000 ug/l
Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.
"Deep" monitoring not used in contouring.



Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.



ALL LOCATIONS ARE APPROXIMATE

Xylenes Isopleth - "Shallow" Zone

Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
Florence, South Carolina
UST Permit# 03423

Midlands
Environmental
Consultants, Inc.

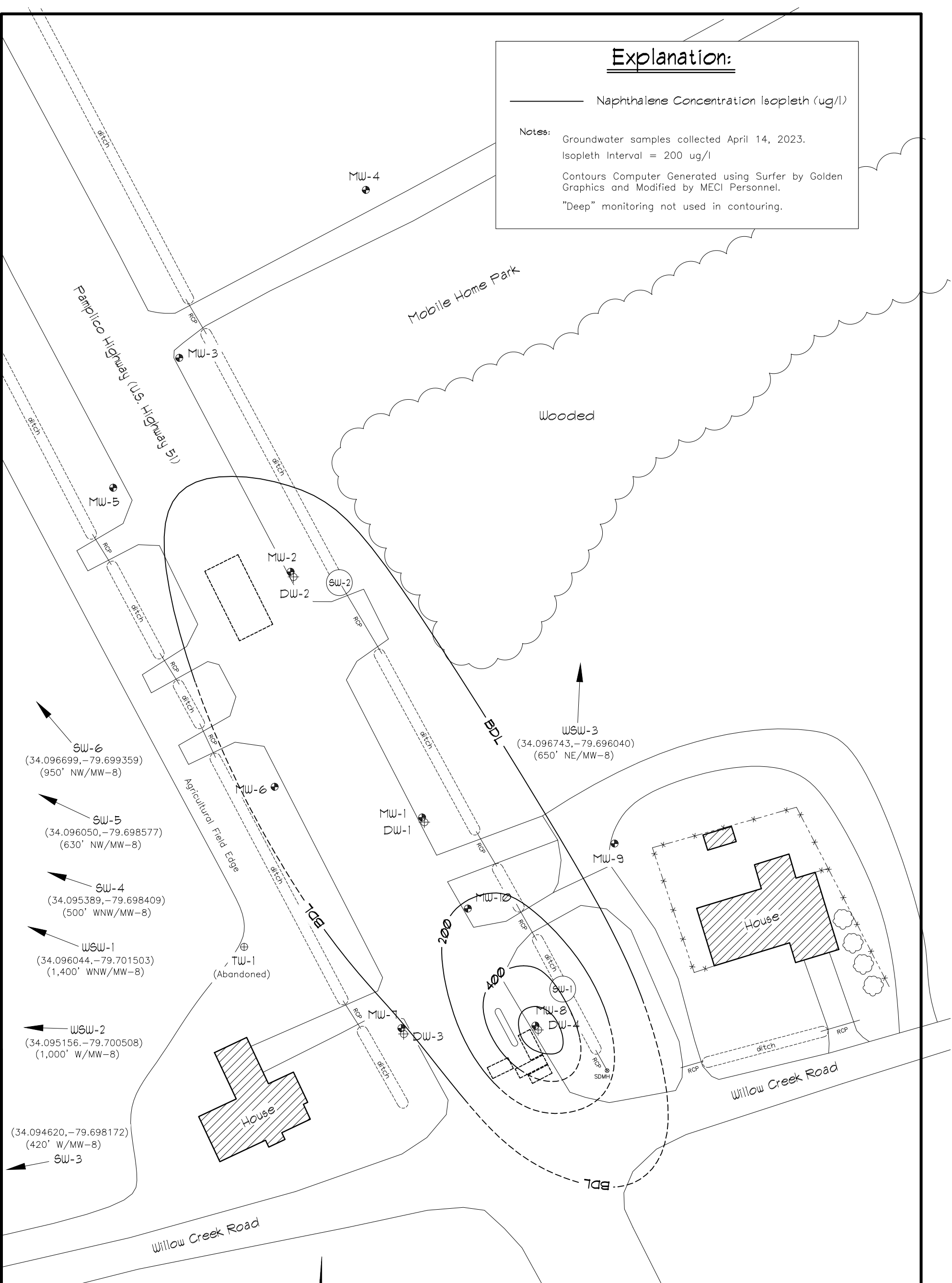
JOB NO. 22-7924B
DATE April 28, 2023
FIGURE

5C

Explanation:

Naphthalene Concentration Isopleth (ug/l)

Notes: Groundwater samples collected April 14, 2023.
Isopleth Interval = 200 ug/l
Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.
"Deep" monitoring not used in contouring.



Naphthalene Isopleth - "Shallow" Zone

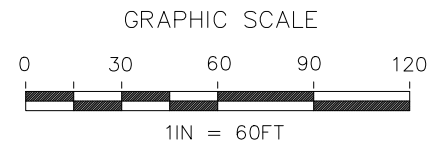
Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
Florence, South Carolina
UST Permit# 03423

Midlands
Environmental
Consultants, Inc.

JOB NO. 22-7924B
DATE April 28, 2023
FIGURE

5D

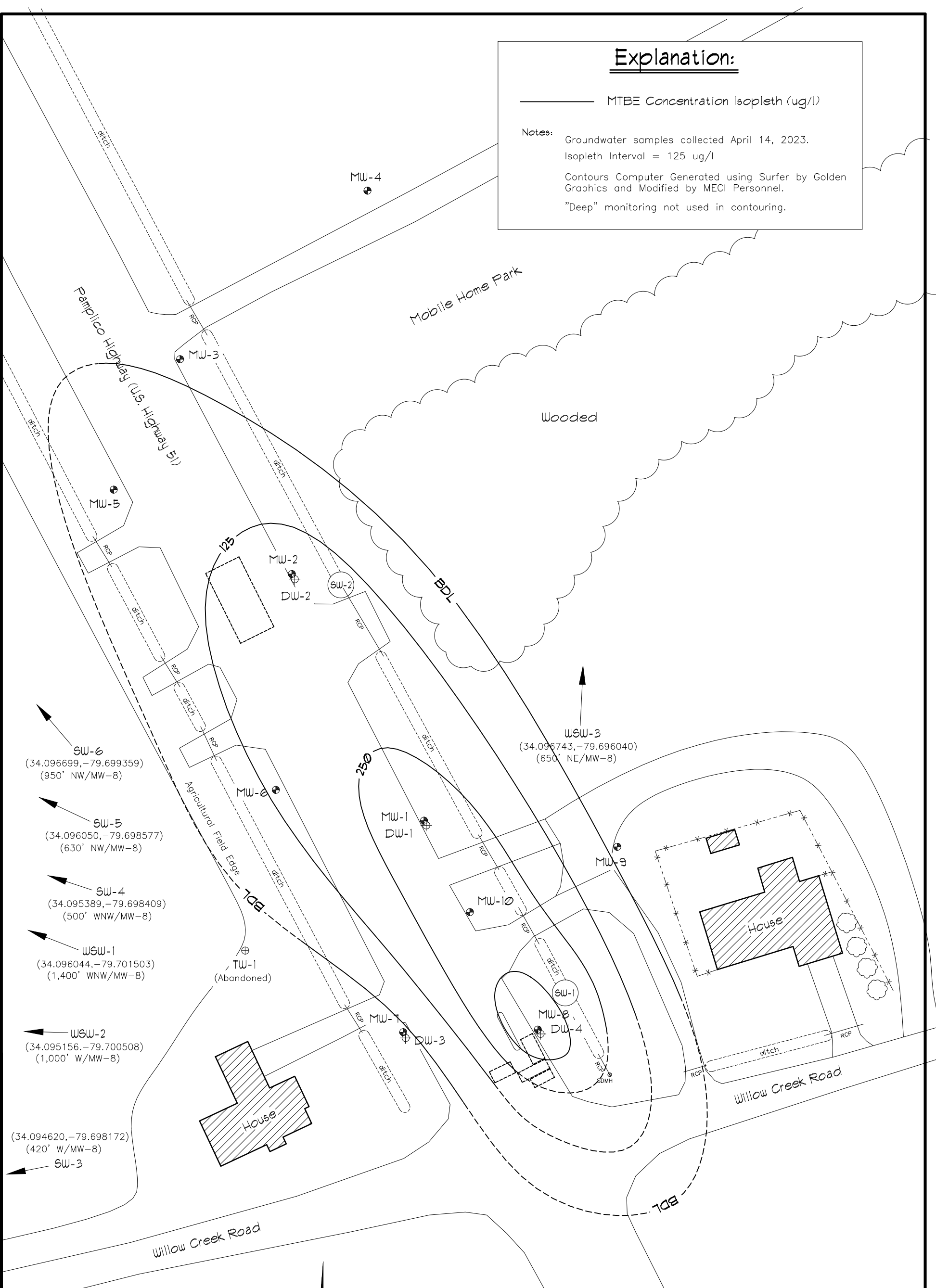
Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.



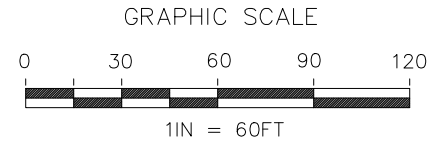
Explanation:

MTBE Concentration Isopleth (ug/l)

Notes: Groundwater samples collected April 14, 2023.
Isopleth Interval = 125 ug/l
Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.
"Deep" monitoring not used in contouring.



Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.



ALL LOCATIONS ARE APPROXIMATE

MTBE Isopleth - "Shallow" Zone

Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
Florence, South Carolina
UST Permit# 03423

Midlands
Environmental
Consultants, Inc.

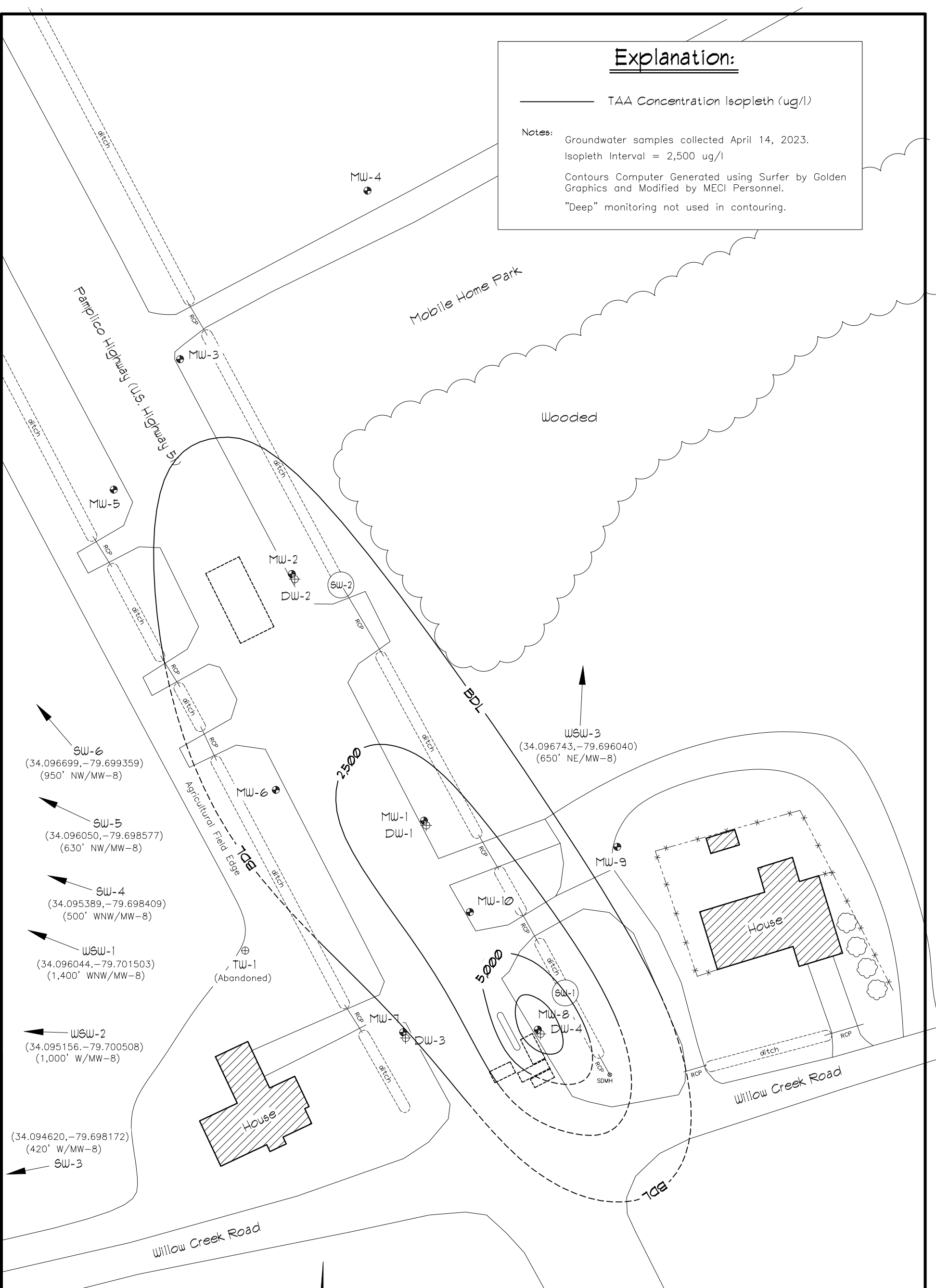
JOB NO. 22-7924B
DATE April 28, 2023
FIGURE

5E

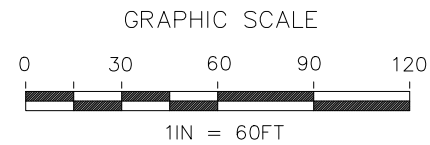
Explanation:

TAA Concentration Isopleth (ug/l)

Notes: Groundwater samples collected April 14, 2023.
Isopleth Interval = 2,500 ug/l
Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.
"Deep" monitoring not used in contouring.



Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.



ALL LOCATIONS ARE APPROXIMATE

TAA Isopleth - "Shallow" Zone

Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
Florence, South Carolina
UST Permit# 03423

Midlands
Environmental
Consultants, Inc.

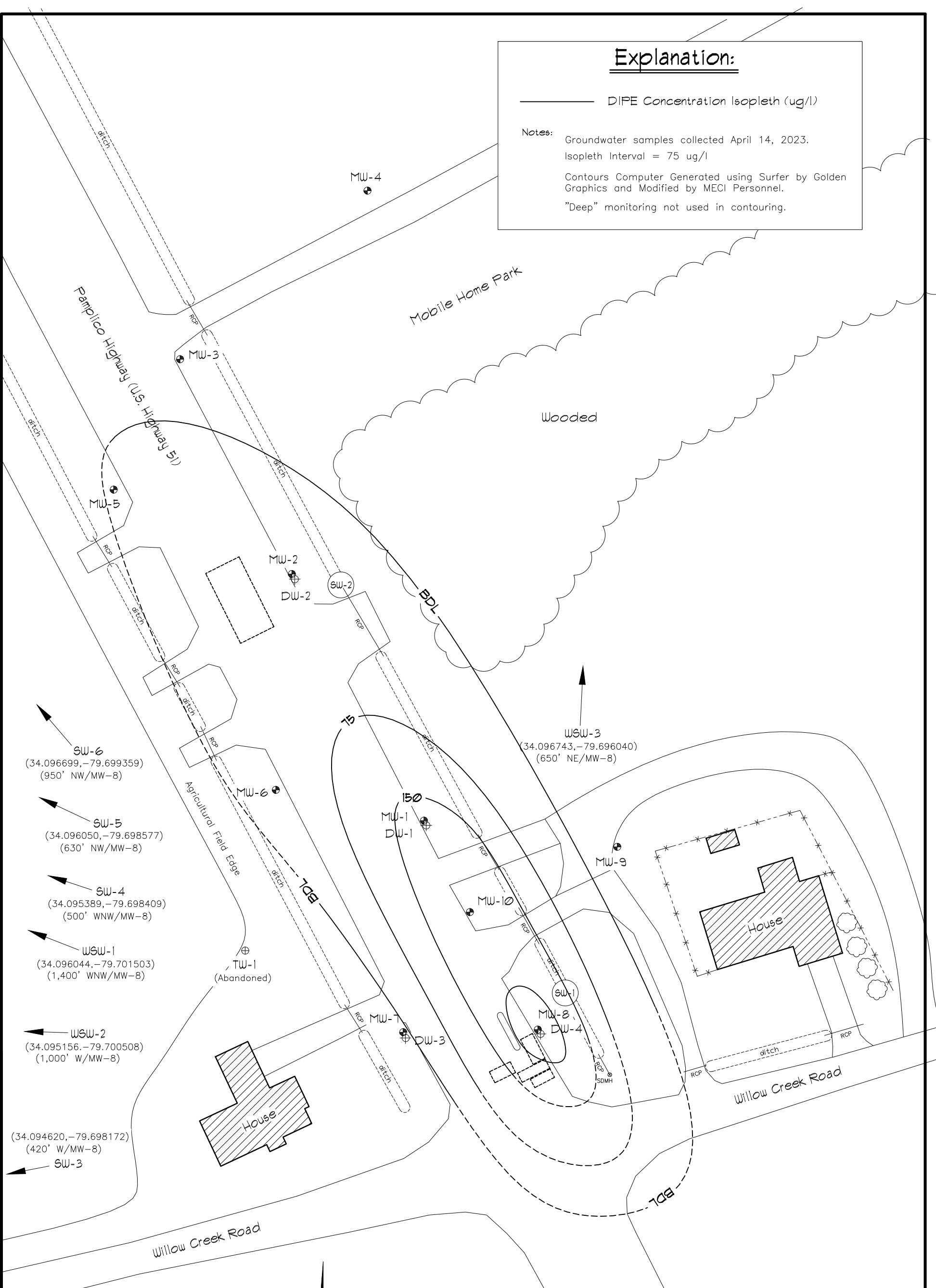
JOB NO. 22-7924B
DATE April 28, 2023
FIGURE

5F

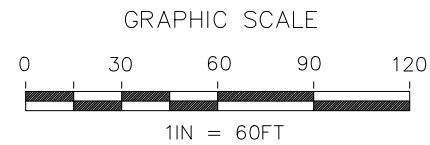
Explanation:

DIPE Concentration Isopleth (ug/l)

Notes: Groundwater samples collected April 14, 2023.
Isopleth Interval = 75 ug/l
Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.
"Deep" monitoring not used in contouring.



Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.



ALL LOCATIONS ARE APPROXIMATE

DIPE Isopleth - "Shallow" Zone

Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
Florence, South Carolina
UST Permit# 03423

Midlands
Environmental
Consultants, Inc.

JOB NO. 22-7924B
DATE April 28, 2023
FIGURE

5G

APPENDIX A:

SITE SURVEY

(Not Applicable)

APPENDIX B:

SAMPLING LOGS, LABORATORY DATA SHEETS, & CHAIN-OF-CUSTODY FORMS

Monitoring Well Purge And Sampling Data

Field Personnel: HS, TD
Sampling Date(s): 4/14/23
Sampling Case#: 1

Job Name: Jake Huggins
Job Number: 22-7924

Calibration Data for :

Calibration Successful? Yes or No (Please Circle)
pH: Yes No
Conductivity: Yes No
Dissolved Oxygen: Yes No

Turbidity: Conductivity Calibrated Every 3 Months by QA Manager

Well No.	Purge Volume	Sample Time	pH(i)	cond(l)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet):			Well Depth (feet)	Water Height *(feet)	Gallons Purged		Notes
								product	Initial H ₂ O	final H ₂ O			**calc.	actual	
mw-1	Initial	12:08	5.29	24.3	19.8	9.05	20.32				3	-	-	-	Slight odor
	1st										13	-	-	-	
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
mw-2	Initial	11:57	5.25	24.6	19.9	2.86	19.62				3	-	-	-	no odor
	1st										13	-	-	-	
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
mw-3	Initial	11:40	5.91	38.1	20.7	5.39	24.18				3	-	-	-	no odor
	1st										13	-	-	-	
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
mw-4	Initial	11:38	6.25	28.7	19.4	6.98	20.35				3	-	-	-	no odor
	1st										13	-	-	-	
	2nd														
	3rd														
	4th														
	5th														
	Sampling														

*= (Depth of Well) - (Depth to Water = Water Height)

One Well Volume = x.047 for 1" wells * x .163 for 2" wells, or * x .66 for 4" wells, 1.469 for 6" wells

**= One Well Volume x 5 = Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Field Personnel: HS, TD
Sampling Date(s): 4/14/23
Sampling Case#: 1

Monitoring Well Purge And Sampling Data

Job Name: Jake Huggins
Job Number: 22-7924

Calibration Data for :

Calibration Successful? Yes or No (Please Circle)
pH: Yes No

Conductivity: Yes No

Dissolved Oxygen: Yes No

Turbidity: Conductivity Calibrated Every 3 Months by QA Manager

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet):			Well Depth (feet)	Water Height *(feet)	Gallons Purged		Notes
								product	initial H ₂ O	final H ₂ O			**calc.	actual	
mw-5	Initial	11:29	6.38	36.3	22.2	5.76	23.18				3				
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
mw-6	Initial	11:31	6.65	30.8	22.0	5.57	19.19				3				
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
mw-7	Initial	11:20	6.45	30.1	20.7	4.78	25.62				3				
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
mw-8 (Dup)	Initial	10:50	7.53	247.0	21.9	2.66	19.78				3				
	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														

* = (Depth of Well) - (Depth to Water = Water Height)

One Well Volume = 0.047 for 1" wells, 0.163 for 2" wells, or 0.66 for 4" wells, 1.469 for 6" wells

** = One Well Volume x 5 = Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Field Personnel: HS, TD
Sampling Date(s): 4/14/23
Sampling Case#: 1

Monitoring Well Purge And Sampling Data

Job Name: Jake Huggins
Job Number: 22-7924

Calibration Data for:

Calibration Successful? Yes or No (Please Circle)
pH: Yes No
Conductivity: Yes No
Dissolved Oxygen: Yes No
Turbidity: Conductivity Calibrated Every 3 Months by QA Manager

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet):			Well Depth (feet)	Water Height *(feet)	Gallons Purged		Notes
								product	Initial H ₂ O	final H ₂ O			**calc.	actual	
mw-9	Initial	11:07	7.10	75.3	19.4	4.55	25.73				3				no odor
	1st										13				
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
mw-10	Initial	11:00	7.39	111.3	21.1	3.40	21.69				3				Slight odor
	1st										13				
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
Dw-1	Initial	12:02	5.49	28.6	20.4	6.61	19.91				20				no odor
	1st	12:06	5.36	39.6	20.1	6.43	27.35				25	21.83	3.55	17.79	
	2nd	12:10	5.21	52.9	19.8	6.22	41.88								
	3rd														
	4th														
	5th														
	Sampling	13:20	5.29	47.3	20.0	6.37	39.61								
Dw-2	Initial	11:47	6.28	80.8	20.7	7.25	18.51				20				no odor
	1st	11:51	6.13	97.9	20.5	6.86	27.32				25	21.97	3.58	17.90	
	2nd	11:55	6.05	63.1	20.2	6.54	34.98								
	3rd														
	4th														
	5th														
	Sampling	13:10	6.10	52.6	20.3	6.71	22.31								

* = (Depth of Well) - (Depth to Water = Water Height)

One Well Volume = x.047 for 1" wells, x.163 for 2" wells, or x.66 for 4" wells, 1.469 for 6" wells

** = One Well Volume x 5 = Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	PH/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Field Personnel: HS, TD
Sampling Date(s): 4/14/23
Sampling Case#: 1

Monitoring Well Purge And Sampling Data

Job Name: Jake Huggins
Job Number: 22-7924

Calibration Data for:

Calibration Successful? Yes or No (Please Circle)
pH: Yes No
Conductivity: Yes No
Dissolved Oxygen: Yes No
Turbidity: Yes No

Conductivity Calibrated Every 3 Months by QA Manager

Well No.	Purge Volume	Sample Time	pH(I)	cond(I)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet):			Well Depth (feet)	Water Height *(feet)	Gallons Purged		Notes
								product	Initial H ₂ O	final H ₂ O			**calc.	actual	
Dw-3	Initial	11:14	6.77	52.8	21.2	4.06	20.52								
	1st	11:18	6.91	78.9	21.0	3.85	31.45								
	2nd	11:22	7.02	101.3	20.8	3.29	40.78								
	3rd														
	4th														
	5th														
	Sampling	12:59	6.83	85.6	21.0	3.74	39.56								
Dw-4	Initial	10:45	8.07	80.8	20.6	7.37	18.53								
	1st	10:49	8.83	74.1	20.3	7.18	27.91								
	2nd	10:53	7.66	69.5	20.1	6.86	35.22								
	3rd														
	4th														
	5th														
	Sampling	12:51	7.91	70.6	20.2	7.06	21.05								
Sw-1	Initial	10:37	Sampled from Ditch (34.095076, -79.696727)												
Sw-2	1st	11:49	Sampled from Ditch (34.095847, -79.697296)												
Sw-3	2nd	10:15	Sampled from Creek (34.094620, -79.698172)												
Sw-4	3rd	10:20	Sampled from Creek (34.095389, -79.698409)												
Sw-5	4th	10:25	Sampled from Creek (34.096050, -79.698577)												
Sw-6	5th	10:30	Sampled from Creek (34.096699, -79.699359)												
	Sampling														

* = (Depth of Well) - (Depth to Water = Water Height)

One Well Volume = x.047 for 1" wells, x.163 for 2" wells, or x.66 for 4" wells, 1.469 for 6" wells

** = One Well Volume x 5 = Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Field Personnel: HS, TD

Sampling Date(s): 4/14/23

Sampling Case#: 1

Monitoring Well Purge And Sampling Data

Job Name: Jake Huggins

Job Number: 22-7924

Calibration Data for:

Calibration Successful? Yes or No (Please Circle)

pH: Yes No

Conductivity: Yes No

Dissolved Oxygen: Yes No

Turbidity: Conductivity Calibrated Every 3 Months by QA Manager

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet):			Well Depth (feet)	Water Height *(feet)	Gallons Purged		Notes
								product	Initial H ₂ O	final H ₂ O			**calc.	actual	
Dup FB TB	Initial														
	1st	12:15		Strong odor											
	2nd														
	3rd														
	4th														
	5th	8:00													
6AC	Initial														
	1st	12:17													
	2nd														
	3rd														
	4th														
	5th														
WSW-1	Initial														
	1st														
	2nd														
	3rd														
	4th														
	5th														
WSW-2	Initial														
	1st														
	2nd														
	3rd														
	4th														
	5th														
WSW-dup	Initial														
	1st														
	2nd														
	3rd														
	4th														
	5th														
WSW-3	Initial														
	1st														
	2nd														
	3rd														
	4th														
	5th														
WSW-TB	Initial														
	1st														
	2nd														
	3rd														
	4th														
	5th														
WSW-FB	Initial														
	1st														
	2nd														
	3rd														
	4th														
	5th														

*= (Depth of Well) - (Depth to Water = Water Height)

One Well Volume = x.047 for 1" wells * x .163 for 2" wells, or * x .66 for 4" wells, 1.469 for 6" wells

**= One Well Volume x 5 = Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	PH/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

April 21, 2023

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

RE: Project: JAKE HUGGINS
Pace Project No.: 92662469

Dear Mr. Shane, P.G.:

Enclosed are the analytical results for sample(s) received by the laboratory on April 14, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Charlotte

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

Sincerely,



Taylor M Cannon
taylor.cannon@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Mr. Jeff Coleman, Midlands Environmental



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

CERTIFICATIONS

Project: JAKE HUGGINS

Pace Project No.: 92662469

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006

9800 Kinsey 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 Laboratory ID: 99006

South Carolina Certification #: 99006001

South Carolina Drinking Water Cert. #: 99006003

Florida/NELAP Certification #: E87627

Kentucky UST Certification #: 84

Louisiana DoH Drinking Water #: LA029

Virginia/VELAP Certification #: 460221

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: JAKE HUGGINS

Pace Project No.: 92662469

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92662469001	MW-1	Water	04/14/23 12:08	04/14/23 13:05
92662469002	MW-2	Water	04/14/23 11:57	04/14/23 13:05
92662469003	MW-3	Water	04/14/23 11:40	04/14/23 13:05
92662469004	MW-4	Water	04/14/23 11:38	04/14/23 13:05
92662469005	MW-5	Water	04/14/23 11:29	04/14/23 13:05
92662469006	MW-6	Water	04/14/23 11:31	04/14/23 13:05
92662469007	MW-7	Water	04/14/23 11:20	04/14/23 13:05
92662469008	MW-8	Water	04/14/23 10:50	04/14/23 13:05
92662469009	MW-9	Water	04/14/23 11:07	04/14/23 13:05
92662469010	MW-10	Water	04/14/23 11:00	04/14/23 13:05
92662469011	DW-1	Water	04/14/23 13:20	04/14/23 13:21
92662469012	DW-2	Water	04/14/23 13:10	04/14/23 13:21
92662469013	DW-3	Water	04/14/23 12:59	04/14/23 13:05
92662469014	DW-4	Water	04/14/23 12:51	04/14/23 13:05
92662469015	SW-1	Water	04/14/23 10:37	04/14/23 13:05
92662469016	SW-2	Water	04/14/23 11:49	04/14/23 13:05
92662469017	SW-3	Water	04/14/23 10:15	04/14/23 13:05
92662469018	SW-4	Water	04/14/23 10:20	04/14/23 13:05
92662469019	SW-5	Water	04/14/23 10:25	04/14/23 13:05
92662469020	SW-6	Water	04/14/23 10:30	04/14/23 13:05
92662469021	DUP	Water	04/14/23 00:00	04/14/23 13:05
92662469022	FB	Water	04/14/23 12:15	04/14/23 13:05
92662469023	GAC	Water	04/14/23 12:17	04/14/23 13:05
92662469024	TB	Water	04/14/23 08:00	04/14/23 13:05

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SAMPLE ANALYTE COUNT

Project: JAKE HUGGINS

Pace Project No.: 92662469

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92662469001	MW-1	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92662469002	MW-2	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92662469003	MW-3	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92662469004	MW-4	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92662469005	MW-5	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92662469006	MW-6	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92662469007	MW-7	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92662469008	MW-8	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92662469009	MW-9	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92662469010	MW-10	EPA 8011	HH	2	PASI-C
		EPA 8260D	CL	20	PASI-C
92662469011	DW-1	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92662469012	DW-2	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92662469013	DW-3	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92662469014	DW-4	EPA 8011	HH	2	PASI-C
		EPA 8260D	CL	20	PASI-C
92662469015	SW-1	EPA 8011	HH	2	PASI-C
		EPA 8260D	CL	20	PASI-C
92662469016	SW-2	EPA 8011	HH	2	PASI-C
		EPA 8260D	CL	20	PASI-C
92662469017	SW-3	EPA 8011	HH	2	PASI-C
		EPA 8260D	CL	20	PASI-C
92662469018	SW-4	EPA 8011	HH	2	PASI-C
		EPA 8260D	CL	20	PASI-C
92662469019	SW-5	EPA 8011	HH	2	PASI-C

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SAMPLE ANALYTE COUNT

Project: JAKE HUGGINS

Pace Project No.: 92662469

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92662469020	SW-6	EPA 8260D	CL	20	PASI-C
		EPA 8011	HH	2	PASI-C
92662469021	DUP	EPA 8260D	CL	20	PASI-C
		EPA 8011	HH	2	PASI-C
92662469022	FB	EPA 8260D	CL	20	PASI-C
		EPA 8011	HH	2	PASI-C
92662469023	GAC	EPA 8260D	SAS	20	PASI-C
		EPA 8011	HH	2	PASI-C
92662469024	TB	EPA 8260D	SAS	20	PASI-C
		EPA 8260D	SAS	20	PASI-C

PASI-C = Pace Analytical Services - Charlotte

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ANALYTICAL RESULTS

Project: JAKE HUGGINS

Pace Project No.: 92662469

Sample: MW-1		Lab ID: 92662469001		Collected: 04/14/23 12:08		Received: 04/14/23 13:05		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 Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0073	1	04/20/23 10:56	04/20/23 15:29	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	99	%	60-140		1	04/20/23 10:56	04/20/23 15:29	301-79-56	
8260 MSV Analytical Method: EPA 8260D Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	4640	ug/L	500	328	5		04/19/23 18:12	75-85-4	
tert-Amylmethyl ether	59.9	ug/L	50.0	15.2	5		04/19/23 18:12	994-05-8	
Benzene	749	ug/L	25.0	8.7	5		04/19/23 18:12	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	500	270	5		04/19/23 18:12	624-95-3	
tert-Butyl Alcohol	ND	ug/L	500	455	5		04/19/23 18:12	75-65-0	
tert-Butyl Formate	ND	ug/L	250	120	5		04/19/23 18:12	762-75-4	
1,2-Dichloroethane	ND	ug/L	25.0	10.3	5		04/19/23 18:12	107-06-2	
Diisopropyl ether	178	ug/L	25.0	17.4	5		04/19/23 18:12	108-20-3	
Ethanol	ND	ug/L	1000	720	5		04/19/23 18:12	64-17-5	
Ethylbenzene	39.7	ug/L	25.0	9.2	5		04/19/23 18:12	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	50.0	42.3	5		04/19/23 18:12	637-92-3	
Methyl-tert-butyl ether	343	ug/L	25.0	15.5	5		04/19/23 18:12	1634-04-4	
Naphthalene	51.1	ug/L	25.0	10.4	5		04/19/23 18:12	91-20-3	
Toluene	11.5J	ug/L	25.0	10.0	5		04/19/23 18:12	108-88-3	
Xylene (Total)	ND	ug/L	25.0	25.0	5		04/19/23 18:12	1330-20-7	
m&p-Xylene	ND	ug/L	50.0	20.6	5		04/19/23 18:12	179601-23-1	
o-Xylene	ND	ug/L	25.0	10.2	5		04/19/23 18:12	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		5		04/19/23 18:12	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-130		5		04/19/23 18:12	17060-07-0	
Toluene-d8 (S)	100	%	70-130		5		04/19/23 18:12	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS

Pace Project No.: 92662469

Sample: MW-2		Lab ID: 92662469002		Collected: 04/14/23 11:57		Received: 04/14/23 13:05		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0074	1	04/20/23 10:56	04/20/23 15:40	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	89	%	60-140		1	04/20/23 10:56	04/20/23 15:40	301-79-56	
8260 MSV		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	225	ug/L	200	131	2		04/19/23 18:30	75-85-4	
tert-Amylmethyl ether	10.5J	ug/L	20.0	6.1	2		04/19/23 18:30	994-05-8	
Benzene	90.2	ug/L	10.0	3.5	2		04/19/23 18:30	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	200	108	2		04/19/23 18:30	624-95-3	
tert-Butyl Alcohol	ND	ug/L	200	182	2		04/19/23 18:30	75-65-0	
tert-Butyl Formate	ND	ug/L	100	48.2	2		04/19/23 18:30	762-75-4	
1,2-Dichloroethane	ND	ug/L	10.0	4.1	2		04/19/23 18:30	107-06-2	
Diisopropyl ether	33.0	ug/L	10.0	7.0	2		04/19/23 18:30	108-20-3	
Ethanol	ND	ug/L	400	288	2		04/19/23 18:30	64-17-5	
Ethylbenzene	ND	ug/L	10.0	3.7	2		04/19/23 18:30	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	20.0	16.9	2		04/19/23 18:30	637-92-3	
Methyl-tert-butyl ether	195	ug/L	10.0	6.2	2		04/19/23 18:30	1634-04-4	
Naphthalene	10.2	ug/L	10.0	4.2	2		04/19/23 18:30	91-20-3	
Toluene	ND	ug/L	10.0	4.0	2		04/19/23 18:30	108-88-3	
Xylene (Total)	ND	ug/L	10.0	10.0	2		04/19/23 18:30	1330-20-7	
m&p-Xylene	ND	ug/L	20.0	8.2	2		04/19/23 18:30	179601-23-1	
o-Xylene	ND	ug/L	10.0	4.1	2		04/19/23 18:30	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		2		04/19/23 18:30	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-130		2		04/19/23 18:30	17060-07-0	
Toluene-d8 (S)	102	%	70-130		2		04/19/23 18:30	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS

Pace Project No.: 92662469

Sample: MW-3		Lab ID: 92662469003		Collected: 04/14/23 11:40		Received: 04/14/23 13:05		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 Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0075	1	04/20/23 10:56	04/20/23 15:51	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	90	%	60-140		1	04/20/23 10:56	04/20/23 15:51	301-79-56	
8260 MSV Analytical Method: EPA 8260D Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		04/19/23 03:27	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		04/19/23 03:27	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/19/23 03:27	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		04/19/23 03:27	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		04/19/23 03:27	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		04/19/23 03:27	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		04/19/23 03:27	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		04/19/23 03:27	108-20-3	
Ethanol	ND	ug/L	200	144	1		04/19/23 03:27	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		04/19/23 03:27	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		04/19/23 03:27	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		04/19/23 03:27	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		04/19/23 03:27	91-20-3	IH
Toluene	ND	ug/L	5.0	2.0	1		04/19/23 03:27	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		04/19/23 03:27	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		04/19/23 03:27	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		04/19/23 03:27	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		04/19/23 03:27	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130		1		04/19/23 03:27	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		04/19/23 03:27	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS

Pace Project No.: 92662469

Sample: MW-4		Lab ID: 92662469004		Collected: 04/14/23 11:38		Received: 04/14/23 13:05		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 Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0074	1	04/20/23 10:56	04/20/23 16:01	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	93	%	60-140		1	04/20/23 10:56	04/20/23 16:01	301-79-56	
8260 MSV Analytical Method: EPA 8260D Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		04/19/23 03:45	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		04/19/23 03:45	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/19/23 03:45	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		04/19/23 03:45	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		04/19/23 03:45	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		04/19/23 03:45	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		04/19/23 03:45	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		04/19/23 03:45	108-20-3	
Ethanol	ND	ug/L	200	144	1		04/19/23 03:45	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		04/19/23 03:45	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		04/19/23 03:45	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		04/19/23 03:45	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		04/19/23 03:45	91-20-3	IH
Toluene	ND	ug/L	5.0	2.0	1		04/19/23 03:45	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		04/19/23 03:45	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		04/19/23 03:45	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		04/19/23 03:45	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		04/19/23 03:45	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	70-130		1		04/19/23 03:45	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		04/19/23 03:45	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS

Pace Project No.: 92662469

Sample: MW-5		Lab ID: 92662469005		Collected: 04/14/23 11:29		Received: 04/14/23 13:05		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 Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.0073	1	04/20/23 10:56	04/20/23 16:12	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	92	%	60-140		1	04/20/23 10:56	04/20/23 16:12	301-79-56	
8260 MSV Analytical Method: EPA 8260D Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		04/19/23 16:59	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		04/19/23 16:59	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/19/23 16:59	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		04/19/23 16:59	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		04/19/23 16:59	75-65-0	v3
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		04/19/23 16:59	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		04/19/23 16:59	107-06-2	
Diisopropyl ether	4.1J	ug/L	5.0	3.5	1		04/19/23 16:59	108-20-3	
Ethanol	ND	ug/L	200	144	1		04/19/23 16:59	64-17-5	v3
Ethylbenzene	ND	ug/L	5.0	1.8	1		04/19/23 16:59	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		04/19/23 16:59	637-92-3	
Methyl-tert-butyl ether	22.3	ug/L	5.0	3.1	1		04/19/23 16:59	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		04/19/23 16:59	91-20-3	IH
Toluene	ND	ug/L	5.0	2.0	1		04/19/23 16:59	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		04/19/23 16:59	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		04/19/23 16:59	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		04/19/23 16:59	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		1		04/19/23 16:59	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130		1		04/19/23 16:59	17060-07-0	
Toluene-d8 (S)	108	%	70-130		1		04/19/23 16:59	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS

Pace Project No.: 92662469

Sample: MW-6		Lab ID: 92662469006		Collected: 04/14/23 11:31		Received: 04/14/23 13:05		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									
Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.0072	1	04/20/23 10:56	04/20/23 16:23	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	98	%	60-140		1	04/20/23 10:56	04/20/23 16:23	301-79-56	
8260 MSV									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	1570	ug/L	100	65.6	1		04/19/23 17:17	75-85-4	
tert-Amylmethyl ether	26.1	ug/L	10.0	3.0	1		04/19/23 17:17	994-05-8	
Benzene	68.1	ug/L	5.0	1.7	1		04/19/23 17:17	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		04/19/23 17:17	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		04/19/23 17:17	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		04/19/23 17:17	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		04/19/23 17:17	107-06-2	
Diisopropyl ether	80.1	ug/L	5.0	3.5	1		04/19/23 17:17	108-20-3	
Ethanol	ND	ug/L	200	144	1		04/19/23 17:17	64-17-5	
Ethylbenzene	3.3J	ug/L	5.0	1.8	1		04/19/23 17:17	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		04/19/23 17:17	637-92-3	
Methyl-tert-butyl ether	132	ug/L	5.0	3.1	1		04/19/23 17:17	1634-04-4	
Naphthalene	23.0	ug/L	5.0	2.1	1		04/19/23 17:17	91-20-3	
Toluene	2.9J	ug/L	5.0	2.0	1		04/19/23 17:17	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		04/19/23 17:17	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		04/19/23 17:17	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		04/19/23 17:17	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	103	%	70-130		1		04/19/23 17:17	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-130		1		04/19/23 17:17	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		04/19/23 17:17	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS

Pace Project No.: 92662469

Sample: MW-7		Lab ID: 92662469007		Collected: 04/14/23 11:20		Received: 04/14/23 13:05		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0074	1	04/20/23 10:56	04/20/23 16:34	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	92	%	60-140		1	04/20/23 10:56	04/20/23 16:34	301-79-56	
8260 MSV		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		04/19/23 04:02	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		04/19/23 04:02	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/19/23 04:02	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		04/19/23 04:02	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		04/19/23 04:02	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		04/19/23 04:02	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		04/19/23 04:02	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		04/19/23 04:02	108-20-3	
Ethanol	ND	ug/L	200	144	1		04/19/23 04:02	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		04/19/23 04:02	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		04/19/23 04:02	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		04/19/23 04:02	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		04/19/23 04:02	91-20-3	IH
Toluene	ND	ug/L	5.0	2.0	1		04/19/23 04:02	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		04/19/23 04:02	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		04/19/23 04:02	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		04/19/23 04:02	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		04/19/23 04:02	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130		1		04/19/23 04:02	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		04/19/23 04:02	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS

Pace Project No.: 92662469

Sample: MW-8		Lab ID: 92662469008		Collected: 04/14/23 10:50		Received: 04/14/23 13:05		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 Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0074	1	04/20/23 10:56	04/20/23 16:44	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	110	%	60-140		1	04/20/23 10:56	04/20/23 16:44	301-79-56	
8260 MSV Analytical Method: EPA 8260D Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	ND	ug/L	12500	8200	125		04/19/23 18:48	75-85-4	
tert-Amylmethyl ether	ND	ug/L	1250	380	125		04/19/23 18:48	994-05-8	
Benzene	3620	ug/L	625	218	125		04/19/23 18:48	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	12500	6740	125		04/19/23 18:48	624-95-3	
tert-Butyl Alcohol	ND	ug/L	12500	11400	125		04/19/23 18:48	75-65-0	
tert-Butyl Formate	ND	ug/L	6250	3010	125		04/19/23 18:48	762-75-4	
1,2-Dichloroethane	ND	ug/L	625	258	125		04/19/23 18:48	107-06-2	
Diisopropyl ether	ND	ug/L	625	436	125		04/19/23 18:48	108-20-3	
Ethanol	ND	ug/L	25000	18000	125		04/19/23 18:48	64-17-5	
Ethylbenzene	1840	ug/L	625	230	125		04/19/23 18:48	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	1250	1060	125		04/19/23 18:48	637-92-3	
Methyl-tert-butyl ether	435J	ug/L	625	388	125		04/19/23 18:48	1634-04-4	
Naphthalene	661	ug/L	625	261	125		04/19/23 18:48	91-20-3	
Toluene	19200	ug/L	625	251	125		04/19/23 18:48	108-88-3	
Xylene (Total)	10800	ug/L	625	625	125		04/19/23 18:48	1330-20-7	
m&p-Xylene	7070	ug/L	1250	514	125		04/19/23 18:48	179601-23-1	
o-Xylene	3700	ug/L	625	255	125		04/19/23 18:48	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		125		04/19/23 18:48	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		125		04/19/23 18:48	17060-07-0	
Toluene-d8 (S)	100	%	70-130		125		04/19/23 18:48	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS

Pace Project No.: 92662469

Sample: MW-9		Lab ID: 92662469009		Collected: 04/14/23 11:07		Received: 04/14/23 13:05		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 Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.0070	1	04/20/23 10:56	04/20/23 13:05	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	104	%	60-140		1	04/20/23 10:56	04/20/23 13:05	301-79-56	
8260 MSV Analytical Method: EPA 8260D Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		04/19/23 04:20	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		04/19/23 04:20	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/19/23 04:20	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		04/19/23 04:20	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		04/19/23 04:20	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		04/19/23 04:20	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		04/19/23 04:20	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		04/19/23 04:20	108-20-3	
Ethanol	ND	ug/L	200	144	1		04/19/23 04:20	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		04/19/23 04:20	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		04/19/23 04:20	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		04/19/23 04:20	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		04/19/23 04:20	91-20-3	IH
Toluene	ND	ug/L	5.0	2.0	1		04/19/23 04:20	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		04/19/23 04:20	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		04/19/23 04:20	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		04/19/23 04:20	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		04/19/23 04:20	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130		1		04/19/23 04:20	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		04/19/23 04:20	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS

Pace Project No.: 92662469

Sample: MW-10		Lab ID: 92662469010		Collected: 04/14/23 11:00		Received: 04/14/23 13:05		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 Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0075	1	04/20/23 10:56	04/20/23 13:26	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	106	%	60-140		1	04/20/23 10:56	04/20/23 13:26	301-79-56	
8260 MSV Analytical Method: EPA 8260D Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	3350	ug/L	500	328	5		04/21/23 01:36	75-85-4	
tert-Amylmethyl ether	56.9	ug/L	50.0	15.2	5		04/21/23 01:36	994-05-8	
Benzene	634	ug/L	25.0	8.7	5		04/21/23 01:36	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	500	270	5		04/21/23 01:36	624-95-3	
tert-Butyl Alcohol	ND	ug/L	500	455	5		04/21/23 01:36	75-65-0	
tert-Butyl Formate	ND	ug/L	250	120	5		04/21/23 01:36	762-75-4	
1,2-Dichloroethane	ND	ug/L	25.0	10.3	5		04/21/23 01:36	107-06-2	
Diisopropyl ether	165	ug/L	25.0	17.4	5		04/21/23 01:36	108-20-3	
Ethanol	ND	ug/L	1000	720	5		04/21/23 01:36	64-17-5	
Ethylbenzene	428	ug/L	25.0	9.2	5		04/21/23 01:36	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	50.0	42.3	5		04/21/23 01:36	637-92-3	
Methyl-tert-butyl ether	260	ug/L	25.0	15.5	5		04/21/23 01:36	1634-04-4	
Naphthalene	216	ug/L	25.0	10.4	5		04/21/23 01:36	91-20-3	
Toluene	49.9	ug/L	25.0	10.0	5		04/21/23 01:36	108-88-3	
Xylene (Total)	308	ug/L	25.0	25.0	5		04/21/23 01:36	1330-20-7	
m&p-Xylene	186	ug/L	50.0	20.6	5		04/21/23 01:36	179601-23-1	
o-Xylene	122	ug/L	25.0	10.2	5		04/21/23 01:36	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		5		04/21/23 01:36	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		5		04/21/23 01:36	17060-07-0	
Toluene-d8 (S)	100	%	70-130		5		04/21/23 01:36	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS

Pace Project No.: 92662469

Sample: DW-1		Lab ID: 92662469011		Collected: 04/14/23 13:20		Received: 04/14/23 13:21		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									
Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.0072	1	04/20/23 10:56	04/20/23 13:58	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	98	%	60-140		1	04/20/23 10:56	04/20/23 13:58	301-79-56	
8260 MSV									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		04/19/23 17:35	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		04/19/23 17:35	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/19/23 17:35	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		04/19/23 17:35	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		04/19/23 17:35	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		04/19/23 17:35	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		04/19/23 17:35	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		04/19/23 17:35	108-20-3	
Ethanol	ND	ug/L	200	144	1		04/19/23 17:35	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		04/19/23 17:35	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		04/19/23 17:35	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		04/19/23 17:35	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		04/19/23 17:35	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		04/19/23 17:35	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		04/19/23 17:35	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		04/19/23 17:35	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		04/19/23 17:35	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		04/19/23 17:35	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130		1		04/19/23 17:35	17060-07-0	
Toluene-d8 (S)	108	%	70-130		1		04/19/23 17:35	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS
Pace Project No.: 92662469

Sample: DW-2		Lab ID: 92662469012		Collected: 04/14/23 13:10		Received: 04/14/23 13:21		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 Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.0073	1	04/20/23 10:56	04/20/23 14:09	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	95	%	60-140		1	04/20/23 10:56	04/20/23 14:09	301-79-56	
8260 MSV Analytical Method: EPA 8260D Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		04/19/23 16:05	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		04/19/23 16:05	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/19/23 16:05	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		04/19/23 16:05	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		04/19/23 16:05	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		04/19/23 16:05	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		04/19/23 16:05	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		04/19/23 16:05	108-20-3	
Ethanol	ND	ug/L	200	144	1		04/19/23 16:05	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		04/19/23 16:05	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		04/19/23 16:05	637-92-3	
Methyl-tert-butyl ether	5.2	ug/L	5.0	3.1	1		04/19/23 16:05	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		04/19/23 16:05	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		04/19/23 16:05	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		04/19/23 16:05	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		04/19/23 16:05	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		04/19/23 16:05	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		04/19/23 16:05	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130		1		04/19/23 16:05	17060-07-0	
Toluene-d8 (S)	104	%	70-130		1		04/19/23 16:05	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS

Pace Project No.: 92662469

Sample: DW-3		Lab ID: 92662469013		Collected: 04/14/23 12:59		Received: 04/14/23 13:05		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 Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0074	1	04/20/23 10:56	04/20/23 14:20	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	96	%	60-140		1	04/20/23 10:56	04/20/23 14:20	301-79-56	
8260 MSV Analytical Method: EPA 8260D Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		04/19/23 16:23	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		04/19/23 16:23	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/19/23 16:23	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		04/19/23 16:23	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		04/19/23 16:23	75-65-0	v2
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		04/19/23 16:23	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		04/19/23 16:23	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		04/19/23 16:23	108-20-3	
Ethanol	ND	ug/L	200	144	1		04/19/23 16:23	64-17-5	v2
Ethylbenzene	ND	ug/L	5.0	1.8	1		04/19/23 16:23	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		04/19/23 16:23	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		04/19/23 16:23	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		04/19/23 16:23	91-20-3	IH
Toluene	ND	ug/L	5.0	2.0	1		04/19/23 16:23	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		04/19/23 16:23	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		04/19/23 16:23	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		04/19/23 16:23	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		04/19/23 16:23	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130		1		04/19/23 16:23	17060-07-0	
Toluene-d8 (S)	107	%	70-130		1		04/19/23 16:23	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS

Pace Project No.: 92662469

Sample: DW-4		Lab ID: 92662469014		Collected: 04/14/23 12:51		Received: 04/14/23 13:05		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 Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0074	1	04/20/23 10:56	04/20/23 14:30	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	97	%	60-140		1	04/20/23 10:56	04/20/23 14:30	301-79-56	
8260 MSV Analytical Method: EPA 8260D Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		04/21/23 00:42	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		04/21/23 00:42	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/21/23 00:42	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		04/21/23 00:42	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		04/21/23 00:42	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		04/21/23 00:42	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		04/21/23 00:42	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		04/21/23 00:42	108-20-3	
Ethanol	ND	ug/L	200	144	1		04/21/23 00:42	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		04/21/23 00:42	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		04/21/23 00:42	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		04/21/23 00:42	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		04/21/23 00:42	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		04/21/23 00:42	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		04/21/23 00:42	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		04/21/23 00:42	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		04/21/23 00:42	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		04/21/23 00:42	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130		1		04/21/23 00:42	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		04/21/23 00:42	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS

Pace Project No.: 92662469

Sample: SW-1		Lab ID: 92662469015		Collected: 04/14/23 10:37		Received: 04/14/23 13:05		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.021	0.0078	1	04/20/23 10:56	04/20/23 14:41	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	94	%	60-140		1	04/20/23 10:56	04/20/23 14:41	301-79-56	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		04/19/23 05:34	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		04/19/23 05:34	994-05-8	
Benzene	ND	ug/L	1.0	0.34	1		04/19/23 05:34	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		04/19/23 05:34	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		04/19/23 05:34	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		04/19/23 05:34	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		04/19/23 05:34	107-06-2	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		04/19/23 05:34	108-20-3	v2
Ethanol	ND	ug/L	200	72.2	1		04/19/23 05:34	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		04/19/23 05:34	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		04/19/23 05:34	637-92-3	
Methyl-tert-butyl ether	0.68J	ug/L	1.0	0.42	1		04/19/23 05:34	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		04/19/23 05:34	91-20-3	
Toluene	0.98J	ug/L	1.0	0.48	1		04/19/23 05:34	108-88-3	
Xylene (Total)	ND	ug/L	1.0	0.34	1		04/19/23 05:34	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		04/19/23 05:34	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		04/19/23 05:34	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		04/19/23 05:34	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-130		1		04/19/23 05:34	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		04/19/23 05:34	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS

Pace Project No.: 92662469

Sample: SW-2		Lab ID: 92662469016		Collected: 04/14/23 11:49		Received: 04/14/23 13:05		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0073	1	04/20/23 10:56	04/20/23 14:52	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	94	%	60-140		1	04/20/23 10:56	04/20/23 14:52	301-79-56	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		04/19/23 05:53	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		04/19/23 05:53	994-05-8	
Benzene	ND	ug/L	1.0	0.34	1		04/19/23 05:53	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		04/19/23 05:53	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		04/19/23 05:53	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		04/19/23 05:53	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		04/19/23 05:53	107-06-2	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		04/19/23 05:53	108-20-3	v2
Ethanol	ND	ug/L	200	72.2	1		04/19/23 05:53	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		04/19/23 05:53	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		04/19/23 05:53	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		04/19/23 05:53	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		04/19/23 05:53	91-20-3	
Toluene	ND	ug/L	1.0	0.48	1		04/19/23 05:53	108-88-3	
Xylene (Total)	ND	ug/L	1.0	0.34	1		04/19/23 05:53	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		04/19/23 05:53	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		04/19/23 05:53	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		04/19/23 05:53	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-130		1		04/19/23 05:53	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		04/19/23 05:53	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS

Pace Project No.: 92662469

Sample: SW-3		Lab ID: 92662469017		Collected: 04/14/23 10:15		Received: 04/14/23 13:05		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0076	1	04/20/23 10:56	04/20/23 15:02	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	96	%	60-140		1	04/20/23 10:56	04/20/23 15:02	301-79-56	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		04/19/23 06:11	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		04/19/23 06:11	994-05-8	
Benzene	ND	ug/L	1.0	0.34	1		04/19/23 06:11	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		04/19/23 06:11	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		04/19/23 06:11	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		04/19/23 06:11	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		04/19/23 06:11	107-06-2	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		04/19/23 06:11	108-20-3	v2
Ethanol	ND	ug/L	200	72.2	1		04/19/23 06:11	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		04/19/23 06:11	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		04/19/23 06:11	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		04/19/23 06:11	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		04/19/23 06:11	91-20-3	
Toluene	ND	ug/L	1.0	0.48	1		04/19/23 06:11	108-88-3	
Xylene (Total)	ND	ug/L	1.0	0.34	1		04/19/23 06:11	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		04/19/23 06:11	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		04/19/23 06:11	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		04/19/23 06:11	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-130		1		04/19/23 06:11	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		04/19/23 06:11	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS

Pace Project No.: 92662469

Sample: SW-4		Lab ID: 92662469018		Collected: 04/14/23 10:20		Received: 04/14/23 13:05		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0074	1	04/20/23 10:56	04/20/23 15:13	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	95	%	60-140		1	04/20/23 10:56	04/20/23 15:13	301-79-56	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		04/19/23 06:29	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		04/19/23 06:29	994-05-8	
Benzene	ND	ug/L	1.0	0.34	1		04/19/23 06:29	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		04/19/23 06:29	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		04/19/23 06:29	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		04/19/23 06:29	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		04/19/23 06:29	107-06-2	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		04/19/23 06:29	108-20-3	v2
Ethanol	ND	ug/L	200	72.2	1		04/19/23 06:29	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		04/19/23 06:29	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		04/19/23 06:29	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		04/19/23 06:29	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		04/19/23 06:29	91-20-3	
Toluene	ND	ug/L	1.0	0.48	1		04/19/23 06:29	108-88-3	
Xylene (Total)	ND	ug/L	1.0	0.34	1		04/19/23 06:29	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		04/19/23 06:29	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		04/19/23 06:29	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		04/19/23 06:29	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130		1		04/19/23 06:29	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		04/19/23 06:29	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS

Pace Project No.: 92662469

Sample: SW-5		Lab ID: 92662469019		Collected: 04/14/23 10:25		Received: 04/14/23 13:05		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0074	1	04/20/23 10:56	04/20/23 15:24	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	98	%	60-140		1	04/20/23 10:56	04/20/23 15:24	301-79-56	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		04/19/23 06:47	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		04/19/23 06:47	994-05-8	
Benzene	ND	ug/L	1.0	0.34	1		04/19/23 06:47	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		04/19/23 06:47	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		04/19/23 06:47	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		04/19/23 06:47	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		04/19/23 06:47	107-06-2	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		04/19/23 06:47	108-20-3	v2
Ethanol	ND	ug/L	200	72.2	1		04/19/23 06:47	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		04/19/23 06:47	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		04/19/23 06:47	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		04/19/23 06:47	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		04/19/23 06:47	91-20-3	
Toluene	ND	ug/L	1.0	0.48	1		04/19/23 06:47	108-88-3	
Xylene (Total)	ND	ug/L	1.0	0.34	1		04/19/23 06:47	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		04/19/23 06:47	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		04/19/23 06:47	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		04/19/23 06:47	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-130		1		04/19/23 06:47	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		04/19/23 06:47	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS
Pace Project No.: 92662469

Sample: SW-6		Lab ID: 92662469020		Collected: 04/14/23 10:30		Received: 04/14/23 13:05		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.0073	1	04/20/23 10:56	04/20/23 15:34	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	96	%	60-140		1	04/20/23 10:56	04/20/23 15:34	301-79-56	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		04/19/23 07:05	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		04/19/23 07:05	994-05-8	
Benzene	ND	ug/L	1.0	0.34	1		04/19/23 07:05	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		04/19/23 07:05	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		04/19/23 07:05	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		04/19/23 07:05	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		04/19/23 07:05	107-06-2	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		04/19/23 07:05	108-20-3	v2
Ethanol	ND	ug/L	200	72.2	1		04/19/23 07:05	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		04/19/23 07:05	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		04/19/23 07:05	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		04/19/23 07:05	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		04/19/23 07:05	91-20-3	
Toluene	ND	ug/L	1.0	0.48	1		04/19/23 07:05	108-88-3	
Xylene (Total)	ND	ug/L	1.0	0.34	1		04/19/23 07:05	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		04/19/23 07:05	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		04/19/23 07:05	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		04/19/23 07:05	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-130		1		04/19/23 07:05	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		04/19/23 07:05	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: JAKE HUGGINS

Pace Project No.: 92662469

Sample: DUP		Lab ID: 92662469021		Collected: 04/14/23 00:00		Received: 04/14/23 13:05		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 Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0075	1	04/20/23 10:56	04/20/23 15:45	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	106	%	60-140		1	04/20/23 10:56	04/20/23 15:45	301-79-56	
8260 MSV Analytical Method: EPA 8260D Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	ND	ug/L	12500	8200	125		04/21/23 01:54	75-85-4	
tert-Amylmethyl ether	ND	ug/L	1250	380	125		04/21/23 01:54	994-05-8	
Benzene	4400	ug/L	625	218	125		04/21/23 01:54	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	12500	6740	125		04/21/23 01:54	624-95-3	
tert-Butyl Alcohol	ND	ug/L	12500	11400	125		04/21/23 01:54	75-65-0	
tert-Butyl Formate	ND	ug/L	6250	3010	125		04/21/23 01:54	762-75-4	
1,2-Dichloroethane	ND	ug/L	625	258	125		04/21/23 01:54	107-06-2	
Diisopropyl ether	ND	ug/L	625	436	125		04/21/23 01:54	108-20-3	
Ethanol	ND	ug/L	25000	18000	125		04/21/23 01:54	64-17-5	
Ethylbenzene	2110	ug/L	625	230	125		04/21/23 01:54	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	1250	1060	125		04/21/23 01:54	637-92-3	
Methyl-tert-butyl ether	614J	ug/L	625	388	125		04/21/23 01:54	1634-04-4	
Naphthalene	765	ug/L	625	261	125		04/21/23 01:54	91-20-3	
Toluene	21900	ug/L	625	251	125		04/21/23 01:54	108-88-3	
Xylene (Total)	13000	ug/L	625	625	125		04/21/23 01:54	1330-20-7	
m&p-Xylene	8540	ug/L	1250	514	125		04/21/23 01:54	179601-23-1	
o-Xylene	4460	ug/L	625	255	125		04/21/23 01:54	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		125		04/21/23 01:54	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		125		04/21/23 01:54	17060-07-0	
Toluene-d8 (S)	99	%	70-130		125		04/21/23 01:54	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: JAKE HUGGINS
Pace Project No.: 92662469

Sample: FB		Lab ID: 92662469022		Collected: 04/14/23 12:15		Received: 04/14/23 13:05		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 Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0075	1	04/20/23 10:56	04/20/23 15:56	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	95	%	60-140		1	04/20/23 10:56	04/20/23 15:56	301-79-56	
8260 MSV Analytical Method: EPA 8260D Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		04/19/23 01:42	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		04/19/23 01:42	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/19/23 01:42	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		04/19/23 01:42	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		04/19/23 01:42	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		04/19/23 01:42	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		04/19/23 01:42	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		04/19/23 01:42	108-20-3	
Ethanol	ND	ug/L	200	144	1		04/19/23 01:42	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		04/19/23 01:42	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		04/19/23 01:42	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		04/19/23 01:42	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		04/19/23 01:42	91-20-3	IH
Toluene	ND	ug/L	5.0	2.0	1		04/19/23 01:42	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		04/19/23 01:42	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		04/19/23 01:42	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		04/19/23 01:42	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		04/19/23 01:42	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	70-130		1		04/19/23 01:42	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		04/19/23 01:42	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS

Pace Project No.: 92662469

Sample: GAC		Lab ID: 92662469023		Collected: 04/14/23 12:17		Received: 04/14/23 13:05		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0075	1	04/20/23 10:56	04/20/23 16:06	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	100	%	60-140		1	04/20/23 10:56	04/20/23 16:06	301-79-56	
8260 MSV		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		04/19/23 16:41	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		04/19/23 16:41	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/19/23 16:41	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		04/19/23 16:41	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		04/19/23 16:41	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		04/19/23 16:41	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		04/19/23 16:41	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		04/19/23 16:41	108-20-3	
Ethanol	ND	ug/L	200	144	1		04/19/23 16:41	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		04/19/23 16:41	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		04/19/23 16:41	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		04/19/23 16:41	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		04/19/23 16:41	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		04/19/23 16:41	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		04/19/23 16:41	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		04/19/23 16:41	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		04/19/23 16:41	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		04/19/23 16:41	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		1		04/19/23 16:41	17060-07-0	
Toluene-d8 (S)	110	%	70-130		1		04/19/23 16:41	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS

Pace Project No.: 92662469

Sample: TB		Lab ID: 92662469024		Collected: 04/14/23 08:00		Received: 04/14/23 13:05		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		04/19/23 02:00	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		04/19/23 02:00	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		04/19/23 02:00	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		04/19/23 02:00	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		04/19/23 02:00	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		04/19/23 02:00	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		04/19/23 02:00	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		04/19/23 02:00	108-20-3	
Ethanol	ND	ug/L	200	144	1		04/19/23 02:00	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		04/19/23 02:00	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		04/19/23 02:00	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		04/19/23 02:00	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		04/19/23 02:00	91-20-3	IH
Toluene	ND	ug/L	5.0	2.0	1		04/19/23 02:00	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		04/19/23 02:00	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		04/19/23 02:00	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		04/19/23 02:00	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		04/19/23 02:00	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130		1		04/19/23 02:00	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		04/19/23 02:00	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: JAKE HUGGINS
Pace Project No.: 92662469

QC Batch: 768681 Analysis Method: EPA 8260D
QC Batch Method: EPA 8260D Analysis Description: 8260 MSV Low Level SC
Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92662469015, 92662469016, 92662469017, 92662469018, 92662469019, 92662469020

METHOD BLANK: 3990839 Matrix: Water
Associated Lab Samples: 92662469015, 92662469016, 92662469017, 92662469018, 92662469019, 92662469020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	1.0	0.32	04/19/23 04:22	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	51.9	04/19/23 04:22	
Benzene	ug/L	ND	1.0	0.34	04/19/23 04:22	
Diisopropyl ether	ug/L	ND	1.0	0.31	04/19/23 04:22	v2
Ethanol	ug/L	ND	200	72.2	04/19/23 04:22	
Ethyl-tert-butyl ether	ug/L	ND	10.0	3.2	04/19/23 04:22	
Ethylbenzene	ug/L	ND	1.0	0.30	04/19/23 04:22	
m&p-Xylene	ug/L	ND	2.0	0.71	04/19/23 04:22	
Methyl-tert-butyl ether	ug/L	ND	1.0	0.42	04/19/23 04:22	
Naphthalene	ug/L	ND	1.0	0.64	04/19/23 04:22	
o-Xylene	ug/L	ND	1.0	0.34	04/19/23 04:22	
tert-Amyl Alcohol	ug/L	ND	100	36.4	04/19/23 04:22	
tert-Amylmethyl ether	ug/L	ND	10.0	2.7	04/19/23 04:22	
tert-Butyl Alcohol	ug/L	ND	100	26.8	04/19/23 04:22	
tert-Butyl Formate	ug/L	ND	50.0	29.4	04/19/23 04:22	
Toluene	ug/L	ND	1.0	0.48	04/19/23 04:22	
Xylene (Total)	ug/L	ND	1.0	0.34	04/19/23 04:22	
1,2-Dichloroethane-d4 (S)	%	109	70-130		04/19/23 04:22	
4-Bromofluorobenzene (S)	%	99	70-130		04/19/23 04:22	
Toluene-d8 (S)	%	98	70-130		04/19/23 04:22	

LABORATORY CONTROL SAMPLE: 3990840

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	20	20.5	102	70-130	
3,3-Dimethyl-1-Butanol	ug/L	400	394	98	70-130	
Benzene	ug/L	20	18.0	90	70-130	
Diisopropyl ether	ug/L	20	15.4	77	70-130	v3
Ethanol	ug/L	800	736	92	70-130	
Ethyl-tert-butyl ether	ug/L	40	35.7	89	70-130	
Ethylbenzene	ug/L	20	20.2	101	70-130	
m&p-Xylene	ug/L	40	41.8	104	70-130	
Methyl-tert-butyl ether	ug/L	20	17.8	89	70-130	
Naphthalene	ug/L	20	21.3	107	70-130	
o-Xylene	ug/L	20	20.6	103	70-130	
tert-Amyl Alcohol	ug/L	400	404	101	70-130	
tert-Amylmethyl ether	ug/L	40	40.1	100	70-130	
tert-Butyl Alcohol	ug/L	200	195	97	70-130	
tert-Butyl Formate	ug/L	160	157	98	70-130	

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QUALITY CONTROL DATA

Project: JAKE HUGGINS

Pace Project No.: 92662469

LABORATORY CONTROL SAMPLE: 3990840

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene	ug/L	20	19.3	97	70-130	
Xylene (Total)	ug/L	60	62.4	104	70-130	
1,2-Dichloroethane-d4 (S)	%			106	70-130	
4-Bromofluorobenzene (S)	%			103	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3990841 3990842

Parameter	Units	92662462018 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dichloroethane	ug/L	ND	20	20	23.5	22.4	117	112	70-137	5	30	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	400	477	475	119	119	39-157	1	30	
Benzene	ug/L	ND	20	20	22.8	22.4	114	112	70-151	2	30	
Diisopropyl ether	ug/L	ND	20	20	21.5	20.6	108	103	63-144	4	30	
Ethanol	ug/L	ND	800	800	866	820	108	102	39-176	6	30	
Ethyl-tert-butyl ether	ug/L	ND	40	40	42.5	41.4	106	104	66-137	3	30	
Ethylbenzene	ug/L	ND	20	20	23.6	22.6	118	113	66-153	4	30	
m&p-Xylene	ug/L	ND	40	40	45.4	44.5	114	111	69-152	2	30	
Methyl-tert-butyl ether	ug/L	ND	20	20	21.6	20.1	108	101	54-156	7	30	
Naphthalene	ug/L	ND	20	20	23.0	23.0	115	115	61-148	0	30	
o-Xylene	ug/L	ND	20	20	22.9	22.4	115	112	70-148	2	30	
tert-Amyl Alcohol	ug/L	ND	400	400	437	434	109	109	54-153	0	30	
tert-Amylmethyl ether	ug/L	ND	40	40	45.5	44.3	114	111	69-139	2	30	
tert-Butyl Alcohol	ug/L	ND	200	200	212	205	106	102	43-188	4	30	v3
tert-Butyl Formate	ug/L	ND	160	160	ND	ND	7	15	10-170		30	P5
Toluene	ug/L	ND	20	20	22.6	21.7	113	109	59-148	4	30	
Xylene (Total)	ug/L	ND	60	60	68.3	66.9	114	111	63-158	2	30	
1,2-Dichloroethane-d4 (S)	%						103	99	70-130			
4-Bromofluorobenzene (S)	%						98	97	70-130			
Toluene-d8 (S)	%						98	97	70-130			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: JAKE HUGGINS

Pace Project No.: 92662469

QC Batch:	768707	Analysis Method:	EPA 8260D
QC Batch Method:	EPA 8260D	Analysis Description:	8260 MSV SC
		Laboratory:	Pace Analytical Services - Charlotte
Associated Lab Samples:	92662469003, 92662469004, 92662469007, 92662469009, 92662469022, 92662469024		

METHOD BLANK: 3991098

Matrix: Water

Associated Lab Samples: 92662469003, 92662469004, 92662469007, 92662469009, 92662469022, 92662469024

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	2.1	04/19/23 00:32	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	53.9	04/19/23 00:32	
Benzene	ug/L	ND	5.0	1.7	04/19/23 00:32	
Diisopropyl ether	ug/L	ND	5.0	3.5	04/19/23 00:32	
Ethanol	ug/L	ND	200	144	04/19/23 00:32	
Ethyl-tert-butyl ether	ug/L	ND	10.0	8.5	04/19/23 00:32	
Ethylbenzene	ug/L	ND	5.0	1.8	04/19/23 00:32	
m&p-Xylene	ug/L	ND	10.0	4.1	04/19/23 00:32	
Methyl-tert-butyl ether	ug/L	ND	5.0	3.1	04/19/23 00:32	
Naphthalene	ug/L	ND	5.0	2.1	04/19/23 00:32	IH
o-Xylene	ug/L	ND	5.0	2.0	04/19/23 00:32	
tert-Amyl Alcohol	ug/L	ND	100	65.6	04/19/23 00:32	
tert-Amylmethyl ether	ug/L	ND	10.0	3.0	04/19/23 00:32	
tert-Butyl Alcohol	ug/L	ND	100	91.0	04/19/23 00:32	
tert-Butyl Formate	ug/L	ND	50.0	24.1	04/19/23 00:32	
Toluene	ug/L	ND	5.0	2.0	04/19/23 00:32	
Xylene (Total)	ug/L	ND	5.0	5.0	04/19/23 00:32	
1,2-Dichloroethane-d4 (S)	%	97	70-130		04/19/23 00:32	
4-Bromofluorobenzene (S)	%	99	70-130		04/19/23 00:32	
Toluene-d8 (S)	%	97	70-130		04/19/23 00:32	

LABORATORY CONTROL SAMPLE: 3991099

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	20	18.8	94	70-130	
3,3-Dimethyl-1-Butanol	ug/L	400	409	102	70-130	
Benzene	ug/L	20	18.8	94	70-130	
Diisopropyl ether	ug/L	20	17.9	89	70-130	
Ethanol	ug/L	800	751	94	70-130	
Ethyl-tert-butyl ether	ug/L	40	36.5	91	70-130	
Ethylbenzene	ug/L	20	19.3	97	70-130	
m&p-Xylene	ug/L	40	39.5	99	70-130	
Methyl-tert-butyl ether	ug/L	20	17.4	87	70-130	
Naphthalene	ug/L	20	19.2	96	70-130	IH
o-Xylene	ug/L	20	19.4	97	70-130	
tert-Amyl Alcohol	ug/L	400	397	99	70-130	
tert-Amylmethyl ether	ug/L	40	40.0	100	70-130	
tert-Butyl Alcohol	ug/L	200	178	89	70-130	
tert-Butyl Formate	ug/L	160	149	93	70-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: JAKE HUGGINS

Pace Project No.: 92662469

LABORATORY CONTROL SAMPLE: 3991099

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene	ug/L	20	18.9	95	70-130	
Xylene (Total)	ug/L	60	58.9	98	70-130	
1,2-Dichloroethane-d4 (S)	%			97	70-130	
4-Bromofluorobenzene (S)	%			99	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE SAMPLE: 3991101

Parameter	Units	92662469003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	20.6	103	70-137	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	408	102	39-157	
Benzene	ug/L	ND	20	19.4	97	70-151	
Diisopropyl ether	ug/L	ND	20	18.0	89	63-144	
Ethanol	ug/L	ND	800	850	106	39-176	
Ethyl-tert-butyl ether	ug/L	ND	40	36.4	91	66-137	
Ethylbenzene	ug/L	ND	20	18.9	95	66-153	
m&p-Xylene	ug/L	ND	40	37.8	94	69-152	
Methyl-tert-butyl ether	ug/L	ND	20	18.9	93	54-156	
Naphthalene	ug/L	ND	20	20.2	101	61-148	
o-Xylene	ug/L	ND	20	19.4	97	70-148	
tert-Amyl Alcohol	ug/L	ND	400	405	101	54-153	
tert-Amylmethyl ether	ug/L	ND	40	37.5	94	69-139	
tert-Butyl Alcohol	ug/L	ND	200	243	121	43-188	
tert-Butyl Formate	ug/L	ND	160	62.3	39	10-170	
Toluene	ug/L	ND	20	18.7	94	59-148	
Xylene (Total)	ug/L	ND	60	57.1	95	63-158	
1,2-Dichloroethane-d4 (S)	%				109	70-130	
4-Bromofluorobenzene (S)	%				102	70-130	
Toluene-d8 (S)	%				99	70-130	

SAMPLE DUPLICATE: 3991100

Parameter	Units	92662504019 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	2.2J	2.6J		30	
o-Xylene	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: JAKE HUGGINS

Pace Project No.: 92662469

SAMPLE DUPLICATE: 3991100

Parameter	Units	92662504019 Result	Dup Result	RPD	Max RPD	Qualifiers
tert-Amyl Alcohol	ug/L	ND	ND		30	
tert-Amylmethyl ether	ug/L	ND	ND		30	
tert-Butyl Alcohol	ug/L	ND	ND		30	
tert-Butyl Formate	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	96	104			
4-Bromofluorobenzene (S)	%	97	98			
Toluene-d8 (S)	%	99	109			

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QUALITY CONTROL DATA

Project: JAKE HUGGINS

Pace Project No.: 92662469

QC Batch:	768708	Analysis Method:	EPA 8260D
QC Batch Method:	EPA 8260D	Analysis Description:	8260 MSV SC
		Laboratory:	Pace Analytical Services - Charlotte
Associated Lab Samples:	92662469001, 92662469002, 92662469005, 92662469006, 92662469008, 92662469011, 92662469012, 92662469013, 92662469023		

METHOD BLANK: 3991103

Matrix: Water

Associated Lab Samples: 92662469001, 92662469002, 92662469005, 92662469006, 92662469008, 92662469011, 92662469012, 92662469013, 92662469023

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	2.1	04/19/23 15:11	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	53.9	04/19/23 15:11	
Benzene	ug/L	ND	5.0	1.7	04/19/23 15:11	
Diisopropyl ether	ug/L	ND	5.0	3.5	04/19/23 15:11	
Ethanol	ug/L	ND	200	144	04/19/23 15:11	
Ethyl-tert-butyl ether	ug/L	ND	10.0	8.5	04/19/23 15:11	
Ethylbenzene	ug/L	ND	5.0	1.8	04/19/23 15:11	
m&p-Xylene	ug/L	ND	10.0	4.1	04/19/23 15:11	
Methyl-tert-butyl ether	ug/L	ND	5.0	3.1	04/19/23 15:11	
Naphthalene	ug/L	ND	5.0	2.1	04/19/23 15:11	
o-Xylene	ug/L	ND	5.0	2.0	04/19/23 15:11	
tert-Amyl Alcohol	ug/L	ND	100	65.6	04/19/23 15:11	
tert-Amylmethyl ether	ug/L	ND	10.0	3.0	04/19/23 15:11	
tert-Butyl Alcohol	ug/L	ND	100	91.0	04/19/23 15:11	
tert-Butyl Formate	ug/L	ND	50.0	24.1	04/19/23 15:11	
Toluene	ug/L	ND	5.0	2.0	04/19/23 15:11	
Xylene (Total)	ug/L	ND	5.0	5.0	04/19/23 15:11	
1,2-Dichloroethane-d4 (S)	%	101	70-130		04/19/23 15:11	
4-Bromofluorobenzene (S)	%	101	70-130		04/19/23 15:11	
Toluene-d8 (S)	%	109	70-130		04/19/23 15:11	

LABORATORY CONTROL SAMPLE: 3991104

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	20	21.4	107	70-130	
3,3-Dimethyl-1-Butanol	ug/L	400	460	115	70-130	
Benzene	ug/L	20	20.4	102	70-130	
Diisopropyl ether	ug/L	20	19.5	97	70-130	
Ethanol	ug/L	800	983	123	70-130	
Ethyl-tert-butyl ether	ug/L	40	39.8	99	70-130	
Ethylbenzene	ug/L	20	20.2	101	70-130	
m&p-Xylene	ug/L	40	40.6	101	70-130	
Methyl-tert-butyl ether	ug/L	20	20.3	101	70-130	
Naphthalene	ug/L	20	23.5	117	70-130	
o-Xylene	ug/L	20	20.7	104	70-130	
tert-Amyl Alcohol	ug/L	400	474	118	70-130	
tert-Amylmethyl ether	ug/L	40	42.8	107	70-130	

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QUALITY CONTROL DATA

Project: JAKE HUGGINS

Pace Project No.: 92662469

LABORATORY CONTROL SAMPLE: 3991104

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
tert-Butyl Alcohol	ug/L	200	214	107	70-130	
tert-Butyl Formate	ug/L	160	175	110	70-130	
Toluene	ug/L	20	19.8	99	70-130	
Xylene (Total)	ug/L	60	61.3	102	70-130	
1,2-Dichloroethane-d4 (S)	%			109	70-130	
4-Bromofluorobenzene (S)	%			101	70-130	
Toluene-d8 (S)	%			102	70-130	

MATRIX SPIKE SAMPLE: 3991106

Parameter	Units	92662469005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	23.2	116	70-137	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	439	110	39-157	
Benzene	ug/L	ND	20	24.5	123	70-151	
Diisopropyl ether	ug/L	4.1J	20	26.2	111	63-144	
Ethanol	ug/L	ND	800	821	103	39-176 v3	
Ethyl-tert-butyl ether	ug/L	ND	40	44.2	110	66-137	
Ethylbenzene	ug/L	ND	20	24.5	122	66-153	
m&p-Xylene	ug/L	ND	40	49.3	123	69-152	
Methyl-tert-butyl ether	ug/L	22.3	20	47.1	124	54-156	
Naphthalene	ug/L	ND	20	21.5	108	61-148 IH	
o-Xylene	ug/L	ND	20	24.2	121	70-148	
tert-Amyl Alcohol	ug/L	ND	400	448	112	54-153	
tert-Amylmethyl ether	ug/L	ND	40	51.1	128	69-139	
tert-Butyl Alcohol	ug/L	ND	200	247	123	43-188 v3	
tert-Butyl Formate	ug/L	ND	160	85.1	53	10-170	
Toluene	ug/L	ND	20	25.0	125	59-148	
Xylene (Total)	ug/L	ND	60	73.5	123	63-158	
1,2-Dichloroethane-d4 (S)	%				90	70-130	
4-Bromofluorobenzene (S)	%				95	70-130	
Toluene-d8 (S)	%				97	70-130	

SAMPLE DUPLICATE: 3991105

Parameter	Units	92662469013 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 v2	
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	

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QUALITY CONTROL DATA

Project: JAKE HUGGINS

Pace Project No.: 92662469

SAMPLE DUPLICATE: 3991105

Parameter	Units	92662469013 Result	Dup Result	RPD	Max RPD	Qualifiers
Naphthalene	ug/L	ND	ND		30	IH
o-Xylene	ug/L	ND	ND		30	
tert-Amyl Alcohol	ug/L	ND	ND		30	
tert-Amylmethyl ether	ug/L	ND	ND		30	
tert-Butyl Alcohol	ug/L	ND	ND		30	v2
tert-Butyl Formate	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	101	91			
4-Bromofluorobenzene (S)	%	99	95			
Toluene-d8 (S)	%	107	98			

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QUALITY CONTROL DATA

Project: JAKE HUGGINS
Pace Project No.: 92662469

QC Batch: 769390 Analysis Method: EPA 8260D
QC Batch Method: EPA 8260D Analysis Description: 8260 MSV SC
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92662469010, 92662469014, 92662469021

METHOD BLANK: 3994744 Matrix: Water
Associated Lab Samples: 92662469010, 92662469014, 92662469021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	2.1	04/21/23 00:24	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	53.9	04/21/23 00:24	
Benzene	ug/L	ND	5.0	1.7	04/21/23 00:24	
Diisopropyl ether	ug/L	ND	5.0	3.5	04/21/23 00:24	
Ethanol	ug/L	ND	200	144	04/21/23 00:24	
Ethyl-tert-butyl ether	ug/L	ND	10.0	8.5	04/21/23 00:24	
Ethylbenzene	ug/L	ND	5.0	1.8	04/21/23 00:24	
m&p-Xylene	ug/L	ND	10.0	4.1	04/21/23 00:24	
Methyl-tert-butyl ether	ug/L	ND	5.0	3.1	04/21/23 00:24	
Naphthalene	ug/L	ND	5.0	2.1	04/21/23 00:24	
o-Xylene	ug/L	ND	5.0	2.0	04/21/23 00:24	
tert-Amyl Alcohol	ug/L	ND	100	65.6	04/21/23 00:24	
tert-Amylmethyl ether	ug/L	ND	10.0	3.0	04/21/23 00:24	
tert-Butyl Alcohol	ug/L	ND	100	91.0	04/21/23 00:24	
tert-Butyl Formate	ug/L	ND	50.0	24.1	04/21/23 00:24	
Toluene	ug/L	ND	5.0	2.0	04/21/23 00:24	
Xylene (Total)	ug/L	ND	5.0	5.0	04/21/23 00:24	
1,2-Dichloroethane-d4 (S)	%	101	70-130		04/21/23 00:24	
4-Bromofluorobenzene (S)	%	96	70-130		04/21/23 00:24	
Toluene-d8 (S)	%	101	70-130		04/21/23 00:24	

LABORATORY CONTROL SAMPLE: 3994745

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	20	19.9	100	70-130	
3,3-Dimethyl-1-Butanol	ug/L	400	391	98	70-130	
Benzene	ug/L	20	20.0	100	70-130	
Diisopropyl ether	ug/L	20	18.1	90	70-130	
Ethanol	ug/L	800	743	93	70-130	
Ethyl-tert-butyl ether	ug/L	40	36.7	92	70-130	
Ethylbenzene	ug/L	20	20.6	103	70-130	
m&p-Xylene	ug/L	40	41.8	105	70-130	
Methyl-tert-butyl ether	ug/L	20	18.9	94	70-130	
Naphthalene	ug/L	20	22.0	110	70-130	
o-Xylene	ug/L	20	20.6	103	70-130	
tert-Amyl Alcohol	ug/L	400	397	99	70-130	
tert-Amylmethyl ether	ug/L	40	40.0	100	70-130	
tert-Butyl Alcohol	ug/L	200	190	95	70-130	
tert-Butyl Formate	ug/L	160	152	95	70-130	

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QUALITY CONTROL DATA

Project: JAKE HUGGINS

Pace Project No.: 92662469

LABORATORY CONTROL SAMPLE: 3994745

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene	ug/L	20	20.2	101	70-130	
Xylene (Total)	ug/L	60	62.4	104	70-130	
1,2-Dichloroethane-d4 (S)	%			98	70-130	
4-Bromofluorobenzene (S)	%			102	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3994746 3994747

Parameter	Units	92663210001		MS		MSD		MS	MSD	% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Conc.	Result	Result	% Rec	% Rec							
1,2-Dichloroethane	ug/L	ND	20	20	20	19.5	20.3	98	102	70-137	4	30				
3,3-Dimethyl-1-Butanol	ug/L	ND	400	400	400	382	388	96	97	39-157	2	30				
Benzene	ug/L	ND	20	20	20	19.6	21.1	98	105	70-151	7	30				
Diisopropyl ether	ug/L	ND	20	20	20	17.1	18.1	86	90	63-144	5	30				
Ethanol	ug/L	ND	800	800	800	728	714	91	89	39-176	2	30				
Ethyl-tert-butyl ether	ug/L	ND	40	40	40	35.6	37.1	89	93	66-137	4	30				
Ethylbenzene	ug/L	ND	20	20	20	20.1	21.0	100	105	66-153	5	30				
m&p-Xylene	ug/L	ND	40	40	40	40.6	42.3	102	106	69-152	4	30				
Methyl-tert-butyl ether	ug/L	ND	20	20	20	18.4	18.6	92	93	54-156	1	30				
Naphthalene	ug/L	ND	20	20	20	20.6	21.1	103	106	61-148	3	30				
o-Xylene	ug/L	ND	20	20	20	20.1	20.9	101	105	70-148	4	30				
tert-Amyl Alcohol	ug/L	ND	400	400	400	383	391	96	98	54-153	2	30				
tert-Amylmethyl ether	ug/L	ND	40	40	40	38.3	40.7	96	102	69-139	6	30				
tert-Butyl Alcohol	ug/L	ND	200	200	200	254	264	127	132	43-188	4	30				
tert-Butyl Formate	ug/L	ND	160	160	160	ND	ND	12	13	10-170		30				
Toluene	ug/L	ND	20	20	20	19.9	20.5	99	103	59-148	3	30				
Xylene (Total)	ug/L	ND	60	60	60	60.8	63.3	101	105	63-158	4	30				
1,2-Dichloroethane-d4 (S)	%							100	96	70-130						
4-Bromofluorobenzene (S)	%							100	100	70-130						
Toluene-d8 (S)	%							98	100	70-130						

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QUALITY CONTROL DATA

Project: JAKE HUGGINS

Pace Project No.: 92662469

QC Batch:	769152	Analysis Method:	EPA 8011
QC Batch Method:	EPA 8011	Analysis Description:	GCS 8011 EDB DBCP
		Laboratory:	Pace Analytical Services - Charlotte
Associated Lab Samples:	92662469001, 92662469002, 92662469003, 92662469004, 92662469005, 92662469006, 92662469007, 92662469008		

METHOD BLANK:	3993212	Matrix:	Water
Associated Lab Samples:	92662469001, 92662469002, 92662469003, 92662469004, 92662469005, 92662469006, 92662469007, 92662469008		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	0.0074	04/20/23 12:16	
1-Chloro-2-bromopropane (S)	%	105	60-140		04/20/23 12:16	

LABORATORY CONTROL SAMPLE & LCSD:		3993213	3993214							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	0.25	0.28	0.29	111	116	60-140	4	20	
1-Chloro-2-bromopropane (S)	%				110	117	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:				3993216	3993217							
Parameter	Units	92662462012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	0.25	0.25	0.28	0.29	113	118	60-140	4	20	
1-Chloro-2-bromopropane (S)	%						118	123	60-140			

SAMPLE DUPLICATE: 3993215						
Parameter	Units	92662462011 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%	104	109			

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QUALITY CONTROL DATA

Project: JAKE HUGGINS

Pace Project No.: 92662469

QC Batch:	769153	Analysis Method:	EPA 8011
QC Batch Method:	EPA 8011	Analysis Description:	GCS 8011 EDB DBCP
		Laboratory:	Pace Analytical Services - Charlotte
Associated Lab Samples:	92662469009, 92662469010, 92662469011, 92662469012, 92662469013, 92662469014, 92662469015, 92662469016, 92662469017, 92662469018, 92662469019, 92662469020, 92662469021, 92662469022, 92662469023		

METHOD BLANK:	3993218	Matrix:	Water
Associated Lab Samples:	92662469009, 92662469010, 92662469011, 92662469012, 92662469013, 92662469014, 92662469015, 92662469016, 92662469017, 92662469018, 92662469019, 92662469020, 92662469021, 92662469022, 92662469023		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	0.0074	04/20/23 12:33	
1-Chloro-2-bromopropane (S)	%	98	60-140		04/20/23 12:33	

LABORATORY CONTROL SAMPLE & LCSD:		3993219	3993220							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	0.25	0.22	0.24	90	96	60-140	6	20	
1-Chloro-2-bromopropane (S)	%				96	103	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:				3993222	3993223							
Parameter	Units	92662469010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	0.25	0.25	0.27	0.30	109	121	60-140	10	20	
1-Chloro-2-bromopropane (S)	%						109	109	60-140			

SAMPLE DUPLICATE: 3993221						
		92662469009	Dup		Max	
Parameter	Units	Result	Result	RPD	RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%	104	114			

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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QUALIFIERS

Project: JAKE HUGGINS
Pace Project No.: 92662469

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
ND - Not Detected at or above adjusted reporting limit.
TNTC - Too Numerous To Count
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
MDL - Adjusted Method Detection Limit.
PQL - Practical Quantitation Limit.
RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.
S - Surrogate
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable.
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected.
Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.
A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The NELAC Institute.

ANALYTE QUALIFIERS

IH	This analyte exceeded secondary source verification criteria high for the initial calibration. The reported results should be considered an estimated value.
P5	The EPA or method required sample preservation degrades this compound, therefore acceptable recoveries may not be achieved in sample matrix spikes.
v2	The continuing calibration verification was below the method acceptance limit. The analyte was not detected in the associated samples and the sensitivity of the instrument was verified with a reporting limit check standard.
v3	The continuing calibration verification was below the method acceptance limit. Any detection for the analyte in the associated samples may have low bias.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: JAKE HUGGINS

Pace Project No.: 92662469

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92662469001	MW-1	EPA 8011	769152	EPA 8011	769265
92662469002	MW-2	EPA 8011	769152	EPA 8011	769265
92662469003	MW-3	EPA 8011	769152	EPA 8011	769265
92662469004	MW-4	EPA 8011	769152	EPA 8011	769265
92662469005	MW-5	EPA 8011	769152	EPA 8011	769265
92662469006	MW-6	EPA 8011	769152	EPA 8011	769265
92662469007	MW-7	EPA 8011	769152	EPA 8011	769265
92662469008	MW-8	EPA 8011	769152	EPA 8011	769265
92662469009	MW-9	EPA 8011	769153	EPA 8011	769266
92662469010	MW-10	EPA 8011	769153	EPA 8011	769266
92662469011	DW-1	EPA 8011	769153	EPA 8011	769266
92662469012	DW-2	EPA 8011	769153	EPA 8011	769266
92662469013	DW-3	EPA 8011	769153	EPA 8011	769266
92662469014	DW-4	EPA 8011	769153	EPA 8011	769266
92662469015	SW-1	EPA 8011	769153	EPA 8011	769266
92662469016	SW-2	EPA 8011	769153	EPA 8011	769266
92662469017	SW-3	EPA 8011	769153	EPA 8011	769266
92662469018	SW-4	EPA 8011	769153	EPA 8011	769266
92662469019	SW-5	EPA 8011	769153	EPA 8011	769266
92662469020	SW-6	EPA 8011	769153	EPA 8011	769266
92662469021	DUP	EPA 8011	769153	EPA 8011	769266
92662469022	FB	EPA 8011	769153	EPA 8011	769266
92662469023	GAC	EPA 8011	769153	EPA 8011	769266
92662469015	SW-1	EPA 8260D	768681		
92662469016	SW-2	EPA 8260D	768681		
92662469017	SW-3	EPA 8260D	768681		
92662469018	SW-4	EPA 8260D	768681		
92662469019	SW-5	EPA 8260D	768681		
92662469020	SW-6	EPA 8260D	768681		
92662469001	MW-1	EPA 8260D	768708		
92662469002	MW-2	EPA 8260D	768708		
92662469003	MW-3	EPA 8260D	768707		
92662469004	MW-4	EPA 8260D	768707		
92662469005	MW-5	EPA 8260D	768708		
92662469006	MW-6	EPA 8260D	768708		
92662469007	MW-7	EPA 8260D	768707		
92662469008	MW-8	EPA 8260D	768708		
92662469009	MW-9	EPA 8260D	768707		
92662469010	MW-10	EPA 8260D	769390		
92662469011	DW-1	EPA 8260D	768708		
92662469012	DW-2	EPA 8260D	768708		
92662469013	DW-3	EPA 8260D	768708		
92662469014	DW-4	EPA 8260D	769390		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: JAKE HUGGINS

Pace Project No.: 92662469

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92662469021	DUP	EPA 8260D	769390		
92662469022	FB	EPA 8260D	768707		
92662469023	GAC	EPA 8260D	768708		
92662469024	TB	EPA 8260D	768707		

REPORT OF LABORATORY ANALYSIS

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CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

Billing Information:

Company:

MECI

Address: 231 Dooley Rd

Report To: B. Skone

Email To: jleomecin@t

Copy To:

Customer Project Name/Number: Duke Higgins

State: SC Florence County/City: [] PT [] MT [] CT [] ET

Site/Facility ID #: 03423

Purchase Order #: [] Yes [] No

Quote #: MECI# 22-79248

Turnaround Date Required: Immediately Packed on Ice: [] Yes [] No

Sample Disposal: [] Same Day [] Next Day [] Yes [] No

[] Dispose as appropriate [] Return [] Yes [] No

[] Archive: [] Hold: [] Yes [] No

[] Expedite Charges Apply

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID

Matrix *

Comp / Grab

Collected (or Composite Start) Time

Composite End Time

Res CI

of Cns

Type of Ice Used: Wet Blue Dry None

Packing Material Used: Bubble

Radchem sample(s) screened (<500 cpm): Y N (NA)

Customer Remarks / Special Conditions / Possible Hazards:

Date/Time: 4/14/2005

Received by/Company: (Signature) [Signature]

Date/Time: 4-14-23 17:15

Received by/Company: (Signature) [Signature]

Date/Time: 4-14-23 17:15

Received by/Company: (Signature) [Signature]

Date/Time: 4-14-23 17:15

Received by/Company: (Signature) [Signature]

Date/Time: 4-14-23 17:15

Received by/Company: (Signature) [Signature]

LAB USE ONLY - Affix Workorder/Login Label Here or List Pace Workorder Number or MTIL Log-in Number Here

ALL SHADED AREAS are for LAB USE ONLY

Container Preservative Type **

Lab Project Manager:

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Analyses

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact Y N NA

Custody Signatures Present Y N NA

Collector Signatures Present Y N NA

Bottles Intact Y N NA

Correct Bottles Y N NA

Sufficient Volume Y N NA

Samples Received on Ice Y N NA

VOA - Headspace Acceptable Y N NA

USDA Regulated Soils Y N NA

Samples in Holding Time Y N NA

Residual Chlorine Present Y N NA

Cl Strips: Y N NA

Sample pH Acceptable Y N NA

pH Strips: Y N NA

Sulfide Present Y N NA

Lead Acetate Strips: Y N NA

Lab USE ONLY:

Lab Sample # / Comments:

No odor

42662464

611

612

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614

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619

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CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

Company: MECI		Billing Information:	
Address: 231 Dorley Rd		Email To: jlececi.net	
Report To: B. Shane		Site Collection Info/Address:	
Copy To:		State: SC Florence	
Customer Project Name/Number: Dake Higgins		County/City: [] PT [] MT [] CT [] ET	
Phone: [] Site/Facility ID #: 03423		Time Zone Collected:	
Email: []		Compliance Monitoring? [] Yes [] No	
Collected By (print): Shawn Scott		Purchase Order #: MECI# 22-79248	
Collected By (signature): [Signature]		Turnaround Date Required:	
Sample Disposal: [] Dispose as appropriate [] Return [] Archive: [] Hold: []		Rush: [] Same Day [] Next Day [] 2 Day [] 3 Day [] 4 Day [] 5 Day (Expedite Charges Apply)	
* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (S), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)			
Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date Time Composite End Date Time Res CI # of Ctns
DWP	GW	G	4/14 - 12:15 6
ER			12:17 6
GAC			8:00 2
TR			
Customer Remarks / Special Conditions / Possible Hazards:			
Type of Ice Used: [X] Wet [] Blue [] Dry [] None			
Packing Material Used: Bubble			
Radchem sample(s) screened (<500 cpm): Y N NA			
Relinquished by/Company: (Signature)		Date/Time: 4/14 1305	
Relinquished by/Company: (Signature)		Date/Time: 4-14-23 1745	
Relinquished by/Company: (Signature)		Date/Time: 4-14-23 1745	
Relinquished by/Company: (Signature)		Date/Time: 4-14-23 1745	

LAB USE ONLY - Affix Workorder/Login Label Here or List Pace Workorder Number or
MTIL Log-in Number Here

ALL SHADED AREAS are for LAB USE ONLY

Container Preservative Type **

Lab Project Manager:

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Analyses

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact Y ☒ N ☒
Custody Signatures Present ☒ N ☒
Collector Signature Present ☒ N ☒
Bottles Intact ☒ N ☒
Correct Bottles ☒ N ☒
Sufficient Volume ☒ N ☒
Samples Received on Ice ☒ N ☒
VOA - Headspace Acceptable ☒ N ☒
USDA Regulated Soils ☒ N ☒
Samples in Holding Time ☒ N ☒
Residual Chlorine Present ☒ N ☒
Cl Strips: ☒ Y ☒ N ☒
Sample pH Acceptable ☒ Y ☒ N ☒
pH Strips: ☒ Y ☒ N ☒
Sulfide Present ☒ Y ☒ N ☒
Lead Acetate Strips: ☒ Y ☒ N ☒

LAB USE ONLY:
Lab Sample # / Comments:

92662469

021

022

023

024

Lab Sample Temperature Info:

Temp Blank Received: Y ☒ N ☒
Therm ID#: 92662469
Cooler 1 Temp Upon Receipt: 32.0C
Cooler 1 Therm Corr. Factor: 0.0C
Cooler 1 Corrected Temp: 32.0C
Comments:

SHORT HOLDS PRESENT (<72 hours): Y N ☒ N/A

Lab Tracking #:

2807069

Samples received via:

FEDEX UPS Client Courier Pace Courier

Date/Time: 4/14/23 1305

Table #:

MTIL LAB USE ONLY

Actnum:

Template:

Prelimin:

PM:

PB:

Trip Blank Received: ☒ Y ☒ N ☒ NA

MeOH TSP Other

Non Conformance(s):

YES / NO Page: 3 of 3

Page 47 of 49

Effective Date: 05/12/2022

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, L/Hg

**Bottom half of box is to list number of bottles

***Check all unpreserved Nitrates for chlorine

Project #

WO#: 92662469

PM: TMC

Due Date: 04/21/23

CLIENT: 92-MIDLAND

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic Zn Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	DG9S-40 mL VOA H2SO4 (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SPST-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
1																6												
2																6												
3																6												
4																6												
5																6												
6																6												
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8																6												
9																6												
10																6												
11																6												
12																6												

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Effective Date: 05/12/2022 05/12/2022

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/BO15 (water) DOC, LLIHg

**Bottom half of box is to list number of bottles

***Check all unpreserved Nitrates for chlorine

Project #

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic 2N Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	DG9S-40 mL VOA H2SO4 (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
1																6													
2																6													
3																6													
4																6													
5																6													
6																6													
7																6													
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9																6													
10																6													
11																6													
12																6													
																2													

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

April 21, 2023

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

RE: Project: JAKE HUGGINS
Pace Project No.: 92662479

Dear Mr. Shane, P.G.:

Enclosed are the analytical results for sample(s) received by the laboratory on April 14, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Charlotte

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

Sincerely,



Taylor M Cannon
taylor.cannon@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Mr. Jeff Coleman, Midlands Environmental



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: JAKE HUGGINS

Pace Project No.: 92662479

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006

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 Laboratory ID: 99006

South Carolina Certification #: 99006001

South Carolina Drinking Water Cert. #: 99006003

Florida/NELAP Certification #: E87627

Kentucky UST Certification #: 84

Louisiana DoH Drinking Water #: LA029

Virginia/VELAP Certification #: 460221

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: JAKE HUGGINS

Pace Project No.: 92662479

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92662479001	WSW-1	Water	04/14/23 12:26	04/14/23 13:06
92662479002	WSW-2	Water	04/14/23 12:39	04/14/23 13:06
92662479003	WSW-DUP	Water	04/14/23 00:00	04/14/23 13:06
92662479004	WSW-FB	Water	04/14/23 12:42	04/14/23 13:06
92662479005	WSW-TB	Water	04/14/23 08:00	04/14/23 13:06

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: JAKE HUGGINS

Pace Project No.: 92662479

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92662479001	WSW-1	EPA 504.1	HH	2	PASI-C
		EPA 524.2	JJK	11	PASI-C
		EPA 8260D	SAS	11	PASI-C
92662479002	WSW-2	EPA 504.1	HH	2	PASI-C
		EPA 524.2	JJK	11	PASI-C
		EPA 8260D	SAS	11	PASI-C
92662479003	WSW-DUP	EPA 504.1	HH	2	PASI-C
		EPA 524.2	JJK	11	PASI-C
		EPA 8260D	CL	11	PASI-C
92662479004	WSW-FB	EPA 504.1	HH	2	PASI-C
		EPA 524.2	JJK	11	PASI-C
		EPA 8260D	JJK	11	PASI-C
92662479005	WSW-TB	EPA 524.2	JJK	11	PASI-C
		EPA 8260D	JJK	11	PASI-C

PASI-C = Pace Analytical Services - Charlotte

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: JAKE HUGGINS

Pace Project No.: 92662479

Sample: WSW-1		Lab ID: 92662479001		Collected: 04/14/23 12:26		Received: 04/14/23 13:06		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
504 GCS EDB and DBCP									
Analytical Method: EPA 504.1 Preparation Method: EPA 504.1									
Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0055	1	04/18/23 09:51	04/19/23 00:48	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	93	%	70-130		1	04/18/23 09:51	04/19/23 00:48	301-79-56	
524.2 MSV SC List									
Analytical Method: EPA 524.2									
Pace Analytical Services - Charlotte									
Benzene	ND	ug/L	0.50	0.21	1		04/21/23 13:32	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	0.16	1		04/21/23 13:32	107-06-2	
Ethylbenzene	ND	ug/L	0.50	0.22	1		04/21/23 13:32	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	0.14	1		04/21/23 13:32	1634-04-4	
Naphthalene	ND	ug/L	0.50	0.35	1		04/21/23 13:32	91-20-3	
Toluene	ND	ug/L	0.50	0.20	1		04/21/23 13:32	108-88-3	
Xylene (Total)	ND	ug/L	0.50	0.22	1		04/21/23 13:32	1330-20-7	
m&p-Xylene	ND	ug/L	1.0	0.39	1		04/21/23 13:32	179601-23-1	
o-Xylene	ND	ug/L	0.50	0.22	1		04/21/23 13:32	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	95	%	70-130		1		04/21/23 13:32	2199-69-1	
4-Bromofluorobenzene (S)	98	%	70-130		1		04/21/23 13:32	460-00-4	
8260 MSV Low Level SC									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		04/21/23 12:21	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		04/21/23 12:21	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		04/21/23 12:21	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		04/21/23 12:21	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		04/21/23 12:21	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		04/21/23 12:21	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		04/21/23 12:21	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		04/21/23 12:21	637-92-3	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		04/21/23 12:21	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		1		04/21/23 12:21	17060-07-0	
Toluene-d8 (S)	106	%	70-130		1		04/21/23 12:21	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS
Pace Project No.: 92662479

Sample: WSW-2		Lab ID: 92662479002		Collected: 04/14/23 12:39		Received: 04/14/23 13:06		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
504 GCS EDB and DBCP		Analytical Method: EPA 504.1 Preparation Method: EPA 504.1 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0056	1	04/18/23 09:51	04/19/23 01:09	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	88	%	70-130		1	04/18/23 09:51	04/19/23 01:09	301-79-56	
524.2 MSV SC List		Analytical Method: EPA 524.2 Pace Analytical Services - Charlotte							
Benzene	ND	ug/L	0.50	0.21	1		04/19/23 23:09	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	0.16	1		04/19/23 23:09	107-06-2	
Ethylbenzene	ND	ug/L	0.50	0.22	1		04/19/23 23:09	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	0.14	1		04/19/23 23:09	1634-04-4	
Naphthalene	ND	ug/L	0.50	0.35	1		04/19/23 23:09	91-20-3	
Toluene	ND	ug/L	0.50	0.20	1		04/19/23 23:09	108-88-3	
Xylene (Total)	ND	ug/L	0.50	0.22	1		04/19/23 23:09	1330-20-7	
m&p-Xylene	ND	ug/L	1.0	0.39	1		04/19/23 23:09	179601-23-1	
o-Xylene	ND	ug/L	0.50	0.22	1		04/19/23 23:09	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	75	%	70-130		1		04/19/23 23:09	2199-69-1	
4-Bromofluorobenzene (S)	79	%	70-130		1		04/19/23 23:09	460-00-4	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		04/21/23 12:39	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		04/21/23 12:39	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		04/21/23 12:39	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		04/21/23 12:39	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		04/21/23 12:39	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		04/21/23 12:39	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		04/21/23 12:39	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		04/21/23 12:39	637-92-3	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		1		04/21/23 12:39	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130		1		04/21/23 12:39	17060-07-0	
Toluene-d8 (S)	107	%	70-130		1		04/21/23 12:39	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS

Pace Project No.: 92662479

Sample: WSW-DUP		Lab ID: 92662479003		Collected: 04/14/23 00:00		Received: 04/14/23 13:06		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
504 GCS EDB and DBCP		Analytical Method: EPA 504.1 Preparation Method: EPA 504.1 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0056	1	04/18/23 09:51	04/19/23 01:41	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	80	%	70-130		1	04/18/23 09:51	04/19/23 01:41	301-79-56	
524.2 MSV SC List		Analytical Method: EPA 524.2 Pace Analytical Services - Charlotte							
Benzene	ND	ug/L	0.50	0.21	1		04/19/23 23:35	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	0.16	1		04/19/23 23:35	107-06-2	
Ethylbenzene	ND	ug/L	0.50	0.22	1		04/19/23 23:35	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	0.14	1		04/19/23 23:35	1634-04-4	
Naphthalene	ND	ug/L	0.50	0.35	1		04/19/23 23:35	91-20-3	
Toluene	0.21J	ug/L	0.50	0.20	1		04/19/23 23:35	108-88-3	
Xylene (Total)	ND	ug/L	0.50	0.22	1		04/19/23 23:35	1330-20-7	
m&p-Xylene	ND	ug/L	1.0	0.39	1		04/19/23 23:35	179601-23-1	
o-Xylene	ND	ug/L	0.50	0.22	1		04/19/23 23:35	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	75	%	70-130		1		04/19/23 23:35	2199-69-1	
4-Bromofluorobenzene (S)	79	%	70-130		1		04/19/23 23:35	460-00-4	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		04/18/23 20:02	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		04/18/23 20:02	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		04/18/23 20:02	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		04/18/23 20:02	75-65-0	v3
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		04/18/23 20:02	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		04/18/23 20:02	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		04/18/23 20:02	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		04/18/23 20:02	637-92-3	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		1		04/18/23 20:02	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130		1		04/18/23 20:02	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		04/18/23 20:02	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS

Pace Project No.: 92662479

Sample: WSW-FB		Lab ID: 92662479004		Collected: 04/14/23 12:42		Received: 04/14/23 13:06		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
504 GCS EDB and DBCP Analytical Method: EPA 504.1 Preparation Method: EPA 504.1 Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0056	1	04/18/23 09:51	04/19/23 01:52	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	84	%	70-130		1	04/18/23 09:51	04/19/23 01:52	301-79-56	
524.2 MSV SC List Analytical Method: EPA 524.2 Pace Analytical Services - Charlotte									
Benzene	ND	ug/L	0.50	0.21	1		04/19/23 18:46	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	0.16	1		04/19/23 18:46	107-06-2	
Ethylbenzene	ND	ug/L	0.50	0.22	1		04/19/23 18:46	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	0.14	1		04/19/23 18:46	1634-04-4	
Naphthalene	ND	ug/L	0.50	0.35	1		04/19/23 18:46	91-20-3	
Toluene	ND	ug/L	0.50	0.20	1		04/19/23 18:46	108-88-3	
Xylene (Total)	ND	ug/L	0.50	0.22	1		04/19/23 18:46	1330-20-7	
m&p-Xylene	ND	ug/L	1.0	0.39	1		04/19/23 18:46	179601-23-1	
o-Xylene	ND	ug/L	0.50	0.22	1		04/19/23 18:46	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	74	%	70-130		1		04/19/23 18:46	2199-69-1	
4-Bromofluorobenzene (S)	80	%	70-130		1		04/19/23 18:46	460-00-4	
8260 MSV Low Level SC Analytical Method: EPA 8260D Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		04/18/23 15:59	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		04/18/23 15:59	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		04/18/23 15:59	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		04/18/23 15:59	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		04/18/23 15:59	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		04/18/23 15:59	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		04/18/23 15:59	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		04/18/23 15:59	637-92-3	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		04/18/23 15:59	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		1		04/18/23 15:59	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		04/18/23 15:59	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS

Pace Project No.: 92662479

Sample: WSW-TB		Lab ID: 92662479005		Collected: 04/14/23 08:00		Received: 04/14/23 13:06		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
524.2 MSV SC List									
Analytical Method: EPA 524.2									
Pace Analytical Services - Charlotte									
Benzene	ND	ug/L	0.50	0.21	1		04/19/23 19:12	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	0.16	1		04/19/23 19:12	107-06-2	
Ethylbenzene	ND	ug/L	0.50	0.22	1		04/19/23 19:12	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	0.14	1		04/19/23 19:12	1634-04-4	
Naphthalene	ND	ug/L	0.50	0.35	1		04/19/23 19:12	91-20-3	
Toluene	ND	ug/L	0.50	0.20	1		04/19/23 19:12	108-88-3	
Xylene (Total)	ND	ug/L	0.50	0.22	1		04/19/23 19:12	1330-20-7	
m&p-Xylene	ND	ug/L	1.0	0.39	1		04/19/23 19:12	179601-23-1	
o-Xylene	ND	ug/L	0.50	0.22	1		04/19/23 19:12	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	75	%	70-130		1		04/19/23 19:12	2199-69-1	
4-Bromofluorobenzene (S)	81	%	70-130		1		04/19/23 19:12	460-00-4	
8260 MSV Low Level SC									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		04/18/23 16:17	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		04/18/23 16:17	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		04/18/23 16:17	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		04/18/23 16:17	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		04/18/23 16:17	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		04/18/23 16:17	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		04/18/23 16:17	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		04/18/23 16:17	637-92-3	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		04/18/23 16:17	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130		1		04/18/23 16:17	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		04/18/23 16:17	2037-26-5	

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QUALITY CONTROL DATA

Project: JAKE HUGGINS

Pace Project No.: 92662479

QC Batch:	768743	Analysis Method:	EPA 524.2
QC Batch Method:	EPA 524.2	Analysis Description:	524.2 MSV
		Laboratory:	Pace Analytical Services - Charlotte

Associated Lab Samples: 92662479002, 92662479003, 92662479004, 92662479005

METHOD BLANK: 3991273 Matrix: Water

Associated Lab Samples: 92662479002, 92662479003, 92662479004, 92662479005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	0.50	0.16	04/19/23 16:35	
Benzene	ug/L	ND	0.50	0.21	04/19/23 16:35	
Ethylbenzene	ug/L	ND	0.50	0.22	04/19/23 16:35	
m&p-Xylene	ug/L	ND	1.0	0.39	04/19/23 16:35	
Methyl-tert-butyl ether	ug/L	ND	0.50	0.14	04/19/23 16:35	
Naphthalene	ug/L	ND	0.50	0.35	04/19/23 16:35	
o-Xylene	ug/L	ND	0.50	0.22	04/19/23 16:35	
Toluene	ug/L	ND	0.50	0.20	04/19/23 16:35	
Xylene (Total)	ug/L	ND	0.50	0.22	04/19/23 16:35	
1,2-Dichlorobenzene-d4 (S)	%	77	70-130		04/19/23 16:35	
4-Bromofluorobenzene (S)	%	78	70-130		04/19/23 16:35	

LABORATORY CONTROL SAMPLE: 3991274

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	20	24.1	120	70-130	
Benzene	ug/L	20	19.2	96	70-130	
Ethylbenzene	ug/L	20	20.3	101	70-130	
m&p-Xylene	ug/L	40	38.8	97	70-130	
Methyl-tert-butyl ether	ug/L	20	20.0	100	70-130	
Naphthalene	ug/L	20	20.1	100	70-130	
o-Xylene	ug/L	20	19.3	96	70-130	
Toluene	ug/L	20	19.5	98	70-130	
Xylene (Total)	ug/L	60	58.1	97		
1,2-Dichlorobenzene-d4 (S)	%			82	70-130	
4-Bromofluorobenzene (S)	%			88	70-130	

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QUALITY CONTROL DATA

Project: JAKE HUGGINS

Pace Project No.: 92662479

QC Batch: 769617

Analysis Method: EPA 524.2

QC Batch Method: EPA 524.2

Analysis Description: 524.2 MSV

Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92662479001

METHOD BLANK: 3995692

Matrix: Water

Associated Lab Samples: 92662479001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	0.50	0.16	04/21/23 13:06	
Benzene	ug/L	ND	0.50	0.21	04/21/23 13:06	
Ethylbenzene	ug/L	ND	0.50	0.22	04/21/23 13:06	
m&p-Xylene	ug/L	ND	1.0	0.39	04/21/23 13:06	
Methyl-tert-butyl ether	ug/L	ND	0.50	0.14	04/21/23 13:06	
Naphthalene	ug/L	ND	0.50	0.35	04/21/23 13:06	
o-Xylene	ug/L	ND	0.50	0.22	04/21/23 13:06	
Toluene	ug/L	ND	0.50	0.20	04/21/23 13:06	
Xylene (Total)	ug/L	ND	0.50	0.22	04/21/23 13:06	
1,2-Dichlorobenzene-d4 (S)	%	93	70-130		04/21/23 13:06	
4-Bromofluorobenzene (S)	%	96	70-130		04/21/23 13:06	

LABORATORY CONTROL SAMPLE: 3995693

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	20	20.8	104	70-130	
Benzene	ug/L	20	19.7	99	70-130	
Ethylbenzene	ug/L	20	19.8	99	70-130	
m&p-Xylene	ug/L	40	41.7	104	70-130	
Methyl-tert-butyl ether	ug/L	20	19.4	97	70-130	
Naphthalene	ug/L	20	21.0	105	70-130	
o-Xylene	ug/L	20	21.1	105	70-130	
Toluene	ug/L	20	20.2	101	70-130	
Xylene (Total)	ug/L	60	62.8	105		
1,2-Dichlorobenzene-d4 (S)	%			101	70-130	
4-Bromofluorobenzene (S)	%			106	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: JAKE HUGGINS

Pace Project No.: 92662479

QC Batch:	768670	Analysis Method:	EPA 8260D
QC Batch Method:	EPA 8260D	Analysis Description:	8260 MSV Low Level SC
		Laboratory:	Pace Analytical Services - Charlotte

Associated Lab Samples: 92662479004, 92662479005

METHOD BLANK: 3990772 Matrix: Water

Associated Lab Samples: 92662479004, 92662479005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
3,3-Dimethyl-1-Butanol	ug/L	ND	100	51.9	04/18/23 12:03	
Diisopropyl ether	ug/L	ND	1.0	0.31	04/18/23 12:03	
Ethanol	ug/L	ND	200	72.2	04/18/23 12:03	
Ethyl-tert-butyl ether	ug/L	ND	10.0	3.2	04/18/23 12:03	
tert-Amyl Alcohol	ug/L	ND	100	36.4	04/18/23 12:03	
tert-Amylmethyl ether	ug/L	ND	10.0	2.7	04/18/23 12:03	
tert-Butyl Alcohol	ug/L	ND	100	26.8	04/18/23 12:03	
tert-Butyl Formate	ug/L	ND	50.0	29.4	04/18/23 12:03	
1,2-Dichloroethane-d4 (S)	%	98	70-130		04/18/23 12:03	
4-Bromofluorobenzene (S)	%	98	70-130		04/18/23 12:03	
Toluene-d8 (S)	%	99	70-130		04/18/23 12:03	

LABORATORY CONTROL SAMPLE: 3990773

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
3,3-Dimethyl-1-Butanol	ug/L	400	375	94	70-130	
Diisopropyl ether	ug/L	20	17.6	88	70-130	
Ethanol	ug/L	800	788	98	70-130	
Ethyl-tert-butyl ether	ug/L	40	35.4	89	70-130	
tert-Amyl Alcohol	ug/L	400	377	94	70-130	
tert-Amylmethyl ether	ug/L	40	39.1	98	70-130	
tert-Butyl Alcohol	ug/L	200	170	85	70-130	
tert-Butyl Formate	ug/L	160	141	88	70-130	
1,2-Dichloroethane-d4 (S)	%			97	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3990774 3990775

Parameter	Units	92662270004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
3,3-Dimethyl-1-Butanol	ug/L	ND	400	400	449	418	112	105	39-157	7	30	
Diisopropyl ether	ug/L	ND	20	20	20.1	19.1	101	95	63-144	5	30	
Ethanol	ug/L	ND	800	800	910	858	113	107	39-176	6	30	
Ethyl-tert-butyl ether	ug/L	ND	40	40	40.1	38.0	100	95	66-137	5	30	
tert-Amyl Alcohol	ug/L	ND	400	400	442	406	111	101	54-153	9	30	
tert-Amylmethyl ether	ug/L	ND	40	40	42.3	40.5	106	101	69-139	5	30	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: JAKE HUGGINS

Pace Project No.: 92662479

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3990774 3990775												
Parameter	Units	92662270004		MS	MSD	MS		MS	MSD	% Rec	Max	
		Result		Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD
tert-Butyl Alcohol	ug/L	ND		200	200	283	268	142	134	43-188	5	30
tert-Butyl Formate	ug/L	ND		160	160	40.7J	ND	25	18	10-170		30
1,2-Dichloroethane-d4 (S)	%							95	95	70-130		
4-Bromofluorobenzene (S)	%							101	101	70-130		
Toluene-d8 (S)	%							98	98	70-130		

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QUALITY CONTROL DATA

Project: JAKE HUGGINS
Pace Project No.: 92662479

QC Batch:	768682	Analysis Method:	EPA 8260D
QC Batch Method:	EPA 8260D	Analysis Description:	8260 MSV Low Level SC
		Laboratory:	Pace Analytical Services - Charlotte

Associated Lab Samples: 92662479003

METHOD BLANK: 3990855 Matrix: Water

Associated Lab Samples: 92662479003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
3,3-Dimethyl-1-Butanol	ug/L	ND	100	51.9	04/18/23 14:33	
Diisopropyl ether	ug/L	ND	1.0	0.31	04/18/23 14:33	
Ethanol	ug/L	ND	200	72.2	04/18/23 14:33	
Ethyl-tert-butyl ether	ug/L	ND	10.0	3.2	04/18/23 14:33	
tert-Amyl Alcohol	ug/L	ND	100	36.4	04/18/23 14:33	
tert-Amylmethyl ether	ug/L	ND	10.0	2.7	04/18/23 14:33	
tert-Butyl Alcohol	ug/L	ND	100	26.8	04/18/23 14:33	
tert-Butyl Formate	ug/L	ND	50.0	29.4	04/18/23 14:33	
1,2-Dichloroethane-d4 (S)	%	93	70-130		04/18/23 14:33	
4-Bromofluorobenzene (S)	%	101	70-130		04/18/23 14:33	
Toluene-d8 (S)	%	100	70-130		04/18/23 14:33	

LABORATORY CONTROL SAMPLE: 3990856

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
3,3-Dimethyl-1-Butanol	ug/L	400	382	95	70-130	
Diisopropyl ether	ug/L	20	18.3	92	70-130	
Ethanol	ug/L	800	774	97	70-130	
Ethyl-tert-butyl ether	ug/L	40	38.1	95	70-130	
tert-Amyl Alcohol	ug/L	400	406	101	70-130	
tert-Amylmethyl ether	ug/L	40	40.8	102	70-130	
tert-Butyl Alcohol	ug/L	200	199	100	70-130	
tert-Butyl Formate	ug/L	160	141	88	70-130	
1,2-Dichloroethane-d4 (S)	%			99	70-130	
4-Bromofluorobenzene (S)	%			102	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE SAMPLE: 3990857

Parameter	Units	92662479003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
3,3-Dimethyl-1-Butanol	ug/L	ND	400	456	114	39-157	
Diisopropyl ether	ug/L	ND	20	19.3	96	63-144	
Ethanol	ug/L	ND	800	789	99	39-176	
Ethyl-tert-butyl ether	ug/L	ND	40	39.2	98	66-137	
tert-Amyl Alcohol	ug/L	ND	400	396	99	54-153	
tert-Amylmethyl ether	ug/L	ND	40	41.6	104	69-139	
tert-Butyl Alcohol	ug/L	ND	200	187	94	43-188 v3	

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QUALITY CONTROL DATA

Project: JAKE HUGGINS

Pace Project No.: 92662479

MATRIX SPIKE SAMPLE: 3990857		92662479003	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
tert-Butyl Formate	ug/L	ND	160	ND	15	10-170	
1,2-Dichloroethane-d4 (S)	%				99	70-130	
4-Bromofluorobenzene (S)	%				96	70-130	
Toluene-d8 (S)	%				96	70-130	

SAMPLE DUPLICATE: 3990858

		92662270011	Dup		Max	
Parameter	Units	Result	Result	RPD	RPD	Qualifiers
3,3-Dimethyl-1-Butanol	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethanol	ug/L	113J	148J		30	
Ethyl-tert-butyl ether	ug/L	ND	ND		30	
tert-Amyl Alcohol	ug/L	ND	ND		30	
tert-Amylmethyl ether	ug/L	ND	ND		30	
tert-Butyl Alcohol	ug/L	76.6J	ND		30 v2	
tert-Butyl Formate	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	94	96			
4-Bromofluorobenzene (S)	%	103	97			
Toluene-d8 (S)	%	99	94			

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QUALITY CONTROL DATA

Project: JAKE HUGGINS

Pace Project No.: 92662479

QC Batch:	769504	Analysis Method:	EPA 8260D
QC Batch Method:	EPA 8260D	Analysis Description:	8260 MSV Low Level SC
		Laboratory:	Pace Analytical Services - Charlotte

Associated Lab Samples: 92662479001, 92662479002

METHOD BLANK: 3995154 Matrix: Water

Associated Lab Samples: 92662479001, 92662479002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
3,3-Dimethyl-1-Butanol	ug/L	ND	100	51.9	04/21/23 12:03	
Diisopropyl ether	ug/L	ND	1.0	0.31	04/21/23 12:03	
Ethanol	ug/L	ND	200	72.2	04/21/23 12:03	
Ethyl-tert-butyl ether	ug/L	ND	10.0	3.2	04/21/23 12:03	
tert-Amyl Alcohol	ug/L	ND	100	36.4	04/21/23 12:03	
tert-Amylmethyl ether	ug/L	ND	10.0	2.7	04/21/23 12:03	
tert-Butyl Alcohol	ug/L	ND	100	26.8	04/21/23 12:03	
tert-Butyl Formate	ug/L	ND	50.0	29.4	04/21/23 12:03	
1,2-Dichloroethane-d4 (S)	%	101	70-130		04/21/23 12:03	
4-Bromofluorobenzene (S)	%	101	70-130		04/21/23 12:03	
Toluene-d8 (S)	%	106	70-130		04/21/23 12:03	

LABORATORY CONTROL SAMPLE: 3995155

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
3,3-Dimethyl-1-Butanol	ug/L	400	442	110	70-130	
Diisopropyl ether	ug/L	20	20.8	104	70-130	
Ethanol	ug/L	800	931	116	70-130	
Ethyl-tert-butyl ether	ug/L	40	41.8	104	70-130	
tert-Amyl Alcohol	ug/L	400	454	114	70-130	
tert-Amylmethyl ether	ug/L	40	44.4	111	70-130	
tert-Butyl Alcohol	ug/L	200	213	106	70-130	
tert-Butyl Formate	ug/L	160	178	111	70-130	
1,2-Dichloroethane-d4 (S)	%			110	70-130	
4-Bromofluorobenzene (S)	%			106	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE SAMPLE: 3995157

Parameter	Units	92662223009 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
3,3-Dimethyl-1-Butanol	ug/L	ND	400	458	114	39-157	
Diisopropyl ether	ug/L	ND	20	22.2	111	63-144	
Ethanol	ug/L	ND	800	887	111	39-176	
Ethyl-tert-butyl ether	ug/L	ND	40	44.5	111	66-137	
tert-Amyl Alcohol	ug/L	ND	400	462	115	54-153	
tert-Amylmethyl ether	ug/L	ND	40	47.7	119	69-139	
tert-Butyl Alcohol	ug/L	ND	200	279	140	43-188	

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QUALITY CONTROL DATA

Project: JAKE HUGGINS

Pace Project No.: 92662479

MATRIX SPIKE SAMPLE: 3995157		92662223009	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
tert-Butyl Formate	ug/L	ND	160	33.8J	21	10-170	
1,2-Dichloroethane-d4 (S)	%				106	70-130	
4-Bromofluorobenzene (S)	%				104	70-130	
Toluene-d8 (S)	%				97	70-130	

SAMPLE DUPLICATE: 3995156

		92662479002	Dup		Max	
Parameter	Units	Result	Result	RPD	RPD	Qualifiers
3,3-Dimethyl-1-Butanol	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethanol	ug/L	ND	ND		30	
Ethyl-tert-butyl ether	ug/L	ND	ND		30	
tert-Amyl Alcohol	ug/L	ND	ND		30	
tert-Amylmethyl ether	ug/L	ND	ND		30	
tert-Butyl Alcohol	ug/L	ND	ND		30	
tert-Butyl Formate	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	96	98			
4-Bromofluorobenzene (S)	%	101	102			
Toluene-d8 (S)	%	107	107			

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QUALITY CONTROL DATA

Project: JAKE HUGGINS

Pace Project No.: 92662479

QC Batch:	768571	Analysis Method:	EPA 504.1
QC Batch Method:	EPA 504.1	Analysis Description:	GCS 504 EDB DBCP
		Laboratory:	Pace Analytical Services - Charlotte

Associated Lab Samples: 92662479001, 92662479002, 92662479003, 92662479004

METHOD BLANK: 3990307 Matrix: Water

Associated Lab Samples: 92662479001, 92662479002, 92662479003, 92662479004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	0.0056	04/18/23 23:54	
1-Chloro-2-bromopropane (S)	%	90	70-130		04/18/23 23:54	

LABORATORY CONTROL SAMPLE & LCSD: 3990308

3990309

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	0.25	0.22	0.23	89	93	70-130	4	20	
1-Chloro-2-bromopropane (S)	%				91	93	70-130			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3990311

3990312

Parameter	Units	92662479002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	0.25	0.25	0.21	0.21	82	82	65-135	0	20	
1-Chloro-2-bromopropane (S)	%						87	85	70-130			

SAMPLE DUPLICATE: 3990310

Parameter	Units	92662479001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%	93	87			

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: JAKE HUGGINS
Pace Project No.: 92662479

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

- | | |
|----|---|
| v2 | The continuing calibration verification was below the method acceptance limit. The analyte was not detected in the associated samples and the sensitivity of the instrument was verified with a reporting limit check standard. |
| v3 | The continuing calibration verification was below the method acceptance limit. Any detection for the analyte in the associated samples may have low bias. |

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: JAKE HUGGINS

Pace Project No.: 92662479

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92662479001	WSW-1	EPA 504.1	768571	EPA 504.1	768668
92662479002	WSW-2	EPA 504.1	768571	EPA 504.1	768668
92662479003	WSW-DUP	EPA 504.1	768571	EPA 504.1	768668
92662479004	WSW-FB	EPA 504.1	768571	EPA 504.1	768668
92662479001	WSW-1	EPA 524.2	769617		
92662479002	WSW-2	EPA 524.2	768743		
92662479003	WSW-DUP	EPA 524.2	768743		
92662479004	WSW-FB	EPA 524.2	768743		
92662479005	WSW-TB	EPA 524.2	768743		
92662479001	WSW-1	EPA 8260D	769504		
92662479002	WSW-2	EPA 8260D	769504		
92662479003	WSW-DUP	EPA 8260D	768682		
92662479004	WSW-FB	EPA 8260D	768670		
92662479005	WSW-TB	EPA 8260D	768670		

REPORT OF LABORATORY ANALYSIS

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Company: MECE		Billing Information:						
Address: 231 Doolley Rd		Email To: jleonecine@t						
Report To: B. Shane		Site Collection Info/Address:						
Copy To:		State: County/City: Time Zone Collected: [] PT [] MT [] CT [] ET						
Customer Project Name/Number: Take Huggins		State: Florence [] PT [] MT [] CT [] ET						
Phone:		Site/Facility ID #: 03423		Compliance Monitoring? [] Yes [] No				
Email:								
Collected By (print): Shawn Spott		Purchase Order #: N60E#22-7924R		DW PWS ID #: DW Location Code:				
Collected By (signature):		Turnaround Date Required:		Immediately Packed on Ice: [] Yes [] No				
Sample Disposal: [] Dispose as appropriate [] Return [] Archive: _____ [] Hold: _____		Rush: [] Same Day [] Next Day [] 2 Day [] 3 Day [] 4 Day [] 5 Day (Expedite Charges Apply)		Field Filtered (if applicable): [] Yes [] No Analysis: _____				
* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)								
Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start)		Composite End		Res CI	# of Ctns
			Date	Time	Date	Time		
WSW-1	DW	G	4/14/23	12:26				9
WSW-2				12:39				
WSW-3								
WSW-DUP								
WSW-FB				12:48				
WSW-TB				8:00				6
Customer Remarks / Special Conditions / Possible Hazards:								
Type of Ice Used: Wet			Blue			Dry None		
Packing Material Used: Bubble								
Radchem sample(s) screened (<500 cpm): Y N NA								
Relinquished by Company: (Signature)		Date/Time: 4/14 1305		Received by Company: (Signature)				
Relinquished by Company: (Signature)		Date/Time: 4/14/23 1145		Received by Company: (Signature)				
Relinquished by Company: (Signature)		Date/Time:		Received by Company: (Signature)				

[illegible]

Effective Date: 05/12/2022

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

**Bottom half of box is to list number of bottles

***Check all unpreserved Nitrates for chlorine

Project #

WO#: 92662479

PM: TMC

Due Date: 04/21/23

CLIENT: 92-MIDLAND

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2SO3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	DG9S-40 mL VOA H2SO4 (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
1																6	3											
2																6	3											
3																6	3											
4																6	3											
5																6	3											
6																6												
7																												
8																												
9																												
10																												
11																												
12																												

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

APPENDIX C:

TAX MAP

(Not Applicable)

APPENDIX D:

SOIL BORING/FIELD SCREENING LOGS & 1903 FORMS

(Not Applicable)

APPENDIX E:
WELL COMPLETION LOGS & 1903 FORMS
(Not Applicable)

APPENDIX F:
AQUIFER EVALUATION SUMMARY FORMS, DATA, GRAPHS, EQUATIONS
(Not Applicable)

APPENDIX G:
DISPOSAL MANIFEST



April 27, 2023

Re: Treatment of Purge Water
Jake Huggins DBA Outpost at Willowcreek
Florence, South Carolina
UST Permit# 03423
MECI Project Number 22-7924B

To Whom it May Concern;

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

Applicability:

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

Conditions:

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

All purge waters were treated on-site using an up-flow treatment drum loaded with 80 pounds of activated carbon. Carbon will be loaded to a maximum of 3 pounds of total organic compounds or 5,000 gallons of development/purge water, whichever occurs first.

April 27, 2023

29.50 Gallons of Purge water were treated on April 14, 2023 at the referenced site.

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

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

Sincerely,
Midlands Environmental Consultants, Inc.



Jeff L. Coleman
Senior Scientist

APPENDIX H:
LOCAL ZONING REGULATIONS
(Not Applicable)

APPENDIX I:
FATE AND TRANSPORT MODELING
(Not Applicable)

APPENDIX J:
ACCESS AGREEMENTS
(Not Applicable)

APPENDIX K:
DATA VERIFICATION CHECKLIST

Contractor Checklist

Item#	Item	Yes	No	N/A
1	Are Facility Name, Permit #, and address provided?	X		
2	Is UST Owner/Operator name, address, & phone number provided?	X		
3	Is name, address, & phone number of current property owner provided?	X		
4	Is the DHEC Certified UST Site Rehabilitation Contractor's Name, Address, telephone number, and certification number provided?	X		
5	Is the name, address, telephone number, and certification number of the well driller that installed borings/monitoring wells provided?			X
6	Is the name, address, telephone number, and certification number of the certified laboratory(ies) performing analytical analyses provided?	X		
7	Has the facility history been summarized?	X		
8	Has the regional geology and hydrogeology been described?	X		
9	Are the receptor survey results provided as required?			X
10	Has current use of the site and adjacent land been described?	X		
11	Has the site-specific geology and hydrogeology been described?	X		
12	Has the primary soil type been described?	X		
13	Have field screening results been described?			X
14	Has a description of the soil sample collection and preservation been detailed?			X
15	Has the field screening methodology and procedure been detailed?			X
16	Has the monitoring well installation and development dates been provided?			X
17	Has the method of well development been detailed?			X
18	Has justification been provided for the locations of the monitoring wells?			X
19	Have the monitoring wells been labeled in accordance with the UST QAPP guidelines?	X		
20	Has the groundwater sampling methodology been detailed?	X		
21	Have the groundwater sampling dates and groundwater measurements been provided? (Table 2 & Figures 4-4A)	X		
22	Has the purging methodology been detailed?	X		
23	Has the volume of water purged from each well been provided along with measurements to verify that purging is complete? (Appendix B)	X		
24	If free-product is present, has the thickness been provided?		X	
25	Does the report include a brief discussion of the assessment done and the results?	X		
26	Does the report include a brief discussion of the aquifer evaluation and results?			X
27	Does the report include a brief discussion of the fate & transport models used?			X

Item#	Item	Yes	No	N/A
28	Are the site-conceptual model tables included? (Tier 1 Risk Evaluation)			X
29	Have the exposure pathways been analyzed? (Tier 2 Risk Evaluation)			X
30	Have the SSTLs for each compound and pathway been calculated? (Tier 2 Risk Evaluation)			X
31	Have recommendations for further action been provided and explained?	X		
32	Has the soil analytical data for the site been provided in tabular format?			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? (Table 1)	X		
35	Have the aquifer characteristics been provided and summarized on the appropriate form? (Appendix F)			X
36	Have the Site conceptual model tables been included? (Tier 1 Risk Evaluation)			X
37	Has the topographic map been provided with all required elements? (Figure 1)	X		
38	Has the site base map been provided with all required elements? (Figure 2)	X		
39	Have the CoC site maps been provided? (Figure 3-3A)	X		
40	Has the site potentiometric map been provided? (Figure 4-4A)	X		
41	Have the geologic cross-sections been provided?			X
42	Have maps showing the predicted migration of the CoCs through time been provided? (Tier 2 Risk Evaluation)			X
43	Has the site survey been provided and include all necessary elements? (Appendix A)			X
44	Have the sampling logs, chain of custody forms, and the analytical data package been included with all required elements? (Appendix B)	X		
45	Is the laboratory performing the analyses properly certified?	X		
46	Has the tax map been included with all necessary elements? (Appendix C)			X
47	Have the soil boring/field screening logs been provided? (Appendix E)			X
48	Have the well completion logs and SCDHEC Form 1903 been provided? (Appendix E)			X
49	Have the aquifer evaluation forms, data, graphs, equations, etc. been provided? (Appendix F)			X
50	Have the disposal manifests been provided? (Appendix G)	X		
51	Has a copy of the local zoning regulations been provided? (Appendix H)			X
52	Has all fate and transport modeling been provided? (Appendix I)			X
53	Have copies of all access agreements obtained by the contractor been provided? (Appendix J)			X
54	Has a copy of this form been attached to the final report and are explanations for any missing or incomplete data been provided? (Appendix K)	X		

APPENDIX L:
DETAILED RECEPTOR INFORMATION

	Receptor ID: (03423-WSW01)
	Parcel ID: 00213-01-130
	Property Owner Name: Willie B Winchester Jr.
	Property Owner Address: 3101 Willow Creek Rd, Florence, SC 29505
	WSW Details: Well is inside barn building. Sample collected from spigot on water supply well. GPS: 34.096044, -79.701503

	Receptor ID: (03423-WSW02)
	Parcel ID: 00213-01-130
	Property Owner Name: Willie B Winchester Jr.
	Property Owner Address: 3101 Willow Creek Rd, Florence, SC 29505
	WSW Details: Sample collected from spigot on WSW. GPS: 34.095156, -79.700508

	Receptor ID: (03423-WSW03)
	Parcel ID: 00213-01-052
	Property Owner Name: Linda L Huggins
	Property Owner Address: 3695 Willow Creek Rd, Florence, SC 29505
	WSW Details: Well has been disconnected. Unable to sample with bailer due to metal elbow at well head. GPS: 34.096743, -79.701503

	Receptor ID: (03423-Possible WSW)
	Parcel ID: 00214-01-016
	Property Owner Name: Trent P Stallings
	Property Owner Address: 3118 Willow Creek Rd, Florence, SC 29505
	WSW Details: Possible well house attached to residence. Resident did not respond to attempts to make contact. GPS: 34.094158, -79.700555

	Receptor ID: (03423-SW01)	
	Parcel ID:	SCDOT Right of Way
	Property Owner Name:	SCDOT
	Property Owner Address:	PO Box 191, Columbia, SC 29201
SW Details: Surface water sample collected from drainage ditch. GPS: 34.095076, -79.696772		

	Receptor ID: (03423-SW02)	
	Parcel ID:	SCDOT Right of Way
	Property Owner Name:	SCDOT
	Property Owner Address:	PO Box 191, Columbia, SC 29201
SW Details: Surface water sample collected from drainage ditch. GPS: 34.095847, -79.697296		

	Receptor ID: (03423-SW03)	
	Parcel ID:	00213-01-017
	Property Owner Name:	Barbara M Williams
	Property Owner Address:	9296 Grays Highway, Ridgeland, SC 29936
SW Details: Surface water sample collected from stream. GPS: 34.094620, -79.698172		



Receptor ID: (03423-SW04)
Parcel ID: 00213-01-017
Property Owner Name: Barbara M Williams
Property Owner Address: 9296 Grays Highway, Ridgeland, SC 29936
SW Details: Surface water sample collected from stream. GPS: 34.095389, -79.698409



Receptor ID: (03423-SW05)
Parcel ID: 00213-01-017
Property Owner Name: Barbara M Williams
Property Owner Address: 9282 Grays Highway, Ridgeland, SC 29936
SW Details: Surface water sample collected from stream. GPS: 34.096050, -79.698577



Receptor ID: (03423-SW06)
Parcel ID: 00213-01-017
Property Owner Name: Barbara M Williams
Property Owner Address: 9372 Grays Highway, Ridgeland, SC 29936
SW Details: Surface water sample collected from stream. GPS: 34.096699, -79.699359



MAY 26 2023



B W STOKES OIL CO INC
ATTN MR BENNIE STOKES
PO BOX 1656
FLORENCE SC 29503

Re: Second Quarter 2023 Monitoring Report Review
Jake Huggins Dba Outpost At Willowcreek; 4925 Pamplico Hwy., Florence, SC
UST Permit #03423; CA #65748
Release reported February 26, 2002
Site-Specific Work Plan (SSWP) received November 16, 2022
Report of Second Quarter Groundwater Monitoring[2of4] received May 03, 2023
Florence County

Dear Mr. Stokes:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (DHEC) has reviewed the referenced report. The following comments are provided based on your contractor's conclusions and recommendations:

- 1) DHEC will not require further definition of the plume to the south at this time.
- 2) DHEC is using the data provided to finalize Site-Specific Target Levels for better evaluation of site rehabilitation needs.

In accordance with the approved Site-Specific Work Plan (SSWP), the next groundwater sampling event may proceed in July 2023 as proposed. **The next quarterly Monitoring Report and invoice should be submitted on or before September 30, 2023.** All reports submitted for these activities should include the required information outlined in the UST QAPP. If any quality assurance problems arise, your contractor must contact me within 24 hours by email or phone.

On all correspondence regarding this site, please reference UST Permit #03423. Should you have any questions, please contact me by phone (803) 898-0671, email dunnra@dhec.sc.gov, or fax (803) 898-0673.

Sincerely,

Robert Dunn

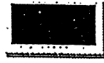
Robert A. Dunn, Hydrogeologist
Corrective Action and Field Support Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

Cc: Midlands Environmental Consultants, PO Box 854, Lexington, SC 29071 (w/ Enc)
Technical File (w/ Enc)

Document Receipt Information



Hard Copy



CD

Date Received 8/11/2023

Permit Number 03423

Project Manager Robert Dunn

Name of Contractor meci

Docket Title GWMP

Document Number 41T

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GROUNDWATER MONITORING REPORT

Jake Huggins DBA Outpost at Willowcreek
4925 Pamplico Highway
Florence, South Carolina
Florence County
UST Permit# 03423
CA# 65748

Prepared By:

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

July 25, 2023

MECI Project No. 22-7924C



July 25, 2023

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

Subject: Groundwater Monitoring Report
Jake Huggins DBA Outpost at Willowcreek
4925 Pamplico Highway
Florence, South Carolina
Florence County
UST Permit# 03423; CA# 65748
MECI Project Number 22-7924C
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Dunn,

On behalf of BW Stokes Oil Company, Inc., Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Groundwater Monitoring Report 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

Cc: SCDOT, PO Box 191, Columbia, SC 29201
Linda T. Huggins, 3695 Willow Creek Road, Florence, SC 29505
Barbara M. Williams, 3309 Willow Creek Road, Florence, SC 29505
Willie B. Winchester Jr., 3101 Willow Creek Road, Florence, SC 29505
William L. Huggins, 621 Mallard Pond Road, Murrells Inlet, SC 29576

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APPENDIX B – SAMPLING LOGS, LABORATORY DATA SHEETS AND CHAIN OF CUSTODY FORMS

**APPENDIX C – TAX MAP DATA

**APPENDIX D – SOIL BORING/FIELD SCREENING LOGS & 1903 FORMS

**APPENDIX E – WELL LOGS & 1903 FORMS

**APPENDIX F – AQUIFER EVALUATION SUMMARY FORMS, DATA, GRAPHS, EQUATIONS

APPENDIX G – DISPOSAL MANIFESTS

**APPENDIX H – LOCAL ZONING REGULATIONS

**APPENDIX I – FATE & TRANSPORT MODELING

**APPENDIX J – ACCESS AGREEMENTS

APPENDIX K – DATA VERIFICATION CHECKLIST

APPENDIX L – DETAILED RECEPTOR INFORMATION

NOTE: ITEMS LISTED WITH AN ** BESIDE IT WERE NOT NEEDED AS A PART OF THIS SCOPE OF WORK

1.0 INTRODUCTION

i. Facility Information

Name: Jake Huggins DBA Outpost at Willowcreek
UST Permit# 03423
Address: 4925 Pamplico Highway, Florence SC 29505
Telephone #: N/A

ii. Owner/Operator Information

Name BW Stokes Oil Company, Inc.
Address P.O. Box 1656, Florence, SC 29503
Telephone # (843) 621-5865

iii. Property Owner Information

Name Barbara Williams
Tax Map #: Florence County Tax Map #: 00213-01-019
Address 3309 Willow Creek Road, Florence, SC 29505
Telephone # (843) 662-0808

iv. Contractor Information

Name: Midlands Environmental Consultants, Inc.
Certification #: 9
Address: P. O. Box 854, Lexington, SC 29072
Telephone #: (803) 808-2043

v. Well Driller Information

Name: N/A
Certification #: N/A
Address: N/A
Telephone #: N/A

vi. Laboratory Information

Name: Pace Analytical Services, LLC.
Certification #: 99006001
Address: 9800 Kinney Ave. Suite 100, Huntersville, NC 28078
Telephone #: (704) 875-9092

vii. Facility History

Release Date:	Release #1 reported 2/26/2002
Estimated Quantity of Release:	Unknown
Other Releases at Facility:	Release #2 (NFA'd 7/28/2020)
Release Ranking:	2BB
Current Site Usage:	Residence (SCDOT Right of Way)

Tank #	Capacity/Product	In Use/Abandoned	Tank Status
1	2,000 Gal. Regular/Unleaded Gasoline	Abandoned	Removed (6/30/2016)
2	4,000 Gal. Gasoline Plus	Abandoned	Removed (6/30/2016)
3	6,000 Gal. Gasoline Super/Premium	Abandoned	Removed (6/30/2016)
4	3,000 Gal. Regular/Unleaded Gasoline	Abandoned	Removed (6/30/2016)
5	500 Gal. Kerosene	Abandoned	Removed (6/30/2016)

The following table presents previous site activities performed at the site:

Date	Assessment Type	Notes:
Pre 2008	Unknown MWI	Completed by unknown contractor. Installation of MW-1 through MW-4.
8/26/2008	Tier II Assessment	Completed by Davis & Brown. Monitoring wells MW-5, MW-6 installed. MW-5 installed as IGWA associated with second release. Analytical results from MW-1, MW-4, MW-5 and MW-6 were above RBSL for Benzene, MTBE, Naphthalene.
5/12/2009	Tier II Assessment	Completed by Davis & Brown. Installation of MW-7 through MW-22, MW-1D, and MW-2D. Multiple wells detected concentrations above RBSL's.
6/4/2015	Groundwater Sampling Event	Completed by Davis & Brown. Monitoring wells MW-14 through 20 and MW-2D reported destroyed. Multiple wells detected concentrations above RBSL's.
Circa 2016	DOT Construction	SCDOT widening destroys remaining well network.
3/7/2022	Tier II Assessment	Completed by MECI. This assessment included field screening of soil and groundwater samples, the installation of monitoring wells MW-1 thru MW-10 and DW-1 thru DW-4, sampling and chemical analysis of monitoring wells and nearby receptors and aquifer slug test.
1/9/2023	Groundwater Sampling Event	Completed by MECI.
4/14/2023	Groundwater Sampling Event	Completed by MECI.

viii. Regional Geology and Hydrogeology

The site is located in the Coastal Plain Physiographic Province, which is generally comprised of Upper Cretaceous to present aged, wedge-shaped formations that begin at the “Fall Line” and dip towards the Atlantic Ocean with ground surface elevations typically less than 300 feet. The sedimentary soils of these formations consist of unconsolidated sand, clay, gravel, marl, cemented sands, and limestone that were deposited unconformably over Mesozoic/Paleozoic age basement rock consisting of granite, schist, and gneiss similar to the rocks of the Piedmont Physiographic Province. The thickness of the Coastal Plain sediments varies from zero at the “Fall Line” to more than 4,000 feet at the southern tip of South Carolina near Hilton Head Island.

The Coastal Plain province was formed during Quaternary, Tertiary, and late Cretaceous geologic periods and can be divided generally into three subunits: Upper Coastal Plain, Middle Coastal Plain, and Lower Coastal Plain. The Lower Coastal Plain comprises approximately one-half of the entire Atlantic Coastal Plain of South Carolina and is separated from the middle coastal plain by the Surry Scarp, a seaward facing scarp with a toe elevation of 90 to 100 feet. The Middle Coastal Plain and the Upper Coastal Plain each compose approximately one fourth of the Coastal Plain area and are separated by the Orangeburg Scarp, a seaward facing scarp with a toe elevation of 250 to 270 feet.

The Lower Coastal Plain is typically identified as the area east of the Surry Scarp below elevation 100 feet, with a vertical stratigraphic sequence overlying the basement rock consisting of unconsolidated Cretaceous, Tertiary, and Quaternary sedimentary deposits. The surface deposits of the Lower Coastal Plain were formed during the Quaternary period which was characterized by the formation of the Carolina Bays and scarps throughout the east coast due to sea level rise and fall, the formation of the barrier islands, and the formation of flood plains from major rivers. Preceding the Quaternary period, limestone was deposited in the Lower Coastal Plain.

The Middle Coastal Plain is typically identified as the area between the Orangeburg Scarp and the Surry Scarp and falls between elevation 100 feet and 270 feet. The vertical stratigraphic sequence overlying the basement rock consists of unconsolidated Cretaceous and Tertiary sedimentary deposits formed as a result of scouring from the regressive cycles of the Ocean as it retreated. During the Eocene epoch of the Tertiary period, limestone was deposited in the Middle Coastal Plain.

The Upper Coastal Plain is typically identified as the area between the “Fall Line” and the Orangeburg Scarp and falls between elevations 270 feet and 300 feet. The Upper Coastal Plain was formed during the Tertiary and late Cretaceous periods and is marked by the formation of the Sandhills dunes as a result of fluvial deposits over the Coastal Plain consisting of marine sediments, limestone, and sand.

Coastal Plain formations generally dip toward the Atlantic Ocean. Consequently, regional groundwater movement is to the southeast. On a regional scale, hydraulic gradients are relatively low. Locally, in the surficial aquifer, groundwater discharges into streams, lakes or springs where the groundwater table intersects lows occupied by these water bodies.

2.0 RECEPTOR SURVEY & SITE DATA

i. Known Potential Receptors

Receptor ID#	Notes
WSW-1	WSW-1 is located approximately 1,400' feet west-north of MW-8 at 3101 Willow Creek Road. Samples have historically been collected from the spigot on the water supply which is located inside one of the bran buildings at the property. GPS: 34.096044, -79.701503
WSW-2	WSW-2 is located approximately 1,000' feet west of MW-8 at 3119 Willow Creek Road. Samples have historically been collected from the spigot on the water supply. GPS: 34.095156, -79.700508
WSW-3	WSW-3 is located approximately 650' feet northeast of MW-8 at 4905 Legettes Road. Well Disconnected; Unable to sample with bailer due to metal elbow at well head. GPS: 34.096743, -79.696040
Possible WSW	According to Ms. Williams, there is no well on the property.
Possible WSW	According to Ms. Williams, there is no well on the property.
SW-1	Sampled collected from drainage ditch adjacent to MW-8. GPS: 34.095076, -79.696772
SW-2	Sampled collected from drainage ditch adjacent to MW-2. GPS: 34.095847, -79.697296
SW-3	Sampled collected approximately 420' west of MW-8 from a stream. GPS: 34.094620, -79.698172
SW-4	Sampled collected approximately 500' west-northwest of MW-8 from a stream. GPS: 34.095389, -79.698409
SW-5	Sampled collected approximately 630' west-northwest of MW-8 from a stream. GPS: 34.096050, -79.698577
SW-6	Sampled collected approximately 950' northwest of MW-8 from a stream. GPS: 34.096699, -79.699359
Underground Utilities	
Known underground utilities at the site include buried water, gas and telecommunication lines. Utilities are buried approximately 2'-4' feet below ground surface (BGS).	

ii. Receptor Survey Results

A receptor survey was not requested as part of the approved cost agreement.

iii. Site/Adjacent Land Usage (Residential, Commercial, Agricultural, Industrial, etc.)

Site	Residential
North	Residential
South	Agricultural
East	Agricultural
West	Residential
Permit #'s of UST Sites within 1,000' feet of site	N/A

iv. Site Specific Geology and Hydrogeology

The mean elevation of the property as depicted on the local USGS quadrangle (Evergreen, SC) appears to be approximately 33 meters (108 feet) above sea level. The subject site is located in the Middle Coastal Plain. According to Newell et al. (In Review), the subject site is located in the Bear Bluff Formation. The Bear Bluff Formation is a Pliocene age unit described as consisting of gray to cream, fossiliferous, coarse-grained calcareous sand and sandy limestones.

Coastal plain sediments were encountered during drilling activities conducted at the site during previous assessment activities. A generalized vertical profile to the investigated depth of 35' feet below ground surface (BGS) is as follows:

Depth (Feet BGS)	Generalized Soil Description
0.0'-6.0'	Brown/Yellow Fine SAND
6.0'-16.0'	Pink/Grey Silty Fine SAND
16.0'-34.0'	Tan, Medium SAND
34.0'-35.0'	Dark Grey, Fine Sandy CLAY

The following table presents grain size distribution results from samples analyzed for grain size during previous assessment activities:

Sample ID#	Sample Depth	% Gravel	% Coarse Sand	% Medium Sand	% Fine Sand	% Silt	% Clay
03423-SB01	8'-10'	0	0	38.0	40.2	4.2	17.6
03423-SB01	24'-26'	0	3.0	44.0	45.5	3.2	4.3
03423-SB01	32'-34'	0	4.0	3.0	3.7	49.7	39.6

On July 14, 2023, stabilized groundwater levels were measured in the monitoring well network. Depth to groundwater ranged from 3.02 feet below top of casing (BTOC) to 4.22 feet BTOC in the wells measured. The groundwater measurements are summarized in tabular form in Table 2 and presented on Figure 4/4A.

The potentiometric surface indicates that the groundwater flow beneath the site is generally to the northwest, toward drainage features associated with the Little Willow Creek. The February 2022 horizontal gradient was calculated to be approximately 0.0118 foot per foot (ft/ft). Calculated average

groundwater flow velocities based on aquifer testing was determine to be approximately 97.98 feet per year (ft/yr.).

Based on comparison between the “deep” wells and the close by water table bracketing monitoring wells, the vertical gradient appears to be generally flat.

3.0 GROUNDWATER SAMPLING AND CHEMICAL ANALYSES

On July 14, 2023, MECI personnel collected groundwater samples from fourteen (14) monitoring wells, six (6) surface water locations and two (2) water supply wells at the subject site. During sampling activities, water supply well WSW-3 was unable to be sampled due to the well being inactive with no electrical supply. As requested by SCDHEC, only monitoring wells which did not bracket the water table were to be purged prior to sample collection. Four (4) monitoring wells were purged prior to sample collection.

Prior to sampling, MECI personnel utilized an electronic water level indicator for water level measurements and an oil/water interface probe for free phase petroleum product level measurements. Where applicable, purging was completed by bailing at least five well volumes of water from the well, or until all water was evacuated from the well, whichever occurred first. Sampling/purging was completed utilizing a prepackaged, clear, disposable polyethylene bailer and nylon rope. A new set of nitrile gloves were worn at each monitoring well, and at all time samples were handled. Field measurements of pH, conductivity, dissolved oxygen, and water temperature were obtained before well sampling process. MECI utilized YSIPro20 meter for DO (mg/L) and temperature readings (°C) and YSI Pro 1030 meter for pH and conductivity (uS) readings and a MicroTPI turbidimeter for turbidity readings (NTU). The attached Monitoring Well Purge and Sampling Data Sheets present the results of the field measurements obtained. The wells were sampled in accordance with the most recent revision of SCDHEC’s Quality Assurance Program Plan for the Underground Storage Tank Management Division and the most recent revision of MECI’s Standard Operating Procedures.

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:

Sample ID	Purge	No Purge	Sampled Below Product	Duplicate/Field Blank	Not Sampled	Not Located	BTEX, Naphthalene, MTBE (EPA Method 8260D)	EDB (EPA Method 8011)	1,2 DCA (EPA Method 8260D)	8 Oxygenates (EPA Method 8260D)	Total Lead (EPA Method 6010)	BTEX, Naphthalene, MTBE, 1,2 DCA (EPA Method 524.2)	EDB (EPA Method 504.1)
							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-6		X					X	X	X	X			
Notes: BTEX = Benzene, Toluene, Ethylbenzene, & Total Xylenes MTBE=Methyl tertiary butyl ether 1,2 DCA = 1,2 Dichloroethane EDB = Ethylene Dibromide													

Sample ID	Purge	No Purge	Sampled Below Product	Duplicate/Field Blank	Not Sampled	Not Located	BTEX, Naphthalene, MTBE (EPA Method 8260D)	EDB (EPA Method 8011)	1,2 DCA (EPA Method 8260D)	8 Oxygenates (EPA Method 8260D)	Total Lead (EPA Method 6010)	BTEX, Naphthalene, MTBE, 1,2 DCA (EPA Method 524.2)	EDB (EPA Method 504.1)
							Analyte Sampled						
MW-7		X					X	X	X	X			
MW-8		X					X	X	X	X			
MW-9		X					X	X	X	X			
MW-10		X					X	X	X	X			
DW-1	X						X	X	X	X			
DW-2	X						X	X	X	X			
DW-3	X						X	X	X	X			
DW-4	X						X	X	X	X			
SW-1		X					X	X	X	X			
SW-2		X					X	X	X	X			
SW-3		X					X	X	X	X			
SW-4		X					X	X	X	X			
SW-5		X					X	X	X	X			
SW-6		X					X	X	X	X			
DUP-1				X			X	X	X	X			
Field Blank				X			X	X	X	X			
Trip Blank							X		X	X			
WSW-1										X		X	X
WSW-2										X		X	X
WSW-3					X								
DUP.				X						X		X	X
Field Blank				X						X		X	X
Trip Blank										X		X	
Notes: BTEX = Benzene, Toluene, Ethylbenzene, & Total Xylenes MTBE=Methyl tertiary butyl ether 1,2 DCA = 1,2 Dichloroethane EDB = Ethylene Dibromide													

The results of the laboratory analyses are summarized in Table 1 and presented in Appendix B.

Purge water produced by the purging process was treated on-site utilizing a granular activated carbon unit. A total of 30.00 gallons of purge water was disposed of in this manner. A disposal manifest for the referenced purge water is attached in Appendix G and the required post-GAC laboratory results in presented in Appendix B.

4.0 GROUNDWATER ANALYTICAL RESULTS

Free phase petroleum product was not detected in any of the monitoring wells during sampling activities. The analytical results indicate petroleum impact to the surficial aquifer (“Shallow” Zone), with the highest dissolved concentrations being detected in the area of MW-8. Of the twenty-two sampling locations analyzed, six monitoring wells (MW-1, MW-2, MW-6, MW-8, MW-10 and DW-

1) detected petroleum constituents above Risk-Based Screening Levels (RBSL's). Petroleum constituents detected above the established RBSL include:

Compound	RBSL (ug/l)	Wells Above RBSL
Product	0.01'	N/A
Benzene	5	MW-1, MW-2, MW-6, MW-8 & MW-10
Toluene	1,000	MW-8
Ethylbenzene	700	MW-8
Total Xylenes	10,000	MW-8
Naphthalene	25	MW-1, MW-8 & MW-10
MTBE	40	MW-1, MW-2, MW-6 & DW-1
1,2 DCA	5	N/A
EDB	0.05	N/A
TAA	240	MW-1 & MW-6
TAME	128	N/A
ETBA	NE	RBSL Not Established
TBA	1,400	N/A
TBF	NE	RBSL Not Established
DIPE	150	MW-1
Ethanol	10,000	N/A
ETBE	47	N/A

The analytical results from the remainder of the sampling points did not indicate petroleum impact above the RBSL. Results of the analyses for each sampling point and specific parameters are listed on Table 1 and provided in Appendix B.

5.0 MONITORING SUMMARY

- Groundwater flow is primarily to the northwest, toward drainage features associated with the Little Willow Creek
- Free phase petroleum product was not detected in any of the monitoring wells during sampling activities.
- Fourteen groundwater monitoring wells, six surface water locations and two water supply wells were sampled on July 14, 2023. Petroleum compounds were detected above RBSL's in groundwater monitoring wells MW-1, MW-2, MW-6, MW-8, MW-10 and DW-1. Compounds above the established RBSL's include Benzene, Toluene, Ethylbenzene, Total Xylenes, Naphthalene, MTBE, TAA and DIPE.
- The analytical results also reported petroleum constituents above the laboratory method detection limit and/or "J" values in samples collected from MW-5, MW-7, DW-1, SW-1, SW-2, SW-4, SW-5, SW-6, WSW-1 and WSW-2; however, the concentrations did not exceed the RBSL.
- In order to assess precision, field duplicate samples were collected and analyzed along with the reviewed batch samples. The duplicated samples were analyzed for the same parameters as the associated parent samples. Precision is determined by calculating the Relative Percent Differences (RPD) between each pair of samples. The RPD control limit for the groundwater samples is 20%. Duplicate samples were collected from the parent samples of MW-8 and WSW-1. The precision for the target analytes were met for these sample pairs and the

analytical results detected the same compounds at similar concentrations. Furthermore, field blanks and trip blanks were collected and submitted during the groundwater sampling activities. No detectable concentrations of the requested method constituents were reported in any of the field or trip blanks associated with the monitoring wells or surface water locations. Low levels of Toluene were detected in the field blank (0.25J µg/l) and trip blank (0.50J µg/l) associated with the water supply wells; however, low levels of Toluene should not affect the data usability due to the extremely low concentrations.

6.0 COMMENTS & RECOMMENDATIONS

- Since the April 2023 sampling event; decreases in concentrations of chemicals of concern (CoC's) have occurred in MW-10, slight increases in concentrations of CoC's have occurred in DW-1 and the analytical results from the remainder of the monitoring locations have generally remained constant.
- Data gaps currently persist horizontally west of MW-6 and south of MW-8. With the exception of the southerly direction from MW-8/DW-4, it appears these data gaps persist due to property access issues encountered at the site in 2022.
- MECI concurs with SCDHEC that further definition of the plume to the south is not warranted at this time.
- MECI request the site be modeled to current site conditions and the Site-Specific Target Levels (SSTL's) be relinquished to our office. Based on the modeling, MECI will be able to better evaluate site rehabilitation needs.
- Unless otherwise directed by the SCDHEC UST Division, the next quarterly groundwater sampling event will be completed in October of 2023.

7.0 QUALIFICATIONS OF REPORT

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

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TABLES

TABLE 1
GROUNDWATER COC CONCENTRATION DATA
JAKE HUGGINS
JULY 14, 2023 SAMPLING EVENT
FLORENCE, SOUTH CAROLINA
MECI PROJECT NUMBER 22-7924C
UST PERMIT# 03423

Well ID#	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Naphthalene (µg/L)	MTBE (µg/L)	1, 2 DCA (µg/L)	EDB (µg/L)	TAA (µg/L)	TAME (µg/L)	ETBA (µg/L)	TBA (µg/L)	TBF (µg/L)	DIPE (µg/L)	Ethanol (µg/L)	ETBE (µg/L)
		RBSL 5	RBSL 1,000	RBSL 700	RBSL 10,000	RBSL 25	RBSL 40	RBSL 5	RBSL 0.05	RBSL 240	RBSL 128	RBSL NE	RBSL 1,400	RBSL NE	RBSL 150	RBSL 10,000	RBSL 47
03423-MW01	2/15/2022	624	19.3	158	67.9	78.7	264	<0.250	<0.00512	3030	56.9	<7.00	169	<6.90	160	<50.0	<0.720
	1/9/2023	620	16.4	74.1	16.9	66.0	342	<1.6	<0.0075	3770	60.6	<260	200 J	<147	191	<361	<16.2
	4/14/2023	749	11.5 J	39.7	<25.0	51.1	343	<10.3	<0.0073	4640	59.9	<270	<455	<120	178	<720	<42.3
	7/14/2023	964	10.4 J	23.8 J	<25.0	49.9	465	<10.3	<0.0075	4830	78.2	<270	<455	<120	268	<720	<42.3
03423-MW02	2/15/2022	203	<0.250	0.522 J	1.34	25.7	405	<0.250	<0.00515	442	26.9	<7.00	83.3	<6.90	78.2	<50.0	<0.720
	1/9/2023	122	<0.97	<0.61	<0.68	10.9	256	<0.64	<0.0074	233	14.6 J	<104	<53.6	<58.8	44.4	<144	<6.5
	4/14/2023	90.2	<4.0	<3.7	<10.0	10.2	195	<4.1	<0.0074	225	10.5 J	<108	<182	<48.2	33.0	<288	<16.9
	7/14/2023	95.2	<4.0	<3.7	<10.0	8.8 J	178	<4.1	<0.0077	141 J	9.0 J	<108	<182	<48.2	36.2	<288	<16.9
03423-MW03	2/15/2022	<0.270	3.15	0.279 J	<0.230	<2.40	1.95 J	<0.250	<0.00486	<8.60	<0.780	<7.00	<6.90	<6.90	0.893 J	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	1.1	<0.32	<0.0076	<36.4	<2.7	<51.9	<26.8	<29.4	0.61 J	<72.2	<3.2
	4/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0075	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
	7/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0077	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
03423-MW04	2/15/2022	<0.270	<0.250	0.252 J	1.91	<2.40	<0.810	<0.250	<0.00509	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0075	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	4/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0074	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
	7/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0074	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
03423-MW05	2/15/2022	<0.270	<0.250	<0.200	<0.230	<2.40	14.3	<0.250	<0.00509	<8.60	<0.780	<7.00	<6.90	<6.90	3.06 J	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	22.2	<0.32	<0.0075	<36.4	<2.7	<51.9	<26.8	<29.4	3.8	<72.2	<3.2
	4/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	22.3	<2.1	<0.0073	<65.6	<3.0	<53.9	<91.0	<24.1	4.1 J	<144	<8.5
	7/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	23.4	<2.1	<0.0074	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
03423-MW06	2/15/2022	356	30.1	134	11.6	87.5	166	<1.25	<0.00497	2410	46.4	<35.0	86.6 J	<34.5	122	<250	<3.60
	1/9/2023	83.3	4.6	4.5	3.3	26.7	126	<0.32	<0.0076	1640	29.6	<51.9	52.4 J	<29.4	88.1	<72.2	<3.2
	4/14/2023	68.1	2.9 J	3.3 J	<5.0	23.0	132	<2.1	<0.0072	1570	26.1	<53.9	<91.0	<24.1	80.1	<144	<8.5
	7/14/2023	45.4	4.1 J	6.0	<5.0	20.4	167	<2.1	<0.0073	1960	34.7	<53.9	<91.0	<24.1	117	<144	<8.5
03423-MW07	2/15/2022	37.2	0.699 J	82.1	3.95	58.3	15.8	<0.250	<0.00492	1030	4.67	<7.00	31.3 J	<6.90	20.3	<50.0	<0.720
	1/9/2023	<0.34	<0.48	1.8	<0.34	4.3	1.4	<0.32	<0.0075	<36.4	<2.7	<51.9	<26.8	<29.4	1.6	<72.2	<3.2
	4/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0074	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
	7/14/2023	<1.7	<2.0	4.4 J	<5.0	15.1	3.6 J	<2.1	<0.0074	77.7 J	<3.0	<53.9	<91.0	<24.1	4.2 J	<144	<8.5
03423-MW08	2/15/2022	3720	21100	2200	12800	781	690	<12.5	0.121	8690	127	<350	370 J	<345	268 J	<2500	<36.0
	1/9/2023	4390	22300	2080	13300	766	531	<40.2	<0.0075	8510 J	<332	<6490	<3350	<3680	239	<9020	<405
	4/14/2023	3620	19200	1840	10800	661	435 J	<258	<0.0074	<8200	<380	<6740	<11400	<3010	<436	<18000	<1060
	7/14/2023	3110	12600	1920	10000	558 J	<388	<258	<0.0073	<8200	<380	<6740	<11400	<3010	<436	<18000	<1060
03423-MW09	2/15/2022	0.278 J	3.89	4.80	27.4	<2.40	<0.810	<0.250	<0.00494	77.4	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0077	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	4/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0070	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
	7/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0074	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5

TABLE 1
GROUNDWATER COC CONCENTRATION DATA
JAKE HUGGINS
JULY 14, 2023 SAMPLING EVENT
FLORENCE, SOUTH CAROLINA
MECI PROJECT NUMBER 22-7924C
UST PERMIT# 03423

Well ID#	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Naphthalene (µg/L)	MTBE (µg/L)	1, 2 DCA (µg/L)	EDB (µg/L)	TAA (µg/L)	TAME (µg/L)	ETBA (µg/L)	TBA (µg/L)	TBF (µg/L)	DIPE (µg/L)	Ethanol (µg/L)	ETBE (µg/L)
		RBSL 5	RBSL 1,000	RBSL 700	RBSL 10,000	RBSL 25	RBSL 40	RBSL 5	RBSL 0.05	RBSL 240	RBSL 128	RBSL NE	RBSL 1,400	RBSL NE	RBSL 150	RBSL 10,000	RBSL 47
03423-MW10	2/15/2022	1070	297	753	2380	342	510	<12.5	<0.00507	7950	120	<350	<345	<345	339 J	<2500	<36.0
	1/9/2023	2060	439	1100	2640	455	865	<4.0	<0.0077	11100	168	<649	535 J	<368	555	<902	<40.5
	4/14/2023	634	49.9	428	308	216	260	<10.3	<0.0075	3350	56.9	<270	<455	<120	165	<720	<42.3
	7/14/2023	79.3	15.1 J	329	116	143	25.4	<10.3	<0.0075	<328	<15.2	<270	<455	<120	17.6 J	<720	<42.3
03423-DW01	2/15/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00529	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	52.9	<0.32	<0.0076	<36.4	4.2 J	<51.9	<26.8	<29.4	15.2	<72.2	<3.2
	4/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0072	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
	7/14/2023	3.4 J	<2.0	<1.8	<5.0	<2.1	144	<2.1	<0.0075	<65.6	9.6 J	<53.9	<91.0	<24.1	40.5	<144	<8.5
03423-DW02	2/15/2022	<0.270	<0.250	<0.200	<0.230	<2.40	7.40	<0.250	<0.00510	<8.60	<0.780	<7.00	<6.90	<6.90	2.61 J	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	6.1	<0.32	<0.0076	<36.4	<2.7	<51.9	<26.8	<29.4	2.0	<72.2	<3.2
	4/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	5.2	<2.1	<0.0073	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
	7/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	19.9	<2.1	<0.0074	<65.6	<3.0	<53.9	<91.0	<24.1	3.7 J	<144	<8.5
03423-DW03	2/15/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00485	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0077	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	4/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0074	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
	7/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0076	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
03423-DW04	2/15/2022	67.5	1890	611	4230	181	<0.810	<0.250	<0.00489	<8.60	<0.780	<7.00	<6.90	<6.90	1.69 J	<50.0	<0.720
	1/9/2023	63.6	464	20.1	291	<2.6	51.8	<1.3	<0.0077	422	<10.6	<208	<107	<118	21.2	<289	<13.0
	4/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0074	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
	7/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0074	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
03423-TW01*	2/28/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00636	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
03423-SW01	2/15/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00503	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	0.43 J	<0.64	<0.42	<0.32	<0.0077	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	4/14/2023	<0.34	0.98 J	<0.30	<0.34	<0.64	0.68 J	<0.32	<0.0078	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	7/14/2023	<0.34	0.52 J	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0075	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-SW02	2/15/2022	<0.270	<0.250	<0.200	<0.230	<2.40	0.832 J	<0.250	<0.00494	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	1.2	<0.32	<0.0077	<36.4	<2.7	<51.9	<26.8	<29.4	0.49 J	<72.2	<3.2
	4/14/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0073	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	7/14/2023	<0.34	<0.48	<0.30	<0.34	<0.64	0.63 J	<0.32	<0.0075	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-SW03	2/15/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00497	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0077	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	4/14/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0076	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	7/14/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0077	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-SW04	2/28/2022	<0.270	15.9	0.228 J	<0.230	<2.40	<0.810	<0.250	<0.00492	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0080	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	4/14/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0074	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	7/14/2023	<0.34	0.49 J	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0076	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-SW05	2/28/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00503	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0079	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	4/14/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0074	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	7/14/2023	<0.34	0.63 J	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0079	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-SW06	2/28/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00507	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0076	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	4/14/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0073	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	7/14/2023	<0.34	0.64 J	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0076	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2

TABLE 1

GROUNDWATER COC CONCENTRATION DATA
JAKE HUGGINS
JULY 14, 2023 SAMPLING EVENT
FLORENCE, SOUTH CAROLINA
MECI PROJECT NUMBER 22-7924C
UST PERMIT# 03423

Well ID#	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Naphthalene (µg/L)	MTBE (µg/L)	1, 2 DCA (µg/L)	EDB (µg/L)	TAA (µg/L)	TAME (µg/L)	ETBA (µg/L)	TBA (µg/L)	TBF (µg/L)	DIPE (µg/L)	Ethanol (µg/L)	ETBE (µg/L)
		RBSL 5	RBSL 1,000	RBSL 700	RBSL 10,000	RBSL 25	RBSL 40	RBSL 5	RBSL 0.05	RBSL 240	RBSL 128	RBSL NE	RBSL 1,400	RBSL NE	RBSL 150	RBSL 10,000	RBSL 47
03423-WSW01	2/15/2022	<0.0820	<0.0860	<0.0990	<0.0860	<0.430	<0.0930	<0.0860	<0.00513	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0056	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	4/14/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0055	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	7/14/2023	<0.21	0.46 J	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0055	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-WSW02	2/15/2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	1/9/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0056	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	4/14/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0056	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	7/14/2023	<0.21	0.45 J	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0055	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-WSW03	2/15/2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	1/9/2023	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/14/2023	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/14/2023	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
DUP-1 (MW10)	2/15/2022	1090	359	783	2440	325	496	<2.50	<0.00499	7770	129	<70.0	298 J	<69.0	343	<500	<7.20
DUP. (WSW01)	2/15/2022	<0.0820	<0.0860	<0.0990	<0.0860	<0.430	<0.0930	<0.0860	<0.00501	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
DUP-1 (TW01)	2/28/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00581	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
DUP-1 (MW01)	1/9/2023	736	19.2	93.2	21.4	78.8	429	<1.6	<0.0075	4900	64.8	<260	258 J	<147	240	<361	<16.2
DUP. (WSW01)	1/9/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0057	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
DUP. (MW08)	4/14/2023	4400	21900	2110	13000	765	614 J	<258	<0.0075	<8200	<380	<6740	<11400	<3010	<436	<18000	<1060
DUP. (WSW01)	4/14/2023	<0.21	0.21 J	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0056	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
DUP. (MW08)	7/14/2023	3350	12500	1810	9530	670	<388	<258	<0.0074	<8200	<380	<6740	<11400	<3010	<436	<18000	<1060
DUP. (WSW01)	7/14/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0055	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
Field Blank	2/15/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00501	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	2/15/2022	<0.0820	<0.0860	<0.0990	<0.0860	<0.430	<0.0930	<0.0860	<0.00499	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	2/28/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00501	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0077	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	1/9/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0057	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	4/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0075	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
	4/14/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0056	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	7/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0075	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
7/14/2023	<0.21	0.25 J	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0053	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2	
Trip Blank	2/15/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	NT	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	2/15/2022	<0.0820	<0.0860	<0.0990	<0.0860	<0.430	<0.0930	<0.0860	NT	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	2/28/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	NT	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	2/28/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	NT	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	NT	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	1/9/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	NT	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	4/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	NT	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
	4/14/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	NT	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	7/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	NT	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
	7/14/2023	<0.21	0.50 J	<0.22	<0.22	<0.35	<0.14	<0.16	NT	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2

Notes:	1. BDL = Below Practical Quantitative Limits	8. NT = Not Tested	15. "J" values report concentrations above the method detection limits (MDL) and below actual reporting limit (RL).	21. TAME = tert-Amyl Methyl Ether
	2. ug/l = micrograms per liter	9. EDB = Ethylene Dibromide		22. TBA = ter-Butyl Alcohol
	3. mg/l = milligrams per liter	10. 1,2 DCA = 1,2-Dichloroethane	16. S = MS/MSD Failure	23. TBF = tert-Butyl Formate
	4. MTBE = Methyl-Tertiary-Butyl Ether	11. FPP = Free Phase Petroleum Product	17. P = The RPD between the two columns exceeds 40%.	24. TAME = tert-Amyl Methyl Ether
	5. See Appendix for Laboratory Detection Limits	12. * = Wells Have Been Abandoned	18. DIPE = Diisopropyl Ether	25. * = TW-1 was a temporary well and has been abandoned.
	6. NL = Not Located	13. "J" Values used in Total BTEX Calculations	19. ETBE = Ethyl ter-butyl Ether	26. NS = Not Sampled
	7. DRY = Well was Dry at the time of Sampling	14. B = Detected in Method Blank	20. TAA = tert-Amyl Alcohol	27. Bolded data is above the RBSL (Risk-Based Screening Level)

**TABLE 2
POTENTIOMETRIC DATA
JAKE HUGGINS
JULY 14, 2023 SAMPLING EVENT
FLORENCE, SOUTH CAROLINA
MECI PROJECT NUMBER 22-7924C
UST PERMIT# 03423**

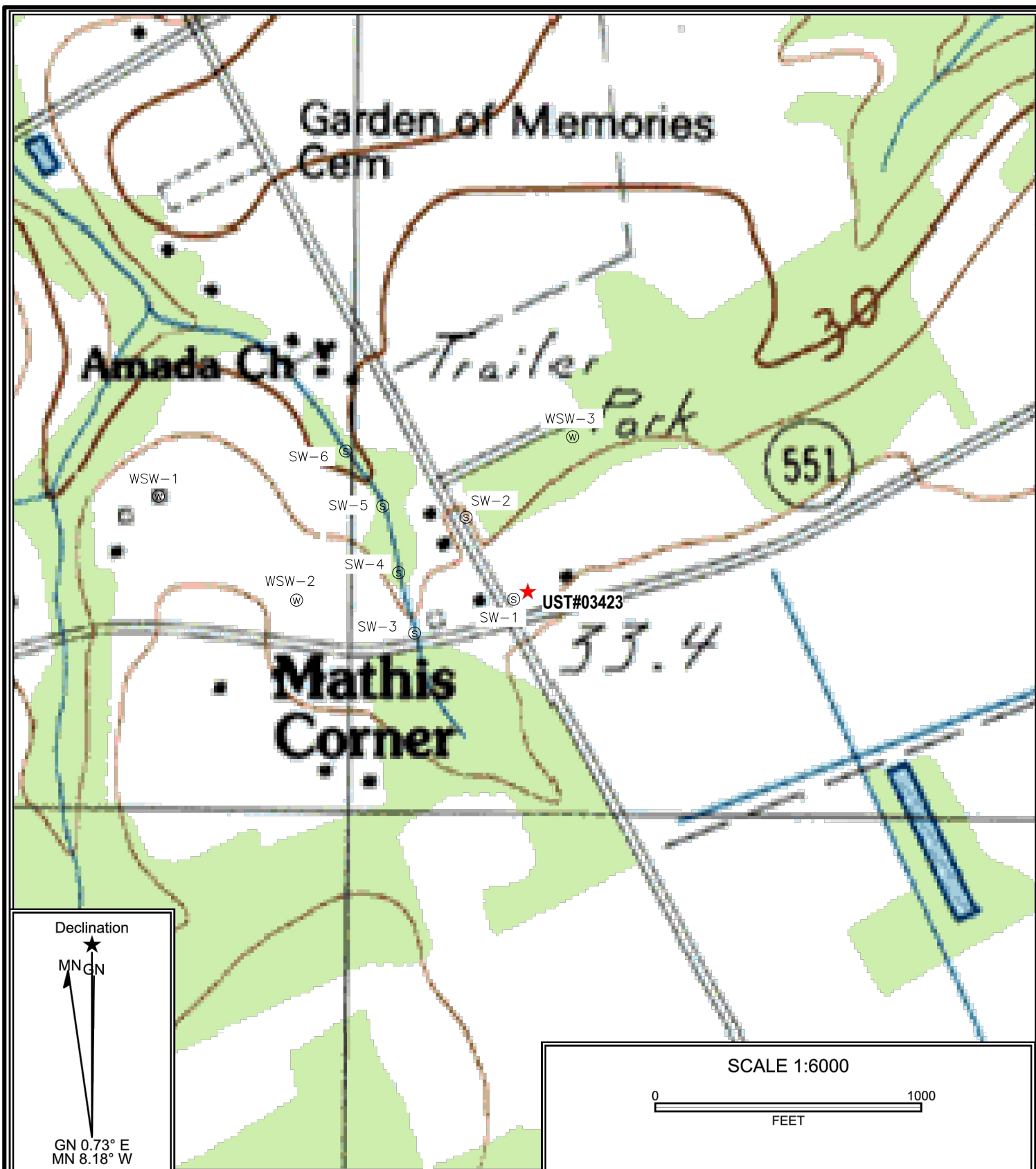
Well Number	Sample Date	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	TOC Elevation	Groundwater Elevation
03423-MW01	2/15/2022	3-13	***	2.67	***	98.72	96.05
	1/9/2023		***	3.48	***	98.72	95.24
	4/14/2023		***	3.41	***	98.72	95.31
	7/14/2023		***	3.02	***	98.72	95.70
03423-MW02	2/15/2022	3-13	***	2.64	***	96.40	93.76
	1/9/2023		***	3.25	***	96.40	93.15
	4/14/2023		***	3.23	***	96.40	93.17
	7/14/2023		***	3.04	***	96.40	93.36
03423-MW03	2/15/2022	3-13	***	2.42	***	94.95	92.53
	1/9/2023		***	3.15	***	94.95	91.80
	4/14/2023		***	3.06	***	94.95	91.89
	7/14/2023		***	3.29	***	94.95	91.66
03423-MW04	2/15/2022	3-13	***	2.61	***	94.88	92.27
	1/9/2023		***	3.45	***	94.88	91.43
	4/14/2023		***	3.39	***	94.88	91.49
	7/14/2023		***	3.63	***	94.88	91.25
03423-MW05	2/15/2022	3-13	***	2.46	***	94.88	92.42
	1/9/2023		***	3.16	***	94.88	91.72
	4/14/2023		***	3.07	***	94.88	91.81
	7/14/2023		***	3.47	***	94.88	91.41
03423-MW06	2/15/2022	3-13	***	2.83	***	97.86	95.03
	1/9/2023		***	3.50	***	97.86	94.36
	4/14/2023		***	3.32	***	97.86	94.54
	7/14/2023		***	3.07	***	97.86	94.79
03423-MW07	2/15/2022	3-13	***	2.91	***	100.29	97.38
	1/9/2023		***	3.98	***	100.29	96.31
	4/14/2023		***	3.78	***	100.29	96.51
	7/14/2023		***	3.54	***	100.29	96.75
03423-MW08	2/15/2022	3-13	***	3.76	***	100.92	97.16
	1/9/2023		***	4.38	***	100.92	96.54
	4/14/2023		***	4.13	***	100.92	96.79
	7/14/2023		***	3.90	***	100.92	97.02
03423-MW09	2/15/2022	3-13	***	3.97	***	100.92	96.95
	1/9/2023		***	3.27	***	100.92	97.65
	4/14/2023		***	3.19	***	100.92	97.73
	7/14/2023		***	4.22	***	100.92	96.70
03423-MW10	2/15/2022	3-13	***	2.93	***	99.69	96.76
	1/9/2023		***	3.68	***	99.69	96.01
	4/14/2023		***	3.56	***	99.69	96.13
	7/14/2023		***	3.17	***	99.69	96.52
03423-DW01	2/15/2022	20-25	***	2.54	***	98.57	96.03
	1/9/2023		***	3.22	***	98.57	95.35
	4/14/2023		***	3.17	***	98.57	95.40
	7/14/2023		***	3.13	***	98.57	95.44
03423-DW02	2/15/2022	20-25	***	2.51	***	96.48	93.97
	1/9/2023		***	3.01	***	96.48	93.47
	4/14/2023		***	3.03	***	96.48	93.45
	7/14/2023		***	3.53	***	96.48	92.95
03423-DW03	2/15/2022	20-25	***	2.92	***	100.05	97.13
	1/9/2023		***	3.53	***	100.05	96.52
	4/14/2023		***	3.41	***	100.05	96.64
	7/14/2023		***	3.14	***	100.05	96.91
03423-DW04	2/15/2022	20-25	***	3.86	***	101.03	97.17
	1/9/2023		***	4.41	***	101.03	96.62
	4/14/2023		***	4.36	***	101.03	96.67
	7/14/2023		***	4.22	***	101.03	96.81

Notes:

1. Elevations are NAV88.
2. Groundwater depths were measured from the top of the PVC riser pipe.
3. NM = Not Measured
4. DRY = Well Gauged DRY

5. TD = Total Depth
6. * = Groundwater elevation corrected for the presence of free product using a specific gravity of 0.85.

FIGURES



Reference: Evergreen, South Carolina
 USGS 7.5 Min. Quad
 Contour Interval - 2 Meters

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Site Location

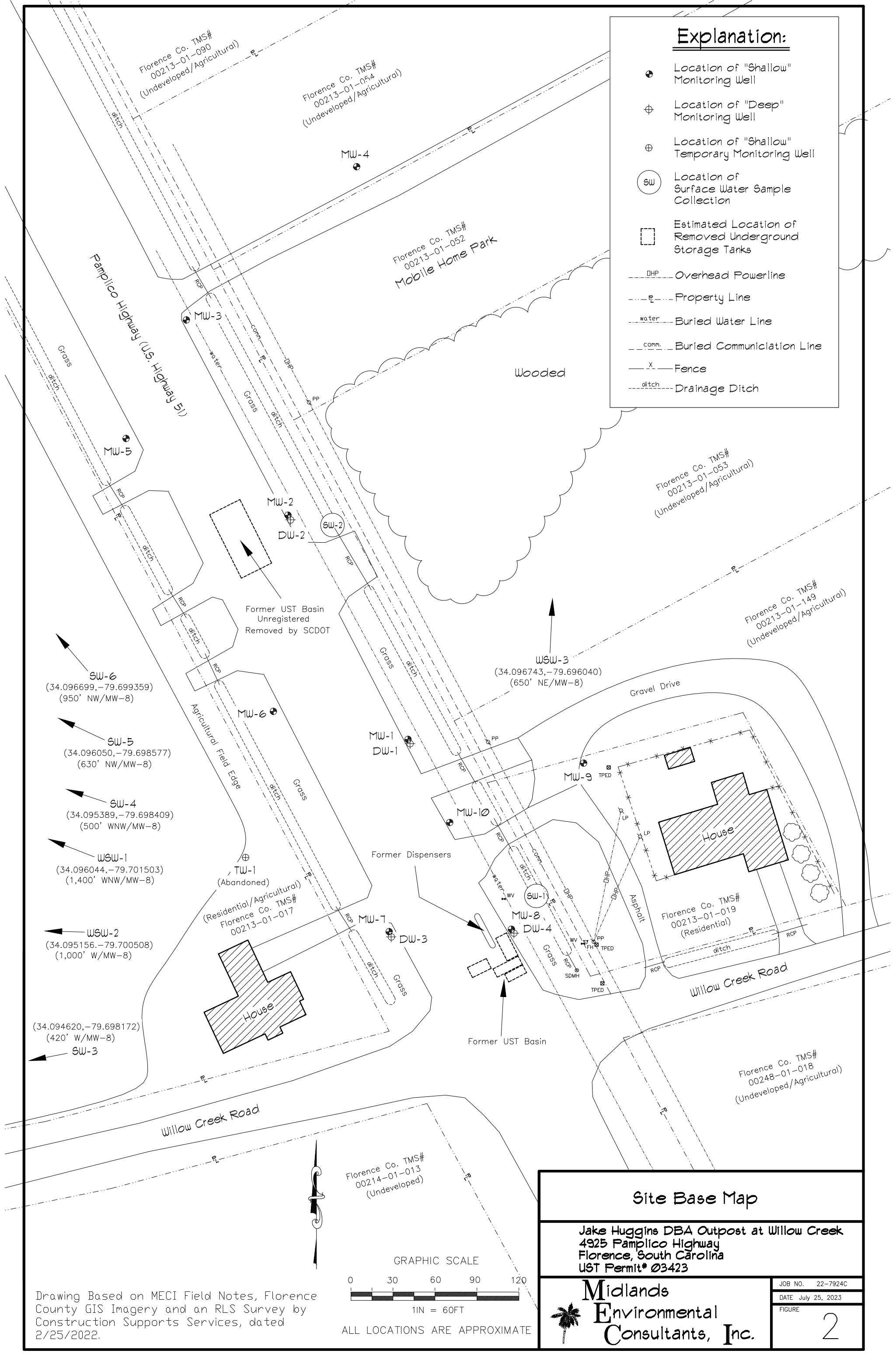
Jake Huggins DBA Outpost at Willowcreek, LLC.
 4925 Pamplico Highway, Florence, SC
 UST Permit# 18419

Figure 1

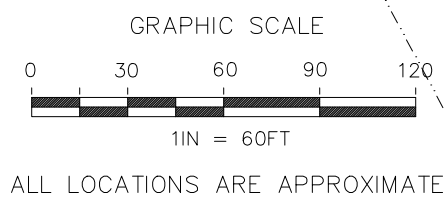
MECI 22-7924C

Explanation:

- Location of "Shallow" Monitoring Well
- Location of "Deep" Monitoring Well
- Location of "Shallow" Temporary Monitoring Well
- Location of Surface Water Sample Collection
- Estimated Location of Removed Underground Storage Tanks
- Overhead Powerline
- Property Line
- Buried Water Line
- Buried Communication Line
- Fence
- Drainage Ditch



Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.



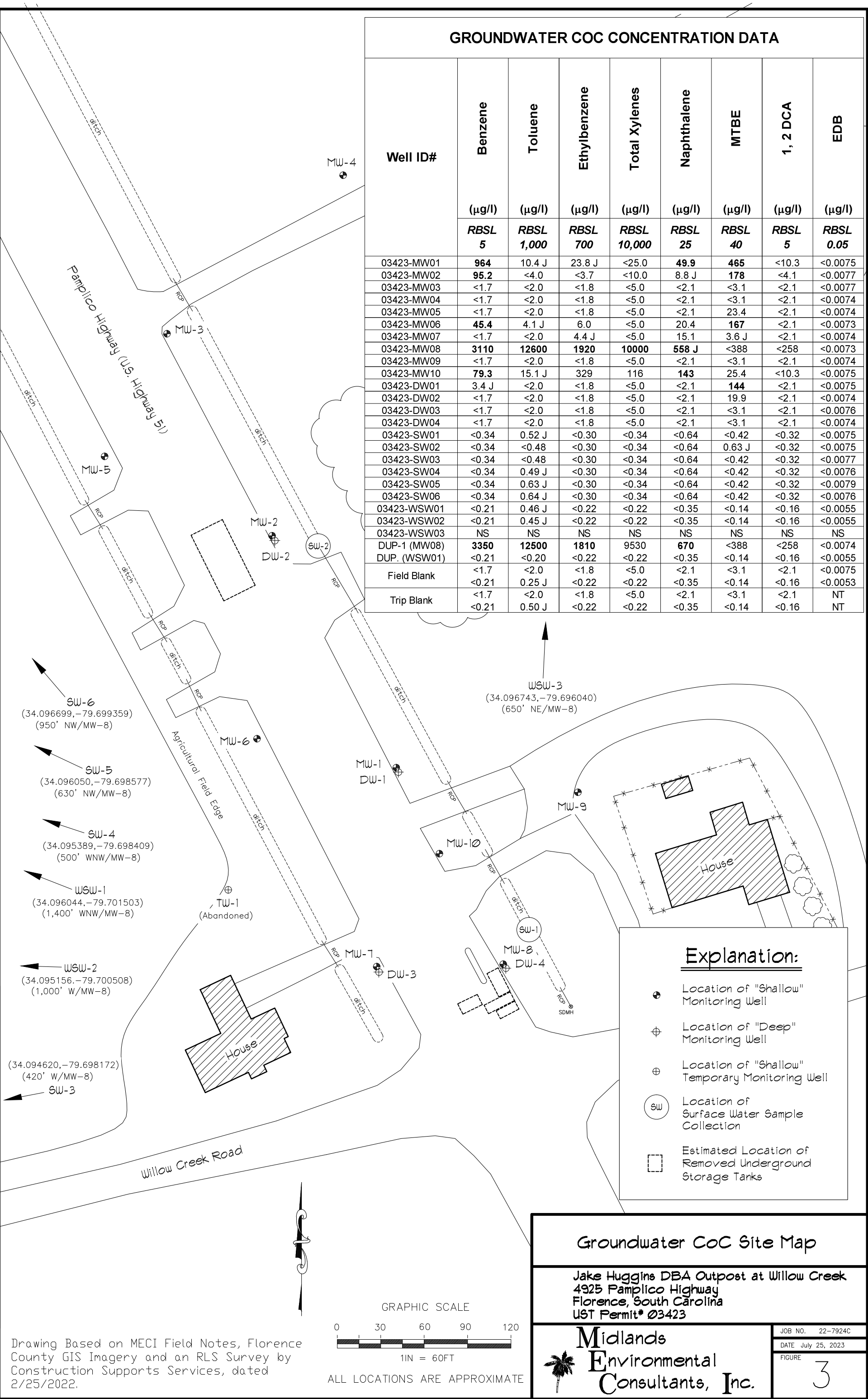
Site Base Map

Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
Florence, South Carolina
UST Permit# 03423

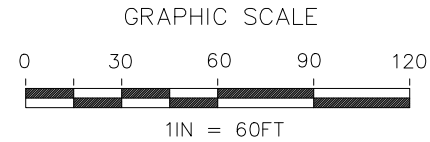
Midlands
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Consultants, Inc.

JOB NO.	22-7924C
DATE	July 25, 2023
FIGURE	2

GROUNDWATER COC CONCENTRATION DATA								
Well ID#	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene	MTBE	1, 2 DCA	EDB
	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
	RBSL 5	RBSL 1,000	RBSL 700	RBSL 10,000	RBSL 25	RBSL 40	RBSL 5	RBSL 0.05
03423-MW01	964	10.4 J	23.8 J	<25.0	49.9	465	<10.3	<0.0075
03423-MW02	95.2	<4.0	<3.7	<10.0	8.8 J	178	<4.1	<0.0077
03423-MW03	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0077
03423-MW04	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0074
03423-MW05	<1.7	<2.0	<1.8	<5.0	<2.1	23.4	<2.1	<0.0074
03423-MW06	45.4	4.1 J	6.0	<5.0	20.4	167	<2.1	<0.0073
03423-MW07	<1.7	<2.0	4.4 J	<5.0	15.1	3.6 J	<2.1	<0.0074
03423-MW08	3110	12600	1920	10000	558 J	<388	<258	<0.0073
03423-MW09	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0074
03423-MW10	79.3	15.1 J	329	116	143	25.4	<10.3	<0.0075
03423-DW01	3.4 J	<2.0	<1.8	<5.0	<2.1	144	<2.1	<0.0075
03423-DW02	<1.7	<2.0	<1.8	<5.0	<2.1	19.9	<2.1	<0.0074
03423-DW03	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0076
03423-DW04	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0074
03423-SW01	<0.34	0.52 J	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0075
03423-SW02	<0.34	<0.48	<0.30	<0.34	<0.64	0.63 J	<0.32	<0.0075
03423-SW03	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0077
03423-SW04	<0.34	0.49 J	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0076
03423-SW05	<0.34	0.63 J	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0079
03423-SW06	<0.34	0.64 J	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0076
03423-WSW01	<0.21	0.46 J	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0055
03423-WSW02	<0.21	0.45 J	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0055
03423-WSW03	NS	NS	NS	NS	NS	NS	NS	NS
DUP-1 (MW08)	3350	12500	1810	9530	670	<388	<258	<0.0074
DUP. (WSW01)	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0055
Field Blank	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0075
Trip Blank	<0.21	0.25 J	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0053
	<0.21	0.50 J	<0.22	<0.22	<0.35	<0.14	<0.16	NT
								NT



Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.



ALL LOCATIONS ARE APPROXIMATE

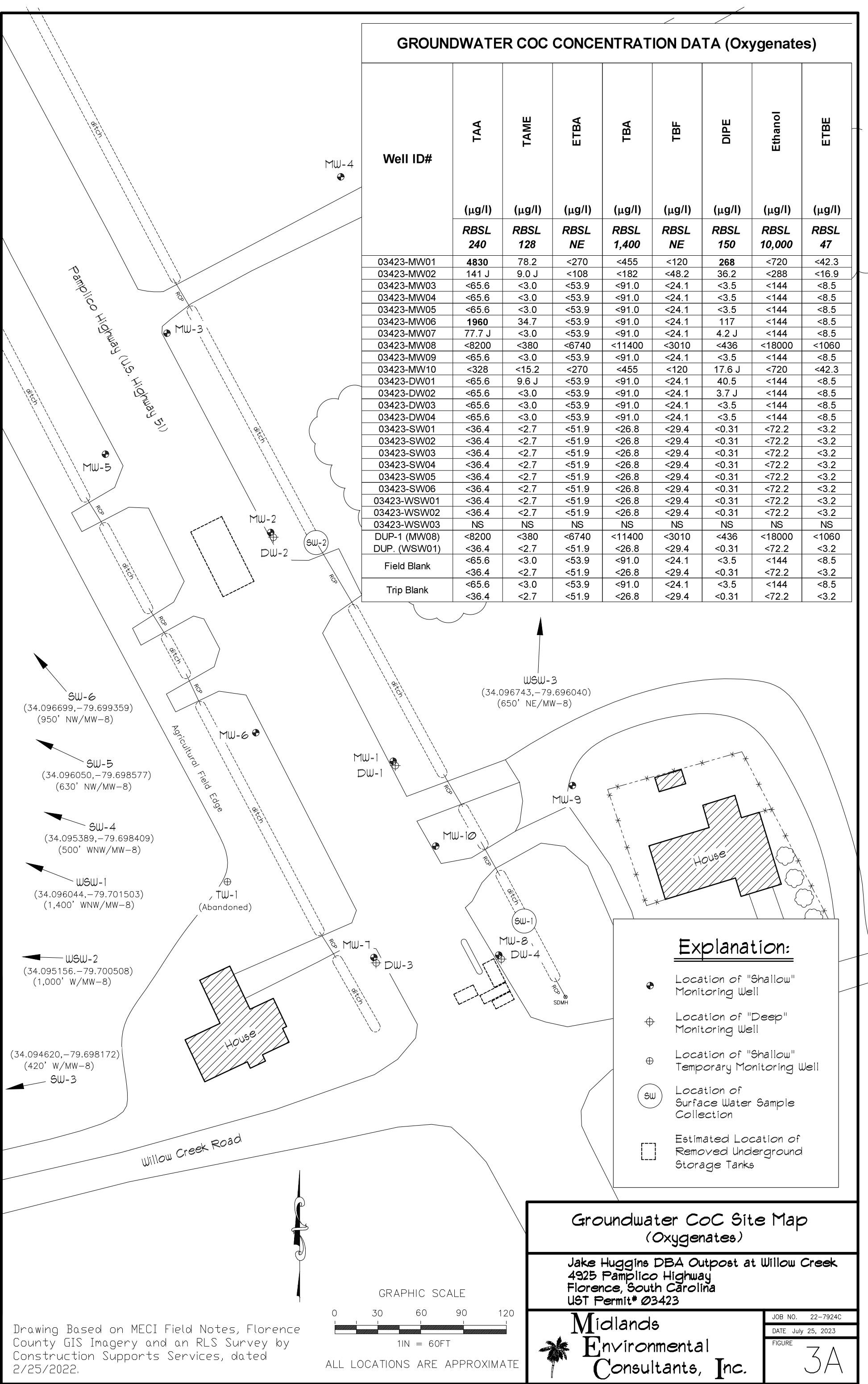
Groundwater CoC Site Map

Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
Florence, South Carolina
UST Permit# 03423

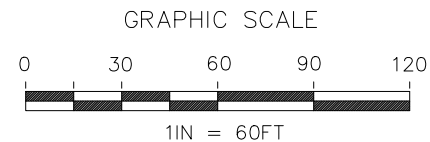
Midlands
Environmental
Consultants, Inc.

JOB NO.	22-7924C
DATE	July 25, 2023
FIGURE	3

GROUNDWATER COC CONCENTRATION DATA (Oxygenates)								
Well ID#	TAA	TAME	ETBA	TBA	TBF	DIPE	Ethanol	ETBE
	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
	RBSL 240	RBSL 128	RBSL NE	RBSL 1,400	RBSL NE	RBSL 150	RBSL 10,000	RBSL 47
03423-MW01	4830	78.2	<270	<455	<120	268	<720	<42.3
03423-MW02	141 J	9.0 J	<108	<182	<48.2	36.2	<288	<16.9
03423-MW03	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
03423-MW04	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
03423-MW05	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
03423-MW06	1960	34.7	<53.9	<91.0	<24.1	117	<144	<8.5
03423-MW07	77.7 J	<3.0	<53.9	<91.0	<24.1	4.2 J	<144	<8.5
03423-MW08	<8200	<380	<6740	<11400	<3010	<436	<18000	<1060
03423-MW09	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
03423-MW10	<328	<15.2	<270	<455	<120	17.6 J	<720	<42.3
03423-DW01	<65.6	9.6 J	<53.9	<91.0	<24.1	40.5	<144	<8.5
03423-DW02	<65.6	<3.0	<53.9	<91.0	<24.1	3.7 J	<144	<8.5
03423-DW03	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
03423-DW04	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
03423-SW01	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-SW02	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-SW03	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-SW04	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-SW05	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-SW06	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-WSW01	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-WSW02	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-WSW03	NS	NS	NS	NS	NS	NS	NS	NS
DUP-1 (MW08)	<8200	<380	<6740	<11400	<3010	<436	<18000	<1060
DUP. (WSW01)	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
Field Blank	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
Trip Blank	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2



Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.



ALL LOCATIONS ARE APPROXIMATE

Groundwater CoC Site Map (Oxygenates)

Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
Florence, South Carolina
UST Permit# 03423

Midlands
Environmental
Consultants, Inc.

JOB NO. 22-7924C

DATE July 25, 2023

FIGURE

3A

POTENTIOMETRIC DATA				
Well Number	Screened Interval	Depth to Water (ft.)	TOC Elevation	Groundwater Elevation
03423-MW01	3-13	3.02	98.72	95.70
03423-MW02	3-13	3.04	96.40	93.36
03423-MW03	3-13	3.29	94.95	91.66
03423-MW04	3-13	3.63	94.88	91.25
03423-MW05	3-13	3.47	94.88	91.41
03423-MW06	3-13	3.07	97.86	94.79
03423-MW07	3-13	3.54	100.29	96.75
03423-MW08	3-13	3.90	100.92	97.02
03423-MW09	3-13	4.22	100.92	96.70
03423-MW10	3-13	3.17	99.69	96.52
03423-DW01	20-25	3.13	98.57	95.44
03423-DW02	20-25	3.53	96.48	92.95
03423-DW03	20-25	3.14	100.05	96.91
03423-DW04	20-25	4.22	101.03	96.81

Explanation:

Groundwater Contour (ft.)

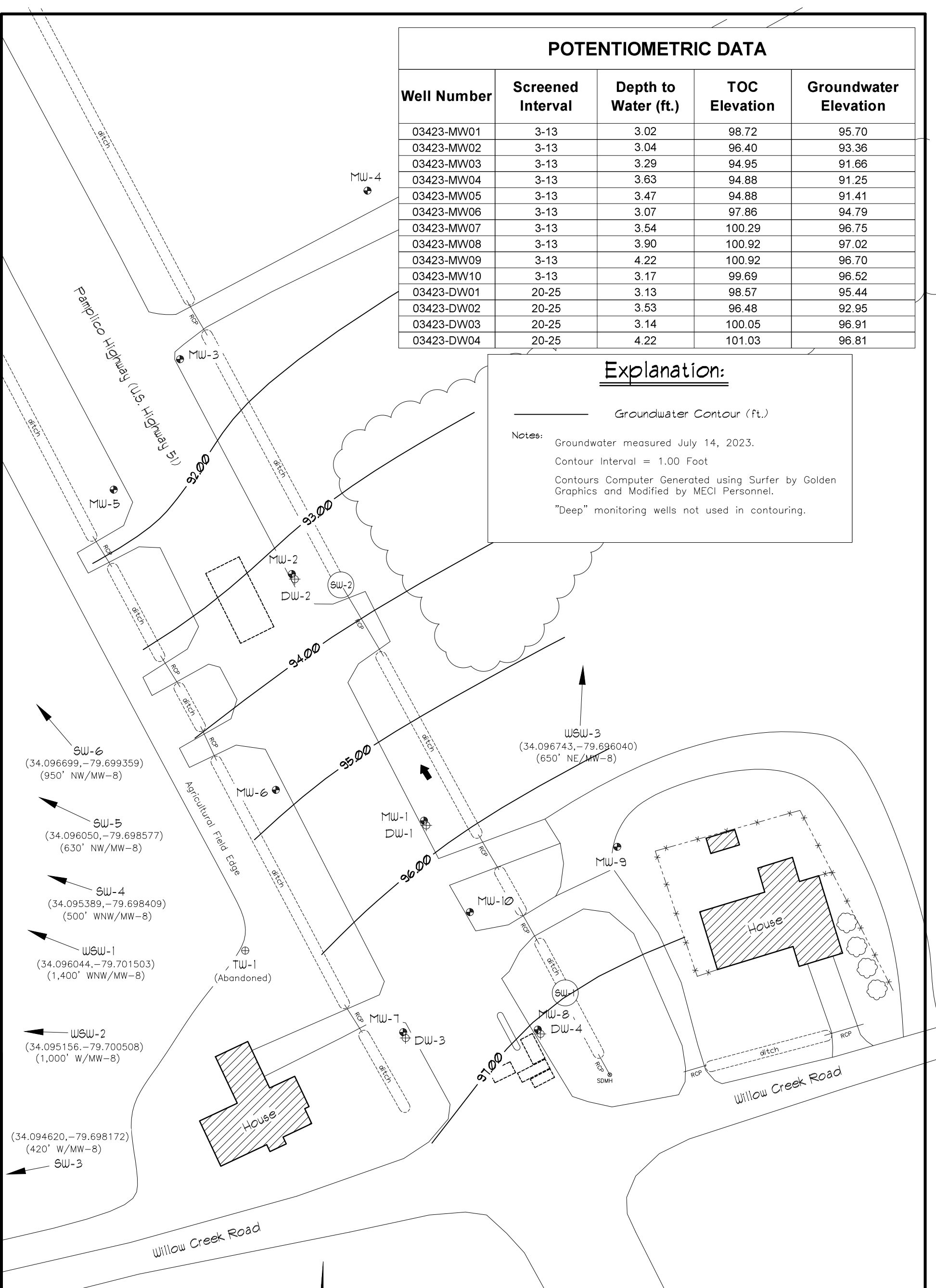
Notes:

Groundwater measured July 14, 2023.

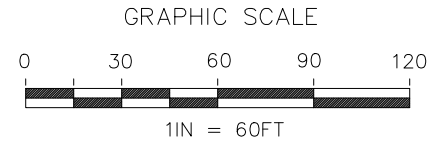
Contour Interval = 1.00 Foot

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

"Deep" monitoring wells not used in contouring.



Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.



ALL LOCATIONS ARE APPROXIMATE

Potentiometric Data Site Map
(Groundwater Contour/"Shallow" Zone)

Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
Florence, South Carolina
UST Permit# 03423

Midlands
Environmental
Consultants, Inc.

JOB NO. 22-7924C
DATE July 25, 2023
FIGURE

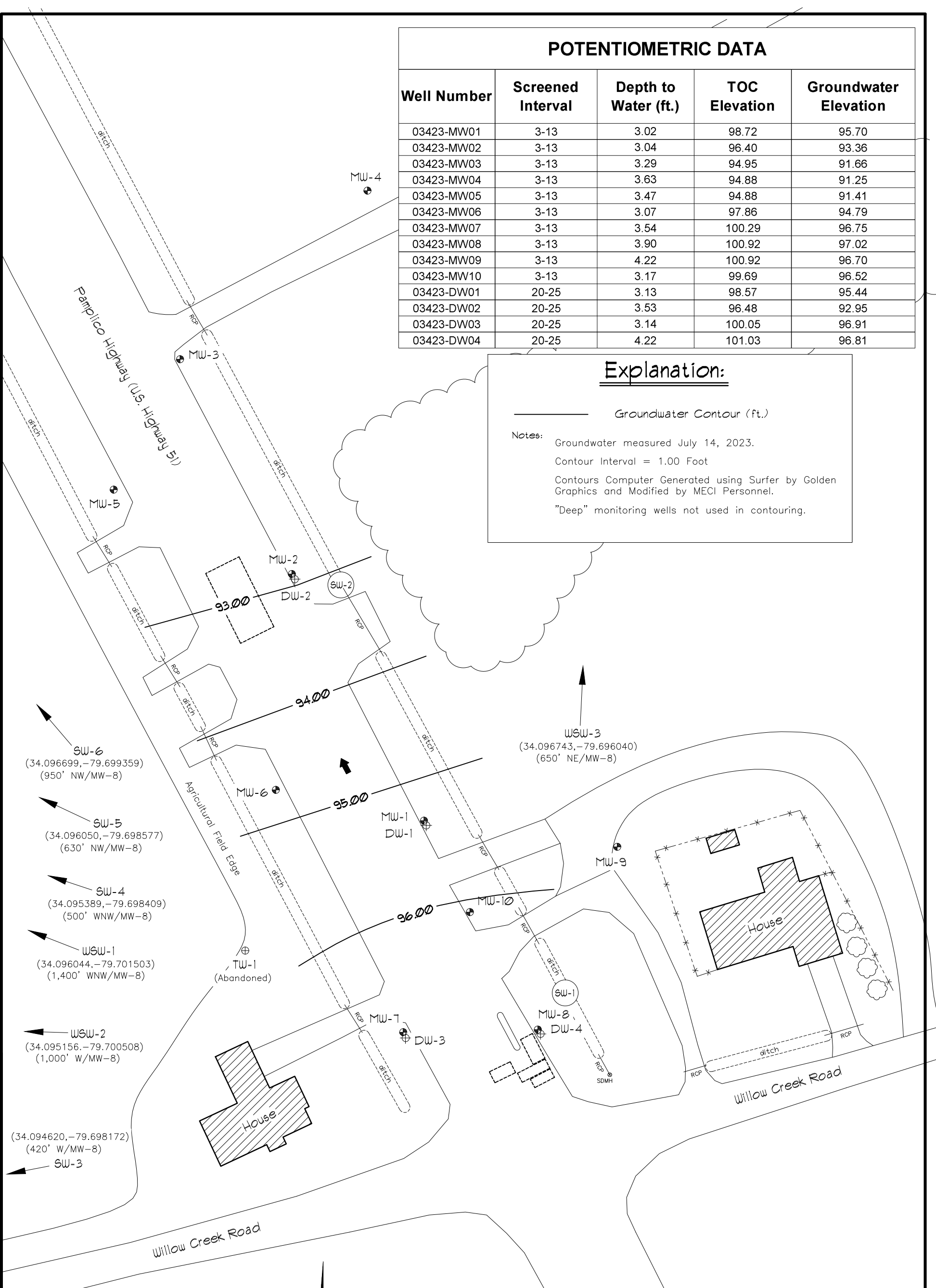
4

POTENTIOMETRIC DATA				
Well Number	Screened Interval	Depth to Water (ft.)	TOC Elevation	Groundwater Elevation
03423-MW01	3-13	3.02	98.72	95.70
03423-MW02	3-13	3.04	96.40	93.36
03423-MW03	3-13	3.29	94.95	91.66
03423-MW04	3-13	3.63	94.88	91.25
03423-MW05	3-13	3.47	94.88	91.41
03423-MW06	3-13	3.07	97.86	94.79
03423-MW07	3-13	3.54	100.29	96.75
03423-MW08	3-13	3.90	100.92	97.02
03423-MW09	3-13	4.22	100.92	96.70
03423-MW10	3-13	3.17	99.69	96.52
03423-DW01	20-25	3.13	98.57	95.44
03423-DW02	20-25	3.53	96.48	92.95
03423-DW03	20-25	3.14	100.05	96.91
03423-DW04	20-25	4.22	101.03	96.81

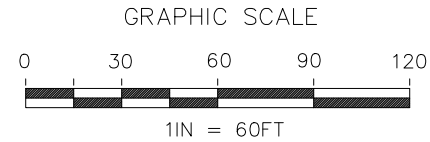
Explanation:

Groundwater Contour (ft.)

Notes: Groundwater measured July 14, 2023.
Contour Interval = 1.00 Foot
Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.
"Deep" monitoring wells not used in contouring.



Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.



ALL LOCATIONS ARE APPROXIMATE

Potentiometric Data Site Map
(Groundwater Contour/"Deep" Zone)

Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
Florence, South Carolina
UST Permit# 03423

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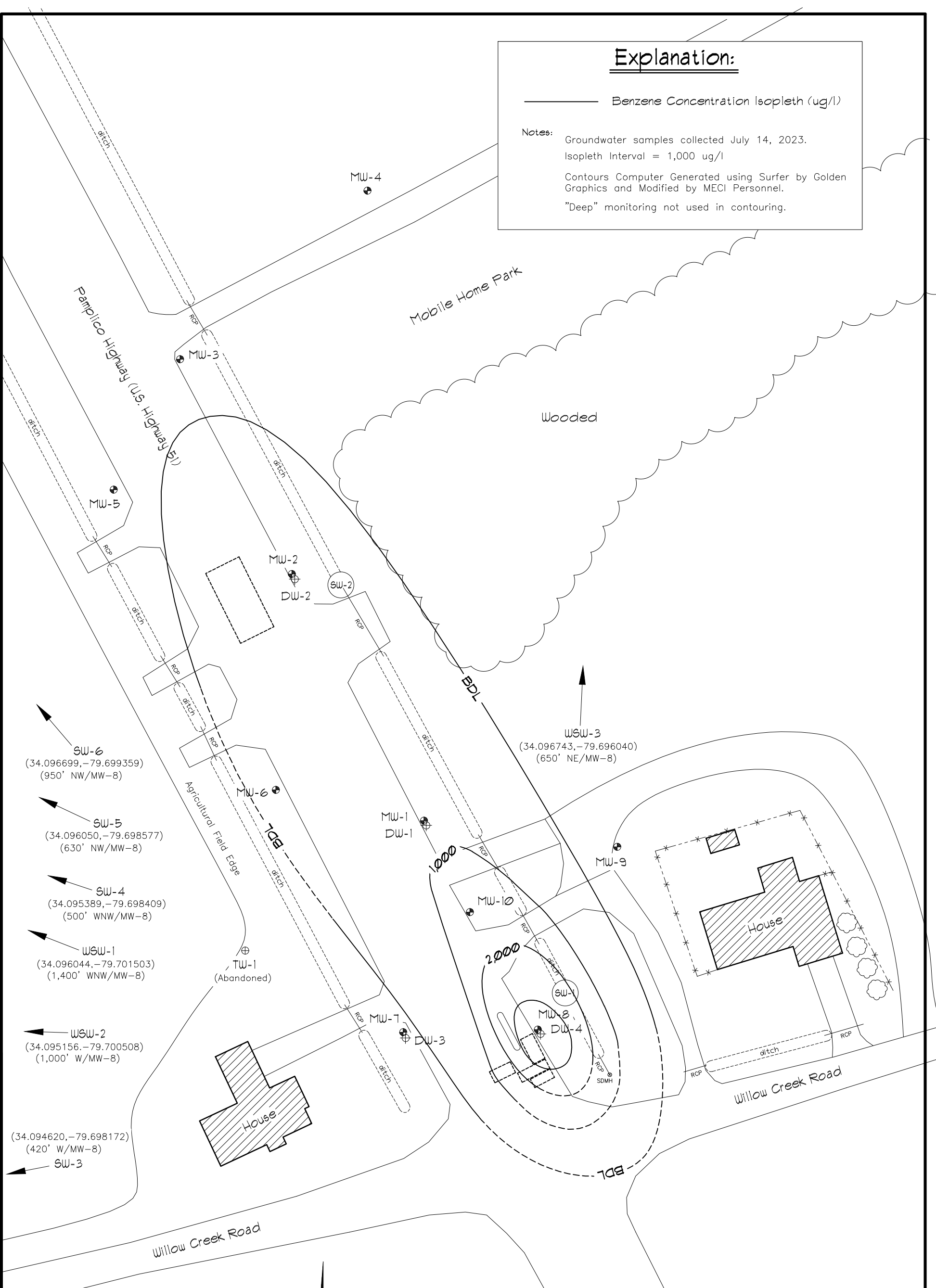
JOB NO. 22-7924C
DATE July 25, 2023
FIGURE

4A

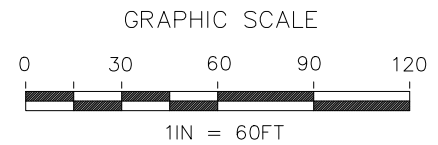
Explanation:

Benzene Concentration Isopleth (ug/l)

Notes: Groundwater samples collected July 14, 2023.
Isopleth Interval = 1,000 ug/l
Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.
"Deep" monitoring not used in contouring.



Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.



ALL LOCATIONS ARE APPROXIMATE

Benzene Isopleth - "Shallow" Zone

Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
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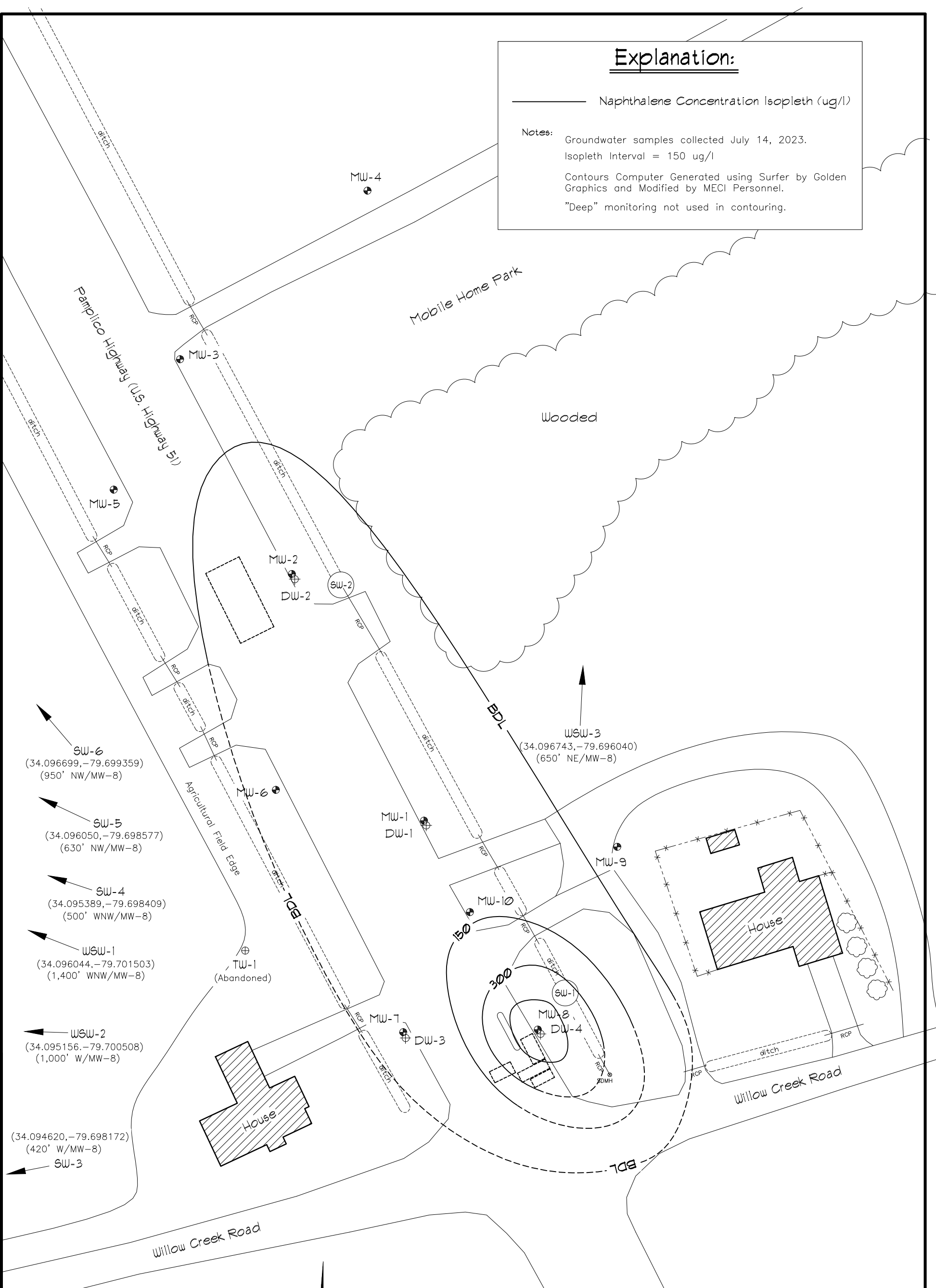
JOB NO. 22-7924C
DATE July 25, 2023
FIGURE

5

Explanation:

Naphthalene Concentration Isopleth (ug/l)

Notes: Groundwater samples collected July 14, 2023.
Isopleth Interval = 150 ug/l
Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.
"Deep" monitoring not used in contouring.



Naphthalene Isopleth - "Shallow" Zone

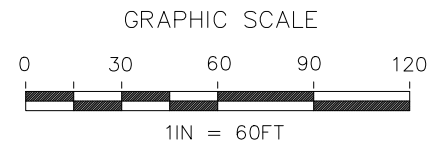
Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
Florence, South Carolina
UST Permit# 03423

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JOB NO. 22-7924C
DATE July 25, 2023
FIGURE

5A

Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.

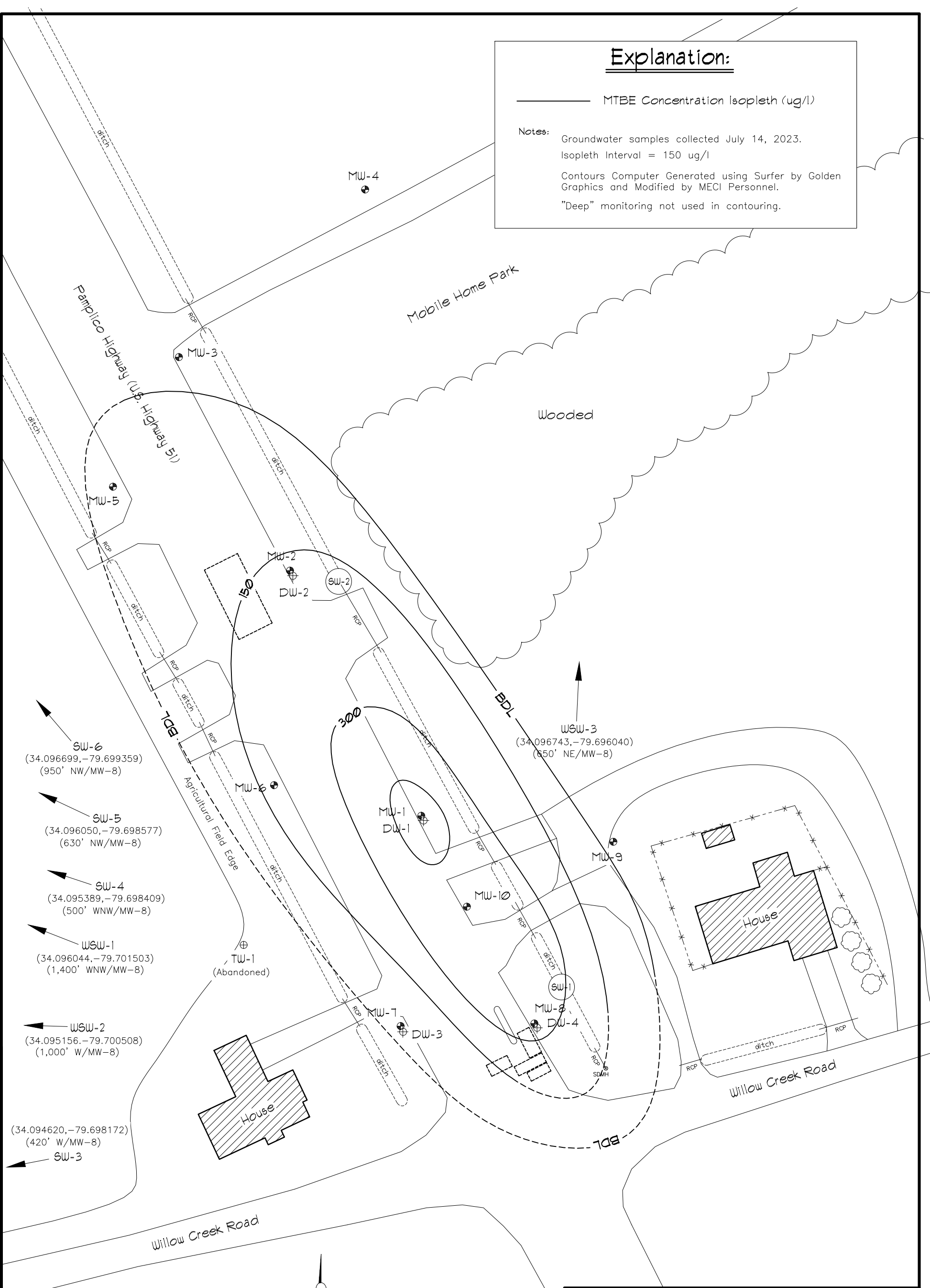


ALL LOCATIONS ARE APPROXIMATE

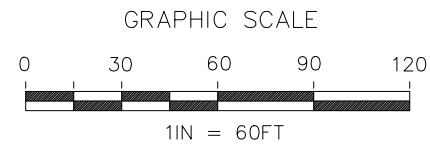
Explanation:

MTBE Concentration Isopleth (ug/l)

Notes: Groundwater samples collected July 14, 2023.
Isopleth Interval = 150 ug/l
Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.
"Deep" monitoring not used in contouring.



Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.



MTBE Isopleth - "Shallow" Zone

Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
Florence, South Carolina
UST Permit# 03423

Midlands
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JOB NO. 22-7924C
DATE July 25, 2023
FIGURE

5B

APPENDIX A:

SITE SURVEY

(Not Applicable)

APPENDIX B:

SAMPLING LOGS, LABORATORY DATA SHEETS, & CHAIN-OF-CUSTODY FORMS

Field Personnel: HS, DG, TD
Sampling Date(s): 7/14/23
Sampling Case#: 2

Monitoring Well Purge And Sampling Data

Job Name: Jake Huggins
Job Number: 22-7924C

Calibration Data for :
pH: Yes No
Conductivity: Yes No
Dissolved Oxygen: Yes No
Turbidity: Yes No

Calibration Successful? Yes or No (Please Circle)
Conductivity Calibrated Every 3 Months by QA Manager

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet):		Well Depth (feet)	Water Height *(feet)	Gallons Purged		Notes
								product	initial H ₂ O	final H ₂ O		**calc.	actual	
mw-1	Initial	11:25	5.22	102.3	28.0	2.25	17.80							
	1st													
	2nd													
	3rd													
	4th													
	5th													
	Sampling													
mw-2	Initial	11:02	4.24	148.8	28.5	1.91	16.11							
	1st													
	2nd													
	3rd													
	4th													
	5th													
	Sampling													
mw-3	Initial	10:42	5.91	285.5	27.3	1.86	22.38							
	1st													
	2nd													
	3rd													
	4th													
	5th													
	Sampling													
mw-4	Initial	10:40	5.20	137.0	25.7	2.13	19.32							
	1st													
	2nd													
	3rd													
	4th													
	5th													
	Sampling													

= (Depth of Well) - (Depth to Water = Water Height)

One Well Volume = x.047 for 1" wells " x .163 for 2" wells, or " x .66 for 4" wells, 1.469 for 6" wells

**= One Well Volume x 5 = Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	PW Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Field Personnel: HS, DG, TD
Sampling Date(s): 7/14/23
Sampling Case#: 2

Monitoring Well Purge And Sampling Data

Job Name: Jake Huggins
Job Number: 22-7924

Calibration Data for:

Calibration Successful? Yes or No (Please Circle)
pH: Yes No
Conductivity: Yes No
Dissolved Oxygen: Yes No
Turbidity: Yes No

Conductivity Calibrated Every 3 Months by QA Manager

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet):			Well Depth (feet)	Water Height (feet)	Gallons Purged		Notes
								product	Initial H ₂ O	final H ₂ O			**calc.	actual	
mw-5	Initial	10:52	4.83	96.1	28.4	1.59	21.81				3				
	1st										13				
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
mw-6	Initial	10:54	4.89	89.5	27.4	1.83	15.28				3				
	1st										13				
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
mw-7	Initial	11:15	4.66	97.9	28.1	2.45	19.66				3				
	1st										13				
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
mw-8 Dup	Initial	11:30	5.70	192.7	27.7	2.26	24.98				3				
	1st										13				
	2nd														
	3rd														
	4th														
	5th														
	Sampling														

(Depth of Well) - (Depth to Water = Water Height)

ie Well Volume = x.047 for 1" wells * x.163 for 2" wells, or * x.66 for 4" wells, 1.469 for 6" wells

**= One Well Volume x 5 = Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	pH/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Field Personnel:

HS, DG, TD

Sampling Date(s):

7/14/23

Sampling Case#:

2

Monitoring Well Purge And Sampling Data

Job Name:

Jake Huggins

Job Number:

22-7924

Calibration Data for:

Calibration Successful? Yes or No (Please Circle)

pH:

Yes

No

Conductivity:

Yes

No

Dissolved Oxygen:

Yes

No

Turbidity: Conductivity Calibrated Every 3 Months by QA Manager

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet):			Well Depth (feet)	Water Height (feet)	Gallons Purged		Notes
								product	Initial H ₂ O	final H ₂ O			**calc.	actual	
mw-9	Initial	11:35	5.89	165.3	25.1	3.88	22.46				3				
	1st										13				
	2nd														
	3rd														
	4th														
	5th														
mw-10	Initial	11:50	5.90	168.0	25.2	2.53	18.32				3				
	1st										13				
	2nd														
	3rd														
	4th														
	5th														
Dw-1	Initial	10:00	5.82	132.1	27.6	1.30	10.88				20				
	1st	10:05	6.03	146.5	27.2	1.63	26.51				25				
	2nd	10:11	6.25	162.9	26.9	1.81	40.32								
	3rd														
	4th														
	5th														
Dw-2	Initial	12:50	6.31	171.6	26.9	2.05	18.95				20				
	1st	10:03	5.07	124.7	29.9	4.98	21.39				25				
	2nd	10:09	5.23	149.9	29.5	4.51	36.15								
	3rd	10:15	5.51	163.1	29.2	4.26	44.66								
	4th														
	5th														
	Sampling	12:52	5.46	185.5	28.9	4.05	20.50								

(Depth of Well) - (Depth to Water = Water Height)

ie Well Volume = x.047 for 1" wells " x .163 for 2" wells, or " x .66 for 4" wells, 1.469 for 6" wells

**= One Well Volume x 5 = Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Field Personnel:

HS DG, TD

Sampling Date(s):

7/14/23

Sampling Case#:

2

Monitoring Well Purge And Sampling Data

Job Name:

Jake Huggins

Job Number:

22-7924

Calibration Data for:

Calibration Successful? Yes or No (Please Circle)

pH:

Yes

No

Conductivity:

Yes

No

Dissolved Oxygen:

Yes

No

Turbidity: Conductivity Calibrated Every 3 Months by QA Manager

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet):			Well Depth (feet)	Water Height *(feet)	Gallons Purged		Notes
								product	Initial H ₂ O	final H ₂ O			**calc.	actual	
Dw-3	Initial	9:42	5.18	105.3	27.5	3.50	17.27				20	21.86	3.56	Dry @	no odor
	1st	9:47	5.37	117.9	27.2	3.31	25.61				25		17.82	7.55	
	2nd	9:52	5.51	130.5	26.8	3.25	39.82								
	3rd														
	4th														
	5th														
Dw-4	Sampling	12:43	5.62	132.3	26.6	3.09	20.54								
	Initial	9:40	4.85	126.9	29.4	7.03	20.11				20	20.78	3.38	Dry @	no odor
	1st	9:45	4.98	140.1	29.0	6.85	32.65				25		16.93	7.59	
	2nd	9:50	5.07	156.2	28.6	6.51	47.81								
	3rd														
	4th														
Sw-1	5th														
	Sampling	12:40	5.13	169.8	28.4	6.30	21.95								
	Initial	10:22	11:38	Sampled from Ditch (34.095076, -79.696727)											
	1st	10:22	11:38	Sampled from Ditch (34.095847, -79.697296)											
	2nd	10:22	11:05	Sampled from Ditch (34.094620, -79.698172)											
	3rd	10:22	10:31	Sampled from Creek (34.095389, -79.698109)											
Sw-2	4th														
	5th														
	Sampling														
	Initial	10:29													
	1st	10:24													
	2nd														
Sw-3	3rd														
	4th														
	5th														
	Sampling														
	Initial	10:22													
	1st														
Sw-4	2nd														
	3rd														
	4th														
	5th														
	Sampling														
	Initial														
Sw-5	1st														
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
Sw-6	Initial														
	1st														
	2nd														
	3rd														
	4th														
	5th														

(Depth of Well) - (Depth to Water = Water Height
ie Well Volume = x.047 for 1" wells, x.163 for 2" wells, or x.66 for 4" wells, 1.469 for 6" wells

**= One Well Volume x 5 = Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	pH/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Field Personnel:

Sampling Date(s):

Sampling Case#:

HS DG, TD

7/14/23

2

Monitoring Well Purge And Sampling Data

Job Name:

Job Number:

Jake Huggins

22-7924

Calibration Data for:

Calibration Successful? Yes or No (Please Circle)

pH:

Conductivity:

Dissolved Oxygen:

Turbidity:

Yes

Yes

Yes

No

No

No

Conductivity Calibrated Every 3 Months by QA Manager

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet):			Well Depth (feet)	Water Height (feet)	Gallons Purged		Notes
								product	Initial H ₂ O	final H ₂ O			**calc.	actual	
Dup FB TB	Initial	MW-8			11:30		Strong odor								
	1st														
	2nd	12:00													
	3rd														
	4th														
	5th	0800													
GAC	Sampling														
	Initial														
	1st	12:04													
	2nd														
	3rd														
	4th														
SW-dup	5th														
	Sampling														
	Initial														
	1st														
	2nd														
	3rd														
SW-1 (Dup)	4th	WSW-1			12:15										
	5th														
	Sampling														
	Initial														
	1st	12:15													
	2nd														
SW-2	3rd														
	4th														
	5th	12:20													
	Sampling														
	Initial														
	1st														
SW-3	2nd														
	3rd														
	4th														
	5th														
	Sampling														
	Initial														
SW-TB	1st	Well disconnected and inaccessible													
	2nd														
	3rd														
	4th	0800													
	5th														
	Sampling														
SW-FB	Initial														
	1st														
	2nd														
	3rd														
	4th														
	5th	12:30													

(Depth of Well) - (Depth to Water = Water Height)

e Well Volume = x.047 for 1" wells, x .163 for 2" wells, or x .66 for 4" wells, 1.469 for 6" wells

**= One Well Volume x 5 = Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.663
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	2.01301183
Case #2	15E101481	14H103098	2.01301174
Case #3	17E100512	17E103488	2.01510251



July 24, 2023

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

RE: Project: JAKE HIGGINS 03423/65749
Pace Project No.: 92677582

Dear Mr. Shane, P.G.:

Enclosed are the analytical results for sample(s) received by the laboratory on July 14, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Charlotte

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

Sincerely,

A handwritten signature in black ink, appearing to read "T Cannon", written over a horizontal line.

Taylor M Cannon
taylor.cannon@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Mr. Jeff Coleman, Midlands Environmental



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006

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 Laboratory ID: 99006

South Carolina Certification #: 99006001

South Carolina Drinking Water Cert. #: 99006003

Florida/NELAP Certification #: E87627

Kentucky UST Certification #: 84

Louisiana DoH Drinking Water #: LA029

Virginia/VELAP Certification #: 460221

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SAMPLE SUMMARY

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92677582001	MW-1	Water	07/14/23 11:25	07/14/23 14:59
92677582002	MW-2	Water	07/14/23 11:02	07/14/23 14:59
92677582003	MW-3	Water	07/14/23 10:42	07/14/23 14:59
92677582004	MW-4	Water	07/14/23 10:40	07/14/23 14:59
92677582005	MW-5	Water	07/14/23 10:52	07/14/23 14:59
92677582006	MW-6	Water	07/14/23 10:54	07/14/23 14:59
92677582007	MW-7	Water	07/14/23 11:15	07/14/23 14:59
92677582008	MW-8	Water	07/14/23 11:30	07/14/23 14:59
92677582009	MW-9	Water	07/14/23 11:35	07/14/23 14:59
92677582010	MW-10	Water	07/14/23 11:50	07/14/23 14:59
92677582011	DW-1	Water	07/14/23 12:50	07/14/23 14:59
92677582012	DW-2	Water	07/14/23 12:52	07/14/23 14:59
92677582013	DW-3	Water	07/14/23 12:43	07/14/23 14:59
92677582014	DW-4	Water	07/14/23 12:40	07/14/23 14:59
92677582015	SW-1	Water	07/14/23 11:38	07/14/23 14:59
92677582016	SW-2	Water	07/14/23 11:05	07/14/23 14:59
92677582017	SW-3	Water	07/14/23 10:31	07/14/23 14:59
92677582018	SW-4	Water	07/14/23 10:29	07/14/23 14:59
92677582019	SW-5	Water	07/14/23 10:24	07/14/23 14:59
92677582020	SW-6	Water	07/14/23 10:22	07/14/23 14:59
92677582021	DUP	Water	07/14/23 00:00	07/14/23 14:59
92677582022	FB	Water	07/14/23 12:00	07/14/23 14:59
92677582023	TB	Water	07/14/23 08:00	07/14/23 14:59
92677582024	GAC	Water	07/14/23 12:04	07/14/23 14:59
92677582025	WSW-1	Water	07/14/23 12:15	07/14/23 14:59
92677582026	WSW-2	Water	07/14/23 12:20	07/14/23 14:59
92677582027	WSW-DUP	Water	07/14/23 00:00	07/14/23 14:59
92677582028	WSW-FB	Water	07/14/23 12:30	07/14/23 14:59
92677582029	WSW-TB	Water	07/14/23 12:30	07/14/23 14:59

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92677582001	MW-1	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92677582002	MW-2	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92677582003	MW-3	EPA 8011	HH	2	PASI-C
		EPA 8260D	LMB	20	PASI-C
92677582004	MW-4	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92677582005	MW-5	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92677582006	MW-6	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92677582007	MW-7	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92677582008	MW-8	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92677582009	MW-9	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92677582010	MW-10	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92677582011	DW-1	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92677582012	DW-2	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92677582013	DW-3	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92677582014	DW-4	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92677582015	SW-1	EPA 8011	HH	2	PASI-C
		EPA 8260D	TMH	20	PASI-C
92677582016	SW-2	EPA 8011	HH	2	PASI-C
		EPA 8260D	TMH	20	PASI-C
92677582017	SW-3	EPA 8011	HH	2	PASI-C
		EPA 8260D	TMH	20	PASI-C
92677582018	SW-4	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92677582019	SW-5	EPA 8011	HH	2	PASI-C

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SAMPLE ANALYTE COUNT

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92677582020	SW-6	EPA 8260D	SAS	20	PASI-C
		EPA 8011	HH	2	PASI-C
92677582021	DUP	EPA 8260D	SAS	20	PASI-C
		EPA 8011	HH	2	PASI-C
92677582022	FB	EPA 8260D	SAS	20	PASI-C
		EPA 8011	HH	2	PASI-C
92677582023	TB	EPA 8260D	LMB	20	PASI-C
		EPA 8260D	LMB	20	PASI-C
92677582024	GAC	EPA 8011	HH	2	PASI-C
		EPA 8260D	LMB	20	PASI-C
92677582025	WSW-1	EPA 504.1	HH	2	PASI-C
		EPA 524.2	JJK	11	PASI-C
92677582026	WSW-2	EPA 8260D	SAS	11	PASI-C
		EPA 504.1	HH	2	PASI-C
92677582027	WSW-DUP	EPA 524.2	JJK	11	PASI-C
		EPA 8260D	SAS	11	PASI-C
92677582028	WSW-FB	EPA 504.1	HH	2	PASI-C
		EPA 524.2	JJK	11	PASI-C
92677582029	WSW-TB	EPA 8260D	SAS	11	PASI-C
		EPA 524.2	JJK	11	PASI-C
		EPA 8260D	SAS	11	PASI-C

PASI-C = Pace Analytical Services - Charlotte

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

Sample: MW-1		Lab ID: 92677582001		Collected: 07/14/23 11:25		Received: 07/14/23 14:59		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									
Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0075	1	07/19/23 10:44	07/19/23 17:49	106-93-4	L1
Surrogates									
1-Chloro-2-bromopropane (S)	106	%	60-140		1	07/19/23 10:44	07/19/23 17:49	301-79-56	
8260 MSV									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	4830	ug/L	500	328	5		07/18/23 07:33	75-85-4	
tert-Amylmethyl ether	78.2	ug/L	50.0	15.2	5		07/18/23 07:33	994-05-8	
Benzene	964	ug/L	25.0	8.7	5		07/18/23 07:33	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	500	270	5		07/18/23 07:33	624-95-3	
tert-Butyl Alcohol	ND	ug/L	500	455	5		07/18/23 07:33	75-65-0	
tert-Butyl Formate	ND	ug/L	250	120	5		07/18/23 07:33	762-75-4	
1,2-Dichloroethane	ND	ug/L	25.0	10.3	5		07/18/23 07:33	107-06-2	
Diisopropyl ether	268	ug/L	25.0	17.4	5		07/18/23 07:33	108-20-3	
Ethanol	ND	ug/L	1000	720	5		07/18/23 07:33	64-17-5	
Ethylbenzene	23.8J	ug/L	25.0	9.2	5		07/18/23 07:33	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	50.0	42.3	5		07/18/23 07:33	637-92-3	
Methyl-tert-butyl ether	465	ug/L	25.0	15.5	5		07/18/23 07:33	1634-04-4	
Naphthalene	49.9	ug/L	25.0	10.4	5		07/18/23 07:33	91-20-3	
Toluene	10.4J	ug/L	25.0	10.0	5		07/18/23 07:33	108-88-3	
Xylene (Total)	ND	ug/L	25.0	25.0	5		07/18/23 07:33	1330-20-7	
m&p-Xylene	ND	ug/L	50.0	20.6	5		07/18/23 07:33	179601-23-1	
o-Xylene	ND	ug/L	25.0	10.2	5		07/18/23 07:33	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		5		07/18/23 07:33	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-130		5		07/18/23 07:33	17060-07-0	
Toluene-d8 (S)	96	%	70-130		5		07/18/23 07:33	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

Sample: MW-2		Lab ID: 92677582002		Collected: 07/14/23 11:02		Received: 07/14/23 14:59		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0077	1	07/19/23 10:44	07/19/23 18:00	106-93-4	L1
Surrogates									
1-Chloro-2-bromopropane (S)	102	%	60-140		1	07/19/23 10:44	07/19/23 18:00	301-79-56	
8260 MSV		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	141J	ug/L	200	131	2		07/18/23 07:50	75-85-4	
tert-Amylmethyl ether	9.0J	ug/L	20.0	6.1	2		07/18/23 07:50	994-05-8	
Benzene	95.2	ug/L	10.0	3.5	2		07/18/23 07:50	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	200	108	2		07/18/23 07:50	624-95-3	
tert-Butyl Alcohol	ND	ug/L	200	182	2		07/18/23 07:50	75-65-0	
tert-Butyl Formate	ND	ug/L	100	48.2	2		07/18/23 07:50	762-75-4	
1,2-Dichloroethane	ND	ug/L	10.0	4.1	2		07/18/23 07:50	107-06-2	
Diisopropyl ether	36.2	ug/L	10.0	7.0	2		07/18/23 07:50	108-20-3	
Ethanol	ND	ug/L	400	288	2		07/18/23 07:50	64-17-5	
Ethylbenzene	ND	ug/L	10.0	3.7	2		07/18/23 07:50	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	20.0	16.9	2		07/18/23 07:50	637-92-3	
Methyl-tert-butyl ether	178	ug/L	10.0	6.2	2		07/18/23 07:50	1634-04-4	
Naphthalene	8.8J	ug/L	10.0	4.2	2		07/18/23 07:50	91-20-3	
Toluene	ND	ug/L	10.0	4.0	2		07/18/23 07:50	108-88-3	
Xylene (Total)	ND	ug/L	10.0	10.0	2		07/18/23 07:50	1330-20-7	
m&p-Xylene	ND	ug/L	20.0	8.2	2		07/18/23 07:50	179601-23-1	
o-Xylene	ND	ug/L	10.0	4.1	2		07/18/23 07:50	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	96	%	70-130		2		07/18/23 07:50	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130		2		07/18/23 07:50	17060-07-0	
Toluene-d8 (S)	96	%	70-130		2		07/18/23 07:50	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

Sample: MW-3		Lab ID: 92677582003		Collected: 07/14/23 10:42		Received: 07/14/23 14:59		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.021	0.0077	1	07/19/23 10:44	07/19/23 18:11	106-93-4	L1
Surrogates									
1-Chloro-2-bromopropane (S)	98	%	60-140		1	07/19/23 10:44	07/19/23 18:11	301-79-56	
8260 MSV		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		07/18/23 07:43	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		07/18/23 07:43	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		07/18/23 07:43	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		07/18/23 07:43	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		07/18/23 07:43	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		07/18/23 07:43	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		07/18/23 07:43	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		07/18/23 07:43	108-20-3	
Ethanol	ND	ug/L	200	144	1		07/18/23 07:43	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		07/18/23 07:43	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		07/18/23 07:43	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		07/18/23 07:43	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		07/18/23 07:43	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		07/18/23 07:43	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		07/18/23 07:43	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		07/18/23 07:43	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		07/18/23 07:43	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		07/18/23 07:43	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	70-130		1		07/18/23 07:43	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		07/18/23 07:43	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

Sample: MW-4		Lab ID: 92677582004		Collected: 07/14/23 10:40		Received: 07/14/23 14:59		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0074	1	07/19/23 10:44	07/19/23 18:21	106-93-4	L1
Surrogates									
1-Chloro-2-bromopropane (S)	106	%	60-140		1	07/19/23 10:44	07/19/23 18:21	301-79-56	
8260 MSV		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		07/18/23 04:53	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		07/18/23 04:53	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		07/18/23 04:53	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		07/18/23 04:53	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		07/18/23 04:53	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		07/18/23 04:53	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		07/18/23 04:53	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		07/18/23 04:53	108-20-3	
Ethanol	ND	ug/L	200	144	1		07/18/23 04:53	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		07/18/23 04:53	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		07/18/23 04:53	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		07/18/23 04:53	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		07/18/23 04:53	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		07/18/23 04:53	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		07/18/23 04:53	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		07/18/23 04:53	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		07/18/23 04:53	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	96	%	70-130		1		07/18/23 04:53	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130		1		07/18/23 04:53	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		07/18/23 04:53	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

Sample: MW-5		Lab ID: 92677582005		Collected: 07/14/23 10:52		Received: 07/14/23 14:59		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0074	1	07/19/23 10:44	07/19/23 18:32	106-93-4	L1
Surrogates									
1-Chloro-2-bromopropane (S)	111	%	60-140		1	07/19/23 10:44	07/19/23 18:32	301-79-56	
8260 MSV		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		07/17/23 14:29	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		07/17/23 14:29	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		07/17/23 14:29	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		07/17/23 14:29	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		07/17/23 14:29	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		07/17/23 14:29	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		07/17/23 14:29	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		07/17/23 14:29	108-20-3	
Ethanol	ND	ug/L	200	144	1		07/17/23 14:29	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		07/17/23 14:29	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		07/17/23 14:29	637-92-3	
Methyl-tert-butyl ether	23.4	ug/L	5.0	3.1	1		07/17/23 14:29	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		07/17/23 14:29	91-20-3	v2
Toluene	ND	ug/L	5.0	2.0	1		07/17/23 14:29	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		07/17/23 14:29	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		07/17/23 14:29	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		07/17/23 14:29	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	94	%	70-130		1		07/17/23 14:29	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	70-130		1		07/17/23 14:29	17060-07-0	
Toluene-d8 (S)	103	%	70-130		1		07/17/23 14:29	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

Sample: MW-6		Lab ID: 92677582006		Collected: 07/14/23 10:54		Received: 07/14/23 14:59		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0073	1	07/19/23 10:44	07/19/23 18:43	106-93-4	L1
Surrogates									
1-Chloro-2-bromopropane (S)	115	%	60-140		1	07/19/23 10:44	07/19/23 18:43	301-79-56	
8260 MSV		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	1960	ug/L	100	65.6	1		07/17/23 15:05	75-85-4	
tert-Amylmethyl ether	34.7	ug/L	10.0	3.0	1		07/17/23 15:05	994-05-8	
Benzene	45.4	ug/L	5.0	1.7	1		07/17/23 15:05	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		07/17/23 15:05	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		07/17/23 15:05	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		07/17/23 15:05	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		07/17/23 15:05	107-06-2	
Diisopropyl ether	117	ug/L	5.0	3.5	1		07/17/23 15:05	108-20-3	
Ethanol	ND	ug/L	200	144	1		07/17/23 15:05	64-17-5	
Ethylbenzene	6.0	ug/L	5.0	1.8	1		07/17/23 15:05	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		07/17/23 15:05	637-92-3	
Methyl-tert-butyl ether	167	ug/L	5.0	3.1	1		07/17/23 15:05	1634-04-4	
Naphthalene	20.4	ug/L	5.0	2.1	1		07/17/23 15:05	91-20-3	v3
Toluene	4.1J	ug/L	5.0	2.0	1		07/17/23 15:05	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		07/17/23 15:05	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		07/17/23 15:05	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		07/17/23 15:05	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	92	%	70-130		1		07/17/23 15:05	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-130		1		07/17/23 15:05	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		07/17/23 15:05	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

Sample: MW-7		Lab ID: 92677582007		Collected: 07/14/23 11:15		Received: 07/14/23 14:59		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0074	1	07/19/23 10:44	07/19/23 18:54	106-93-4	L1
Surrogates									
1-Chloro-2-bromopropane (S)	101	%	60-140		1	07/19/23 10:44	07/19/23 18:54	301-79-56	
8260 MSV		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	77.7J	ug/L	100	65.6	1		07/18/23 05:11	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		07/18/23 05:11	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		07/18/23 05:11	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		07/18/23 05:11	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		07/18/23 05:11	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		07/18/23 05:11	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		07/18/23 05:11	107-06-2	
Diisopropyl ether	4.2J	ug/L	5.0	3.5	1		07/18/23 05:11	108-20-3	
Ethanol	ND	ug/L	200	144	1		07/18/23 05:11	64-17-5	
Ethylbenzene	4.4J	ug/L	5.0	1.8	1		07/18/23 05:11	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		07/18/23 05:11	637-92-3	
Methyl-tert-butyl ether	3.6J	ug/L	5.0	3.1	1		07/18/23 05:11	1634-04-4	
Naphthalene	15.1	ug/L	5.0	2.1	1		07/18/23 05:11	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		07/18/23 05:11	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		07/18/23 05:11	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		07/18/23 05:11	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		07/18/23 05:11	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		07/18/23 05:11	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130		1		07/18/23 05:11	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		07/18/23 05:11	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

Sample: MW-8		Lab ID: 92677582008		Collected: 07/14/23 11:30		Received: 07/14/23 14:59		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									
Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0073	1	07/19/23 10:44	07/19/23 19:04	106-93-4	L1
Surrogates									
1-Chloro-2-bromopropane (S)	136	%	60-140		1	07/19/23 10:44	07/19/23 19:04	301-79-56	
8260 MSV									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	ND	ug/L	12500	8200	125		07/17/23 17:08	75-85-4	
tert-Amylmethyl ether	ND	ug/L	1250	380	125		07/17/23 17:08	994-05-8	
Benzene	3110	ug/L	625	218	125		07/17/23 17:08	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	12500	6740	125		07/17/23 17:08	624-95-3	
tert-Butyl Alcohol	ND	ug/L	12500	11400	125		07/17/23 17:08	75-65-0	
tert-Butyl Formate	ND	ug/L	6250	3010	125		07/17/23 17:08	762-75-4	
1,2-Dichloroethane	ND	ug/L	625	258	125		07/17/23 17:08	107-06-2	
Diisopropyl ether	ND	ug/L	625	436	125		07/17/23 17:08	108-20-3	
Ethanol	ND	ug/L	25000	18000	125		07/17/23 17:08	64-17-5	
Ethylbenzene	1920	ug/L	625	230	125		07/17/23 17:08	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	1250	1060	125		07/17/23 17:08	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	625	388	125		07/17/23 17:08	1634-04-4	
Naphthalene	558J	ug/L	625	261	125		07/17/23 17:08	91-20-3	v3
Toluene	12600	ug/L	625	251	125		07/17/23 17:08	108-88-3	
Xylene (Total)	10000	ug/L	625	625	125		07/17/23 17:08	1330-20-7	
m&p-Xylene	6270	ug/L	1250	514	125		07/17/23 17:08	179601-23-1	
o-Xylene	3760	ug/L	625	255	125		07/17/23 17:08	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	94	%	70-130		125		07/17/23 17:08	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-130		125		07/17/23 17:08	17060-07-0	
Toluene-d8 (S)	104	%	70-130		125		07/17/23 17:08	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

Sample: MW-9		Lab ID: 92677582009		Collected: 07/14/23 11:35		Received: 07/14/23 14:59		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0074	1	07/19/23 10:44	07/19/23 19:15	106-93-4	L1
Surrogates									
1-Chloro-2-bromopropane (S)	99	%	60-140		1	07/19/23 10:44	07/19/23 19:15	301-79-56	
8260 MSV		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		07/18/23 05:28	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		07/18/23 05:28	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		07/18/23 05:28	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		07/18/23 05:28	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		07/18/23 05:28	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		07/18/23 05:28	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		07/18/23 05:28	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		07/18/23 05:28	108-20-3	
Ethanol	ND	ug/L	200	144	1		07/18/23 05:28	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		07/18/23 05:28	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		07/18/23 05:28	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		07/18/23 05:28	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		07/18/23 05:28	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		07/18/23 05:28	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		07/18/23 05:28	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		07/18/23 05:28	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		07/18/23 05:28	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		07/18/23 05:28	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130		1		07/18/23 05:28	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		07/18/23 05:28	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

Sample: MW-10		Lab ID: 92677582010		Collected: 07/14/23 11:50		Received: 07/14/23 14:59		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0075	1	07/19/23 10:44	07/19/23 19:26	106-93-4	L1
Surrogates									
1-Chloro-2-bromopropane (S)	106	%	60-140		1	07/19/23 10:44	07/19/23 19:26	301-79-56	
8260 MSV		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	500	328	5		07/17/23 17:25	75-85-4	
tert-Amylmethyl ether	ND	ug/L	50.0	15.2	5		07/17/23 17:25	994-05-8	
Benzene	79.3	ug/L	25.0	8.7	5		07/17/23 17:25	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	500	270	5		07/17/23 17:25	624-95-3	
tert-Butyl Alcohol	ND	ug/L	500	455	5		07/17/23 17:25	75-65-0	
tert-Butyl Formate	ND	ug/L	250	120	5		07/17/23 17:25	762-75-4	
1,2-Dichloroethane	ND	ug/L	25.0	10.3	5		07/17/23 17:25	107-06-2	
Diisopropyl ether	17.6J	ug/L	25.0	17.4	5		07/17/23 17:25	108-20-3	
Ethanol	ND	ug/L	1000	720	5		07/17/23 17:25	64-17-5	
Ethylbenzene	329	ug/L	25.0	9.2	5		07/17/23 17:25	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	50.0	42.3	5		07/17/23 17:25	637-92-3	
Methyl-tert-butyl ether	25.4	ug/L	25.0	15.5	5		07/17/23 17:25	1634-04-4	
Naphthalene	143	ug/L	25.0	10.4	5		07/17/23 17:25	91-20-3	v3
Toluene	15.1J	ug/L	25.0	10.0	5		07/17/23 17:25	108-88-3	
Xylene (Total)	116	ug/L	25.0	25.0	5		07/17/23 17:25	1330-20-7	
m&p-Xylene	59.7	ug/L	50.0	20.6	5		07/17/23 17:25	179601-23-1	
o-Xylene	56.2	ug/L	25.0	10.2	5		07/17/23 17:25	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	93	%	70-130		5		07/17/23 17:25	460-00-4	D3
1,2-Dichloroethane-d4 (S)	107	%	70-130		5		07/17/23 17:25	17060-07-0	
Toluene-d8 (S)	101	%	70-130		5		07/17/23 17:25	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

Sample: DW-1		Lab ID: 92677582011		Collected: 07/14/23 12:50		Received: 07/14/23 14:59		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									
Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0075	1	07/19/23 10:44	07/19/23 19:37	106-93-4	L1
Surrogates									
1-Chloro-2-bromopropane (S)	98	%	60-140		1	07/19/23 10:44	07/19/23 19:37	301-79-56	
8260 MSV									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		07/18/23 05:46	75-85-4	
tert-Amylmethyl ether	9.6J	ug/L	10.0	3.0	1		07/18/23 05:46	994-05-8	
Benzene	3.4J	ug/L	5.0	1.7	1		07/18/23 05:46	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		07/18/23 05:46	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		07/18/23 05:46	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		07/18/23 05:46	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		07/18/23 05:46	107-06-2	
Diisopropyl ether	40.5	ug/L	5.0	3.5	1		07/18/23 05:46	108-20-3	
Ethanol	ND	ug/L	200	144	1		07/18/23 05:46	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		07/18/23 05:46	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		07/18/23 05:46	637-92-3	
Methyl-tert-butyl ether	144	ug/L	5.0	3.1	1		07/18/23 05:46	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		07/18/23 05:46	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		07/18/23 05:46	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		07/18/23 05:46	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		07/18/23 05:46	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		07/18/23 05:46	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	96	%	70-130		1		07/18/23 05:46	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-130		1		07/18/23 05:46	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		07/18/23 05:46	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

Sample: DW-2		Lab ID: 92677582012		Collected: 07/14/23 12:52		Received: 07/14/23 14:59		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									
Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0074	1	07/19/23 10:44	07/19/23 19:47	106-93-4	L1
Surrogates									
1-Chloro-2-bromopropane (S)	101	%	60-140		1	07/19/23 10:44	07/19/23 19:47	301-79-56	
8260 MSV									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		07/18/23 06:04	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		07/18/23 06:04	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		07/18/23 06:04	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		07/18/23 06:04	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		07/18/23 06:04	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		07/18/23 06:04	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		07/18/23 06:04	107-06-2	
Diisopropyl ether	3.7J	ug/L	5.0	3.5	1		07/18/23 06:04	108-20-3	
Ethanol	ND	ug/L	200	144	1		07/18/23 06:04	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		07/18/23 06:04	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		07/18/23 06:04	637-92-3	
Methyl-tert-butyl ether	19.9	ug/L	5.0	3.1	1		07/18/23 06:04	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		07/18/23 06:04	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		07/18/23 06:04	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		07/18/23 06:04	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		07/18/23 06:04	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		07/18/23 06:04	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		07/18/23 06:04	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-130		1		07/18/23 06:04	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		07/18/23 06:04	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

Sample: DW-3		Lab ID: 92677582013		Collected: 07/14/23 12:43		Received: 07/14/23 14:59		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0076	1	07/19/23 10:44	07/19/23 19:58	106-93-4	L1
Surrogates									
1-Chloro-2-bromopropane (S)	111	%	60-140		1	07/19/23 10:44	07/19/23 19:58	301-79-56	
8260 MSV		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		07/18/23 06:22	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		07/18/23 06:22	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		07/18/23 06:22	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		07/18/23 06:22	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		07/18/23 06:22	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		07/18/23 06:22	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		07/18/23 06:22	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		07/18/23 06:22	108-20-3	
Ethanol	ND	ug/L	200	144	1		07/18/23 06:22	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		07/18/23 06:22	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		07/18/23 06:22	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		07/18/23 06:22	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		07/18/23 06:22	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		07/18/23 06:22	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		07/18/23 06:22	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		07/18/23 06:22	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		07/18/23 06:22	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	96	%	70-130		1		07/18/23 06:22	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-130		1		07/18/23 06:22	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		07/18/23 06:22	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

Sample: DW-4		Lab ID: 92677582014		Collected: 07/14/23 12:40		Received: 07/14/23 14:59		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									
Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0074	1	07/19/23 10:44	07/19/23 20:09	106-93-4	L1
Surrogates									
1-Chloro-2-bromopropane (S)	107	%	60-140		1	07/19/23 10:44	07/19/23 20:09	301-79-56	
8260 MSV									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		07/18/23 06:39	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		07/18/23 06:39	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		07/18/23 06:39	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		07/18/23 06:39	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		07/18/23 06:39	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		07/18/23 06:39	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		07/18/23 06:39	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		07/18/23 06:39	108-20-3	
Ethanol	ND	ug/L	200	144	1		07/18/23 06:39	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		07/18/23 06:39	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		07/18/23 06:39	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		07/18/23 06:39	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		07/18/23 06:39	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		07/18/23 06:39	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		07/18/23 06:39	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		07/18/23 06:39	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		07/18/23 06:39	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		07/18/23 06:39	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130		1		07/18/23 06:39	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		07/18/23 06:39	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

Sample: SW-1		Lab ID: 92677582015		Collected: 07/14/23 11:38		Received: 07/14/23 14:59		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0075	1	07/19/23 10:44	07/19/23 20:19	106-93-4	L1
Surrogates									
1-Chloro-2-bromopropane (S)	106	%	60-140		1	07/19/23 10:44	07/19/23 20:19	301-79-56	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		07/18/23 19:11	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		07/18/23 19:11	994-05-8	
Benzene	ND	ug/L	1.0	0.34	1		07/18/23 19:11	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		07/18/23 19:11	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		07/18/23 19:11	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		07/18/23 19:11	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		07/18/23 19:11	107-06-2	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		07/18/23 19:11	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		07/18/23 19:11	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/18/23 19:11	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		07/18/23 19:11	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		07/18/23 19:11	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		07/18/23 19:11	91-20-3	v1
Toluene	0.52J	ug/L	1.0	0.48	1		07/18/23 19:11	108-88-3	
Xylene (Total)	ND	ug/L	1.0	0.34	1		07/18/23 19:11	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		07/18/23 19:11	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		07/18/23 19:11	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	108	%	70-130		1		07/18/23 19:11	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-130		1		07/18/23 19:11	17060-07-0	
Toluene-d8 (S)	110	%	70-130		1		07/18/23 19:11	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

Sample: SW-2		Lab ID: 92677582016		Collected: 07/14/23 11:05		Received: 07/14/23 14:59		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									
Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0075	1	07/20/23 10:33	07/20/23 15:02	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	115	%	60-140		1	07/20/23 10:33	07/20/23 15:02	301-79-56	
8260 MSV Low Level SC									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		07/18/23 18:54	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		07/18/23 18:54	994-05-8	
Benzene	ND	ug/L	1.0	0.34	1		07/18/23 18:54	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		07/18/23 18:54	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		07/18/23 18:54	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		07/18/23 18:54	762-75-4	M1
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		07/18/23 18:54	107-06-2	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		07/18/23 18:54	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		07/18/23 18:54	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/18/23 18:54	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		07/18/23 18:54	637-92-3	
Methyl-tert-butyl ether	0.63J	ug/L	1.0	0.42	1		07/18/23 18:54	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		07/18/23 18:54	91-20-3	v1
Toluene	ND	ug/L	1.0	0.48	1		07/18/23 18:54	108-88-3	
Xylene (Total)	ND	ug/L	1.0	0.34	1		07/18/23 18:54	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		07/18/23 18:54	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		07/18/23 18:54	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	107	%	70-130		1		07/18/23 18:54	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-130		1		07/18/23 18:54	17060-07-0	
Toluene-d8 (S)	108	%	70-130		1		07/18/23 18:54	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

Sample: SW-3		Lab ID: 92677582017		Collected: 07/14/23 10:31		Received: 07/14/23 14:59		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.021	0.0077	1	07/20/23 10:33	07/20/23 15:23	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	119	%	60-140		1	07/20/23 10:33	07/20/23 15:23	301-79-56	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		07/18/23 18:36	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		07/18/23 18:36	994-05-8	
Benzene	ND	ug/L	1.0	0.34	1		07/18/23 18:36	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		07/18/23 18:36	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		07/18/23 18:36	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		07/18/23 18:36	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		07/18/23 18:36	107-06-2	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		07/18/23 18:36	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		07/18/23 18:36	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/18/23 18:36	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		07/18/23 18:36	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		07/18/23 18:36	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		07/18/23 18:36	91-20-3	v1
Toluene	ND	ug/L	1.0	0.48	1		07/18/23 18:36	108-88-3	
Xylene (Total)	ND	ug/L	1.0	0.34	1		07/18/23 18:36	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		07/18/23 18:36	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		07/18/23 18:36	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	106	%	70-130		1		07/18/23 18:36	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-130		1		07/18/23 18:36	17060-07-0	
Toluene-d8 (S)	108	%	70-130		1		07/18/23 18:36	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

Sample: SW-4		Lab ID: 92677582018		Collected: 07/14/23 10:29		Received: 07/14/23 14:59		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0076	1	07/20/23 10:33	07/20/23 16:35	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	107	%	60-140		1	07/20/23 10:33	07/20/23 16:35	301-79-56	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		07/18/23 14:15	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		07/18/23 14:15	994-05-8	
Benzene	ND	ug/L	1.0	0.34	1		07/18/23 14:15	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		07/18/23 14:15	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		07/18/23 14:15	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		07/18/23 14:15	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		07/18/23 14:15	107-06-2	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		07/18/23 14:15	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		07/18/23 14:15	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/18/23 14:15	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		07/18/23 14:15	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		07/18/23 14:15	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		07/18/23 14:15	91-20-3	v2
Toluene	0.49J	ug/L	1.0	0.48	1		07/18/23 14:15	108-88-3	
Xylene (Total)	ND	ug/L	1.0	0.34	1		07/18/23 14:15	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		07/18/23 14:15	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		07/18/23 14:15	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		07/18/23 14:15	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130		1		07/18/23 14:15	17060-07-0	
Toluene-d8 (S)	103	%	70-130		1		07/18/23 14:15	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

Sample: SW-5		Lab ID: 92677582019		Collected: 07/14/23 10:24		Received: 07/14/23 14:59		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.021	0.0079	1	07/20/23 10:33	07/20/23 16:46	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	103	%	60-140		1	07/20/23 10:33	07/20/23 16:46	301-79-56	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		07/18/23 14:33	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		07/18/23 14:33	994-05-8	
Benzene	ND	ug/L	1.0	0.34	1		07/18/23 14:33	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		07/18/23 14:33	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		07/18/23 14:33	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		07/18/23 14:33	762-75-4	P5
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		07/18/23 14:33	107-06-2	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		07/18/23 14:33	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		07/18/23 14:33	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/18/23 14:33	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		07/18/23 14:33	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		07/18/23 14:33	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		07/18/23 14:33	91-20-3	v2
Toluene	0.63J	ug/L	1.0	0.48	1		07/18/23 14:33	108-88-3	
Xylene (Total)	ND	ug/L	1.0	0.34	1		07/18/23 14:33	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		07/18/23 14:33	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		07/18/23 14:33	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	92	%	70-130		1		07/18/23 14:33	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130		1		07/18/23 14:33	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		07/18/23 14:33	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

Sample: SW-6		Lab ID: 92677582020		Collected: 07/14/23 10:22		Received: 07/14/23 14:59		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0076	1	07/20/23 10:33	07/20/23 16:57	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	111	%	60-140		1	07/20/23 10:33	07/20/23 16:57	301-79-56	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		07/18/23 14:50	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		07/18/23 14:50	994-05-8	
Benzene	ND	ug/L	1.0	0.34	1		07/18/23 14:50	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		07/18/23 14:50	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		07/18/23 14:50	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		07/18/23 14:50	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		07/18/23 14:50	107-06-2	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		07/18/23 14:50	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		07/18/23 14:50	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		07/18/23 14:50	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		07/18/23 14:50	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		07/18/23 14:50	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		07/18/23 14:50	91-20-3	v2
Toluene	0.64J	ug/L	1.0	0.48	1		07/18/23 14:50	108-88-3	
Xylene (Total)	ND	ug/L	1.0	0.34	1		07/18/23 14:50	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		07/18/23 14:50	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		07/18/23 14:50	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		07/18/23 14:50	460-00-4	
1,2-Dichloroethane-d4 (S)	113	%	70-130		1		07/18/23 14:50	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		07/18/23 14:50	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

Sample: DUP		Lab ID: 92677582021		Collected: 07/14/23 00:00		Received: 07/14/23 14:59		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0074	1	07/20/23 10:33	07/20/23 17:07	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	120	%	60-140		1	07/20/23 10:33	07/20/23 17:07	301-79-56	
8260 MSV		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	12500	8200	125		07/18/23 08:08	75-85-4	
tert-Amylmethyl ether	ND	ug/L	1250	380	125		07/18/23 08:08	994-05-8	
Benzene	3350	ug/L	625	218	125		07/18/23 08:08	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	12500	6740	125		07/18/23 08:08	624-95-3	
tert-Butyl Alcohol	ND	ug/L	12500	11400	125		07/18/23 08:08	75-65-0	
tert-Butyl Formate	ND	ug/L	6250	3010	125		07/18/23 08:08	762-75-4	
1,2-Dichloroethane	ND	ug/L	625	258	125		07/18/23 08:08	107-06-2	
Diisopropyl ether	ND	ug/L	625	436	125		07/18/23 08:08	108-20-3	
Ethanol	ND	ug/L	25000	18000	125		07/18/23 08:08	64-17-5	
Ethylbenzene	1810	ug/L	625	230	125		07/18/23 08:08	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	1250	1060	125		07/18/23 08:08	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	625	388	125		07/18/23 08:08	1634-04-4	
Naphthalene	670	ug/L	625	261	125		07/18/23 08:08	91-20-3	
Toluene	12500	ug/L	625	251	125		07/18/23 08:08	108-88-3	
Xylene (Total)	9530	ug/L	625	625	125		07/18/23 08:08	1330-20-7	
m&p-Xylene	5910	ug/L	1250	514	125		07/18/23 08:08	179601-23-1	
o-Xylene	3620	ug/L	625	255	125		07/18/23 08:08	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		125		07/18/23 08:08	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-130		125		07/18/23 08:08	17060-07-0	
Toluene-d8 (S)	99	%	70-130		125		07/18/23 08:08	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

Sample: FB		Lab ID: 92677582022		Collected: 07/14/23 12:00		Received: 07/14/23 14:59		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0075	1	07/20/23 10:33	07/20/23 17:18	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	110	%	60-140		1	07/20/23 10:33	07/20/23 17:18	301-79-56	
8260 MSV		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		07/18/23 00:01	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		07/18/23 00:01	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		07/18/23 00:01	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		07/18/23 00:01	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		07/18/23 00:01	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		07/18/23 00:01	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		07/18/23 00:01	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		07/18/23 00:01	108-20-3	
Ethanol	ND	ug/L	200	144	1		07/18/23 00:01	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		07/18/23 00:01	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		07/18/23 00:01	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		07/18/23 00:01	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		07/18/23 00:01	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		07/18/23 00:01	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		07/18/23 00:01	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		07/18/23 00:01	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		07/18/23 00:01	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		1		07/18/23 00:01	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130		1		07/18/23 00:01	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		07/18/23 00:01	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

Sample: TB		Lab ID: 92677582023		Collected: 07/14/23 08:00		Received: 07/14/23 14:59		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		07/18/23 00:20	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		07/18/23 00:20	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		07/18/23 00:20	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		07/18/23 00:20	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		07/18/23 00:20	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		07/18/23 00:20	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		07/18/23 00:20	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		07/18/23 00:20	108-20-3	
Ethanol	ND	ug/L	200	144	1		07/18/23 00:20	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		07/18/23 00:20	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		07/18/23 00:20	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		07/18/23 00:20	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		07/18/23 00:20	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		07/18/23 00:20	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		07/18/23 00:20	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		07/18/23 00:20	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		07/18/23 00:20	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		07/18/23 00:20	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-130		1		07/18/23 00:20	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		07/18/23 00:20	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

Sample: GAC Lab ID: 92677582024 Collected: 07/14/23 12:04 Received: 07/14/23 14:59 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									
Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.021	0.0077	1	07/20/23 10:33	07/20/23 17:29	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	110	%	60-140		1	07/20/23 10:33	07/20/23 17:29	301-79-56	
8260 MSV									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		07/18/23 01:15	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		07/18/23 01:15	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		07/18/23 01:15	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		07/18/23 01:15	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		07/18/23 01:15	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		07/18/23 01:15	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		07/18/23 01:15	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		07/18/23 01:15	108-20-3	
Ethanol	ND	ug/L	200	144	1		07/18/23 01:15	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		07/18/23 01:15	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		07/18/23 01:15	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		07/18/23 01:15	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		07/18/23 01:15	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		07/18/23 01:15	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		07/18/23 01:15	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		07/18/23 01:15	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		07/18/23 01:15	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		07/18/23 01:15	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-130		1		07/18/23 01:15	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		07/18/23 01:15	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

Sample: WSW-1		Lab ID: 92677582025		Collected: 07/14/23 12:15		Received: 07/14/23 14:59		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
504 GCS EDB and DBCP		Analytical Method: EPA 504.1 Preparation Method: EPA 504.1 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0055	1	07/20/23 10:23	07/20/23 20:52	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	115	%	70-130		1	07/20/23 10:23	07/20/23 20:52	301-79-56	
524.2 MSV SC List		Analytical Method: EPA 524.2 Pace Analytical Services - Charlotte							
Benzene	ND	ug/L	0.50	0.21	1		07/20/23 17:35	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	0.16	1		07/20/23 17:35	107-06-2	
Ethylbenzene	ND	ug/L	0.50	0.22	1		07/20/23 17:35	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	0.14	1		07/20/23 17:35	1634-04-4	
Naphthalene	ND	ug/L	0.50	0.35	1		07/20/23 17:35	91-20-3	
Toluene	0.46J	ug/L	0.50	0.20	1		07/20/23 17:35	108-88-3	
Xylene (Total)	ND	ug/L	0.50	0.22	1		07/20/23 17:35	1330-20-7	
m&p-Xylene	ND	ug/L	1.0	0.39	1		07/20/23 17:35	179601-23-1	
o-Xylene	ND	ug/L	0.50	0.22	1		07/20/23 17:35	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	91	%	70-130		1		07/20/23 17:35	2199-69-1	
4-Bromofluorobenzene (S)	92	%	70-130		1		07/20/23 17:35	460-00-4	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		07/18/23 15:08	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		07/18/23 15:08	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		07/18/23 15:08	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		07/18/23 15:08	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		07/18/23 15:08	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		07/18/23 15:08	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		07/18/23 15:08	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		07/18/23 15:08	637-92-3	
Surrogates									
4-Bromofluorobenzene (S)	94	%	70-130		1		07/18/23 15:08	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-130		1		07/18/23 15:08	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		07/18/23 15:08	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

Sample: WSW-2		Lab ID: 92677582026		Collected: 07/14/23 12:20		Received: 07/14/23 14:59		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
504 GCS EDB and DBCP									
Analytical Method: EPA 504.1 Preparation Method: EPA 504.1									
Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0055	1	07/20/23 10:23	07/20/23 21:13	106-93-4	M1
Surrogates									
1-Chloro-2-bromopropane (S)	117	%	70-130		1	07/20/23 10:23	07/20/23 21:13	301-79-56	
524.2 MSV SC List									
Analytical Method: EPA 524.2									
Pace Analytical Services - Charlotte									
Benzene	ND	ug/L	0.50	0.21	1		07/20/23 18:02	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	0.16	1		07/20/23 18:02	107-06-2	
Ethylbenzene	ND	ug/L	0.50	0.22	1		07/20/23 18:02	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	0.14	1		07/20/23 18:02	1634-04-4	
Naphthalene	ND	ug/L	0.50	0.35	1		07/20/23 18:02	91-20-3	
Toluene	0.45J	ug/L	0.50	0.20	1		07/20/23 18:02	108-88-3	
Xylene (Total)	ND	ug/L	0.50	0.22	1		07/20/23 18:02	1330-20-7	
m&p-Xylene	ND	ug/L	1.0	0.39	1		07/20/23 18:02	179601-23-1	
o-Xylene	ND	ug/L	0.50	0.22	1		07/20/23 18:02	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	93	%	70-130		1		07/20/23 18:02	2199-69-1	
4-Bromofluorobenzene (S)	93	%	70-130		1		07/20/23 18:02	460-00-4	
8260 MSV Low Level SC									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		07/18/23 15:26	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		07/18/23 15:26	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		07/18/23 15:26	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		07/18/23 15:26	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		07/18/23 15:26	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		07/18/23 15:26	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		07/18/23 15:26	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		07/18/23 15:26	637-92-3	
Surrogates									
4-Bromofluorobenzene (S)	92	%	70-130		1		07/18/23 15:26	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-130		1		07/18/23 15:26	17060-07-0	
Toluene-d8 (S)	103	%	70-130		1		07/18/23 15:26	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

Sample: WSW-DUP		Lab ID: 92677582027		Collected: 07/14/23 00:00		Received: 07/14/23 14:59		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
504 GCS EDB and DBCP		Analytical Method: EPA 504.1 Preparation Method: EPA 504.1 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0055	1	07/20/23 10:23	07/20/23 21:45	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	109	%	70-130		1	07/20/23 10:23	07/20/23 21:45	301-79-56	
524.2 MSV SC List		Analytical Method: EPA 524.2 Pace Analytical Services - Charlotte							
Benzene	ND	ug/L	0.50	0.21	1		07/20/23 18:28	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	0.16	1		07/20/23 18:28	107-06-2	
Ethylbenzene	ND	ug/L	0.50	0.22	1		07/20/23 18:28	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	0.14	1		07/20/23 18:28	1634-04-4	
Naphthalene	ND	ug/L	0.50	0.35	1		07/20/23 18:28	91-20-3	
Toluene	ND	ug/L	0.50	0.20	1		07/20/23 18:28	108-88-3	
Xylene (Total)	ND	ug/L	0.50	0.22	1		07/20/23 18:28	1330-20-7	
m&p-Xylene	ND	ug/L	1.0	0.39	1		07/20/23 18:28	179601-23-1	
o-Xylene	ND	ug/L	0.50	0.22	1		07/20/23 18:28	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	91	%	70-130		1		07/20/23 18:28	2199-69-1	
4-Bromofluorobenzene (S)	90	%	70-130		1		07/20/23 18:28	460-00-4	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		07/18/23 15:44	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		07/18/23 15:44	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		07/18/23 15:44	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		07/18/23 15:44	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		07/18/23 15:44	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		07/18/23 15:44	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		07/18/23 15:44	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		07/18/23 15:44	637-92-3	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		07/18/23 15:44	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-130		1		07/18/23 15:44	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		07/18/23 15:44	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

Sample: WSW-FB		Lab ID: 92677582028		Collected: 07/14/23 12:30		Received: 07/14/23 14:59		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
504 GCS EDB and DBCP		Analytical Method: EPA 504.1 Preparation Method: EPA 504.1 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.0053	1	07/20/23 10:23	07/20/23 21:56	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	112	%	70-130		1	07/20/23 10:23	07/20/23 21:56	301-79-56	
524.2 MSV SC List		Analytical Method: EPA 524.2 Pace Analytical Services - Charlotte							
Benzene	ND	ug/L	0.50	0.21	1		07/20/23 15:24	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	0.16	1		07/20/23 15:24	107-06-2	
Ethylbenzene	ND	ug/L	0.50	0.22	1		07/20/23 15:24	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	0.14	1		07/20/23 15:24	1634-04-4	
Naphthalene	ND	ug/L	0.50	0.35	1		07/20/23 15:24	91-20-3	
Toluene	0.25J	ug/L	0.50	0.20	1		07/20/23 15:24	108-88-3	C0
Xylene (Total)	ND	ug/L	0.50	0.22	1		07/20/23 15:24	1330-20-7	
m&p-Xylene	ND	ug/L	1.0	0.39	1		07/20/23 15:24	179601-23-1	
o-Xylene	ND	ug/L	0.50	0.22	1		07/20/23 15:24	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	93	%	70-130		1		07/20/23 15:24	2199-69-1	
4-Bromofluorobenzene (S)	93	%	70-130		1		07/20/23 15:24	460-00-4	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		07/18/23 12:30	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		07/18/23 12:30	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		07/18/23 12:30	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		07/18/23 12:30	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		07/18/23 12:30	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		07/18/23 12:30	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		07/18/23 12:30	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		07/18/23 12:30	637-92-3	
Surrogates									
4-Bromofluorobenzene (S)	94	%	70-130		1		07/18/23 12:30	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-130		1		07/18/23 12:30	17060-07-0	
Toluene-d8 (S)	103	%	70-130		1		07/18/23 12:30	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

Sample: WSW-TB		Lab ID: 92677582029		Collected: 07/14/23 12:30		Received: 07/14/23 14:59		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
524.2 MSV SC List									
Analytical Method: EPA 524.2									
Pace Analytical Services - Charlotte									
Benzene	ND	ug/L	0.50	0.21	1		07/20/23 14:58	71-43-2	
1,2-Dichloroethane	ND	ug/L	0.50	0.16	1		07/20/23 14:58	107-06-2	
Ethylbenzene	ND	ug/L	0.50	0.22	1		07/20/23 14:58	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	0.14	1		07/20/23 14:58	1634-04-4	
Naphthalene	ND	ug/L	0.50	0.35	1		07/20/23 14:58	91-20-3	
Toluene	0.50J	ug/L	0.50	0.20	1		07/20/23 14:58	108-88-3	C0
Xylene (Total)	ND	ug/L	0.50	0.22	1		07/20/23 14:58	1330-20-7	
m&p-Xylene	ND	ug/L	1.0	0.39	1		07/20/23 14:58	179601-23-1	
o-Xylene	ND	ug/L	0.50	0.22	1		07/20/23 14:58	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	91	%	70-130		1		07/20/23 14:58	2199-69-1	
4-Bromofluorobenzene (S)	91	%	70-130		1		07/20/23 14:58	460-00-4	
8260 MSV Low Level SC									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		07/18/23 12:47	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		07/18/23 12:47	994-05-8	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		07/18/23 12:47	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		07/18/23 12:47	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		07/18/23 12:47	762-75-4	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		07/18/23 12:47	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		07/18/23 12:47	64-17-5	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		07/18/23 12:47	637-92-3	
Surrogates									
4-Bromofluorobenzene (S)	94	%	70-130		1		07/18/23 12:47	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130		1		07/18/23 12:47	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		07/18/23 12:47	2037-26-5	

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QUALITY CONTROL DATA

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

QC Batch:	788072	Analysis Method:	EPA 524.2
QC Batch Method:	EPA 524.2	Analysis Description:	524.2 MSV
		Laboratory:	Pace Analytical Services - Charlotte

Associated Lab Samples: 92677582025, 92677582026, 92677582027, 92677582028, 92677582029

METHOD BLANK: 4085455

Matrix: Water

Associated Lab Samples: 92677582025, 92677582026, 92677582027, 92677582028, 92677582029

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	0.50	0.16	07/20/23 14:31	
Benzene	ug/L	ND	0.50	0.21	07/20/23 14:31	
Ethylbenzene	ug/L	ND	0.50	0.22	07/20/23 14:31	
m&p-Xylene	ug/L	ND	1.0	0.39	07/20/23 14:31	
Methyl-tert-butyl ether	ug/L	ND	0.50	0.14	07/20/23 14:31	
Naphthalene	ug/L	ND	0.50	0.35	07/20/23 14:31	
o-Xylene	ug/L	ND	0.50	0.22	07/20/23 14:31	
Toluene	ug/L	ND	0.50	0.20	07/20/23 14:31	
Xylene (Total)	ug/L	ND	0.50	0.22	07/20/23 14:31	
1,2-Dichlorobenzene-d4 (S)	%	94	70-130		07/20/23 14:31	
4-Bromofluorobenzene (S)	%	93	70-130		07/20/23 14:31	

LABORATORY CONTROL SAMPLE: 4085456

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	20	19.2	96	70-130	
Benzene	ug/L	20	18.4	92	70-130	
Ethylbenzene	ug/L	20	18.1	90	70-130	
m&p-Xylene	ug/L	40	36.5	91	70-130	
Methyl-tert-butyl ether	ug/L	20	17.3	87	70-130	
Naphthalene	ug/L	20	17.1	85	70-130	
o-Xylene	ug/L	20	18.6	93	70-130	
Toluene	ug/L	20	18.2	91	70-130	
Xylene (Total)	ug/L	60	55.1	92		
1,2-Dichlorobenzene-d4 (S)	%			98	70-130	
4-Bromofluorobenzene (S)	%			97	70-130	

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QUALITY CONTROL DATA

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

QC Batch:	787321	Analysis Method:	EPA 8260D
QC Batch Method:	EPA 8260D	Analysis Description:	8260 MSV Low Level SC
		Laboratory:	Pace Analytical Services - Charlotte
Associated Lab Samples:	92677582018, 92677582019, 92677582020, 92677582025, 92677582026, 92677582027, 92677582028, 92677582029		

METHOD BLANK: 4081676

Matrix: Water

Associated Lab Samples: 92677582018, 92677582019, 92677582020, 92677582025, 92677582026, 92677582027, 92677582028, 92677582029

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	1.0	0.32	07/18/23 11:54	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	51.9	07/18/23 11:54	
Benzene	ug/L	ND	1.0	0.34	07/18/23 11:54	
Diisopropyl ether	ug/L	ND	1.0	0.31	07/18/23 11:54	
Ethanol	ug/L	ND	200	72.2	07/18/23 11:54	
Ethyl-tert-butyl ether	ug/L	ND	10.0	3.2	07/18/23 11:54	
Ethylbenzene	ug/L	ND	1.0	0.30	07/18/23 11:54	
m&p-Xylene	ug/L	ND	2.0	0.71	07/18/23 11:54	
Methyl-tert-butyl ether	ug/L	ND	1.0	0.42	07/18/23 11:54	
Naphthalene	ug/L	ND	1.0	0.64	07/18/23 11:54	v2
o-Xylene	ug/L	ND	1.0	0.34	07/18/23 11:54	
tert-Amyl Alcohol	ug/L	ND	100	36.4	07/18/23 11:54	
tert-Amylmethyl ether	ug/L	ND	10.0	2.7	07/18/23 11:54	
tert-Butyl Alcohol	ug/L	ND	100	26.8	07/18/23 11:54	
tert-Butyl Formate	ug/L	ND	50.0	29.4	07/18/23 11:54	
Toluene	ug/L	ND	1.0	0.48	07/18/23 11:54	
Xylene (Total)	ug/L	ND	1.0	0.34	07/18/23 11:54	
1,2-Dichloroethane-d4 (S)	%	107	70-130		07/18/23 11:54	
4-Bromofluorobenzene (S)	%	96	70-130		07/18/23 11:54	
Toluene-d8 (S)	%	101	70-130		07/18/23 11:54	

LABORATORY CONTROL SAMPLE: 4081677

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	20	21.4	107	70-130	
3,3-Dimethyl-1-Butanol	ug/L	400	397	99	70-130	
Benzene	ug/L	20	21.2	106	70-130	
Diisopropyl ether	ug/L	20	21.7	109	70-130	
Ethanol	ug/L	800	837	105	70-130	
Ethyl-tert-butyl ether	ug/L	40	39.6	99	70-130	
Ethylbenzene	ug/L	20	21.3	106	70-130	
m&p-Xylene	ug/L	40	42.3	106	70-130	
Methyl-tert-butyl ether	ug/L	20	19.8	99	70-130	
Naphthalene	ug/L	20	15.6	78	70-130	v3
o-Xylene	ug/L	20	21.2	106	70-130	
tert-Amyl Alcohol	ug/L	400	357	89	70-130	
tert-Amylmethyl ether	ug/L	40	39.0	97	70-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

LABORATORY CONTROL SAMPLE: 4081677

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
tert-Butyl Alcohol	ug/L	200	152	76	70-130	
tert-Butyl Formate	ug/L	160	150	93	70-130	
Toluene	ug/L	20	19.8	99	70-130	
Xylene (Total)	ug/L	60	63.5	106	70-130	
1,2-Dichloroethane-d4 (S)	%			102	70-130	
4-Bromofluorobenzene (S)	%			93	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE SAMPLE: 4081679

Parameter	Units	92677582019 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	20	24.6	123	70-137	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	477	119	39-157	
Benzene	ug/L	ND	20	25.8	129	70-151	
Diisopropyl ether	ug/L	ND	20	25.4	127	63-144	
Ethanol	ug/L	ND	800	1020	128	39-176	
Ethyl-tert-butyl ether	ug/L	ND	40	49.7	124	66-137	
Ethylbenzene	ug/L	ND	20	25.0	125	66-153	
m&p-Xylene	ug/L	ND	40	49.5	124	69-152	
Methyl-tert-butyl ether	ug/L	ND	20	23.8	119	54-156	
Naphthalene	ug/L	ND	20	16.7	84	61-148 v3	
o-Xylene	ug/L	ND	20	24.5	123	70-148	
tert-Amyl Alcohol	ug/L	ND	400	449	112	54-153	
tert-Amylmethyl ether	ug/L	ND	40	48.2	121	69-139	
tert-Butyl Alcohol	ug/L	ND	200	319	159	43-188	
tert-Butyl Formate	ug/L	ND	160	ND	3	10-170 P5	
Toluene	ug/L	0.63J	20	24.0	117	59-148	
Xylene (Total)	ug/L	ND	60	74.1	123	63-158	
1,2-Dichloroethane-d4 (S)	%				110	70-130	
4-Bromofluorobenzene (S)	%				93	70-130	
Toluene-d8 (S)	%				99	70-130	

SAMPLE DUPLICATE: 4081678

Parameter	Units	92677582018 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	

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QUALITY CONTROL DATA

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

SAMPLE DUPLICATE: 4081678

Parameter	Units	92677582018 Result	Dup Result	RPD	Max RPD	Qualifiers
Naphthalene	ug/L	ND	ND		30	v2
o-Xylene	ug/L	ND	ND		30	
tert-Amyl Alcohol	ug/L	ND	ND		30	
tert-Amylmethyl ether	ug/L	ND	ND		30	
tert-Butyl Alcohol	ug/L	ND	ND		30	
tert-Butyl Formate	ug/L	ND	ND		30	
Toluene	ug/L	0.49J	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	109	106			
4-Bromofluorobenzene (S)	%	95	94			
Toluene-d8 (S)	%	103	104			

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QUALITY CONTROL DATA

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

QC Batch: 787324

Analysis Method: EPA 8260D

QC Batch Method: EPA 8260D

Analysis Description: 8260 MSV Low Level SC

Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92677582015, 92677582016, 92677582017

METHOD BLANK: 4081689

Matrix: Water

Associated Lab Samples: 92677582015, 92677582016, 92677582017

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	1.0	0.32	07/18/23 16:50	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	51.9	07/18/23 16:50	
Benzene	ug/L	ND	1.0	0.34	07/18/23 16:50	
Diisopropyl ether	ug/L	ND	1.0	0.31	07/18/23 16:50	
Ethanol	ug/L	ND	200	72.2	07/18/23 16:50	
Ethyl-tert-butyl ether	ug/L	ND	10.0	3.2	07/18/23 16:50	
Ethylbenzene	ug/L	ND	1.0	0.30	07/18/23 16:50	
m&p-Xylene	ug/L	ND	2.0	0.71	07/18/23 16:50	
Methyl-tert-butyl ether	ug/L	ND	1.0	0.42	07/18/23 16:50	
Naphthalene	ug/L	ND	1.0	0.64	07/18/23 16:50	v1
o-Xylene	ug/L	ND	1.0	0.34	07/18/23 16:50	
tert-Amyl Alcohol	ug/L	ND	100	36.4	07/18/23 16:50	
tert-Amylmethyl ether	ug/L	ND	10.0	2.7	07/18/23 16:50	
tert-Butyl Alcohol	ug/L	ND	100	26.8	07/18/23 16:50	
tert-Butyl Formate	ug/L	ND	50.0	29.4	07/18/23 16:50	
Toluene	ug/L	ND	1.0	0.48	07/18/23 16:50	
Xylene (Total)	ug/L	ND	1.0	0.34	07/18/23 16:50	
1,2-Dichloroethane-d4 (S)	%	100	70-130		07/18/23 16:50	
4-Bromofluorobenzene (S)	%	102	70-130		07/18/23 16:50	
Toluene-d8 (S)	%	103	70-130		07/18/23 16:50	

LABORATORY CONTROL SAMPLE: 4081690

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	20	20.9	104	70-130	
3,3-Dimethyl-1-Butanol	ug/L	400	374	93	70-130	
Benzene	ug/L	20	20.6	103	70-130	
Diisopropyl ether	ug/L	20	18.8	94	70-130	
Ethanol	ug/L	800	742	93	70-130	
Ethyl-tert-butyl ether	ug/L	40	38.9	97	70-130	
Ethylbenzene	ug/L	20	19.6	98	70-130	
m&p-Xylene	ug/L	40	39.4	98	70-130	
Methyl-tert-butyl ether	ug/L	20	19.7	99	70-130	
Naphthalene	ug/L	20	24.3	121	70-130	v1
o-Xylene	ug/L	20	20.1	100	70-130	
tert-Amyl Alcohol	ug/L	400	359	90	70-130	
tert-Amylmethyl ether	ug/L	40	38.4	96	70-130	
tert-Butyl Alcohol	ug/L	200	190	95	70-130	
tert-Butyl Formate	ug/L	160	152	95	70-130	

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QUALITY CONTROL DATA

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

LABORATORY CONTROL SAMPLE: 4081690

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene	ug/L	20	19.6	98	70-130	
Xylene (Total)	ug/L	60	59.5	99	70-130	
1,2-Dichloroethane-d4 (S)	%			97	70-130	
4-Bromofluorobenzene (S)	%			102	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE SAMPLE: 4081692

Parameter	Units	92677582016 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	ND	10	8.7	87	70-137	
3,3-Dimethyl-1-Butanol	ug/L	ND	200	146	73	39-157	
Benzene	ug/L	ND	10	8.8	88	70-151	
Diisopropyl ether	ug/L	ND	10	7.5	73	63-144	
Ethanol	ug/L	ND	400	338	84	39-176	
Ethyl-tert-butyl ether	ug/L	ND	20	14.0	70	66-137	
Ethylbenzene	ug/L	ND	10	9.2	92	66-153	
m&p-Xylene	ug/L	ND	20	17.5	87	69-152	
Methyl-tert-butyl ether	ug/L	0.63J	10	7.2	65	54-156	
Naphthalene	ug/L	ND	10	8.5	85	61-148	
o-Xylene	ug/L	ND	10	8.4	84	70-148	
tert-Amyl Alcohol	ug/L	ND	200	173	87	54-153	
tert-Amylmethyl ether	ug/L	ND	20	15.9	80	69-139	
tert-Butyl Alcohol	ug/L	ND	100	110	110	43-188	
tert-Butyl Formate	ug/L	ND	80	ND	0	10-170	M1,P5
Toluene	ug/L	ND	10	9.0	90	59-148	
Xylene (Total)	ug/L	ND	30	25.9	86	63-158	
1,2-Dichloroethane-d4 (S)	%				100	70-130	
4-Bromofluorobenzene (S)	%				97	70-130	
Toluene-d8 (S)	%				105	70-130	

SAMPLE DUPLICATE: 4081691

Parameter	Units	92677582017 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	

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QUALITY CONTROL DATA

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

SAMPLE DUPLICATE: 4081691

Parameter	Units	92677582017 Result	Dup Result	RPD	Max RPD	Qualifiers
tert-Amyl Alcohol	ug/L	ND	ND		30	
tert-Amylmethyl ether	ug/L	ND	ND		30	
tert-Butyl Alcohol	ug/L	ND	ND		30	
tert-Butyl Formate	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	108	99			
4-Bromofluorobenzene (S)	%	106	91			
Toluene-d8 (S)	%	108	106			

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QUALITY CONTROL DATA

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

QC Batch:	787243	Analysis Method:	EPA 8260D
QC Batch Method:	EPA 8260D	Analysis Description:	8260 MSV SC
		Laboratory:	Pace Analytical Services - Charlotte

Associated Lab Samples: 92677582005, 92677582006, 92677582008, 92677582010

METHOD BLANK: 4081225 Matrix: Water

Associated Lab Samples: 92677582005, 92677582006, 92677582008, 92677582010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	2.1	07/17/23 13:01	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	53.9	07/17/23 13:01	
Benzene	ug/L	ND	5.0	1.7	07/17/23 13:01	
Diisopropyl ether	ug/L	ND	5.0	3.5	07/17/23 13:01	
Ethanol	ug/L	ND	200	144	07/17/23 13:01	
Ethyl-tert-butyl ether	ug/L	ND	10.0	8.5	07/17/23 13:01	
Ethylbenzene	ug/L	ND	5.0	1.8	07/17/23 13:01	
m&p-Xylene	ug/L	ND	10.0	4.1	07/17/23 13:01	
Methyl-tert-butyl ether	ug/L	ND	5.0	3.1	07/17/23 13:01	
Naphthalene	ug/L	ND	5.0	2.1	07/17/23 13:01	v2
o-Xylene	ug/L	ND	5.0	2.0	07/17/23 13:01	
tert-Amyl Alcohol	ug/L	ND	100	65.6	07/17/23 13:01	
tert-Amylmethyl ether	ug/L	ND	10.0	3.0	07/17/23 13:01	
tert-Butyl Alcohol	ug/L	ND	100	91.0	07/17/23 13:01	
tert-Butyl Formate	ug/L	ND	50.0	24.1	07/17/23 13:01	
Toluene	ug/L	ND	5.0	2.0	07/17/23 13:01	
Xylene (Total)	ug/L	ND	5.0	5.0	07/17/23 13:01	
1,2-Dichloroethane-d4 (S)	%	113	70-130		07/17/23 13:01	
4-Bromofluorobenzene (S)	%	93	70-130		07/17/23 13:01	
Toluene-d8 (S)	%	101	70-130		07/17/23 13:01	

LABORATORY CONTROL SAMPLE: 4081226

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	20	20.0	100	70-130	
3,3-Dimethyl-1-Butanol	ug/L	400	412	103	70-130	
Benzene	ug/L	20	20.1	100	70-130	
Diisopropyl ether	ug/L	20	18.6	93	70-130	
Ethanol	ug/L	800	779	97	70-130	
Ethyl-tert-butyl ether	ug/L	40	38.2	95	70-130	
Ethylbenzene	ug/L	20	20.7	103	70-130	
m&p-Xylene	ug/L	40	41.3	103	70-130	
Methyl-tert-butyl ether	ug/L	20	19.1	95	70-130	
Naphthalene	ug/L	20	15.4	77	70-130	v3
o-Xylene	ug/L	20	21.0	105	70-130	
tert-Amyl Alcohol	ug/L	400	372	93	70-130	
tert-Amylmethyl ether	ug/L	40	38.4	96	70-130	
tert-Butyl Alcohol	ug/L	200	169	85	70-130	
tert-Butyl Formate	ug/L	160	152	95	70-130	

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QUALITY CONTROL DATA

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

LABORATORY CONTROL SAMPLE: 4081226

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene	ug/L	20	19.2	96	70-130	
Xylene (Total)	ug/L	60	62.3	104	70-130	
1,2-Dichloroethane-d4 (S)	%			108	70-130	
4-Bromofluorobenzene (S)	%			92	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4081227 4081228

Parameter	Units	92677562002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dichloroethane	ug/L	16.0	20	20	44.5	41.3	143	127	70-137	7	30	M1
3,3-Dimethyl-1-Butanol	ug/L	ND	400	400	597	617	149	154	39-157	3	30	
Benzene	ug/L	60.4	20	20	86.7	74.1	131	68	70-151	16	30	M1
Diisopropyl ether	ug/L	ND	20	20	32.7	31.8	151	147	63-144	3	30	M1
Ethanol	ug/L	ND	800	800	1210	1230	151	153	39-176	1	30	
Ethyl-tert-butyl ether	ug/L	ND	40	40	57.6	57.9	144	145	66-137	1	30	M1
Ethylbenzene	ug/L	ND	20	20	30.9	30.8	147	147	66-153	0	30	
m&p-Xylene	ug/L	35.5	40	40	92.6	84.1	143	121	69-152	10	30	
Methyl-tert-butyl ether	ug/L	37.5	20	20	67.3	59.4	149	110	54-156	12	30	
Naphthalene	ug/L	ND	20	20	36.6	36.8	173	174	61-148	0	30	M1
o-Xylene	ug/L	33.6	20	20	59.2	51.1	128	87	70-148	15	30	
tert-Amyl Alcohol	ug/L	938	400	400	1610	1470	167	132	54-153	9	30	M1
tert-Amylmethyl ether	ug/L	ND	40	40	58.1	58.4	145	146	69-139	0	30	M1
tert-Butyl Alcohol	ug/L	ND	200	200	316	335	150	159	43-188	6	30	
tert-Butyl Formate	ug/L	ND	160	160	196	167	123	105	10-170	16	30	
Toluene	ug/L	36.2	20	20	62.4	54.8	131	93	59-148	13	30	
Xylene (Total)	ug/L	69.2	60	60	152	135	138	110	63-158	12	30	
1,2-Dichloroethane-d4 (S)	%						104	103	70-130			
4-Bromofluorobenzene (S)	%						101	104	70-130			
Toluene-d8 (S)	%						97	97	70-130			

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QUALITY CONTROL DATA

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

QC Batch:	787244	Analysis Method:	EPA 8260D
QC Batch Method:	EPA 8260D	Analysis Description:	8260 MSV SC
		Laboratory:	Pace Analytical Services - Charlotte
Associated Lab Samples:	92677582001, 92677582002, 92677582004, 92677582007, 92677582009, 92677582011, 92677582012, 92677582013, 92677582014, 92677582021		

METHOD BLANK: 4081229

Matrix: Water

Associated Lab Samples: 92677582001, 92677582002, 92677582004, 92677582007, 92677582009, 92677582011, 92677582012, 92677582013, 92677582014, 92677582021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	2.1	07/17/23 22:06	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	53.9	07/17/23 22:06	
Benzene	ug/L	ND	5.0	1.7	07/17/23 22:06	
Diisopropyl ether	ug/L	ND	5.0	3.5	07/17/23 22:06	
Ethanol	ug/L	ND	200	144	07/17/23 22:06	
Ethyl-tert-butyl ether	ug/L	ND	10.0	8.5	07/17/23 22:06	
Ethylbenzene	ug/L	ND	5.0	1.8	07/17/23 22:06	
m&p-Xylene	ug/L	ND	10.0	4.1	07/17/23 22:06	
Methyl-tert-butyl ether	ug/L	ND	5.0	3.1	07/17/23 22:06	
Naphthalene	ug/L	ND	5.0	2.1	07/17/23 22:06	
o-Xylene	ug/L	ND	5.0	2.0	07/17/23 22:06	
tert-Amyl Alcohol	ug/L	ND	100	65.6	07/17/23 22:06	
tert-Amylmethyl ether	ug/L	ND	10.0	3.0	07/17/23 22:06	
tert-Butyl Alcohol	ug/L	ND	100	91.0	07/17/23 22:06	
tert-Butyl Formate	ug/L	ND	50.0	24.1	07/17/23 22:06	
Toluene	ug/L	ND	5.0	2.0	07/17/23 22:06	
Xylene (Total)	ug/L	ND	5.0	5.0	07/17/23 22:06	
1,2-Dichloroethane-d4 (S)	%	104	70-130		07/17/23 22:06	
4-Bromofluorobenzene (S)	%	98	70-130		07/17/23 22:06	
Toluene-d8 (S)	%	98	70-130		07/17/23 22:06	

LABORATORY CONTROL SAMPLE: 4081230

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	20	19.6	98	70-130	
3,3-Dimethyl-1-Butanol	ug/L	400	380	95	70-130	
Benzene	ug/L	20	19.3	97	70-130	
Diisopropyl ether	ug/L	20	19.6	98	70-130	
Ethanol	ug/L	800	840	105	70-130	
Ethyl-tert-butyl ether	ug/L	40	38.2	95	70-130	
Ethylbenzene	ug/L	20	18.7	94	70-130	
m&p-Xylene	ug/L	40	37.6	94	70-130	
Methyl-tert-butyl ether	ug/L	20	19.1	96	70-130	
Naphthalene	ug/L	20	21.8	109	70-130	
o-Xylene	ug/L	20	18.5	93	70-130	
tert-Amyl Alcohol	ug/L	400	376	94	70-130	
tert-Amylmethyl ether	ug/L	40	38.6	96	70-130	

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QUALITY CONTROL DATA

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

LABORATORY CONTROL SAMPLE: 4081230

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
tert-Butyl Alcohol	ug/L	200	178	89	70-130	
tert-Butyl Formate	ug/L	160	154	96	70-130	
Toluene	ug/L	20	18.4	92	70-130	
Xylene (Total)	ug/L	60	56.1	93	70-130	
1,2-Dichloroethane-d4 (S)	%			102	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			97	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4081231 4081232

Parameter	Units	92677562018 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dichloroethane	ug/L	ND	20	20	28.3	27.5	141	137	70-137	3	30	M1
3,3-Dimethyl-1-Butanol	ug/L	ND	400	400	557	510	139	127	39-157	9	30	
Benzene	ug/L	ND	20	20	29.8	27.8	149	139	70-151	7	30	
Diisopropyl ether	ug/L	ND	20	20	29.4	28.0	147	140	63-144	5	30	M1
Ethanol	ug/L	ND	800	800	1190	1130	149	141	39-176	6	30	
Ethyl-tert-butyl ether	ug/L	ND	40	40	57.0	54.1	142	135	66-137	5	30	M1
Ethylbenzene	ug/L	ND	20	20	29.0	26.8	145	134	66-153	8	30	
m&p-Xylene	ug/L	ND	40	40	57.9	53.8	145	135	69-152	7	30	
Methyl-tert-butyl ether	ug/L	ND	20	20	27.9	26.5	140	133	54-156	5	30	
Naphthalene	ug/L	ND	20	20	32.6	29.8	163	149	61-148	9	30	M1
o-Xylene	ug/L	ND	20	20	28.9	26.8	143	132	70-148	7	30	
tert-Amyl Alcohol	ug/L	ND	400	400	539	499	135	125	54-153	8	30	
tert-Amylmethyl ether	ug/L	ND	40	40	58.7	54.8	147	137	69-139	7	30	M1
tert-Butyl Alcohol	ug/L	ND	200	200	330	322	165	161	43-188	2	30	
tert-Butyl Formate	ug/L	ND	160	160	107	84.5	67	53	10-170	23	30	
Toluene	ug/L	ND	20	20	28.3	26.6	141	133	59-148	6	30	
Xylene (Total)	ug/L	ND	60	60	86.8	80.6	145	134	63-158	7	30	
1,2-Dichloroethane-d4 (S)	%							100	103			
4-Bromofluorobenzene (S)	%							102	102			
Toluene-d8 (S)	%							98	97			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

QC Batch: 787246

Analysis Method: EPA 8260D

QC Batch Method: EPA 8260D

Analysis Description: 8260 MSV SC

Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92677582022, 92677582023, 92677582024

METHOD BLANK: 4081237

Matrix: Water

Associated Lab Samples: 92677582022, 92677582023, 92677582024

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	2.1	07/17/23 21:53	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	53.9	07/17/23 21:53	
Benzene	ug/L	ND	5.0	1.7	07/17/23 21:53	
Diisopropyl ether	ug/L	ND	5.0	3.5	07/17/23 21:53	
Ethanol	ug/L	ND	200	144	07/17/23 21:53	
Ethyl-tert-butyl ether	ug/L	ND	10.0	8.5	07/17/23 21:53	
Ethylbenzene	ug/L	ND	5.0	1.8	07/17/23 21:53	
m&p-Xylene	ug/L	ND	10.0	4.1	07/17/23 21:53	
Methyl-tert-butyl ether	ug/L	ND	5.0	3.1	07/17/23 21:53	
Naphthalene	ug/L	ND	5.0	2.1	07/17/23 21:53	
o-Xylene	ug/L	ND	5.0	2.0	07/17/23 21:53	
tert-Amyl Alcohol	ug/L	ND	100	65.6	07/17/23 21:53	
tert-Amylmethyl ether	ug/L	ND	10.0	3.0	07/17/23 21:53	
tert-Butyl Alcohol	ug/L	ND	100	91.0	07/17/23 21:53	
tert-Butyl Formate	ug/L	ND	50.0	24.1	07/17/23 21:53	
Toluene	ug/L	ND	5.0	2.0	07/17/23 21:53	
Xylene (Total)	ug/L	ND	5.0	5.0	07/17/23 21:53	
1,2-Dichloroethane-d4 (S)	%	107	70-130		07/17/23 21:53	
4-Bromofluorobenzene (S)	%	101	70-130		07/17/23 21:53	
Toluene-d8 (S)	%	100	70-130		07/17/23 21:53	

LABORATORY CONTROL SAMPLE: 4081238

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	20	22.3	112	70-130	
3,3-Dimethyl-1-Butanol	ug/L	400	329	82	70-130	
Benzene	ug/L	20	21.2	106	70-130	
Diisopropyl ether	ug/L	20	21.2	106	70-130	
Ethanol	ug/L	800	679	85	70-130	
Ethyl-tert-butyl ether	ug/L	40	41.8	104	70-130	
Ethylbenzene	ug/L	20	21.1	106	70-130	
m&p-Xylene	ug/L	40	42.8	107	70-130	
Methyl-tert-butyl ether	ug/L	20	20.8	104	70-130	
Naphthalene	ug/L	20	19.8	99	70-130	
o-Xylene	ug/L	20	20.4	102	70-130	
tert-Amyl Alcohol	ug/L	400	353	88	70-130	
tert-Amylmethyl ether	ug/L	40	42.1	105	70-130	
tert-Butyl Alcohol	ug/L	200	170	85	70-130	
tert-Butyl Formate	ug/L	160	170	106	70-130	

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QUALITY CONTROL DATA

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

LABORATORY CONTROL SAMPLE: 4081238

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene	ug/L	20	21.1	105	70-130	
Xylene (Total)	ug/L	60	63.1	105	70-130	
1,2-Dichloroethane-d4 (S)	%			105	70-130	
4-Bromofluorobenzene (S)	%			102	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4081239 4081240

Parameter	Units	92677562019		MS		MSD		MS	MSD	% Rec	Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Conc.	Result	Result	% Rec	% Rec					
1,2-Dichloroethane	ug/L	ND	20	20	20	22.2	23.5	111	118	70-137		6	30	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	400	400	371	449	93	112	39-157		19	30	
Benzene	ug/L	ND	20	20	20	23.9	24.6	119	123	70-151		3	30	
Diisopropyl ether	ug/L	ND	20	20	20	21.6	22.6	108	113	63-144		5	30	
Ethanol	ug/L	ND	800	800	800	757	866	95	108	39-176		13	30	
Ethyl-tert-butyl ether	ug/L	ND	40	40	40	41.7	45.0	104	112	66-137		8	30	
Ethylbenzene	ug/L	ND	20	20	20	23.2	24.0	116	120	66-153		4	30	
m&p-Xylene	ug/L	ND	40	40	40	45.7	47.6	114	119	69-152		4	30	
Methyl-tert-butyl ether	ug/L	ND	20	20	20	20.8	22.4	104	112	54-156		8	30	
Naphthalene	ug/L	ND	20	20	20	22.1	24.1	110	121	61-148		9	30	
o-Xylene	ug/L	ND	20	20	20	22.8	24.1	114	121	70-148		6	30	
tert-Amyl Alcohol	ug/L	ND	400	400	400	384	461	96	115	54-153		18	30	
tert-Amylmethyl ether	ug/L	ND	40	40	40	45.1	48.6	113	122	69-139		7	30	
tert-Butyl Alcohol	ug/L	ND	200	200	200	256	297	128	148	43-188		15	30	
tert-Butyl Formate	ug/L	ND	160	160	160	ND	ND	1	1	10-170			30	M1
Toluene	ug/L	ND	20	20	20	23.1	24.0	116	120	59-148		4	30	
Xylene (Total)	ug/L	ND	60	60	60	68.5	71.7	114	119	63-158		5	30	
1,2-Dichloroethane-d4 (S)	%							91	96	70-130				
4-Bromofluorobenzene (S)	%							98	102	70-130				
Toluene-d8 (S)	%							97	98	70-130				

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QUALITY CONTROL DATA

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

QC Batch: 787247

Analysis Method: EPA 8260D

QC Batch Method: EPA 8260D

Analysis Description: 8260 MSV SC

Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92677582003

METHOD BLANK: 4081242

Matrix: Water

Associated Lab Samples: 92677582003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	2.1	07/17/23 21:34	
3,3-Dimethyl-1-Butanol	ug/L	ND	100	53.9	07/17/23 21:34	
Benzene	ug/L	ND	5.0	1.7	07/17/23 21:34	
Diisopropyl ether	ug/L	ND	5.0	3.5	07/17/23 21:34	
Ethanol	ug/L	ND	200	144	07/17/23 21:34	
Ethyl-tert-butyl ether	ug/L	ND	10.0	8.5	07/17/23 21:34	
Ethylbenzene	ug/L	ND	5.0	1.8	07/17/23 21:34	
m&p-Xylene	ug/L	ND	10.0	4.1	07/17/23 21:34	
Methyl-tert-butyl ether	ug/L	ND	5.0	3.1	07/17/23 21:34	
Naphthalene	ug/L	ND	5.0	2.1	07/17/23 21:34	
o-Xylene	ug/L	ND	5.0	2.0	07/17/23 21:34	
tert-Amyl Alcohol	ug/L	ND	100	65.6	07/17/23 21:34	
tert-Amylmethyl ether	ug/L	ND	10.0	3.0	07/17/23 21:34	
tert-Butyl Alcohol	ug/L	ND	100	91.0	07/17/23 21:34	
tert-Butyl Formate	ug/L	ND	50.0	24.1	07/17/23 21:34	
Toluene	ug/L	ND	5.0	2.0	07/17/23 21:34	
Xylene (Total)	ug/L	ND	5.0	5.0	07/17/23 21:34	
1,2-Dichloroethane-d4 (S)	%	104	70-130		07/17/23 21:34	
4-Bromofluorobenzene (S)	%	99	70-130		07/17/23 21:34	
Toluene-d8 (S)	%	102	70-130		07/17/23 21:34	

LABORATORY CONTROL SAMPLE: 4081243

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	20	23.4	117	70-130	
3,3-Dimethyl-1-Butanol	ug/L	400	351	88	70-130	
Benzene	ug/L	20	21.6	108	70-130	
Diisopropyl ether	ug/L	20	22.3	111	70-130	
Ethanol	ug/L	800	791	99	70-130	
Ethyl-tert-butyl ether	ug/L	40	43.3	108	70-130	
Ethylbenzene	ug/L	20	21.4	107	70-130	
m&p-Xylene	ug/L	40	42.7	107	70-130	
Methyl-tert-butyl ether	ug/L	20	20.6	103	70-130	
Naphthalene	ug/L	20	20.2	101	70-130	
o-Xylene	ug/L	20	21.1	106	70-130	
tert-Amyl Alcohol	ug/L	400	373	93	70-130	
tert-Amylmethyl ether	ug/L	40	43.3	108	70-130	
tert-Butyl Alcohol	ug/L	200	180	90	70-130	
tert-Butyl Formate	ug/L	160	180	112	70-130	

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QUALITY CONTROL DATA

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

LABORATORY CONTROL SAMPLE: 4081243

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene	ug/L	20	21.5	107	70-130	
Xylene (Total)	ug/L	60	63.8	106	70-130	
1,2-Dichloroethane-d4 (S)	%			108	70-130	
4-Bromofluorobenzene (S)	%			104	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4081244 4081245

Parameter	Units	92677579007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dichloroethane	ug/L	ND	20	20	23.2	21.0	116	105	70-137	10	30	
3,3-Dimethyl-1-Butanol	ug/L	ND	400	400	434	395	108	99	39-157	9	30	
Benzene	ug/L	ND	20	20	24.5	22.2	122	111	70-151	10	30	
Diisopropyl ether	ug/L	ND	20	20	22.1	19.8	110	99	63-144	11	30	
Ethanol	ug/L	ND	800	800	848	787	106	98	39-176	8	30	
Ethyl-tert-butyl ether	ug/L	ND	40	40	43.7	39.3	109	98	66-137	10	30	
Ethylbenzene	ug/L	ND	20	20	23.8	21.5	119	108	66-153	10	30	
m&p-Xylene	ug/L	ND	40	40	47.1	43.0	118	107	69-152	9	30	
Methyl-tert-butyl ether	ug/L	ND	20	20	22.0	19.6	110	98	54-156	12	30	
Naphthalene	ug/L	ND	20	20	23.4	21.5	116	107	61-148	8	30	
o-Xylene	ug/L	ND	20	20	23.4	21.2	117	106	70-148	10	30	
tert-Amyl Alcohol	ug/L	ND	400	400	442	411	110	103	54-153	7	30	
tert-Amylmethyl ether	ug/L	ND	40	40	48.0	42.3	120	106	69-139	13	30	
tert-Butyl Alcohol	ug/L	ND	200	200	294	269	147	134	43-188	9	30	
tert-Butyl Formate	ug/L	ND	160	160	ND	ND	2	2	10-170		30	M1
Toluene	ug/L	ND	20	20	23.6	21.4	118	107	59-148	10	30	
Xylene (Total)	ug/L	ND	60	60	70.6	64.2	118	107	63-158	9	30	
1,2-Dichloroethane-d4 (S)	%						93	92	70-130			
4-Bromofluorobenzene (S)	%						101	100	70-130			
Toluene-d8 (S)	%						99	99	70-130			

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QUALITY CONTROL DATA

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

QC Batch:	787927	Analysis Method:	EPA 504.1
QC Batch Method:	EPA 504.1	Analysis Description:	GCS 504 EDB DBCP
		Laboratory:	Pace Analytical Services - Charlotte

Associated Lab Samples: 92677582025, 92677582026, 92677582027, 92677582028

METHOD BLANK: 4084791 Matrix: Water

Associated Lab Samples: 92677582025, 92677582026, 92677582027, 92677582028

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	0.0056	07/20/23 19:47	
1-Chloro-2-bromopropane (S)	%	132	70-130		07/20/23 19:47	S3

LABORATORY CONTROL SAMPLE & LCSD: 4084792

4084793

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	0.25	0.29	0.30	119	123	70-130	3	20	
1-Chloro-2-bromopropane (S)	%				115	123	70-130			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4084795

4084796

Parameter	Units	92677582026 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	0.25	0.25	0.34	0.31	140	127	65-135	10	20	M1
1-Chloro-2-bromopropane (S)	%						126	120	70-130			

SAMPLE DUPLICATE: 4084794

Parameter	Units	92677582025 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%	115	122			

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QUALITY CONTROL DATA

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

QC Batch:	787639	Analysis Method:	EPA 8011
QC Batch Method:	EPA 8011	Analysis Description:	GCS 8011 EDB DBCP
		Laboratory:	Pace Analytical Services - Charlotte
Associated Lab Samples:	92677582001, 92677582002, 92677582003, 92677582004, 92677582005, 92677582006, 92677582007, 92677582008, 92677582009, 92677582010, 92677582011, 92677582012, 92677582013, 92677582014, 92677582015		

METHOD BLANK:	4083237	Matrix:	Water
Associated Lab Samples:	92677582001, 92677582002, 92677582003, 92677582004, 92677582005, 92677582006, 92677582007, 92677582008, 92677582009, 92677582010, 92677582011, 92677582012, 92677582013, 92677582014, 92677582015		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	0.0074	07/19/23 15:50	
1-Chloro-2-bromopropane (S)	%	139	60-140		07/19/23 15:50	

LABORATORY CONTROL SAMPLE & LCSD:		4083238	4083239							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	0.25	0.35	0.36	143	145	60-140	2	20	L1
1-Chloro-2-bromopropane (S)	%				129	128	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:				4083241	4083242							
Parameter	Units	92677579019 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	0.25	0.25	0.29	0.29	117	117	60-140	0	20	
1-Chloro-2-bromopropane (S)	%						103	104	60-140			

SAMPLE DUPLICATE: 4083240						
Parameter	Units	92677579018 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%	137	108			

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QUALITY CONTROL DATA

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

QC Batch:	787921	Analysis Method:	EPA 8011
QC Batch Method:	EPA 8011	Analysis Description:	GCS 8011 EDB DBCP
		Laboratory:	Pace Analytical Services - Charlotte
Associated Lab Samples:	92677582016, 92677582017, 92677582018, 92677582019, 92677582020, 92677582021, 92677582022, 92677582024		

METHOD BLANK:	4084774	Matrix:	Water
Associated Lab Samples:	92677582016, 92677582017, 92677582018, 92677582019, 92677582020, 92677582021, 92677582022, 92677582024		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	0.020	0.0074	07/20/23 14:19	
1-Chloro-2-bromopropane (S)	%	100	60-140		07/20/23 14:19	

LABORATORY CONTROL SAMPLE & LCSD:		4084775	4084776							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	0.25	0.27	0.33	110	135	60-140	20	20	
1-Chloro-2-bromopropane (S)	%				99	121	60-140			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		4084778	4084779									
Parameter	Units	92677582017 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	0.25	0.25	0.33	0.33	132	131	60-140	1	20	
1-Chloro-2-bromopropane (S)	%						118	117	60-140			

SAMPLE DUPLICATE: 4084777						
Parameter	Units	92677582016 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	ND		20	
1-Chloro-2-bromopropane (S)	%	115	116			

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QUALIFIERS

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

C0	Result confirmed by second analysis.
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
P5	The EPA or method required sample preservation degrades this compound, therefore acceptable recoveries may not be achieved in sample matrix spikes.
S3	Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated sample.
v1	The continuing calibration verification was above the method acceptance limit. Any detection for the analyte in the associated samples may have a high bias.
v2	The continuing calibration verification was below the method acceptance limit. The analyte was not detected in the associated samples and the sensitivity of the instrument was verified with a reporting limit check standard.
v3	The continuing calibration verification was below the method acceptance limit. Any detection for the analyte in the associated samples may have low bias.

REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92677582025	WSW-1	EPA 504.1	787927	EPA 504.1	788053
92677582026	WSW-2	EPA 504.1	787927	EPA 504.1	788053
92677582027	WSW-DUP	EPA 504.1	787927	EPA 504.1	788053
92677582028	WSW-FB	EPA 504.1	787927	EPA 504.1	788053
92677582001	MW-1	EPA 8011	787639	EPA 8011	787750
92677582002	MW-2	EPA 8011	787639	EPA 8011	787750
92677582003	MW-3	EPA 8011	787639	EPA 8011	787750
92677582004	MW-4	EPA 8011	787639	EPA 8011	787750
92677582005	MW-5	EPA 8011	787639	EPA 8011	787750
92677582006	MW-6	EPA 8011	787639	EPA 8011	787750
92677582007	MW-7	EPA 8011	787639	EPA 8011	787750
92677582008	MW-8	EPA 8011	787639	EPA 8011	787750
92677582009	MW-9	EPA 8011	787639	EPA 8011	787750
92677582010	MW-10	EPA 8011	787639	EPA 8011	787750
92677582011	DW-1	EPA 8011	787639	EPA 8011	787750
92677582012	DW-2	EPA 8011	787639	EPA 8011	787750
92677582013	DW-3	EPA 8011	787639	EPA 8011	787750
92677582014	DW-4	EPA 8011	787639	EPA 8011	787750
92677582015	SW-1	EPA 8011	787639	EPA 8011	787750
92677582016	SW-2	EPA 8011	787921	EPA 8011	788050
92677582017	SW-3	EPA 8011	787921	EPA 8011	788050
92677582018	SW-4	EPA 8011	787921	EPA 8011	788050
92677582019	SW-5	EPA 8011	787921	EPA 8011	788050
92677582020	SW-6	EPA 8011	787921	EPA 8011	788050
92677582021	DUP	EPA 8011	787921	EPA 8011	788050
92677582022	FB	EPA 8011	787921	EPA 8011	788050
92677582024	GAC	EPA 8011	787921	EPA 8011	788050
92677582025	WSW-1	EPA 524.2	788072		
92677582026	WSW-2	EPA 524.2	788072		
92677582027	WSW-DUP	EPA 524.2	788072		
92677582028	WSW-FB	EPA 524.2	788072		
92677582029	WSW-TB	EPA 524.2	788072		
92677582015	SW-1	EPA 8260D	787324		
92677582016	SW-2	EPA 8260D	787324		
92677582017	SW-3	EPA 8260D	787324		
92677582018	SW-4	EPA 8260D	787321		
92677582019	SW-5	EPA 8260D	787321		
92677582020	SW-6	EPA 8260D	787321		
92677582025	WSW-1	EPA 8260D	787321		
92677582026	WSW-2	EPA 8260D	787321		
92677582027	WSW-DUP	EPA 8260D	787321		
92677582028	WSW-FB	EPA 8260D	787321		
92677582029	WSW-TB	EPA 8260D	787321		
92677582001	MW-1	EPA 8260D	787244		
92677582002	MW-2	EPA 8260D	787244		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: JAKE HIGGINS 03423/65749

Pace Project No.: 92677582

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92677582003	MW-3	EPA 8260D	787247		
92677582004	MW-4	EPA 8260D	787244		
92677582005	MW-5	EPA 8260D	787243		
92677582006	MW-6	EPA 8260D	787243		
92677582007	MW-7	EPA 8260D	787244		
92677582008	MW-8	EPA 8260D	787243		
92677582009	MW-9	EPA 8260D	787244		
92677582010	MW-10	EPA 8260D	787243		
92677582011	DW-1	EPA 8260D	787244		
92677582012	DW-2	EPA 8260D	787244		
92677582013	DW-3	EPA 8260D	787244		
92677582014	DW-4	EPA 8260D	787244		
92677582021	DUP	EPA 8260D	787244		
92677582022	FB	EPA 8260D	787246		
92677582023	TB	EPA 8260D	787246		
92677582024	GAC	EPA 8260D	787246		

REPORT OF LABORATORY ANALYSIS

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CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

Billing Information:

NLY

MO#: 92677582

92677582

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

1

Page 56 of 61

Customer Project Name/Number:						State:		County/City:		Time Zone Collected:	
Dake Higgins						SC		Florence		[] PT [] MT [] CT [X] ET	
Phone:			Site/Facility ID #:			Compliance Monitoring?					
Email:			C3423			[] Yes [] No					
Collected By (print):			Purchase Order #:			DW PWS ID #:					
Turner/CS.com			65749			DW Location Code:					
Collected By (signature):			Turnaround Date Required:			Immediately Packed on Ice:					
[Signature]						[X] Yes [] No					
Sample Disposal:			Rush:			Field Filtered (if applicable):					
[] Dispose as appropriate [] Return			[] Same Day [] Next Day			[] Yes [] No					
[] Archive: _____			[] 2 Day [] 3 Day [] 4 Day [] 5 Day			Analysis: _____					
[] Hold: _____			(Expedite Charges Apply)								
* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)											
Customer Sample ID		Matrix *		Comp / Grab		Collected (or Composite Start) Date Time		Composite End Date Time		Res CI # of Ctrs	
Mw-1		Gv		G		7/14/23 11:25				G	
Mw-2						11:02				X Btexm, 1, 2 - PCA, oxys 8260	
Mw-3						10:42				X EPB 8011	
Mw-4						10:40					
Mw-5						10:52					
Mw-6						10:54					
Mw-7						11:15					
Mw-8						11:30					
Mw-9						11:35					
Mw-10						11:50					
Customer Remarks / Special Conditions / Possible Hazards:											
Type of Ice Used: Wet Blue Dry None											
Packing Material Used: Bubble											
Radchem sample(s) screened (<500 cpm): Y N NA											
Lab Tracking #: 28069993											
SHORT HOLDS PRESENT (<72 hours): Y N NA											
Samples received via: FEDEX UPS Client Courier Page Courier											
Date/Time: 7-14-23 1459											
Table #: _____											
Acturnum: _____											
Template: _____											
Prelogin: _____											
PM: _____											
PB: _____											
Trip Blank Received: [X] Y [] N [] NA											
MeOH TSP Other											
Non Conformance(s): YES / NO											
Page: _____ of: _____											

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

Billing Information:

LAB
MO#: 92677582
PM: TMC Due Date: 07/24/23
CLIENT: 92-MIDLAND

Company: MEI
Address: 231 Decker Rd
Report To: B. Shore
Copy To:

Email To: JLC@Mei.net
Site Collection Info/Address:

Conte

Lab Project Manager:

Customer Project Name/Number:

State: County/City: Time Zone Collected:

Analyses

Lab Profile/Line:

Phone: Site/Facility ID #: 03423
Email: Compliance Monitoring? ☐ Yes ☐ No

Collected By (print): Hunter Scan
Purchase Order #: 65749
Quote #: DW PWS ID #: DW Location Code:

Collected By (signature): Turnaround Date Required: Immediately Packed on Ice: ☒ Yes ☐ No

Sample Disposal: Rush: ☐ Same Day ☐ Next Day ☐ 2 Day ☐ 3 Day ☐ 4 Day ☐ 5 Day

☐ Dispose as appropriate ☐ Return ☐ Archive: ☐ Hold: Analysis: ☐ Yes ☐ No

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start)	Composite End	Res	# of Cns
DW-1	GV	6	7/14/23 12:50			6
DW-2			12:52			
DW-3			12:43			
DW-4			12:40			
DW-1			11:38			
DW-2			11:05			
DW-3			10:31			
DW-4			10:29			
DW-5			10:27			
DW-6			10:22			

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: Wet Blue Dry None

SHORT HOLDS PRESENT (<72 hours): Y N (N/A)

Lab Sample Temperature Info:

Packing Material Used: Bubble

Radchem sample(s) screened (<500 ppm): Y N (N/A)

Lab Tracking #: 2806995

Samples received via: FEDEX UPS Client

Temp Blank Received: Y N
Therm ID#: 427-029204
Cooler 1 Temp Upon Receipt: 2.0C
Cooler 1 Therm Corr. Factor: 0C
Cooler 1 Corrected Temp: 2.0C

Relinquished by/Company (Signature)

Date/Time: 7/14/23 1459

Received by/Company (Signature)

Date/Time: 7-14-23 1459

Table #: MTJL LAB USE ONLY

Temp Blank Received: Y N
MeOH TSP Other

Relinquished by/Company (Signature)

Date/Time: 7-14-23 1833

Received by/Company (Signature)

Date/Time: 7/17/23 0800

Table #: MTJL LAB USE ONLY

Temp Blank Received: Y N
MeOH TSP Other

Relinquished by/Company (Signature)

Date/Time:

Received by/Company (Signature)

Date/Time:

Table #: MTJL LAB USE ONLY

Temp Blank Received: Y N
MeOH TSP Other

CHAIN-OF-CUSTODY Analytical Request Document

LAB

W0#: 92677582

ir Number or

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

Company:

Billing Information:

PM: TMC Due Date: 07/24/23
CLIENT: 92-MIDLAND

Y

Address:

Report To:

Email To:

Site Collection Info/Address:

Contaminant Name

Lab Project Manager:

Y

Copy To:

State: County/City: Time Zone Collected:

Customer Project Name/Number:

Site/Facility ID #: Compliance Monitoring?

Phone:

Purchase Order #: DW PWS ID #:

Collected By (print):

Quote #: DW Location Code:

Turnaround Date Required:

Field Filtered (if applicable):

Sample Disposal:

Rush: [] Same Day [] Next Day [] 2 Day [] 3 Day [] 4 Day [] 5 Day

Archive:

Analysis:

Hold:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID

Matrix *

Comp / Grab

Collected (or Composite Start) Date Time

Composite End Date Time

Res CI

of Cms

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used:

Wet

Blue

Dry

None

Packing Material Used:

Radchem sample(s) screened (<500 cpm):

Y N NA

Lab Tracking #:

SHOULD HOLDS PRESENT (<72 hours):

Y N N/A

Temp Sample Temperature Info:

Temp Blank Received:

Therm ID#:

Cooler 1 Temp Upon Receipt:

Cooler 1 Therm Corr. Factor:

Cooler 1 Corrected Temp:

Comments:

Relinquished by/Company (Signature)

Date/Time:

Received by/Company (Signature)

Date/Time:

Table #:

MTJL LAB USE ONLY

Tripp Blank Received:

MeOH

TSP

Other

Page: of:

Relinquished by/Company (Signature)

Date/Time:

Received by/Company (Signature)

Date/Time:

Table #:

MTJL LAB USE ONLY

Tripp Blank Received:

MeOH

TSP

Other

Page: of:

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Project #

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

**Bottom half of box is to list number of bottles

***Check all unpreserved Nitrates for chlorine

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	V5GU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
1																6													
2																6													
3																6													
4																6													
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10																6													
11																6													
12																6													

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Effective Date: 11/14/2022

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Project #

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

**Bottom half of box is to list number of bottles

***Check all unpreserved Nitrates for chlorine

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic Zn Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	V5GU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
1																6													
2																6													
3																6													
4																6													
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8																6													
9																6													
10																6													
11																2													
12																6													

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.



Effective Date: 11/14/2022

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Project #

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LHg

**Bottom half of box is to list number of bottles

***Check all unpreserved Nitrates for chlorine

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	V5GU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
1																6	3											
2																6	3											
3																												
4																6	3											
5																6	3											
6																6	3											
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12																												

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

APPENDIX C:

TAX MAP

(Not Applicable)

APPENDIX D:

SOIL BORING/FIELD SCREENING LOGS & 1903 FORMS

(Not Applicable)

APPENDIX E:
WELL COMPLETION LOGS & 1903 FORMS
(Not Applicable)

APPENDIX F:
AQUIFER EVALUATION SUMMARY FORMS, DATA, GRAPHS, EQUATIONS
(Not Applicable)

APPENDIX G:
DISPOSAL MANIFEST



July 25, 2023

Re: Treatment of Purge Water
Jake Huggins DBA Outpost at Willowcreek
Florence, South Carolina
UST Permit# 03423
MECI Project Number 22-7924C

To Whom it May Concern;

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

Applicability:

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

Conditions:

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

All purge waters were treated on-site using an up-flow treatment drum loaded with 80 pounds of activated carbon. Carbon will be loaded to a maximum of 3 pounds of total organic compounds or 5,000 gallons of development/purge water, whichever occurs first.

July 25, 2023

30.00 Gallons of Purge water were treated on July 14, 2023 at the referenced site.

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

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

Sincerely,
Midlands Environmental Consultants, Inc.



Jeff L. Coleman
Senior Scientist

APPENDIX H:
LOCAL ZONING REGULATIONS
(Not Applicable)

APPENDIX I:
FATE AND TRANSPORT MODELING
(Not Applicable)

APPENDIX J:
ACCESS AGREEMENTS
(Not Applicable)

APPENDIX K:
DATA VERIFICATION CHECKLIST

Contractor Checklist

Item#	Item	Yes	No	N/A
1	Are Facility Name, Permit #, and address provided?	X		
2	Is UST Owner/Operator name, address, & phone number provided?	X		
3	Is name, address, & phone number of current property owner provided?	X		
4	Is the DHEC Certified UST Site Rehabilitation Contractor's Name, Address, telephone number, and certification number provided?	X		
5	Is the name, address, telephone number, and certification number of the well driller that installed borings/monitoring wells provided?			X
6	Is the name, address, telephone number, and certification number of the certified laboratory(ies) performing analytical analyses provided?	X		
7	Has the facility history been summarized?	X		
8	Has the regional geology and hydrogeology been described?	X		
9	Are the receptor survey results provided as required?			X
10	Has current use of the site and adjacent land been described?	X		
11	Has the site-specific geology and hydrogeology been described?	X		
12	Has the primary soil type been described?	X		
13	Have field screening results been described?			X
14	Has a description of the soil sample collection and preservation been detailed?			X
15	Has the field screening methodology and procedure been detailed?			X
16	Has the monitoring well installation and development dates been provided?			X
17	Has the method of well development been detailed?			X
18	Has justification been provided for the locations of the monitoring wells?			X
19	Have the monitoring wells been labeled in accordance with the UST QAPP guidelines?	X		
20	Has the groundwater sampling methodology been detailed?	X		
21	Have the groundwater sampling dates and groundwater measurements been provided? (Table 2 & Figures 4-4A)	X		
22	Has the purging methodology been detailed?	X		
23	Has the volume of water purged from each well been provided along with measurements to verify that purging is complete? (Appendix B)	X		
24	If free-product is present, has the thickness been provided?			X
25	Does the report include a brief discussion of the assessment done and the results?	X		
26	Does the report include a brief discussion of the aquifer evaluation and results?			X
27	Does the report include a brief discussion of the fate & transport models used?			X

Item#	Item	Yes	No	N/A
28	Are the site-conceptual model tables included? (Tier 1 Risk Evaluation)			X
29	Have the exposure pathways been analyzed? (Tier 2 Risk Evaluation)			X
30	Have the SSTLs for each compound and pathway been calculated? (Tier 2 Risk Evaluation)			X
31	Have recommendations for further action been provided and explained?	X		
32	Has the soil analytical data for the site been provided in tabular format?			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? (Table 1)	X		
35	Have the aquifer characteristics been provided and summarized on the appropriate form? (Appendix F)			X
36	Have the Site conceptual model tables been included? (Tier 1 Risk Evaluation)			X
37	Has the topographic map been provided with all required elements? (Figure 1)	X		
38	Has the site base map been provided with all required elements? (Figure 2)	X		
39	Have the CoC site maps been provided? (Figure 3-3A)	X		
40	Has the site potentiometric map been provided? (Figure 4-4A)	X		
41	Have the geologic cross-sections been provided?			X
42	Have maps showing the predicted migration of the CoCs through time been provided? (Tier 2 Risk Evaluation)			X
43	Has the site survey been provided and include all necessary elements? (Appendix A)			X
44	Have the sampling logs, chain of custody forms, and the analytical data package been included with all required elements? (Appendix B)	X		
45	Is the laboratory performing the analyses properly certified?	X		
46	Has the tax map been included with all necessary elements? (Appendix C)			X
47	Have the soil boring/field screening logs been provided? (Appendix E)			X
48	Have the well completion logs and SCDHEC Form 1903 been provided? (Appendix E)			X
49	Have the aquifer evaluation forms, data, graphs, equations, etc. been provided? (Appendix F)			X
50	Have the disposal manifests been provided? (Appendix G)	X		
51	Has a copy of the local zoning regulations been provided? (Appendix H)			X
52	Has all fate and transport modeling been provided? (Appendix I)			X
53	Have copies of all access agreements obtained by the contractor been provided? (Appendix J)			X
54	Has a copy of this form been attached to the final report and are explanations for any missing or incomplete data been provided? (Appendix K)	X		

APPENDIX L:
DETAILED RECEPTOR INFORMATION

	Receptor ID: (03423-WSW01)
	Parcel ID: 00213-01-130
	Property Owner Name: Willie B Winchester Jr.
	Property Owner Address: 3101 Willow Creek Rd, Florence, SC 29505
	WSW Details: Well is inside barn building. Sample collected from spigot on water supply well. GPS: 34.096044, -79.701503

	Receptor ID: (03423-WSW02)
	Parcel ID: 00213-01-130
	Property Owner Name: Willie B Winchester Jr.
	Property Owner Address: 3101 Willow Creek Rd, Florence, SC 29505
	WSW Details: Sample collected from spigot on WSW. GPS: 34.095156, -79.700508

	Receptor ID: (03423-WSW03)
	Parcel ID: 00213-01-052
	Property Owner Name: Linda L Huggins
	Property Owner Address: 3695 Willow Creek Rd, Florence, SC 29505
	WSW Details: Well has been disconnected. Unable to sample with bailer due to metal elbow at well head. GPS: 34.096743, -79.701503

	Receptor ID: (03423-Possible WSW)
	Parcel ID: 00214-01-016
	Property Owner Name: Trent P Stallings
	Property Owner Address: 3118 Willow Creek Rd, Florence, SC 29505
	WSW Details: Possible well house attached to residence. Resident did not respond to attempts to make contact. GPS: 34.094158, -79.700555

	Receptor ID: (03423-SW01)	
	Parcel ID:	SCDOT Right of Way
	Property Owner Name:	SCDOT
	Property Owner Address:	PO Box 191, Columbia, SC 29201
SW Details: Surface water sample collected from drainage ditch. GPS: 34.095076, -79.696772		

	Receptor ID: (03423-SW02)	
	Parcel ID:	SCDOT Right of Way
	Property Owner Name:	SCDOT
	Property Owner Address:	PO Box 191, Columbia, SC 29201
SW Details: Surface water sample collected from drainage ditch. GPS: 34.095847, -79.697296		

	Receptor ID: (03423-SW03)	
	Parcel ID:	00213-01-017
	Property Owner Name:	Barbara M Williams
	Property Owner Address:	9296 Grays Highway, Ridgeland, SC 29936
SW Details: Surface water sample collected from stream. GPS: 34.094620, -79.698172		



Receptor ID: (03423-SW04)
Parcel ID: 00213-01-017
Property Owner Name: Barbara M Williams
Property Owner Address: 9296 Grays Highway, Ridgeland, SC 29936
SW Details: Surface water sample collected from stream. GPS: 34.095389, -79.698409



Receptor ID: (03423-SW05)
Parcel ID: 00213-01-017
Property Owner Name: Barbara M Williams
Property Owner Address: 9282 Grays Highway, Ridgeland, SC 29936
SW Details: Surface water sample collected from stream. GPS: 34.096050, -79.698577



Receptor ID: (03423-SW06)
Parcel ID: 00213-01-017
Property Owner Name: Barbara M Williams
Property Owner Address: 9372 Grays Highway, Ridgeland, SC 29936
SW Details: Surface water sample collected from stream. GPS: 34.096699, -79.699359



B W STOKES OIL CO INC
ATTN MR BENNIE STOKES
PO BOX 1656
FLORENCE SC 29503

Re: Third Quarter 2023 Monitoring Report Review
Jake Huggins Dba Outpost At Willowcreek; 4925 Pamplico Hwy., Florence, SC
UST Permit #03423; CA #65748
Release reported February 26, 2002
Site-Specific Work Plan (SSWP) received November 16, 2022
Report of Third Quarter Groundwater Monitoring[3of4] received August 11, 2023
Florence County

Dear Mr. Stokes:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (DHEC) has reviewed the referenced report. The following comments are provided based on your contractor's conclusions and recommendations:

1) In consideration of remedial options of the release, future reports should provide a summary of observed historical concentration reduction trends for each Chemical of Concern (CoC) above the RBSL in each well and any geochemical evidence gathered supporting intrinsic remediation of the release. If needed statistical analysis or hydrographs are preferred.

2) Damage was noted on the purge record for DW04, if repairs are needed, please submit a SSWP and cost proposal.

In accordance with the approved Site-Specific Work Plan (SSWP), the next groundwater sampling event may proceed in October 2023 as proposed. **The next quarterly Monitoring Report and invoice should be submitted on or before December 31, 2023.** All reports submitted for these activities should include the required information outlined in the UST QAPP. If any quality assurance problems arise, your contractor must contact me within 24 hours by email or phone.

On all correspondence regarding this site, please reference UST Permit #03423. Should you have any questions, please contact me by phone (803) 898-0671, email dunnra@dhec.sc.gov, or fax (803) 898-0673.

Sincerely,

Robert A. Dunn, Hydrogeologist
Corrective Action and Field Support Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

Cc: Midlands Environmental Consultants, PO Box 854, Lexington, SC 29071 (w/ Enc)
Technical File (w/ Enc)



October 3, 2023



Mr. Robert A. Dunn, Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Site-Specific Work Plan-Revision 1
Jake Huggins DBA Outpost at Willowcreek
Florence, South Carolina
UST Permit# 03423
MECI Project Number 22-7924
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Dunn,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Site-Specific Work Plan for the referenced site. This plan has been created to replace the well pad and well vault of monitoring well DW-4 which was found heavily damaged during our recent groundwater sampling event completed at the site in July of 2023.

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

Sincerely,
Midlands Environmental Consultants, Inc.



Jeff L. Coleman
Senior Scientist

RECEIVED

OCT 04 2023

SC Department of
Health & Environmental Control



**Site-Specific Work Plan for Approved ACQAP
Underground Storage Tank Management Division**

To: Mr. Robert Dunn (SCDHEC Project Manager)
From: Jeff L. Coleman (Contractor Project Manager)
Contractor: Midlands Environmental Consultants, Inc. UST Contractor Certification Number: 009

Facility Name: Jake Huggins DBA Outpost at Willowcreek, LLC. UST Permit #: 03423
Facility Address: 4925 Pamplico Highway, Florence, SC 29505
Responsible Party: BW Stokes Oil Company Phone: (843) 621-5865
RP Address: 1001 Chase Street, Florence, SC 29501
Property Owner (if different): Barbara Williams
Property Owner Address: 3309 Willow Creek Road, Florence, SC 29505
Current Use of Property: Vacant Lot/Residence

Scope of Work (Please check all that apply)

☐ IGWA ☐ Tier II ☐ Groundwater Sampling ☐ GAC
☐ Tier I ☐ Monitoring Well Installation ☒ Other Pad/Vault Repair

Analyses (Please check all that apply)

Groundwater/Surface Water:

☐ BTEXNMDCA (8260D)	☐ Lead	☐ BOD	☐ Methane
☐ Oxygenates (8260D)	☐ 8 RCRA Metals	☐ Nitrate	☐ Ethanol
☐ EDB (8011)	☐ TPH	☐ Sulfate	☐ Dissolved Iron
☐ PAH (8270E)	☐ pH	☐ Other _____	

Drinking Water Supply Wells:

☐ BTEXNMDCA (524.2)	☐ Mercury (200.8 245.1 or 245.2)	☒ EDB (504.1)
☐ Oxygenates & Ethanol (8260D)	☐ RCRA Metals (200.8)	

Soil:

☐ BTEXNM	☐ Lead	☐ RCRA Metals	☐ TPH-DRO (3550B/8015B)	☐ Grain Size
☐ PAH		☐ Oil & Grease (9071)	☐ TPH-GRO (5030B/8015B)	☐ TOC

Air:

☐ BTEXN

Sample Collection (Estimate the number of samples of each matrix that are expected to be collected.)

_____ Soil	_____ 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: _____	Estimated Footage: _____	feet per point
# of deep wells: _____	Estimated Footage: _____	feet per point
# of recovery wells: _____	Estimated Footage: _____	feet per point

Comments, if warranted:

UST Permit #: 03423 Facility Name: Jake Huggins DBA Outpost at Willowcreek

Implementation Schedule (Number of calendar days from approval)

Field Work Start-Up: 10/3/2023 Field Work Completion: 10/20/2023
Report Submittal: 12/31/2023 # of Copies Provided to Property Owners: 0

Aquifer Characterization

Pump Test: ☐ Slug Test: ☐ (Check one and provide explanation below for choice)

Investigation Derived Waste Disposal

Soil: _____ Tons Purge Water: _____ 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/repared, well pads/bolts/caps to replace, details of AFVR event, etc.

-During the most recent groundwater sampling event completed at the site in July of 2023, MECI field personnel noted that the pad/vault associated with DW-4. MECI is requesting approval to replace DW-4's pad/vault during the upcoming groundwater sampling event scheduled to take place in Mid-October of 2023.

Compliance With Annual Contractor Quality Assurance Plan (ACQAP)

Yes Laboratory as indicated in ACQAP? (Yes/No) If no, indicate laboratory information below.

Name of Laboratory: _____
SCDHEC Certification Number: _____
Name of Laboratory Director: _____

N/A Well Driller as indicated in ACQAP? (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	Proposed monitoring well locations
Location of property lines	Legend with facility name and address, UST permit number, and bar scale
Location of buildings	Streets or highways (indicate names and numbers)
Previous soil sampling locations	Location of all present and former ASTs and USTs
Previous monitoring well locations	Location of all potential receptors
Proposed soil boring locations	
3. Assessment Component Cost Agreement, SCDHEC Form D-3664



Healthy People. Healthy Communities.

ASSESSMENT COMPONENT INVOICE

South Carolina

Department of Health and Environmental Control

Underground Storage Tank Management Division

State Underground Petroleum Environmental Response Bank Account

July 1, 2022

Facility Name: Jake Huggins DBA Outpost at Willocreek

UST Permit #: 03423

Cost Agreement #: 65748

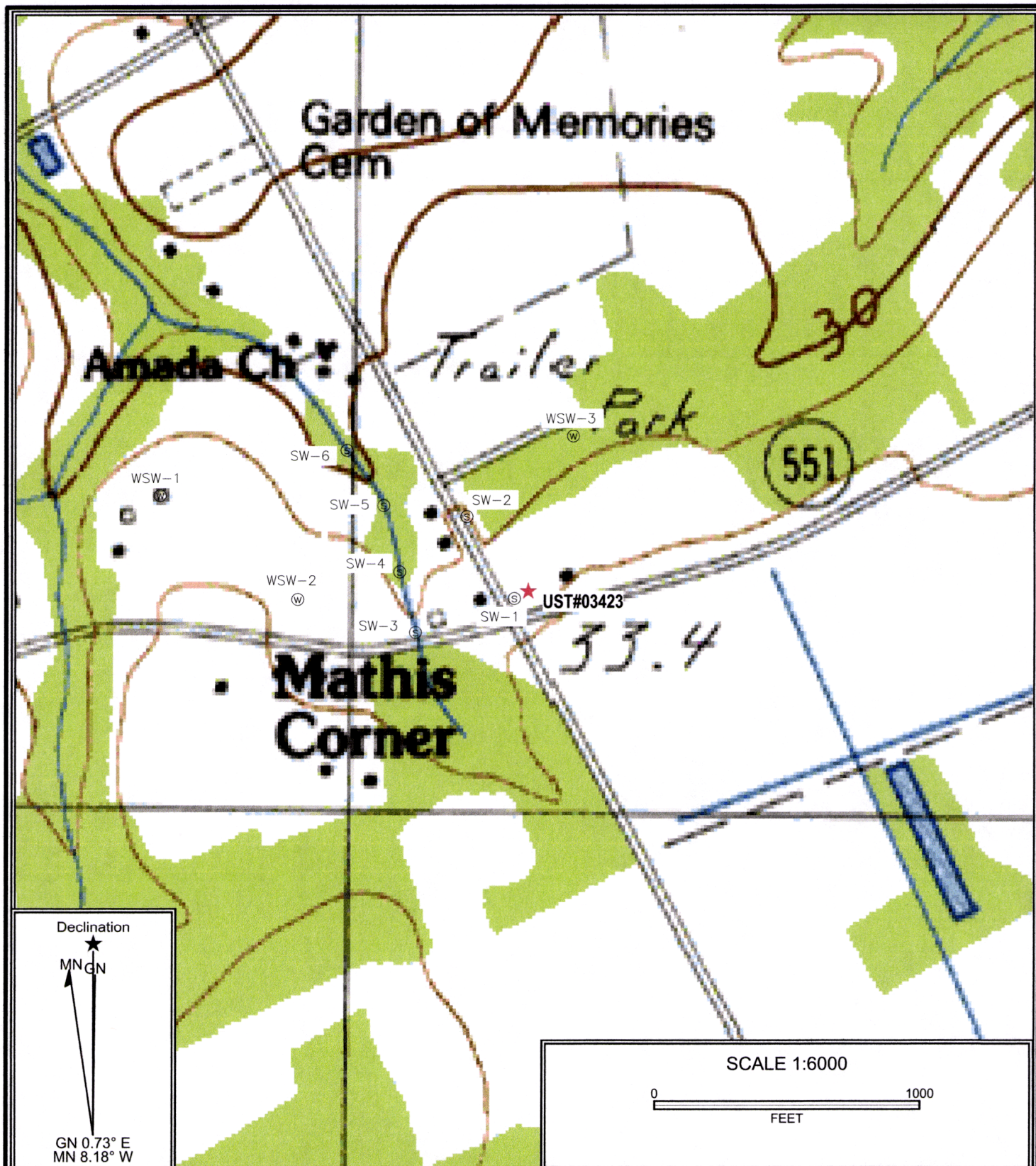
ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
A. Plan Preparation				
1.1 Site-specific Work Plan		each	\$169.65	\$0.00
2.1 Tax Map		each	\$79.17	\$0.00
3.1 QAPP Contractor Addendum (App B)		each	\$250.00	\$0.00
B. Survey *				
1. Receptor Survey		each	\$623.20	\$0.00
C. Survey				
1.1 Comprehensive Survey		each	\$1,176.26	\$0.00
5. Ground Penetrating Radar Survey (100 x 100)		each	\$1,029.23	\$0.00
D. Mob/Demob				
1.1 Equipment		each	\$1,153.64	\$0.00
2.1 Personnel		each	\$478.42	\$0.00
3.1 Adverse Terrain Vehicle		each	\$565.51	\$0.00
E. Soil Borings*				
1. Soil Borings (hand auger)		foot	\$5.66	\$0.00
F. Soil Borings (requiring equipment, push technology, etc) or Field Screening (including sampling and analyst)*				
1.1 Standard		per foot	\$16.97	\$0.00
2.1 Fractured Rock		per foot	\$21.84	\$0.00
G.				
H. Well Abandonment (does not include Field Screening)*				
1.1 2" diameter or less		per foot	\$3.51	\$0.00
2.1 Greater than 2" to 6" diameter		per foot	\$5.09	\$0.00
3.1 Dug/Bored well (up to 6 feet diameter)		per foot	\$16.96	\$0.00
I. Well Installation (In accordance with R.61-71)*				
1.1 Water Table (hand augered)		per foot	\$11.99	\$0.00
2.A Water Table (drill rig) 2" Diameter		per foot	\$42.98	\$0.00
2.1 Single-cased 2" Diameter Monitoring Well >50ft		per foot	\$43.46	\$0.00
3.1 Telescoping		per foot	\$56.55	\$0.00
4.1 Rock Drilling		per foot	\$65.60	\$0.00
5.1 2" Rock Coring		per foot	\$34.95	\$0.00
6.1 Multi-sampling ports/screens		per foot	\$37.78	\$0.00
7.1 Recovery Well (4" diameter)		per foot	\$50.90	\$0.00
9.1 Rotosonic (2" diameter)		per foot	\$49.77	\$0.00
10.1 Re-develop Existing Well		per foot	\$12.44	\$0.00
J. Groundwater Sample Collection / Gauging Depth to Water/Product *				
1.1 Groundwater Purge		per well	\$67.86	\$0.00
2.1 Air or Vapors		sample	\$13.57	\$0.00
3.1 Water Supply Sample		sample	\$24.88	\$0.00
4.1 HydraSleeve		sample	\$53.00	\$0.00
4.2A No-purge Groundwater Sample/Surface water		sample	\$31.67	\$0.00
5.1 Gauge Well only		sample	\$7.92	\$0.00
6.1 Sample Below Product		sample	\$13.57	\$0.00
7.1 Passive Diffusion Bag		sample	\$29.40	\$0.00
8.1 Field Duplicates (MWs & WSWs) and Field Blanks		sample	\$27.83	\$0.00
9.1 Groundwater (low flow purge)		sample	\$102.93	\$0.00
10.1 Equipment Blank		sample	\$27.83	\$0.00
11. Sample Product		per well	\$48.76	\$0.00

K. Laboratory Analyses-Groundwater					
1.1 BTEXNM+Oxyg's+1,2 DCA+Eth(8260D)	per sample	\$137.98			\$0.00
2.1 Lead, Filtered	per sample	\$15.60			\$0.00
3.1 Rush EPA Method 8260B	per sample	\$173.72			\$0.00
4.1 Trimethal, Butyl, and Isopropyl Benzenes	per sample	\$31.67			\$0.00
5.1 PAH's	per sample	\$68.54			\$0.00
6.1 Lead	per sample	\$18.09			\$0.00
7.1 EDB by EPA 8011	per sample	\$51.12			\$0.00
8.1 EDB by EPA Method 8011 Rush	per sample	\$77.14			\$0.00
9.1 8 RCRA Metals	per sample	\$71.71			\$0.00
10.1 TPH (9070)	per sample	\$46.38			\$0.00
11.1 PH	per sample	\$5.88			\$0.00
12.1 BOD	per sample	\$22.62			\$0.00
13.1 Ethanol	per sample	\$16.74			\$0.00
K. Analyses-Drinking Water					
14.1 BTEXNM+1,2 DCA (524.2)	per sample	\$140.30			\$0.00
15.1 7-OXYGENATES & ETHANOL (8260D)	per sample	\$103.77			\$0.00
16.1 EDB (504.1)	per sample	\$89.92			\$0.00
17.1 RCRA METALS (200.8)	per sample	\$113.10			\$0.00
K. Analyses-Soil					
18.1 BTEX + Naphth.	per sample	\$72.39			\$0.00
19.1 PAH's	per sample	\$72.43			\$0.00
20.1 8 RCRA Metals	per sample	\$63.79			\$0.00
21.1 TPH-DRO (3550C/8015C)	per sample	\$45.24			\$0.00
22.1 TPH- GRO (5035B/8015C)	per sample	\$40.67			\$0.00
23.1 Grain size/hydrometer	per sample	\$117.63			\$0.00
24.1 Total Organic Carbon	per sample	\$34.61			\$0.00
K. Analyses-Air					
25.1 BTEX + Naphthalene	per sample	\$244.30			\$0.00
K. Hydrocarbon Fuel Identification					\$0.00
27. C3-C44 Whole Oil (ASTM D3328)	per sample	\$431.42			\$0.00
28. Fuel Oxygenates (1624 Mod)	per sample	\$368.88			\$0.00
29. ALKYL Leads, EDB MMT (8080)	per sample	\$368.88			\$0.00
30. C8-C40 Full Scan (ASTM 5739)	per sample	\$583.00			\$0.00
31. Simulated Distillation (ASTM 2887)	per sample	\$368.88			\$0.00
32. Parent & Alk. PAH Com. (8270 SIM)	per sample	\$670.03			\$0.00
33. C3-C10 Piano (8260 MOD)	per sample	\$555.44			\$0.00
34. C10+Alkane Fingerprints	per sample	\$555.44			\$0.00
35. Expert Data Interpretation & Report	each	\$551.20			\$0.00
L. Aquifer Characterization*					
1.1 Pumping Test	per hour	\$26.01			\$0.00
2.1 Slug Test	per test	\$216.03			\$0.00
3.1 Fractured Rock	per test	\$113.10			\$0.00
M. Free Product *					
1. Free Product Recovery Rate Test	each	\$42.98			\$0.00
N.					

O. Risk Evaluation					
1.1 Tier I Risk Evaluation		each	\$339.31		\$0.00
2.1 Tier II Risk Evaluation		each	\$113.10		\$0.00
P. Survey*					
1. Subsequent Survey		each	\$275.60		\$0.00
Q. Disposal (gallons or tons)*					
1.1 Wastewater		gallon	\$0.64		\$0.00
2.1 Free Product		gallon	\$0.56		\$0.00
3.1 Soil Treatment/Disposal		ton	\$67.86		\$0.00
4.1 Drilling fluids		gallon	\$0.48		\$0.00
R. Miscellaneous (attach receipts)					
		each	\$0.00		\$0.00
		each	\$0.00		\$0.00
		each	\$0.00		\$0.00
T. Tier I Assessment (Use DHEC 3665 form)					
1.1 Southeast Region		standard	\$11,687.56		\$0.00
2.1 All Other Counties		standard	\$12,818.58		\$0.00
U. IGWA (Use DHEC 3666 form)					
1.1 Southeast Region		standard	\$4,031.18		\$0.00
2.1 All Other Counties		standard	\$4,370.38		\$0.00
22. Active Correction Action		PFP	Bid Cost		\$0.00
W. Aggressive Fluid & Vapor Recovery (AFVR)					
1.1 8-hour Event*		per event	\$1,655.00		\$0.00
2. 24-hour Event*		per event	\$4,081.28		\$0.00
3. 48-hour Event*		per event	\$6,706.10		\$0.00
4. 96-hour Event*		per event	\$13,409.52		\$0.00
5. Off-gas Treatment 8 hour		per event	\$130.71		\$0.00
6.1 Off-gas Treatment 24 hour		per event	\$272.50		\$0.00
7.1 Off-gas Treatment 48 hour		per event	\$357.50		\$0.00
8. Off-gas Treatment 96 hour		per event	\$832.26		\$0.00
9. Off-gas Treatment 8 hour (w/chlorinated compounds)		per event	\$430.00		\$0.00
10. Off-gas Treatment 24 hour (w/chlorinated compounds)		per event	\$500.00		\$0.00
11. Off-gas Treatment 48 hour (w/chlorinated compounds)		per event	\$1,000.00		\$0.00
12. Off-gas Treatment 96 hour (w/chlorinated compounds)		per event	\$2,000.00		\$0.00
13.1 AFVR Effluent Disposal(w/chlorinated compounds)		gallon	\$0.59		\$0.00
14.1 AFVR Site Reconnaissance		each	\$280.00		\$0.00
15. Additional Hook-ups		each	\$27.48		\$0.00
16.1 AFVR Effluent Disposal		gallon	\$0.49		\$0.00
17.1 AFVR Mobilization/Demobilization		each	\$720.00		\$0.00
18. Mobilization for absorbents/skimers		each	\$531.25		\$0.00
19. Well sock 2" ID well		each	\$34.20		\$0.00
20. Well sock 4" ID well		each	\$45.40		\$0.00
21. pad (per pad)		each	\$46.25		\$0.00
22. 3" diameter x 10' length boom		each	\$100.00		\$0.00
23. 5" diameter x 10' length boom		each	\$123.00		\$0.00
24. New FPP recovery skimmer (2" wells)		each	\$732.50		\$0.00
25. New FPP recovery skimmer (4" wells)		each	\$1,155.00		\$0.00
26. Refurbished FPP recovery skimmer (2" or 4" wells)		each	\$704.00		\$0.00
27. Disposal of Absorbents		pound	\$3.80		\$0.00
28. Disposal of product from skimmers		gallon	\$0.46		\$0.00

X. Granulated Activated Carbon (GAC) filter system installation & service:				
1.1 New GAC System Installation*		each	\$2,148.94	\$0.00
2.1 Refurbished GAC Sys. Install*		each	\$1,017.92	\$0.00
3.1 Filter replacement/removal*		each	\$395.86	\$0.00
4.1 GAC System removal, cleaning, & refurbishment*		each	\$311.04	\$0.00
5.1 GAC System housing*		each	\$282.76	\$0.00
6.1 In-line particulate filter		each	\$169.65	\$0.00
7.1 Additional piping & fittings		foot	\$1.70	\$0.00
Y. Well Repair				
1.1 Additional Copies of the Report Delivered		each	\$56.55	\$0.00
2.1 Repair 2x2 MW pad*	1	each	\$56.55	\$56.55
3.1 Repair 4x4 MW pad*		each	\$99.53	\$0.00
4.1 Replace well vault*	1	each	\$133.46	\$133.46
5.1 Replace well cover bolts		each	\$2.94	\$0.00
6.1 Replace locking well cap & lock		each	\$16.96	\$0.00
7.1 Replace/Repair stick-up*		each	\$151.56	\$0.00
8.1 Convert Flush-mount to Stick-up*		each	\$169.65	\$0.00
9.1 Convert Stick-up to Flush-mount*		each	\$147.03	\$0.00
10.1 Replace missing/illegible well ID plate		each	\$13.57	\$0.00
11. Down-hole Camera		per foot	\$27.08	\$0.00
Z. High Resolution Site Characterization				
1. HRSC Screening Equipment Mobilization		each	\$1,360.00	\$0.00
2. HRSC Drilling Category 1		per foot	\$29.00	\$0.00
3. HRSC Drilling Category 2		per foot	\$33.50	\$0.00
4. HRSC Drilling Category 3		per foot	\$27.00	\$0.00
5. HRSC 3-D Model		each	\$4,040.00	\$0.00
S. Report Prep & Project Management	12%	percent	\$190.01	\$22.80
TOTAL				\$212.81

DHEC D-4293 (06/2022) *The appropriate mobilization cost can be added to complete these tasks, as necessary



Reference: Evergreen, South Carolina
 USGS 7.5 Min. Quad
 Contour Interval - 2 Meters

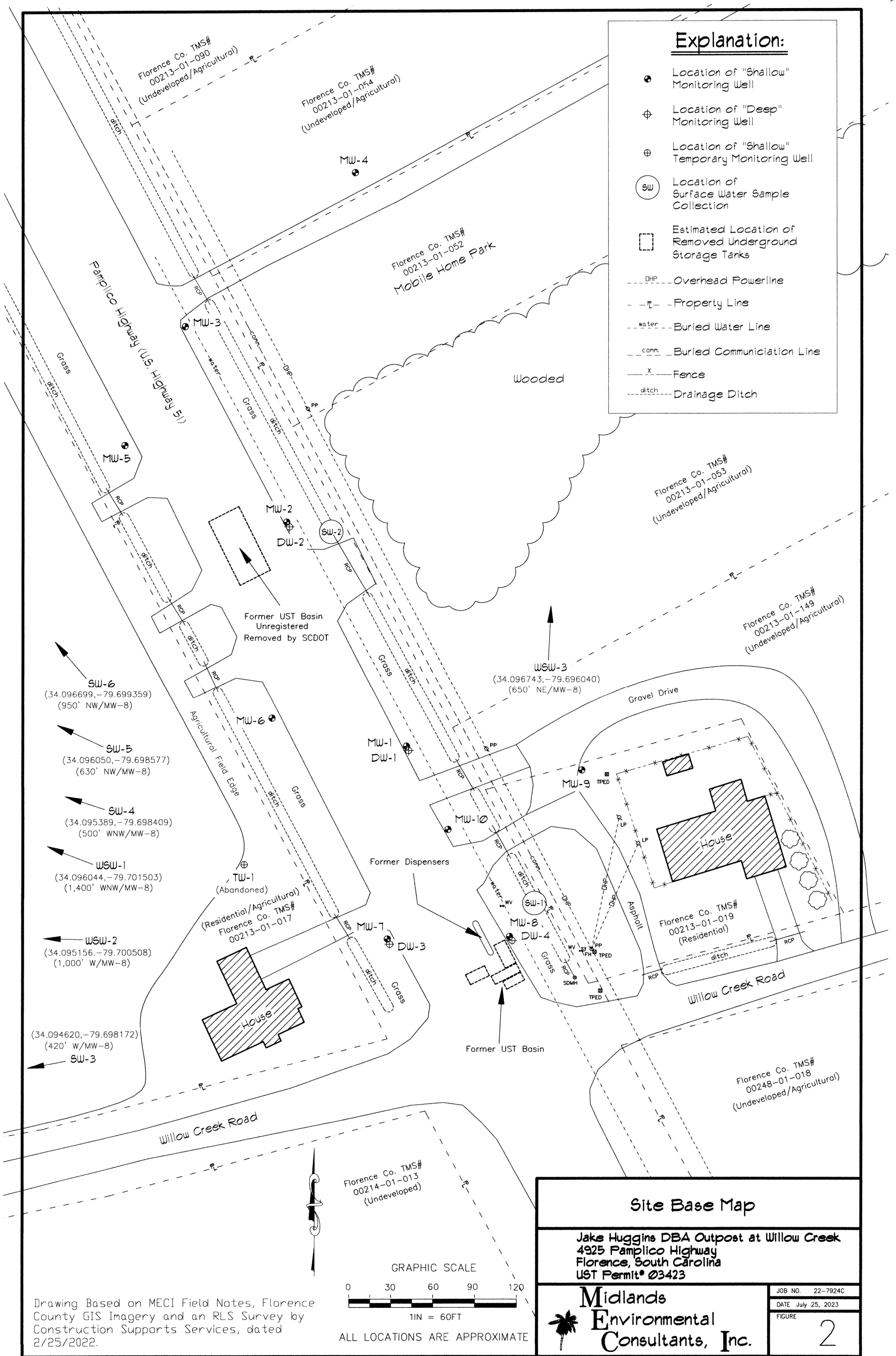
Midlands
 Environmental
 Consultants, Inc.

Site Location

Jake Huggins DBA Outpost at Willowcreek, LLC.
 4925 Pamlico Highway, Florence, SC
 UST Permit# 18419

Figure 1

MECI 22-7924C



Explanation:

- Location of "Shallow" Monitoring Well
- ⊕ Location of "Deep" Monitoring Well
- ⊕ Location of "Shallow" Temporary Monitoring Well
- SW Location of Surface Water Sample Collection
- Estimated Location of Removed Underground Storage Tanks
- DHP --- Overhead Powerline
- - P - - Property Line
- - water - - Buried Water Line
- - comm - - Buried Communication Line
- - X - - Fence
- - ditch - - Drainage Ditch

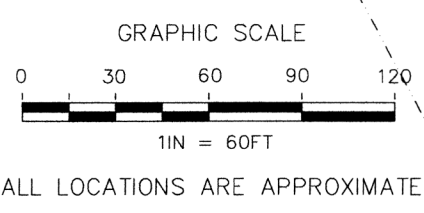
Site Base Map

Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
Florence, South Carolina
UST Permit# 03423

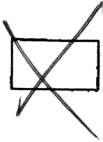
Midlands Environmental Consultants, Inc.

JOB NO. 22-7924C
DATE July 25, 2023
FIGURE 2

Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.



Document Receipt Information



Hard Copy



CD

Date Received 11-14-23

Permit Number 03423

Project Manager Robert Dunn

Name of Contractor MECI

Docket Title GWM

Document Number 44 tech

Scanned _____

GROUNDWATER MONITORING REPORT

Jake Huggins DBA Outpost at Willowcreek
4925 Pamplico Highway
Florence, South Carolina
Florence County
UST Permit# 03423
CA# 65748

Prepared By:

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

October 30, 2023

MECI Project No. 22-7924D



October 30, 2023

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

Subject: Groundwater Monitoring Report
Jake Huggins DBA Outpost at Willowcreek
4925 Pamlico Highway
Florence, South Carolina
Florence County
UST Permit# 03423; CA# 65748
MECI Project Number 22-7924D
Certified Site Rehabilitation Contractor UCC-0009

Dear Mr. Dunn,

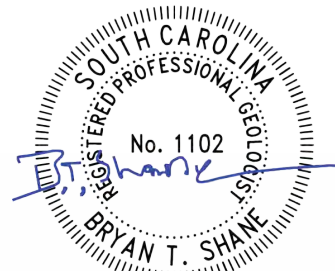
On behalf of BW Stokes Oil Company, Inc., Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Groundwater Monitoring Report for the referenced site. This report describes assessment activities conducted at the site and results of those activities in general accordance with 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

Cc: SCDOT, PO Box 191, Columbia, SC 29201
Linda T. Huggins, 3695 Willow Creek Road, Florence, SC 29505
Barbara M. Williams, 3309 Willow Creek Road, Florence, SC 29505
Willie B. Winchester Jr., 3101 Willow Creek Road, Florence, SC 29505
William L. Huggins, 621 Mallard Pond Road, Murrells Inlet, SC 29576

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NOTE: ITEMS LISTED WITH AN ** BESIDE IT WERE NOT NEEDED AS A PART OF THIS SCOPE OF WORK

1.0 INTRODUCTION

i. Facility Information

Name: Jake Huggins DBA Outpost at Willowcreek
UST Permit# 03423
Address: 4925 Pamplico Highway, Florence SC 29505
Telephone #: N/A

ii. Owner/Operator Information

Name BW Stokes Oil Company, Inc.
Address P.O. Box 1656, Florence, SC 29503
Telephone # (843) 621-5865

iii. Property Owner Information

Name Barbara Williams
Tax Map #: Florence County Tax Map #: 00213-01-019
Address 3309 Willow Creek Road, Florence, SC 29505
Telephone # (843) 662-0808

iv. Contractor Information

Name: Midlands Environmental Consultants, Inc.
Certification #: 9
Address: P. O. Box 854, Lexington, SC 29072
Telephone #: (803) 808-2043

v. Well Driller Information

Name: N/A
Certification #: N/A
Address: N/A
Telephone #: N/A

vi. Laboratory Information

Name: Pace Analytical Services, LLC.
Certification #: 99006001
Address: 9800 Kinsey Ave. Suite 100, Huntersville, NC 28078
Telephone #: (704) 875-9092

vii. Facility History

Release Date:	Release #1 reported 2/26/2002
Estimated Quantity of Release:	Unknown
Other Releases at Facility:	Release #2 (NFA'd 7/28/2020)
Release Ranking:	2BB
Current Site Usage:	Residence (SCDOT Right of Way)

Tank #	Capacity/Product	In Use/Abandoned	Tank Status
1	2,000 Gal. Regular/Unleaded Gasoline	Abandoned	Removed (6/30/2016)
2	4,000 Gal. Gasoline Plus	Abandoned	Removed (6/30/2016)
3	6,000 Gal. Gasoline Super/Premium	Abandoned	Removed (6/30/2016)
4	3,000 Gal. Regular/Unleaded Gasoline	Abandoned	Removed (6/30/2016)
5	500 Gal. Kerosene	Abandoned	Removed (6/30/2016)

The following table presents previous site activities performed at the site:

Date	Assessment Type	Notes:
Pre 2008	Unknown MWI	Completed by unknown contractor. Installation of MW-1 through MW-4.
8/26/2008	Tier II Assessment	Completed by Davis & Brown. Monitoring wells MW-5, MW-6 installed. MW-5 installed as IGWA associated with second release. Analytical results from MW-1, MW-4, MW-5 and MW-6 were above RBSL for Benzene, MTBE, Naphthalene.
5/12/2009	Tier II Assessment	Completed by Davis & Brown. Installation of MW-7 through MW-22, MW-1D, and MW-2D. Multiple wells detected concentrations above RBSL's.
6/4/2015	Groundwater Sampling Event	Completed by Davis & Brown. Monitoring wells MW-14 through 20 and MW-2D reported destroyed. Multiple wells detected concentrations above RBSL's.
Circa 2016	DOT Construction	SCDOT widening destroys remaining well network.
3/7/2022	Tier II Assessment	Completed by MECI. This assessment included field screening of soil and groundwater samples, the installation of monitoring wells MW-1 thru MW-10 and DW-1 thru DW-4, sampling and chemical analysis of monitoring wells and nearby receptors and aquifer slug test.
1/9/2023	Groundwater Sampling Event	Completed by MECI.
4/14/2023	Groundwater Sampling Event	Completed by MECI.
7/14/2023	Groundwater Sampling Event	Completed by MECI.

viii. Regional Geology and Hydrogeology

The site is located in the Coastal Plain Physiographic Province, which is generally comprised of Upper Cretaceous to present aged, wedge-shaped formations that begin at the “Fall Line” and dip towards the Atlantic Ocean with ground surface elevations typically less than 300 feet. The sedimentary soils of these formations consist of unconsolidated sand, clay, gravel, marl, cemented sands, and limestone that were deposited unconformably over Mesozoic/Paleozoic age basement rock consisting of granite, schist, and gneiss similar to the rocks of the Piedmont Physiographic Province. The thickness of the Coastal Plain sediments varies from zero at the “Fall Line” to more than 4,000 feet at the southern tip of South Carolina near Hilton Head Island.

The Coastal Plain province was formed during Quaternary, Tertiary, and late Cretaceous geologic periods and can be divided generally into three subunits: Upper Coastal Plain, Middle Coastal Plain, and Lower Coastal Plain. The Lower Coastal Plain comprises approximately one-half of the entire Atlantic Coastal Plain of South Carolina and is separated from the middle coastal plain by the Surry Scarp, a seaward facing scarp with a toe elevation of 90 to 100 feet. The Middle Coastal Plain and the Upper Coastal Plain each compose approximately one fourth of the Coastal Plain area and are separated by the Orangeburg Scarp, a seaward facing scarp with a toe elevation of 250 to 270 feet.

The Lower Coastal Plain is typically identified as the area east of the Surry Scarp below elevation 100 feet, with a vertical stratigraphic sequence overlying the basement rock consisting of unconsolidated Cretaceous, Tertiary, and Quaternary sedimentary deposits. The surface deposits of the Lower Coastal Plain were formed during the Quaternary period which was characterized by the formation of the Carolina Bays and scarps throughout the east coast due to sea level rise and fall, the formation of the barrier islands, and the formation of flood plains from major rivers. Preceding the Quaternary period, limestone was deposited in the Lower Coastal Plain.

The Middle Coastal Plain is typically identified as the area between the Orangeburg Scarp and the Surry Scarp and falls between elevation 100 feet and 270 feet. The vertical stratigraphic sequence overlying the basement rock consists of unconsolidated Cretaceous and Tertiary sedimentary deposits formed as a result of scouring from the regressive cycles of the Ocean as it retreated. During the Eocene epoch of the Tertiary period, limestone was deposited in the Middle Coastal Plain.

The Upper Coastal Plain is typically identified as the area between the “Fall Line” and the Orangeburg Scarp and falls between elevations 270 feet and 300 feet. The Upper Coastal Plain was formed during the Tertiary and late Cretaceous periods and is marked by the formation of the Sandhills dunes as a result of fluvial deposits over the Coastal Plain consisting of marine sediments, limestone, and sand.

Coastal Plain formations generally dip toward the Atlantic Ocean. Consequently, regional groundwater movement is to the southeast. On a regional scale, hydraulic gradients are relatively low. Locally, in the surficial aquifer, groundwater discharges into streams, lakes or springs where the groundwater table intersects lows occupied by these water bodies.

2.0 RECEPTOR SURVEY & SITE DATA

i. Known Potential Receptors

Receptor ID#	Notes
WSW-1	WSW-1 is located approximately 1,400' feet west-north of MW-8 at 3101 Willow Creek Road. Samples have historically been collected from the spigot on the water supply which is located inside one of the bran buildings at the property. GPS: 34.096044, -79.701503
WSW-2	WSW-2 is located approximately 1,000' feet west of MW-8 at 3119 Willow Creek Road. Samples have historically been collected from the spigot on the water supply. GPS: 34.095156, -79.700508
WSW-3	WSW-3 is located approximately 650' feet northeast of MW-8 at 4905 Legettes Road. Well Disconnected; Unable to sample with bailer due to metal elbow at well head. GPS: 34.096743, -79.696040
Possible WSW	According to Ms. Williams, there is no well on the property.
Possible WSW	According to Ms. Williams, there is no well on the property.
SW-1	Sampled collected from drainage ditch adjacent to MW-8. GPS: 34.095076, -79.696772
SW-2	Sampled collected from drainage ditch adjacent to MW-2. GPS: 34.095847, -79.697296
SW-3	Sampled collected approximately 420' west of MW-8 from a stream. GPS: 34.094620, -79.698172
SW-4	Sampled collected approximately 500' west-northwest of MW-8 from a stream. GPS: 34.095389, -79.698409
SW-5	Sampled collected approximately 630' west-northwest of MW-8 from a stream. GPS: 34.096050, -79.698577
SW-6	Sampled collected approximately 950' northwest of MW-8 from a stream. GPS: 34.096699, -79.699359
Underground Utilities	
Known underground utilities at the site include buried water, gas and telecommunication lines. Utilities are buried approximately 2'-4' feet below ground surface (BGS).	

ii. Receptor Survey Results

A receptor survey was not requested as part of the approved cost agreement.

iii. Site/Adjacent Land Usage (Residential, Commercial, Agricultural, Industrial, etc.)

Site	Residential
North	Residential
South	Agricultural
East	Agricultural
West	Residential
Permit #'s of UST Sites within 1,000' feet of site	N/A

iv. Site Specific Geology and Hydrogeology

The mean elevation of the property as depicted on the local USGS quadrangle (Evergreen, SC) appears to be approximately 33 meters (108 feet) above sea level. The subject site is located in the Middle Coastal Plain. According to Newell et al. (In Review), the subject site is located in the Bear Bluff Formation. The Bear Bluff Formation is a Pliocene age unit described as consisting of gray to cream, fossiliferous, coarse-grained calcareous sand and sandy limestones.

Coastal plain sediments were encountered during drilling activities conducted at the site during previous assessment activities. A generalized vertical profile to the investigated depth of 35' feet below ground surface (BGS) is as follows:

Depth (Feet BGS)	Generalized Soil Description
0.0'-6.0'	Brown/Yellow Fine SAND
6.0'-16.0'	Pink/Grey Silty Fine SAND
16.0'-34.0'	Tan, Medium SAND
34.0'-35.0'	Dark Grey, Fine Sandy CLAY

The following table presents grain size distribution results from samples analyzed for grain size during previous assessment activities:

Sample ID#	Sample Depth	% Gravel	% Coarse Sand	% Medium Sand	% Fine Sand	% Silt	% Clay
03423-SB01	8'-10'	0	0	38.0	40.2	4.2	17.6
03423-SB01	24'-26'	0	3.0	44.0	45.5	3.2	4.3
03423-SB01	32'-34'	0	4.0	3.0	3.7	49.7	39.6

On October 16, 2023, stabilized groundwater levels were measured in the monitoring well network. Depth to groundwater ranged from 3.24 feet below top of casing (BTOC) to 5.43 feet BTOC in the wells measured. The groundwater measurements are summarized in tabular form in Table 2 and presented on Figure 4/4A.

The potentiometric surface indicates that the groundwater flow beneath the site is generally to the northwest, toward drainage features associated with the Little Willow Creek. The February 2022 horizontal gradient was calculated to be approximately 0.0118 foot per foot (ft/ft). Calculated average

groundwater flow velocities based on aquifer testing was determine to be approximately 97.98 feet per year (ft/yr.).

Based on comparison between the “deep” wells and the close by water table bracketing monitoring wells, the vertical gradient appears to be generally flat.

3.0 FIELD EXPLORATION

Field exploration conducted at the site included:

- Repair of one monitoring well;
- sampling of monitoring wells and nearby potential receptors; and,
- chemical analysis water samples.

3.1 MONITORING WELL REPAIR

On October 16, 2023, repairs were made to monitoring well DW-4 as requested by SCDHEC. Repairs were made MECI personnel following the below described groundwater sampling activities. See Appendix M for before and after photos which document the repairs made.

The following table contains repair activities performed at the site:

Well ID#	Repairs Made
DW-4	Replaced Pad and Vault

3.2 GROUNDWATER SAMPLING AND CHEMICAL ANALYSES

On October 16, 2023, MECI personnel collected groundwater samples from fourteen (14) monitoring wells, six (6) surface water locations and two (2) water supply wells at the subject site. During sampling activities, water supply well WSW-3 was unable to be sampled due to the well being inactive with no electrical supply. As requested by SCDHEC, only monitoring wells which did not bracket the water table were to be purged prior to sample collection. Four (4) monitoring wells were purged prior to sample collection.

Prior to sampling, MECI personnel utilized an electronic water level indicator for water level measurements and an oil/water interface probe for free phase petroleum product level measurements. Where applicable, purging was completed by bailing at least five well volumes of water from the well, or until all water was evacuated from the well, whichever occurred first. Sampling/purging was completed utilizing a prepackaged, clear, disposable polyethylene bailer and nylon rope. A new set of nitrile gloves were worn at each monitoring well, and at all time samples were handled. Field measurements of pH, conductivity, dissolved oxygen, and water temperature were obtained before well sampling process. MECI utilized YSIPro20 meter for DO (mg/L) and temperature readings (°C) and YSI Pro 1030 meter for pH and conductivity (uS) readings and a MicroTPI turbidimeter for turbidity readings (NTU). The attached Monitoring Well Purge and Sampling Data Sheets present the results of the field measurements obtained. The wells were sampled in accordance with the most recent revision of SCDHEC’s Quality Assurance Program Plan for the Underground Storage Tank Management Division and the most recent revision of MECI’s Standard Operating Procedures.

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:

Sample ID	Purge	No Purge	Sampled Below Product	Duplicate/Field Blank	Not Sampled	Not Located	BTEX, Naphthalene, MTBE (EPA Method 8260D)	EDB (EPA Method 8011)	1,2 DCA (EPA Method 8260D)	8 Oxygenates (EPA Method 8260D)	Total Lead (EPA Method 6010)	BTEX, Naphthalene, MTBE, 1,2 DCA (EPA Method 524.2)	EDB (EPA Method 504.1)
							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-6		X					X	X	X	X			
							Analyte Sampled						
MW-7		X					X	X	X	X			
MW-8		X					X	X	X	X			
MW-9		X					X	X	X	X			
MW-10		X					X	X	X	X			
DW-1	X						X	X	X	X			
DW-2	X						X	X	X	X			
DW-3	X						X	X	X	X			
DW-4	X						X	X	X	X			
SW-1		X					X	X	X	X			
SW-2		X					X	X	X	X			
SW-3		X					X	X	X	X			
SW-4		X					X	X	X	X			
SW-5		X					X	X	X	X			
SW-6		X					X	X	X	X			
DUP-1				X			X	X	X	X			
Field Blank				X			X	X	X	X			
Trip Blank							X		X	X			
WSW-1										X		X	X
WSW-2										X		X	X
WSW-3					X								
DUP.				X						X		X	X
Field Blank				X						X		X	X
Trip Blank										X		X	
Notes: BTEX = Benzene, Toluene, Ethylbenzene, & Total Xylenes MTBE=Methyl tertiary butyl ether 1,2 DCA = 1,2 Dichloroethane EDB = Ethylene Dibromide													

The results of the laboratory analyses are summarized in Table 1 and presented in Appendix B.

Purge water produced by the purging process was treated on-site utilizing a granular activated carbon unit. A total of 41.50 gallons of purge water was disposed of in this manner. A disposal manifest for the referenced purge water is attached in Appendix G and the required post-GAC laboratory results in presented in Appendix B.

4.0 GROUNDWATER ANALYTICAL RESULTS

Free phase petroleum product was not detected in any of the monitoring wells during sampling activities. The analytical results indicate petroleum impact to the surficial aquifer (“Shallow” Zone), with the highest dissolved concentrations being detected in the area of MW-8. Of the twenty-two sampling locations analyzed, eight monitoring wells (MW-1, MW-2, MW-5, MW-6, MW-8, MW-10, DW-1 and DW-4) detected petroleum constituents above Risk-Based Screening Levels (RBSL’s). Petroleum constituents detected above the established RBSL include:

Compound	RBSL (ug/l)	Wells Above RBSL
Product	0.01’	N/A
Benzene	5	MW-1, MW-2, MW-6, MW-8, MW-10 & DW-4
Toluene	1,000	MW-8
Ethylbenzene	700	MW-8
Total Xylenes	10,000	MW-8
Naphthalene	25	MW-1, MW-8, MW-10 & DW-4
MTBE	40	MW-1, MW-2, MW-5, MW-6, MW-8, MW-10, DW-1 & DW-4
1,2 DCA	5	N/A
EDB	0.05	N/A
TAA	240	MW-1, MW-6, MW-10 & DW-4
TAME	128	N/A
ETBA	NE	RBSL Not Established
TBA	1,400	N/A
TBF	NE	RBSL Not Established
DIPE	150	MW-1
Ethanol	10,000	N/A
ETBE	47	N/A

The analytical results from the remainder of the sampling points did not indicate petroleum impact above the RBSL. Results of the analyses for each sampling point and specific parameters are listed on Table 1 and provided in Appendix B.

5.0 HISTORICAL COC CONCENTRATION TRENDS

Fourteen monitoring wells were included in the groundwater sampling program established for the site. Six monitoring wells (MW-3, MW-4, MW-7, MW-9, DW-2 and DW-3) exhibited results below the established RBSL. Mann-Kendall statistical analyses of the Chemicals of Concern (CoC’s) with historical concentrations above the RBSL were completed utilizing the GIS Environmental Mann-Kendall Toolkit. The statistical analysis compares historical CoC results to determine if there is an increasing, decreasing, stable or not trend to the data. If the analytical results were non-detect (ND) the reporting limit was used. The analyses included analytical data for Benzene (MW-1, MW-2, MW-6, MW-8, MW-10 and DW-4), Toluene (MW-8 and DW-4), Ethylbenzene (MW-8 and MW-10), Xylenes (MW-8), Naphthalene (MW-1, MW-2, MW-6, MW-7, MW-8, MW-10 and DW-4), MTBE (MW-1, MW-2, MW-5, MW-6, MW-8, MW-10, DW-1 and DW-4), TAA (MW-1, MW-2, MW-6,

MW-7, MW-8, MW-10 and DW-4) and DIPE (MW-1, MW-8 and MW-10). The statistical analyses show:

- Benzene – increasing (MW-1), decreasing (MW-2 and MW-6), stable (MW-8 and MW-10) and no trend (DW-4).
- Toluene – stable (MW-8) and no trend (DW-4).
- Ethylbenzene – stable (MW-8 and MW-10) and no trend (DW-4).
- Xylenes – stable (MW-8)
- Naphthalene – decreasing (MW-2 and MW-6), stable (MW-1, MW-8 and MW-10) and no trend (MW-7 and DW-4).
- MTBE – increasing (MW-1 and MW-5), stable (MW-2, MW-8 and MW-10) and no trend (MW-6, DW-1 and DW-4).
- TAA – decreasing (MW-2), stable (MW-6, MW-8 and MW-10) and no trend (MW-1, MW-7 and DW-4).
- DIPE – increasing (MW-1), probably increasing (MW-8) and stable (MW-10).

6.0 MONITORING SUMMARY

- Groundwater flow is primarily to the northwest, toward drainage features associated with the Little Willow Creek.
- Free phase petroleum product was not detected in any of the monitoring wells during sampling activities.
- Fourteen groundwater monitoring wells, six surface water locations and two water supply wells were sampled on October 16, 2023. Petroleum compounds were detected above RBSL's in groundwater monitoring wells MW-1, MW-2, MW-5, MW-6, MW-8, MW-10, DW-1 and DW-4. Compounds above the established RBSL's include Benzene, Toluene, Ethylbenzene, Total Xylenes, Naphthalene, MTBE, TAA and DIPE.
- The analytical results also reported petroleum constituents above the laboratory method detection limit and/or "J" values in samples collected from MW-7 and DW-2; however, the concentrations did not exceed the RBSL.
- Analytical results did not indicate petroleum impact in any of the samples collected from the six surface water locations or two water supply wells sampled.
- In order to assess precision, field duplicate samples were collected and analyzed along with the reviewed batch samples. The duplicated samples were analyzed for the same parameters as the associated parent samples. Precision is determined by calculating the Relative Percent Differences (RPD) between each pair of samples. The RPD control limit for the groundwater

samples is 20%. Duplicate samples were collected from the parent samples of MW-8 and WSW-1. The precision for the target analytes were met for these sample pairs and the analytical results detected the same compounds at similar concentrations. Furthermore, field blanks and trip blanks were collected and submitted during the groundwater sampling activities. No detectable concentrations of the requested method constituents were reported in any of the field or trip blanks.

7.0 COMMENTS & RECOMMENDATIONS

- Since February of 2022, increasing trends in Benzene, MTBE and DIPE appear to be occurring in MW-1 and increasing trends in MTBE appear to be occurring in MW-5. Overall, the Mann-Kendall statistical analyses show a decreasing or stable trends in MW-2, MW-6, MW-7, MW-8 and MW-10. No trends have been established to date in DW-1 and DW-4.
- Data gaps currently persist horizontally north of MW-5, west of MW-5/MW-6 and south of MW-8. With the exception of the southerly direction from MW-8/DW-4, it appears these data gaps persist due to property access issues encountered at the site in 2022.
- MECI concurs with SCDHEC that further definition of the plume is not warranted at this time.
- MECI request the site be modeled to current site conditions and the Site-Specific Target Levels (SSTL's) be relinquished to our office. Based on the modeling, MECI will be able to better evaluate site rehabilitation needs.
- This report will be the final monitoring report as approved under CA# 65748.

8.0 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 BW Stokes Oil Company, Inc., SCDHEC and MECI under mutually agreed upon terms and conditions. If other parties wish to rely on this report, please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

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TABLES

TABLE 1 GROUNDWATER COC CONCENTRATION DATA JAKE HUGGINS OCTOBER 16, 2023 SAMPLING EVENT FLORENCE, SOUTH CAROLINA MECI PROJECT NUMBER 22-7924D UST PERMIT# 03423																	
Well ID#	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Naphthalene (µg/L)	MTBE (µg/L)	1, 2 DCA (µg/L)	EDB (µg/L)	TAA (µg/L)	TAME (µg/L)	ETBA (µg/L)	TBA (µg/L)	TBF (µg/L)	DIPE (µg/L)	Ethanol (µg/L)	ETBE (µg/L)
		RBSL 5	RBSL 1,000	RBSL 700	RBSL 10,000	RBSL 25	RBSL 40	RBSL 5	RBSL 0.05	RBSL 240	RBSL 128	RBSL NE	RBSL 1,400	RBSL NE	RBSL 150	RBSL 10,000	RBSL 47
03423-MW01	2/15/2022	624	19.3	158	67.9	78.7	264	<0.250	<0.00512	3030	56.9	<7.00	169	<6.90	160	<50.0	<0.720
	1/9/2023	620	16.4	74.1	16.9	66.0	342	<1.6	<0.0075	3770	60.6	<260	200 J	<147	191	<361	<16.2
	4/14/2023	749	11.5 J	39.7	<25.0	51.1	343	<10.3	<0.0073	4640	59.9	<270	<455	<120	178	<720	<42.3
	7/14/2023	964	10.4 J	23.8 J	<25.0	49.9	465	<10.3	<0.0075	4830	78.2	<270	<455	<120	268	<720	<42.3
	10/16/2023	1100	<20.1	<18.4	<50.0	66.5	488	<20.6	<0.0074	5340	82.9 J	<539	<910	<241	297	<1440	<84.6
03423-MW02	2/15/2022	203	<0.250	0.522 J	1.34	25.7	405	<0.250	<0.00515	442	26.9	<7.00	83.3	<6.90	78.2	<50.0	<0.720
	1/9/2023	122	<0.97	<0.61	<0.68	10.9	256	<0.64	<0.0074	233	14.6 J	<104	<53.6	<58.8	44.4	<144	<6.5
	4/14/2023	90.2	<4.0	<3.7	<10.0	10.2	195	<4.1	<0.0074	225	10.5 J	<108	<182	<48.2	33.0	<288	<16.9
	7/14/2023	95.2	<4.0	<3.7	<10.0	8.8 J	178	<4.1	<0.0077	141 J	9.0 J	<108	<182	<48.2	36.2	<288	<16.9
	10/16/2023	76.3	<4.0	<3.7	<10.0	4.4 J	200	<4.1	<0.0075	<131	8.7 J	<108	<182	<48.2	30.8	<288	<16.9
03423-MW03	2/15/2022	<0.270	3.15	0.279 J	<0.230	<2.40	1.95 J	<0.250	<0.00486	<8.60	<0.780	<7.00	<6.90	<6.90	0.893 J	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	1.1	<0.32	<0.0076	<36.4	<2.7	<51.9	<26.8	<29.4	0.61 J	<72.2	<3.2
	4/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0075	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
	7/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0077	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
	10/16/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0075	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
03423-MW04	2/15/2022	<0.270	<0.250	0.252 J	1.91	<2.40	<0.810	<0.250	<0.00509	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0075	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	4/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0074	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
	7/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0074	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
	10/16/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0076	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
03423-MW05	2/15/2022	<0.270	<0.250	<0.200	<0.230	<2.40	14.3	<0.250	<0.00509	<8.60	<0.780	<7.00	<6.90	<6.90	3.06 J	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	22.2	<0.32	<0.0075	<36.4	<2.7	<51.9	<26.8	<29.4	3.8	<72.2	<3.2
	4/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	22.3	<2.1	<0.0073	<65.6	<3.0	<53.9	<91.0	<24.1	4.1 J	<144	<8.5
	7/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	23.4	<2.1	<0.0074	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
	10/16/2023	<1.7	<2.0	<1.8	<5.0	2.9 J	59.5	<2.1	<0.0072	<65.6	<3.0	<53.9	<91.0	<24.1	8.5	<144	<8.5
03423-MW06	2/15/2022	356	30.1	134	11.6	87.5	166	<1.25	<0.00497	2410	46.4	<35.0	86.6 J	<34.5	122	<250	<3.60
	1/9/2023	83.3	4.6	4.5	3.3	26.7	126	<0.32	<0.0076	1640	29.6	<51.9	52.4 J	<29.4	88.1	<72.2	<3.2
	4/14/2023	68.1	2.9 J	3.3 J	<5.0	23.0	132	<2.1	<0.0072	1570	26.1	<53.9	<91.0	<24.1	80.1	<144	<8.5
	7/14/2023	45.4	4.1 J	6.0	<5.0	20.4	167	<2.1	<0.0073	1960	34.7	<53.9	<91.0	<24.1	117	<144	<8.5
	10/16/2023	38.5	2.6 J	<1.8	<5.0	14.6	156	<2.1	<0.0075	1930	28.6	<53.9	<91.0	<24.1	111	<144	<8.5
03423-MW07	2/15/2022	37.2	0.699 J	82.1	3.95	58.3	15.8	<0.250	<0.00492	1030	4.67	<7.00	31.3 J	<6.90	20.3	<50.0	<0.720
	1/9/2023	<0.34	<0.48	1.8	<0.34	4.3	1.4	<0.32	<0.0075	<36.4	<2.7	<51.9	<26.8	<29.4	1.6	<72.2	<3.2
	4/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0074	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
	7/14/2023	<1.7	<2.0	4.4 J	<5.0	15.1	3.6 J	<2.1	<0.0074	77.7 J	<3.0	<53.9	<91.0	<24.1	4.2 J	<144	<8.5
	10/16/2023	<1.7	<2.0	14.0	<5.0	18.6	4.7 J	<2.1	<0.0075	166	<3.0	<53.9	<91.0	<24.1	6.0	<144	<8.5
03423-MW08	2/15/2022	3720	21100	2200	12800	781	690	<12.5	0.121	8690	127	<350	370 J	<345	268 J	<2500	<36.0
	1/9/2023	4390	22300	2080	13300	766	531	<40.2	<0.0075	8510 J	<332	<6490	<3350	<3680	239	<9020	<405
	4/14/2023	3620	19200	1840	10800	661	435 J	<258	<0.0074	<8200	<380	<6740	<11400	<3010	<436	<18000	<1060
	7/14/2023	3110	12600	1920	10000	558 J	<388	<258	<0.0073	<8200	<380	<6740	<11400	<3010	<436	<18000	<1060
	10/16/2023	5330	27500	2810	16200	975 J	1000 J	<412	<0.0075	<13100	<608	<10800	<18200	<4820	<698	<28800	<1690
03423-MW09	2/15/2022	0.278 J	3.89	4.80	27.4	<2.40	<0.810	<0.250	<0.00494	77.4	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0077	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	4/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0070	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
	7/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0074	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
	10/16/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0074	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5

TABLE 1 GROUNDWATER COC CONCENTRATION DATA JAKE HUGGINS OCTOBER 16, 2023 SAMPLING EVENT FLORENCE, SOUTH CAROLINA MECI PROJECT NUMBER 22-7924D UST PERMIT# 03423																	
Well ID#	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Naphthalene (µg/L)	MTBE (µg/L)	1, 2 DCA (µg/L)	EDB (µg/L)	TAA (µg/L)	TAME (µg/L)	ETBA (µg/L)	TBA (µg/L)	TBF (µg/L)	DIPE (µg/L)	Ethanol (µg/L)	ETBE (µg/L)
		RBSL 5	RBSL 1,000	RBSL 700	RBSL 10,000	RBSL 25	RBSL 40	RBSL 5	RBSL 0.05	RBSL 240	RBSL 128	RBSL NE	RBSL 1,400	RBSL NE	RBSL 150	RBSL 10,000	RBSL 47
03423-MW10	2/15/2022	1070	297	753	2380	342	510	<12.5	<0.00507	7950	120	<350	<345	<345	339 J	<2500	<36.0
	1/9/2023	2060	439	1100	2640	455	865	<4.0	<0.0077	11100	168	<649	535 J	<368	555	<902	<40.5
	4/14/2023	634	49.9	428	308	216	260	<10.3	<0.0075	3350	56.9	<270	<455	<120	165	<720	<42.3
	7/14/2023	79.3	15.1 J	329	116	143	25.4	<10.3	<0.0075	<328	<15.2	<270	<455	<120	17.6 J	<720	<42.3
	10/16/2023	299	83.8	503	747	244	112	<10.3	<0.0074	1460	22.5 J	<270	<455	<120	68.1	<720	<42.3
03423-DW01	2/15/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00529	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	52.9	<0.32	<0.0076	<36.4	4.2 J	<51.9	<26.8	<29.4	15.2	<72.2	<3.2
	4/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0072	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
	7/14/2023	3.4 J	<2.0	<1.8	<5.0	<2.1	144	<2.1	<0.0075	<65.6	9.6 J	<53.9	<91.0	<24.1	40.5	<144	<8.5
	10/16/2023	<1.7	<2.0	<1.8	<5.0	<2.1	129	<2.1	<0.0073	<65.6	7.3 J	<53.9	<91.0	<24.1	34.2	<144	<8.5
03423-DW02	2/15/2022	<0.270	<0.250	<0.200	<0.230	<2.40	7.40	<0.250	<0.00510	<8.60	<0.780	<7.00	<6.90	<6.90	2.61 J	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	6.1	<0.32	<0.0076	<36.4	<2.7	<51.9	<26.8	<29.4	2.0	<72.2	<3.2
	4/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	5.2	<2.1	<0.0073	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
	7/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	19.9	<2.1	<0.0074	<65.6	<3.0	<53.9	<91.0	<24.1	3.7 J	<144	<8.5
	10/16/2023	<1.7	<2.0	<1.8	<5.0	<2.1	36.2	<2.1	<0.0076	<65.6	<3.0	<53.9	<91.0	<24.1	5.6	<144	<8.5
03423-DW03	2/15/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00485	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0077	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	4/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0074	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
	7/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0076	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
	10/16/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0075	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
03423-DW04	2/15/2022	67.5	1890	611	4230	181	<0.810	<0.250	<0.00489	<8.60	<0.780	<7.00	<6.90	<6.90	1.69 J	<50.0	<0.720
	1/9/2023	63.6	464	20.1	291	<2.6	51.8	<1.3	<0.0077	422	<10.6	<208	<107	<118	21.2	<289	<13.0
	4/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0074	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
	7/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0074	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
	10/16/2023	341	359	98.9	1630	72.7	153	<8.2	<0.0075	913	20.9 J	<216	<364	<96.4	54.4	<576	<33.8
03423-TW01*	2/28/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00636	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
03423-SW01	2/15/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00503	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	0.43 J	<0.64	<0.42	<0.32	<0.0077	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	4/14/2023	<0.34	0.98 J	<0.30	<0.34	<0.64	0.68 J	<0.32	<0.0078	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	7/14/2023	<0.34	0.52 J	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0075	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	10/16/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0075	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-SW02	2/15/2022	<0.270	<0.250	<0.200	<0.230	<2.40	0.832 J	<0.250	<0.00494	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	1.2	<0.32	<0.0077	<36.4	<2.7	<51.9	<26.8	<29.4	0.49 J	<72.2	<3.2
	4/14/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0073	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	7/14/2023	<0.34	<0.48	<0.30	<0.34	<0.64	0.63 J	<0.32	<0.0075	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	10/16/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0075	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-SW03	2/15/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00497	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0077	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	4/14/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0076	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	7/14/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0077	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	10/16/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0075	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-SW04	2/28/2022	<0.270	15.9	0.228 J	<0.230	<2.40	<0.810	<0.250	<0.00492	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0080	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	4/14/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0074	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	7/14/2023	<0.34	0.49 J	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0076	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	10/16/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0074	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-SW05	2/28/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00503	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0079	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	4/14/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0074	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	7/14/2023	<0.34	0.63 J	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0079	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	10/16/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0075	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-SW06	2/28/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00507	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0076	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	4/14/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0073	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	7/14/2023	<0.34	0.64 J	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0076	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	10/16/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0076	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2

TABLE 1 GROUNDWATER COC CONCENTRATION DATA JAKE HUGGINS OCTOBER 16, 2023 SAMPLING EVENT FLORENCE, SOUTH CAROLINA MECI PROJECT NUMBER 22-7924D UST PERMIT# 03423																	
Well ID#	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Naphthalene (µg/L)	MTBE (µg/L)	1, 2 DCA (µg/L)	EDB (µg/L)	TAA (µg/L)	TAME (µg/L)	ETBA (µg/L)	TBA (µg/L)	TBF (µg/L)	DIPE (µg/L)	Ethanol (µg/L)	ETBE (µg/L)
		RBSL 5	RBSL 1,000	RBSL 700	RBSL 10,000	RBSL 25	RBSL 40	RBSL 5	RBSL 0.05	RBSL 240	RBSL 128	RBSL NE	RBSL 1,400	RBSL NE	RBSL 150	RBSL 10,000	RBSL 47
03423-WSW01	2/15/2022	<0.0820	<0.0860	<0.0990	<0.0860	<0.430	<0.0930	<0.0860	<0.00513	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0056	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	4/14/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0055	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	7/14/2023	<0.21	0.46 J	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0055	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	10/16/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0055	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-WSW02	2/15/2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	1/9/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0056	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	4/14/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0056	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	7/14/2023	<0.21	0.45 J	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0055	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	10/16/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0054	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-WSW03	2/15/2022	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	1/9/2023	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/14/2023	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/14/2023	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/16/2023	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
DUP-1 (MW10)	2/15/2022	1090	359	783	2440	325	496	<2.50	<0.00499	7770	129	<70.0	298 J	<69.0	343	<500	<7.20
DUP. (WSW01)	2/15/2022	<0.0820	<0.0860	<0.0990	<0.0860	<0.430	<0.0930	<0.0860	<0.00501	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
DUP-1 (TW01)	2/28/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00581	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
DUP-1 (MW01)	1/9/2023	736	19.2	93.2	21.4	78.8	429	<1.6	<0.0075	4900	64.8	<260	258 J	<147	240	<361	<16.2
DUP. (WSW01)	1/9/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0057	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
DUP. (MW08)	4/14/2023	4400	21900	2110	13000	765	614 J	<258	<0.0075	<8200	<380	<6740	<11400	<3010	<436	<18000	<1060
DUP. (WSW01)	4/14/2023	<0.21	0.21 J	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0056	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
DUP. (MW08)	7/14/2023	3350	12500	1810	9530	670	<388	<258	<0.0074	<8200	<380	<6740	<11400	<3010	<436	<18000	<1060
DUP. (WSW01)	7/14/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0055	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
DUP.(MW08)	10/16/2023	4670	23400	2430	14000	679 J	834 J	<412	<0.0075	<13100	<608	<10800	<18200	<4820	<698	<28800	<1690
DUP.(WSW01)	10/16/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0055	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
Field Blank	2/15/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00501	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	2/15/2022	<0.0820	<0.0860	<0.0990	<0.0860	<0.430	<0.0930	<0.0860	<0.00499	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	2/28/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	<0.00501	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0077	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	1/9/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0057	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	4/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0075	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
	4/14/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0056	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	7/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0075	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
	7/14/2023	<0.21	0.25 J	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0053	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	10/16/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0074	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
	10/16/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0055	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
Trip Blank	2/15/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	NT	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	2/15/2022	<0.0820	<0.0860	<0.0990	<0.0860	<0.430	<0.0930	<0.0860	NT	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	2/28/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	NT	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	2/28/2022	<0.270	<0.250	<0.200	<0.230	<2.40	<0.810	<0.250	NT	<8.60	<0.780	<7.00	<6.90	<6.90	<0.700	<50.0	<0.720
	1/9/2023	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	NT	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	1/9/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	NT	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	4/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	NT	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
	4/14/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	NT	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	7/14/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	NT	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
	7/14/2023	<0.21	0.50 J	<0.22	<0.22	<0.35	<0.14	<0.16	NT	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
	10/16/2023	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	NT	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
	10/16/2023	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	NT	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
Notes:		1. BDL = Below Practical Quantitative Limits 2. ug/l = micrograms per liter 3. mg/l = milligrams per liter 4. MTBE = Methyl-Tertiary-Butyl Ether 5. See Appendix for Laboratory Detection Limits 6. NL = Not Located 7. DRY = Well was Dry at the time of Sampling				8. NT = Not Tested 9. EDB = Ethylene Dibromide 10. 1,2 DCA = 1,2-Dichloroethane 11. FPP = Free Phase Petroleum Product 12. * = Wells Have Been Abandoned 13. *J Values used in Total BTEX Calculations 14. B = Detected in Method Blank				15. *J values report concentrations above the method detection limits (MDL) and below actual reporting limit (RL). 16. S = MS/MSD Failure 17. P = The RPD between the two columns exceeds 40%. 18. DIPE = Diisopropyl Ether 19. ETBE = Ethyl ter-butyl Ether 20. TAA = tert-Amyl Alcohol				21. TAME = tert-Amyl Methyl Ether 22. TBA = ter-Butyl Alcohol 23. TBF = tert-Butyl Formate 24. TAME = tert-Amyl Methyl Ether 25. * = TW-1 was a temporary well and has been abandoned. 26. NS = Not Sampled 27. Bolded data is above the RBSL (Risk-Based Screening Level)			

**TABLE 2
POTENTIOMETRIC DATA
JAKE HUGGINS
OCTOBER 16, 2023 SAMPLING EVENT
FLORENCE, SOUTH CAROLINA
MECI PROJECT NUMBER 22-7924D
UST PERMIT# 03423**

Well Number	Sample Date	Screened Interval	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	TOC Elevation	Groundwater Elevation
03423-MW01	2/15/2022	3-13	***	2.67	***	98.72	96.05
	1/9/2023		***	3.48	***	98.72	95.24
	4/14/2023		***	3.41	***	98.72	95.31
	7/14/2023		***	3.02	***	98.72	95.70
	10/16/2023		***	3.46	***	98.72	95.26
03423-MW02	2/15/2022	3-13	***	2.64	***	96.40	93.76
	1/9/2023		***	3.25	***	96.40	93.15
	4/14/2023		***	3.23	***	96.40	93.17
	7/14/2023		***	3.04	***	96.40	93.36
	10/16/2023		***	3.28	***	96.40	93.12
03423-MW03	2/15/2022	3-13	***	2.42	***	94.95	92.53
	1/9/2023		***	3.15	***	94.95	91.80
	4/14/2023		***	3.06	***	94.95	91.89
	7/14/2023		***	3.29	***	94.95	91.66
	10/16/2023		***	3.62	***	94.95	91.33
03423-MW04	2/15/2022	3-13	***	2.61	***	94.88	92.27
	1/9/2023		***	3.45	***	94.88	91.43
	4/14/2023		***	3.39	***	94.88	91.49
	7/14/2023		***	3.63	***	94.88	91.25
	10/16/2023		***	4.53	***	94.88	90.35
03423-MW05	2/15/2022	3-13	***	2.46	***	94.88	92.42
	1/9/2023		***	3.16	***	94.88	91.72
	4/14/2023		***	3.07	***	94.88	91.81
	7/14/2023		***	3.47	***	94.88	91.41
	10/16/2023		***	5.43	***	94.88	89.45
03423-MW06	2/15/2022	3-13	***	2.83	***	97.86	95.03
	1/9/2023		***	3.50	***	97.86	94.36
	4/14/2023		***	3.32	***	97.86	94.54
	7/14/2023		***	3.07	***	97.86	94.79
	10/16/2023		***	3.24	***		
03423-MW07	2/15/2022	3-13	***	2.91	***	100.29	97.38
	1/9/2023		***	3.98	***	100.29	96.31
	4/14/2023		***	3.78	***	100.29	96.51
	7/14/2023		***	3.54	***	100.29	96.75
	10/16/2023		***	4.44	***		
03423-MW08	2/15/2022	3-13	***	3.76	***	100.92	97.16
	1/9/2023		***	4.38	***	100.92	96.54
	4/14/2023		***	4.13	***	100.92	96.79
	7/14/2023		***	3.90	***	100.92	97.02
	10/16/2023		***	4.46	***	100.92	96.46
03423-MW09	2/15/2022	3-13	***	3.97	***	100.92	96.95
	1/9/2023		***	3.27	***	100.92	97.65
	4/14/2023		***	3.19	***	100.92	97.73
	7/14/2023		***	4.22	***	100.92	96.70
	10/16/2023		***	5.21	***	100.92	95.71
03423-MW10	2/15/2022	3-13	***	2.93	***	99.69	96.76
	1/9/2023		***	3.68	***	99.69	96.01
	4/14/2023		***	3.56	***	99.69	96.13
	7/14/2023		***	3.17	***	99.69	96.52
	10/16/2023		***	4.07	***	99.69	95.62
03423-DW01	2/15/2022	20-25	***	2.54	***	98.57	96.03
	1/9/2023		***	3.22	***	98.57	95.35
	4/14/2023		***	3.17	***	98.57	95.40
	7/14/2023		***	3.13	***	98.57	95.44
	10/16/2023		***	3.84	***	98.57	94.73
03423-DW02	2/15/2022	20-25	***	2.51	***	96.48	93.97
	1/9/2023		***	3.01	***	96.48	93.47
	4/14/2023		***	3.03	***	96.48	93.45
	7/14/2023		***	3.53	***	96.48	92.95
			***	3.75	***	96.48	92.73
03423-DW03	2/15/2022	20-25	***	2.92	***	100.05	97.13
	1/9/2023		***	3.53	***	100.05	96.52
	4/14/2023		***	3.41	***	100.05	96.64
	7/14/2023		***	3.14	***	100.05	96.91
	10/16/2023		***	4.14	***	100.05	95.91
03423-DW04	2/15/2022	20-25	***	3.86	***	101.03	97.17
	1/9/2023		***	4.41	***	101.03	96.62
	4/14/2023		***	4.36	***	101.03	96.67
	7/14/2023		***	4.22	***	101.03	96.81
	10/16/2023		***	5.25	***	101.03	95.78

Notes:

1. Elevations are NAV88.

2. Groundwater depths were measured from the top of the PVC riser pipe.

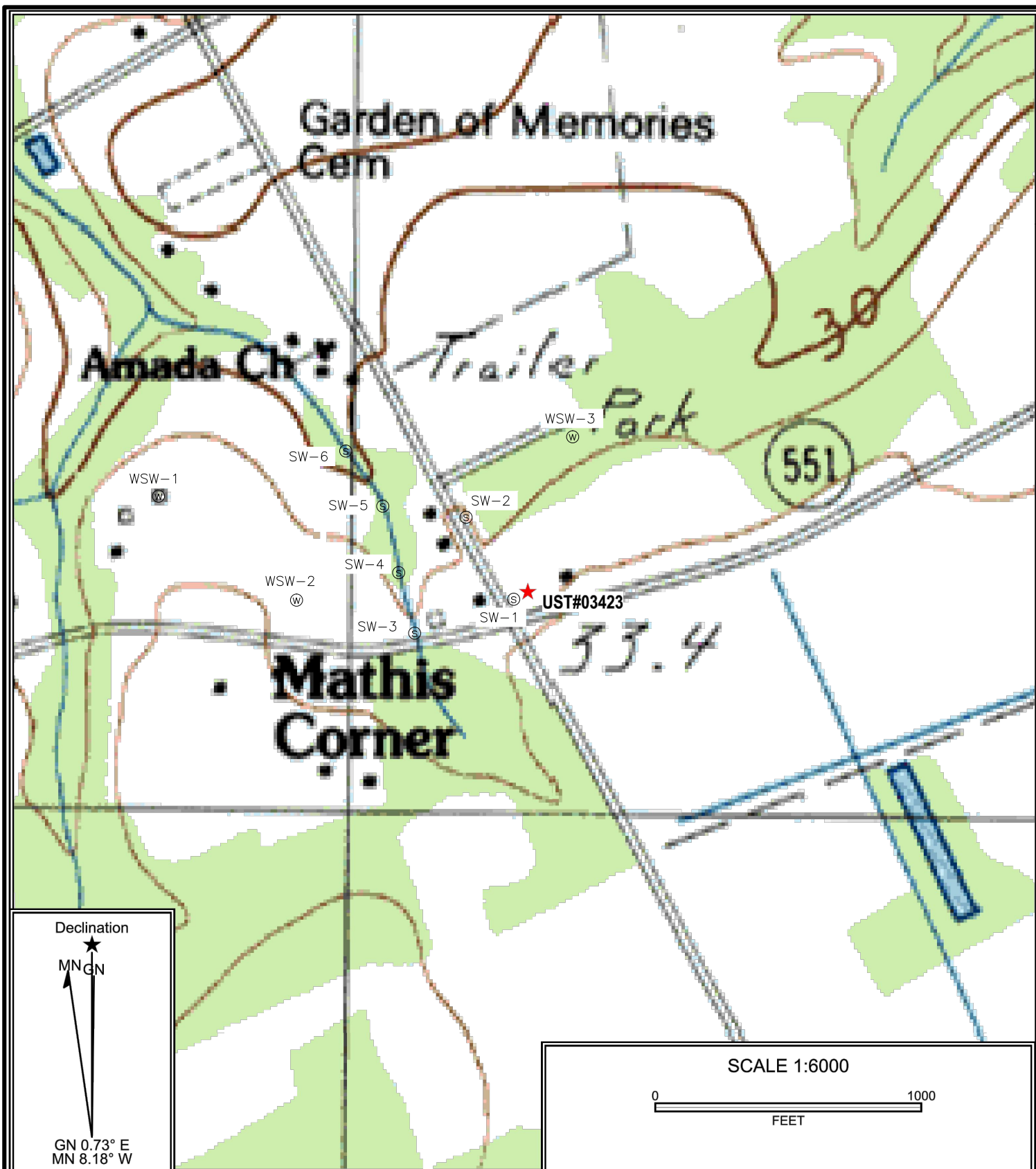
3. NM = Not Measured

4. DRY = Well Gauged DRY

5. TD = Total Depth

6. * = Groundwater elevation corrected for the presence of free product using a specific gravity of 0.85.

FIGURES



Reference: Evergreen, South Carolina
 USGS 7.5 Min. Quad
 Contour Interval - 2 Meters

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Site Location

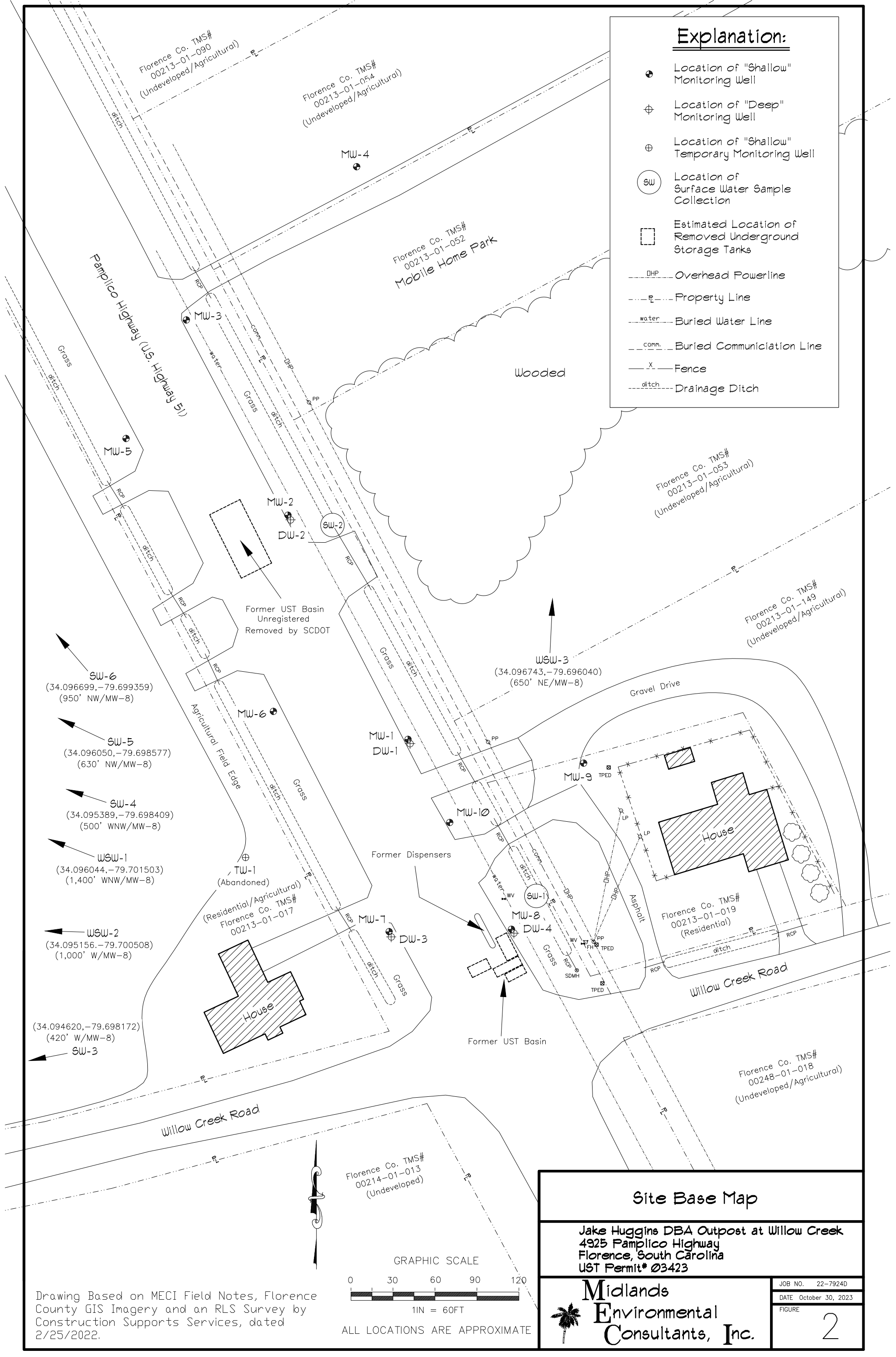
Jake Huggins DBA Outpost at Willowcreek, LLC.
 4925 Pamplico Highway, Florence, SC
 UST Permit# 18419

Figure 1

MECI 22-1924D

Explanation:

- Location of "Shallow" Monitoring Well
- Location of "Deep" Monitoring Well
- Location of "Shallow" Temporary Monitoring Well
- Location of Surface Water Sample Collection
- Estimated Location of Removed Underground Storage Tanks
- Overhead Powerline
- Property Line
- Buried Water Line
- Buried Communication Line
- Fence
- Drainage Ditch



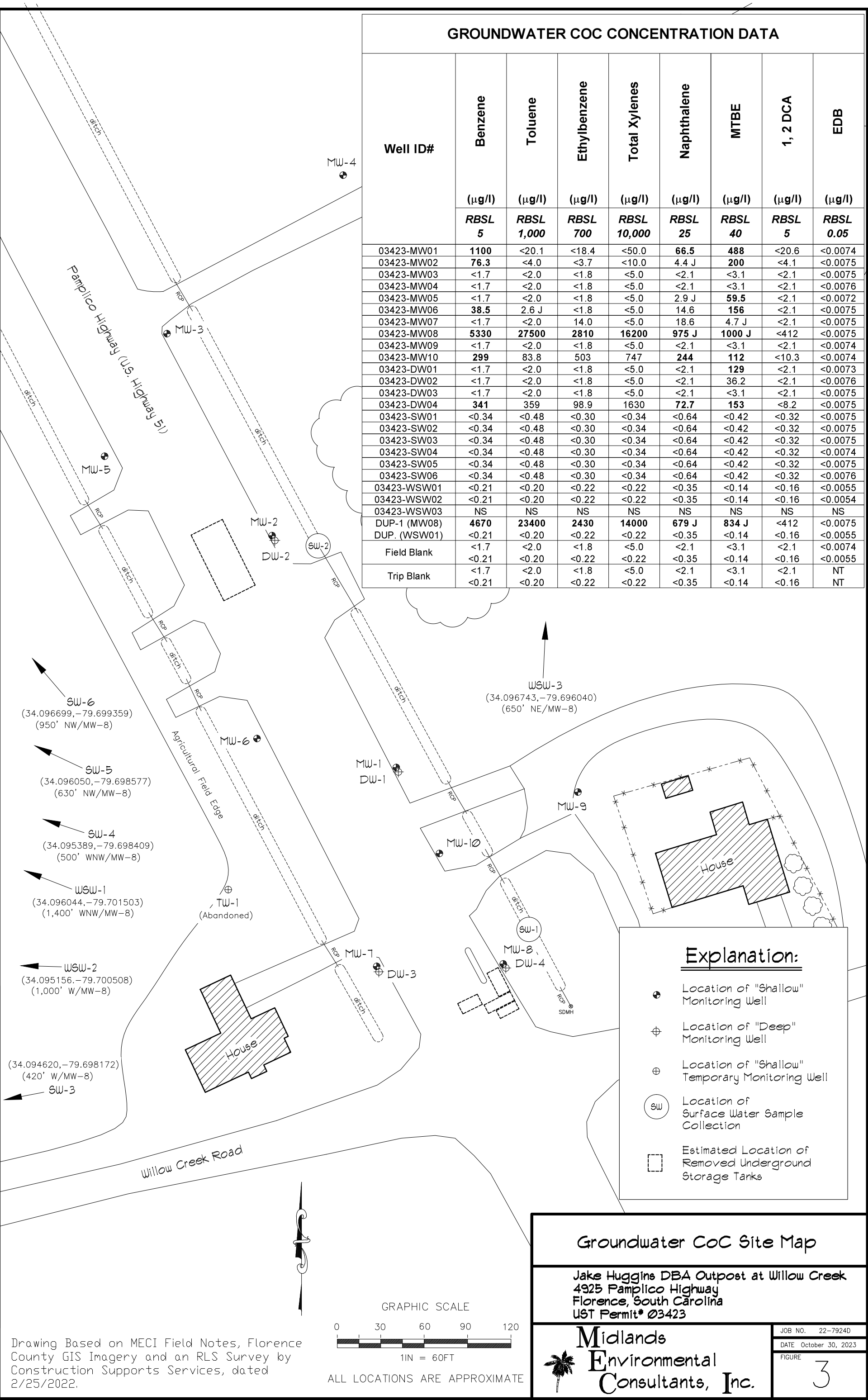
Site Base Map

Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
Florence, South Carolina
UST Permit# 03423

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JOB NO. 22-7924D
DATE October 30, 2023
FIGURE 2

GROUNDWATER COC CONCENTRATION DATA								
Well ID#	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene	MTBE	1, 2 DCA	EDB
	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
	RBSL 5	RBSL 1,000	RBSL 700	RBSL 10,000	RBSL 25	RBSL 40	RBSL 5	RBSL 0.05
03423-MW01	1100	<20.1	<18.4	<50.0	66.5	488	<20.6	<0.0074
03423-MW02	76.3	<4.0	<3.7	<10.0	4.4 J	200	<4.1	<0.0075
03423-MW03	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0075
03423-MW04	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0076
03423-MW05	<1.7	<2.0	<1.8	<5.0	2.9 J	59.5	<2.1	<0.0072
03423-MW06	38.5	2.6 J	<1.8	<5.0	14.6	156	<2.1	<0.0075
03423-MW07	<1.7	<2.0	14.0	<5.0	18.6	4.7 J	<2.1	<0.0075
03423-MW08	5330	27500	2810	16200	975 J	1000 J	<412	<0.0075
03423-MW09	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0074
03423-MW10	299	83.8	503	747	244	112	<10.3	<0.0074
03423-DW01	<1.7	<2.0	<1.8	<5.0	<2.1	129	<2.1	<0.0073
03423-DW02	<1.7	<2.0	<1.8	<5.0	<2.1	36.2	<2.1	<0.0076
03423-DW03	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0075
03423-DW04	341	359	98.9	1630	72.7	153	<8.2	<0.0075
03423-SW01	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0075
03423-SW02	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0075
03423-SW03	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0075
03423-SW04	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0074
03423-SW05	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0075
03423-SW06	<0.34	<0.48	<0.30	<0.34	<0.64	<0.42	<0.32	<0.0076
03423-WSW01	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0055
03423-WSW02	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0054
03423-WSW03	NS	NS	NS	NS	NS	NS	NS	NS
DUP-1 (MW08)	4670	23400	2430	14000	679 J	834 J	<412	<0.0075
DUP. (WSW01)	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	<0.0055
Field Blank	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	<0.0074
Trip Blank	<1.7	<2.0	<1.8	<5.0	<2.1	<3.1	<2.1	NT
	<0.21	<0.20	<0.22	<0.22	<0.35	<0.14	<0.16	NT



Explanation:

- Location of "Shallow" Monitoring Well
- Location of "Deep" Monitoring Well
- Location of "Shallow" Temporary Monitoring Well
- Location of Surface Water Sample Collection
- Estimated Location of Removed Underground Storage Tanks

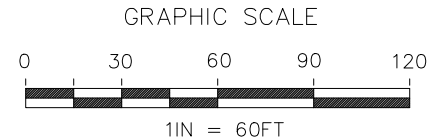
Groundwater CoC Site Map

Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
Florence, South Carolina
UST Permit# 03423

Midlands
Environmental
Consultants, Inc.

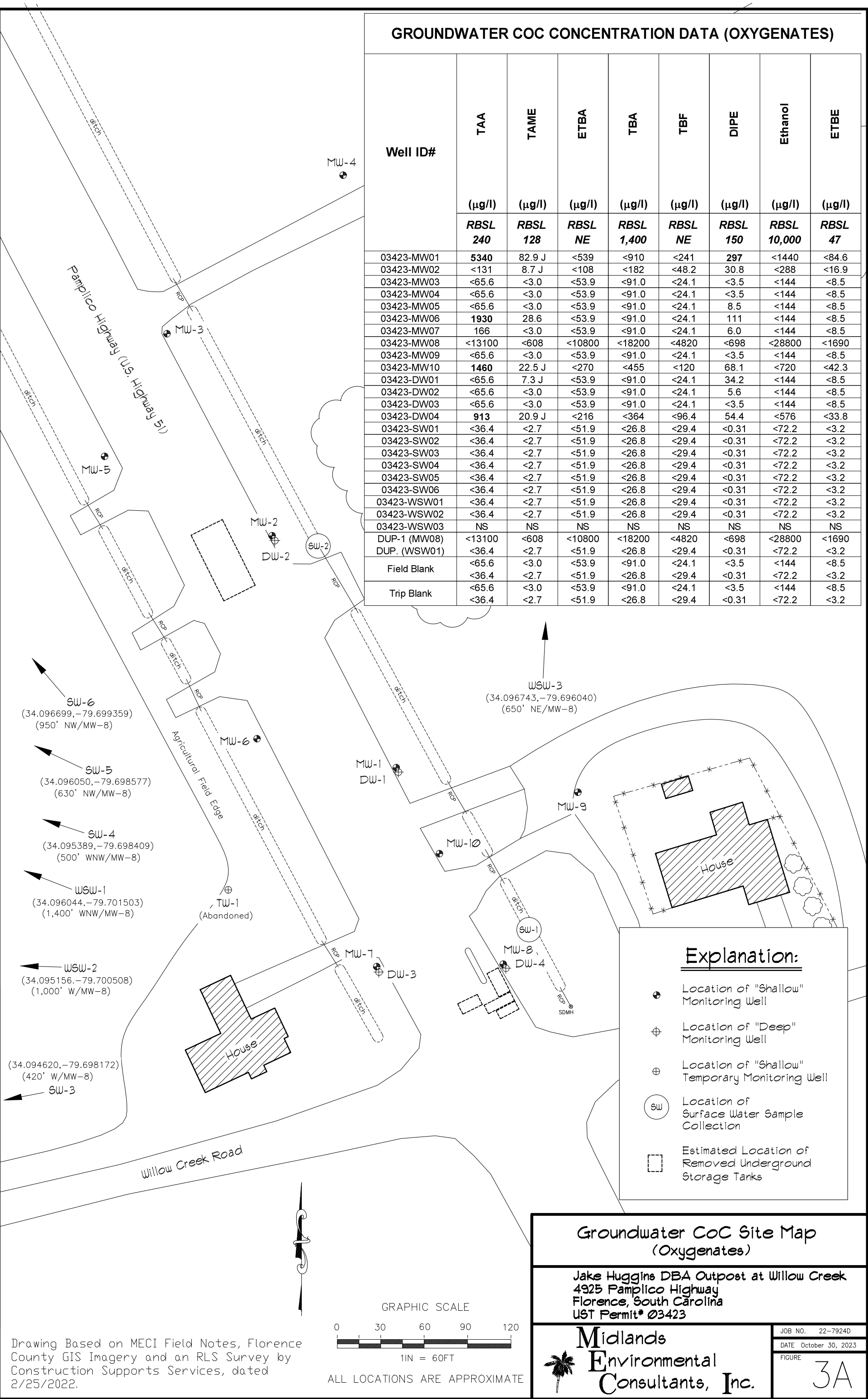
JOB NO. 22-7924D
DATE October 30, 2023
FIGURE 3

Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.

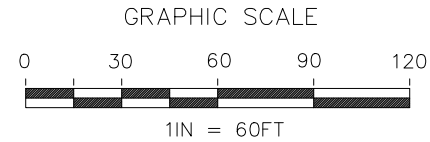


ALL LOCATIONS ARE APPROXIMATE

GROUNDWATER COC CONCENTRATION DATA (OXYGENATES)								
Well ID#	TAA	TAME	ETBA	TBA	TBF	DIPE	Ethanol	ETBE
	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
	RBSL 240	RBSL 128	RBSL NE	RBSL 1,400	RBSL NE	RBSL 150	RBSL 10,000	RBSL 47
03423-MW01	5340	82.9 J	<539	<910	<241	297	<1440	<84.6
03423-MW02	<131	8.7 J	<108	<182	<48.2	30.8	<288	<16.9
03423-MW03	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
03423-MW04	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
03423-MW05	<65.6	<3.0	<53.9	<91.0	<24.1	8.5	<144	<8.5
03423-MW06	1930	28.6	<53.9	<91.0	<24.1	111	<144	<8.5
03423-MW07	166	<3.0	<53.9	<91.0	<24.1	6.0	<144	<8.5
03423-MW08	<13100	<608	<10800	<18200	<4820	<698	<28800	<1690
03423-MW09	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
03423-MW10	1460	22.5 J	<270	<455	<120	68.1	<720	<42.3
03423-DW01	<65.6	7.3 J	<53.9	<91.0	<24.1	34.2	<144	<8.5
03423-DW02	<65.6	<3.0	<53.9	<91.0	<24.1	5.6	<144	<8.5
03423-DW03	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
03423-DW04	913	20.9 J	<216	<364	<96.4	54.4	<576	<33.8
03423-SW01	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-SW02	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-SW03	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-SW04	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-SW05	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-SW06	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-WSW01	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-WSW02	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
03423-WSW03	NS	NS	NS	NS	NS	NS	NS	NS
DUP-1 (MW08)	<13100	<608	<10800	<18200	<4820	<698	<28800	<1690
DUP. (WSW01)	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2
Field Blank	<65.6	<3.0	<53.9	<91.0	<24.1	<3.5	<144	<8.5
Trip Blank	<36.4	<2.7	<51.9	<26.8	<29.4	<0.31	<72.2	<3.2



Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.



ALL LOCATIONS ARE APPROXIMATE

Groundwater CoC Site Map (Oxygenates)

Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
Florence, South Carolina
UST Permit# 03423

Midlands
Environmental
Consultants, Inc.

JOB NO. 22-7924D

DATE October 30, 2023

FIGURE

3A

POTENTIOMETRIC DATA				
Well Number	Screened Interval	Depth to Water (ft.)	TOC Elevation	Groundwater Elevation
03423-MW01	3-13	3.46	98.72	95.26
03423-MW02	3-13	3.28	96.40	93.12
03423-MW03	3-13	3.62	94.95	91.33
03423-MW04	3-13	4.53	94.88	90.35
03423-MW05	3-13	5.43	94.88	89.45
03423-MW06	3-13	3.24	97.86	94.62
03423-MW07	3-13	4.44	100.29	95.85
03423-MW08	3-13	4.46	100.92	96.46
03423-MW09	3-13	5.21	100.92	95.71
03423-MW10	3-13	4.07	99.69	95.62
03423-DW01	20-25	3.84	98.57	94.73
03423-DW02	20-25	3.75	96.48	92.73
03423-DW03	20-25	4.14	100.05	95.91
03423-DW04	20-25	5.25	101.03	95.78

Explanation:

Groundwater Contour (ft.)

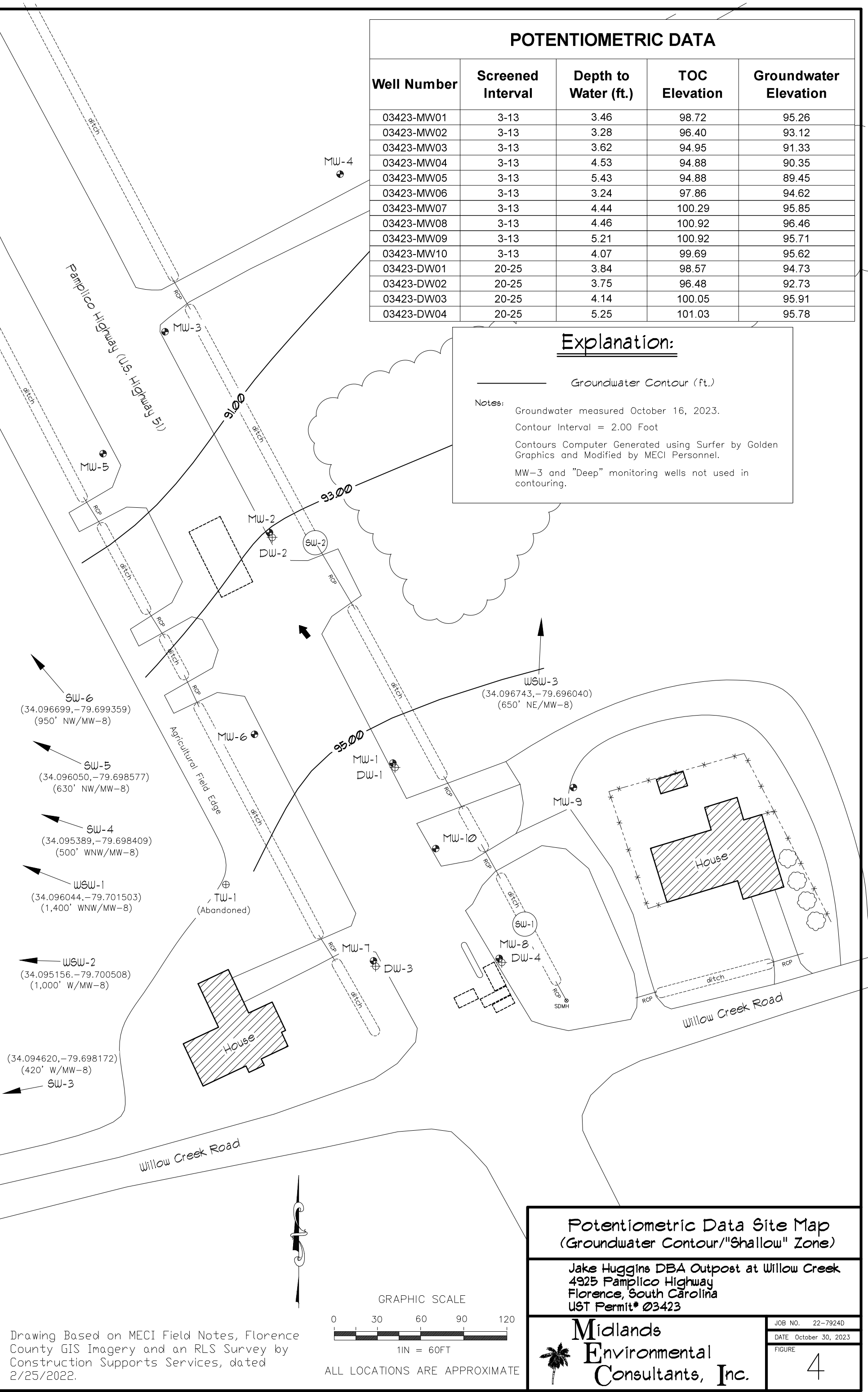
Notes:

Groundwater measured October 16, 2023.

Contour Interval = 2.00 Foot

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

MW-3 and "Deep" monitoring wells not used in contouring.



POTENTIOMETRIC DATA				
Well Number	Screened Interval	Depth to Water (ft.)	TOC Elevation	Groundwater Elevation
03423-MW01	3-13	3.46	98.72	95.26
03423-MW02	3-13	3.28	96.40	93.12
03423-MW03	3-13	3.62	94.95	91.33
03423-MW04	3-13	4.53	94.88	90.35
03423-MW05	3-13	5.43	94.88	89.45
03423-MW06	3-13	3.24	97.86	94.62
03423-MW07	3-13	4.44	100.29	95.85
03423-MW08	3-13	4.46	100.92	96.46
03423-MW09	3-13	5.21	100.92	95.71
03423-MW10	3-13	4.07	99.69	95.62
03423-DW01	20-25	3.84	98.57	94.73
03423-DW02	20-25	3.75	96.48	92.73
03423-DW03	20-25	4.14	100.05	95.91
03423-DW04	20-25	5.25	101.03	95.78

Explanation:

Groundwater Contour (ft.)

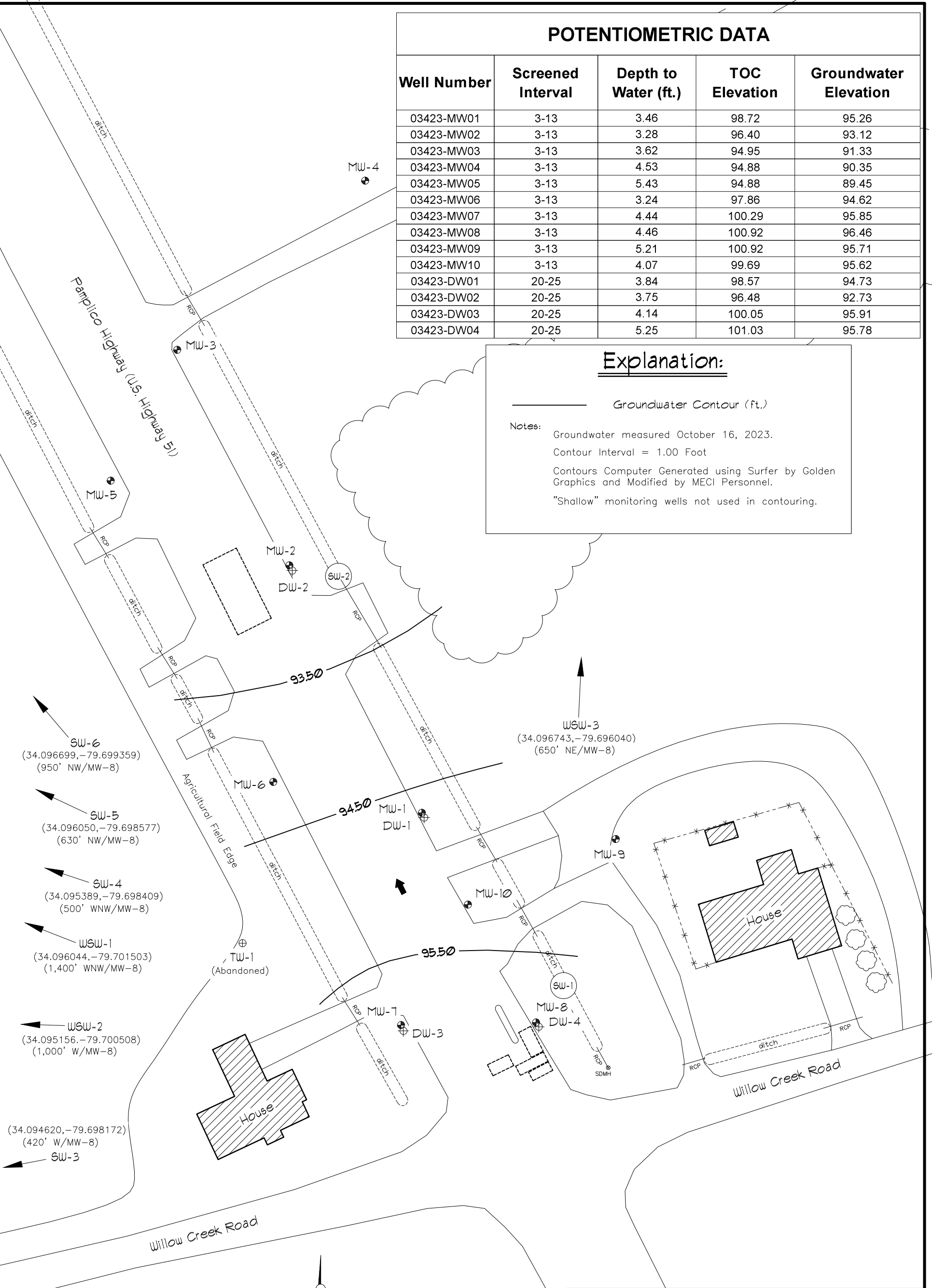
Notes:

Groundwater measured October 16, 2023.

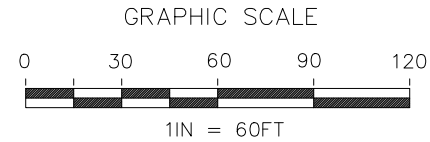
Contour Interval = 1.00 Foot

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

"Shallow" monitoring wells not used in contouring.



Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.



ALL LOCATIONS ARE APPROXIMATE

Potentiometric Data Site Map
(Groundwater Contour/"Deep" Zone)

Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
Florence, South Carolina
UST Permit# 03423

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Environmental
Consultants, Inc.

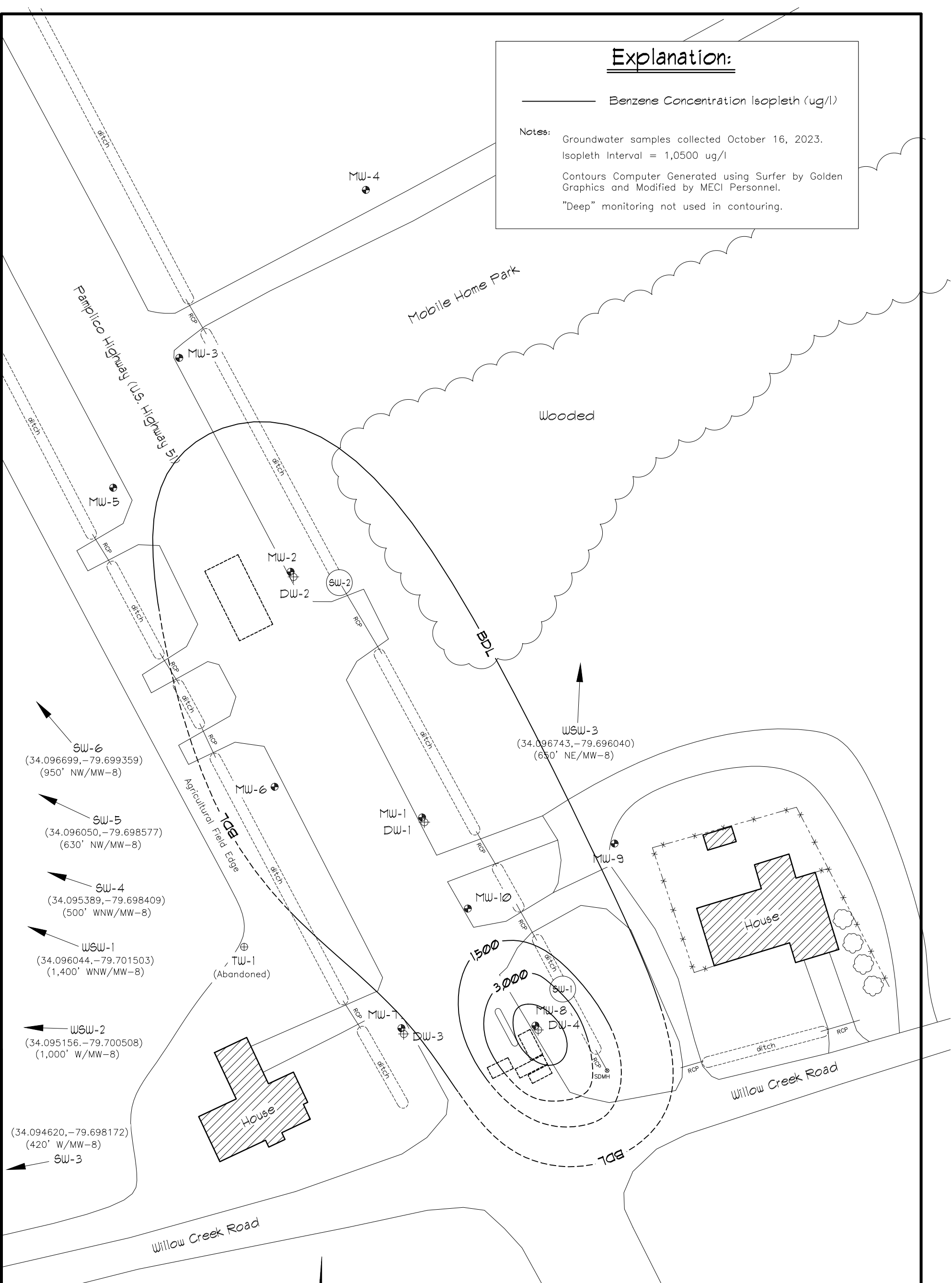
JOB NO. 22-7924D
DATE October 30, 2023
FIGURE

4A

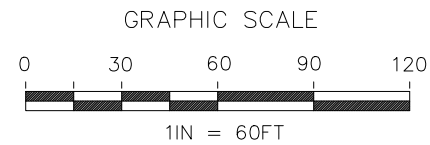
Explanation:

Benzene Concentration Isopleth (ug/l)

Notes: Groundwater samples collected October 16, 2023.
Isopleth Interval = 1,0500 ug/l
Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.
"Deep" monitoring not used in contouring.



Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.



ALL LOCATIONS ARE APPROXIMATE

Benzene Isopleth - "Shallow" Zone

Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
Florence, South Carolina
UST Permit# 03423

Midlands
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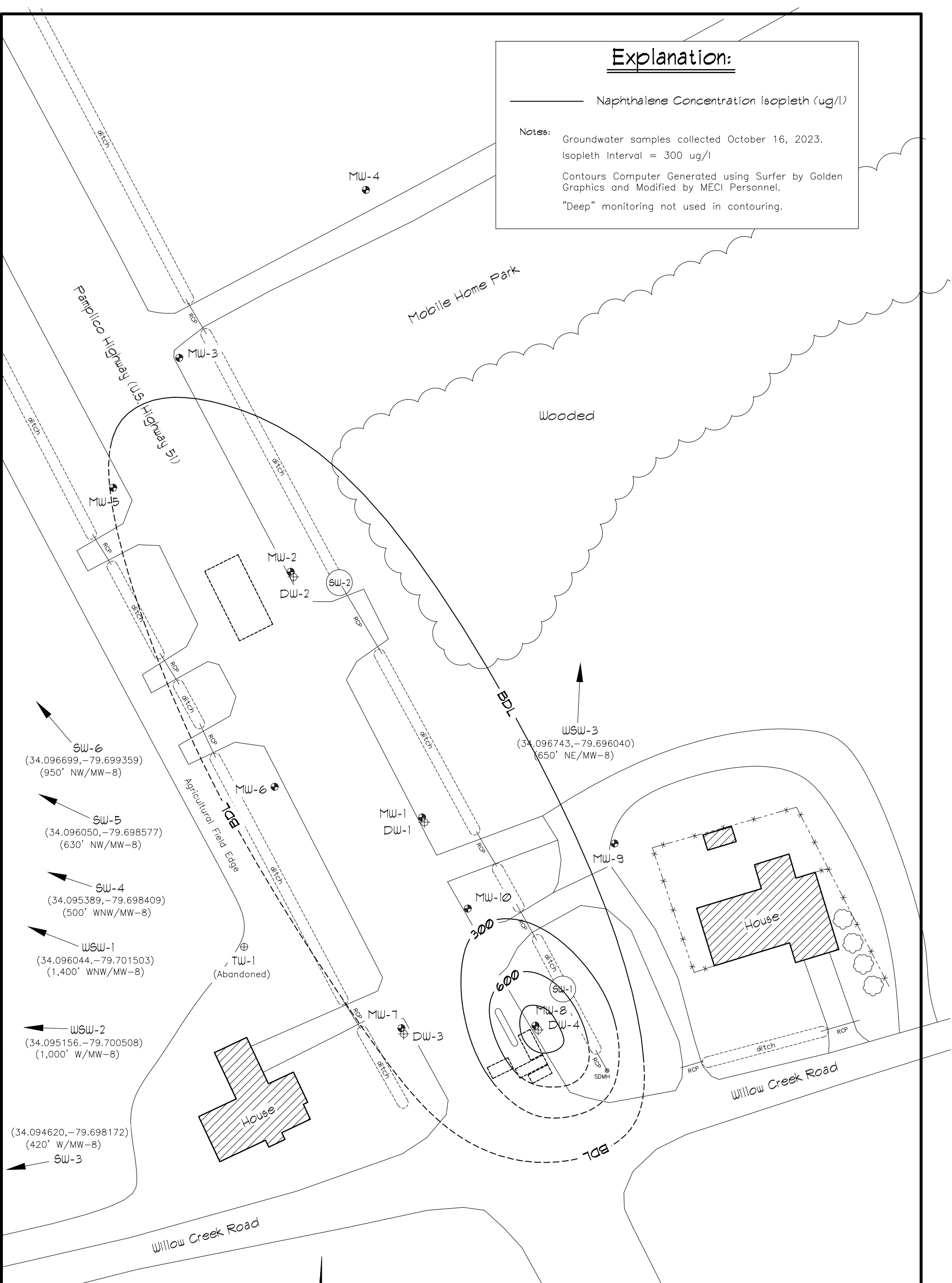
JOB NO. 22-7924D
DATE October 30, 2023
FIGURE

5

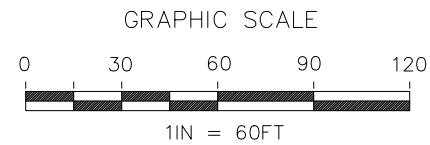
Explanation:

Naphthalene Concentration Isopleth (ug/l)

Notes: Groundwater samples collected October 16, 2023.
Isopleth Interval = 300 ug/l
Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.
"Deep" monitoring not used in contouring.



Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.



ALL LOCATIONS ARE APPROXIMATE

Naphthalene Isopleth - "Shallow" Zone

Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
Florence, South Carolina
UST Permit# 03423

Midlands
Environmental
Consultants, Inc.

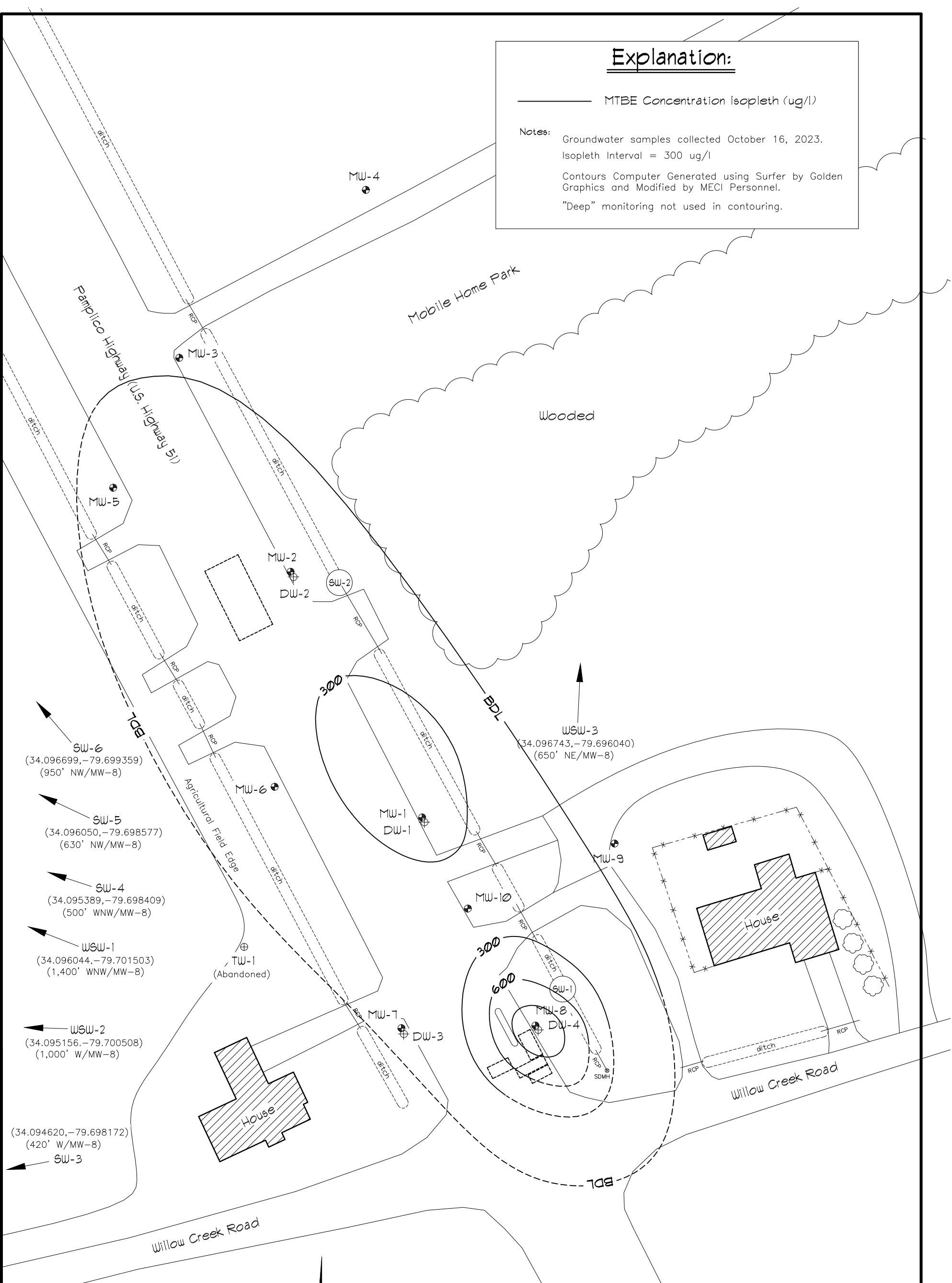
JOB NO. 22-7924D
DATE October 30, 2023
FIGURE

5A

Explanation:

MTBE Concentration Isopleth (ug/l)

Notes: Groundwater samples collected October 16, 2023.
Isopleth Interval = 300 ug/l
Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.
"Deep" monitoring not used in contouring.



MTBE Isopleth - "Shallow" Zone

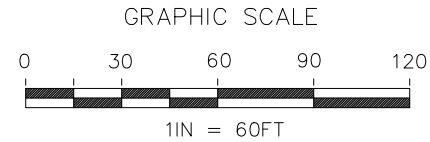
Jake Huggins DBA Outpost at Willow Creek
4925 Pamplico Highway
Florence, South Carolina
UST Permit# 03423

Midlands
Environmental
Consultants, Inc.

JOB NO. 22-7924D
DATE October 30, 2023
FIGURE

5B

Drawing Based on MECI Field Notes, Florence County GIS Imagery and an RLS Survey by Construction Supports Services, dated 2/25/2022.



ALL LOCATIONS ARE APPROXIMATE

APPENDIX A:

SITE SURVEY

(Not Applicable)

APPENDIX B:

SAMPLING LOGS, LABORATORY DATA SHEETS, & CHAIN-OF-CUSTODY FORMS

Monitoring Well Purge And Sampling Data

Field Personnel: H.S. DA
Sampling Date(s): 10/16/23
Sampling Case#: 2

Job Name: Take Huggins
Job Number: 23-79240

Calibration Data for:
Calibration Successful? Yes or No (Please Circle)
pH: Yes No
Conductivity: Yes No
Dissolved Oxygen: Yes No
Turbidity: Conductivity Calibrated Every 3 Months by QA Manager

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet):			Well Depth (feet)	Water Height *(feet)	Gallons Purged		Notes
								product	initial H ₂ O	final H ₂ O			**calc.	actual	
mw-1	Initial	12:57	5.10	35.2	24.7	2.75	9.18				3	-	-	-	odor
	1st										13	-	-	-	
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
mw-2	Initial	11:40	4.51	42.1	24.4	2.03	8.12				3	-	-	-	slight odor
	1st										13	-	-	-	
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
mw-3	Initial	10:45	5.88	58.3	22.1	1.62	11.31				3	-	-	-	no odor
	1st										13	-	-	-	
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
mw-4	Initial	10:37	6.64	39.7	21.7	1.93	9.65				3	-	-	-	no odor
	1st										13	-	-	-	
	2nd														
	3rd														
	4th														
	5th														
	Sampling														

*= (Depth of Well) - (Depth to Water = Water Height)

One Well Volume = x.047 for 1" wells, x .163 for 2" wells, or * x .66 for 4" wells, 1.469 for 6" wells

**= One Well Volume x 5 = Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Monitoring Well Purge And Sampling Data

Field Personnel: HS, DA
Sampling Date(s): 10/16/23
Sampling Case#: 2

Job Name: Jake Huggins
Job Number: 23-7924D

Calibration Data for :

Calibration Successful? Yes or No (Please Circle)
pH: Yes No
Conductivity: Yes No
Dissolved Oxygen: Yes No
Turbidity: Conductivity Calibrated Every 3 Months by QA Manager

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet):			Well Depth (feet)	Water Height *(feet)	Gallons Purged		Notes
								product	initial H ₂ O	final H ₂ O			**calc.	actual	
mw-5	Initial	10:52	5.78	37.0	22.9	2.45	13.52				3				Slight odor
	1st										13				
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
mw-6	Initial	11:01	5.13	35.3	24.3	1.52	8.66				3				odor
	1st										13				
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
mw-7	Initial	12:17	5.30	32.9	25.8	2.51	9.39				3				Slight odor
	1st										13				
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
mw-8 Dup	Initial	13:52	5.85	189.5	24.6	1.62	11.56				3				Strong odor Dup
	1st										13				
	2nd														
	3rd														
	4th														
	5th														
	Sampling														

* = (Depth of Well) - (Depth to Water) = Water Height

One Well Volume = x.047 for 1" wells * x .163 for 2" wells, or * x .66 for 4" wells, 1.469 for 6" wells

** = One Well Volume x 5 = Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Field Personnel: HS, DA

Sampling Date(s): 10/16/23

Sampling Case#: 2

Monitoring Well Purge And Sampling Data

Job Name: Jackie Huggins

Job Number: 23-79240

Calibration Data for:

Calibration Successful? Yes or No (Please Circle)

pH: Yes No

Conductivity: Yes No

Dissolved Oxygen: Yes No

Turbidity: Conductivity Calibrated Every 3 Months by QA Manager

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet):			Well Depth (feet)	Water Height *(feet)	Gallons Purged		Notes
								product	initial H ₂ O	final H ₂ O			**calc.	actual	
mw-9	Initial	13:12	6.45	59.3	23.9	3.28	10.64				3	-	-	-	mc
	1st										13	-	-	-	odor
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
mw-10	Initial	13:04	6.14	79.4	24.2	1.44	12.89				3	-	-	-	odor
	1st										13	-	-	-	
	2nd														
	3rd														
	4th														
	5th														
	Sampling														
Dw-1	Initial	12:25	5.62	35.2	23.8	3.39	8.92				20	21.16	3.44	Stable @	no odor
	1st	12:30	5.78	30.9	22.5	3.16	13.62				25		17.24	10.50g	
	2nd	12:36	5.91	26.3	22.0	2.98	9.55								
	3rd	12:43	5.95	25.0	21.8	2.94	9.36								
	4th														
	5th														
	Sampling	12:50	5.96	24.6	21.6	2.90	9.11								
Dw-2	Initial	11:08	5.04	37.7	24.5	3.91	7.86				20	21.25	3.46	Stable @	no odor
	1st	11:12	5.19	31.9	23.6	3.64	15.42				25		17.31	10.50g	
	2nd	11:17	5.36	26.5	23.1	3.42	8.39								
	3rd	11:25	5.40	26.2	23.0	3.38	8.21								
	4th														
	5th														
	Sampling	11:32	5.43	26.1	23.0	3.36	8.16								

*= (Depth of Well) - (Depth to Water = Water Height)

One Well Volume = x.047 for 1" wells * x .163 for 2" wells, or * x .66 for 4" wells, 1.469 for 6" wells

**= One Well Volume x 5 = Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Monitoring Well Purge And Sampling Data

Field Personnel: MS, DA

Sampling Date(s): 10/16/23

Sampling Case#: 2

Job Name: Jackie Higgins

Job Number: 23-79240

Calibration Data for :

Calibration Successful? Yes or No (Please Circle)

pH: Yes No
Conductivity: Yes No
Dissolved Oxygen: Yes No

Turbidity: Conductivity Calibrated Every 3 Months by QA Manager

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet):			Well Depth (feet)	Water Height *(feet)	Gallons Purged		Notes
								product	initial H ₂ O	final H ₂ O			**calc.	actual	
Dw-3	Initial	11:47	5.76	37.3	24.9	3.98	6.28								
	1st	11:51	5.95	31.9	23.7	3.59	11.91								
	2nd	11:56	6.28	26.5	23.2	3.16	9.57								
	3rd	12:02	6.31	26.0	23.0	3.10	8.76								
	4th														
	5th														
Dw-4	Initial	12:10	6.36	28.8	23.0	3.08	8.61								
	1st	13:20	6.39	31.8	24.6	2.17	13.74								
	2nd	13:25	6.51	46.5	23.8	2.05	11.56								
	3rd	13:30	6.26	32.9	23.1	1.93	16.19								
	4th	13:37	6.83	32.2	22.8	1.86	9.86								
	5th														
Sw-1	Initial	13:45	6.85	31.8	22.6	1.82	9.69								
	1st	13:28	Sampled from Ditch (34.095076, -79.696727)												
	2nd	11:20	Sampled from Ditch (34.095847, -79.697296)												
	3rd														
	4th														
	5th														
Sw-2	Initial	10:15	Sampled from Creek/Stream (34.094620, -79.698172)												
	1st	10:20	Sampled from Creek/Stream (34.095389, -79.698409)												
	2nd	10:25	Sampled from Creek/Stream (34.096050, -79.698577)												
	3rd														
	4th														
	5th														
Sw-3	Initial	10:30	Sampled from Creek/Stream (34.096699, -79.699359)												
	1st														
	2nd														
	3rd														
	4th														
	5th														
Sw-4	Initial														
	1st														
	2nd														
	3rd														
	4th														
	5th														
Sw-5	Initial														
	1st														
	2nd														
	3rd														
	4th														
	5th														
Sw-6	Initial														
	1st														
	2nd														
	3rd														
	4th														
	5th														

*= (Depth of Well) - (Depth to Water = Water Height)

One Well Volume = x.047 for 1" wells, * x .163 for 2" wells, or * x .66 for 4" wells, 1.469 for 6" wells

**= One Well Volume x 5 = Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251

Monitoring Well Purge And Sampling Data

Field Personnel: 15, 26

Job Name: Jake Huggins

Sampling Date(s): 10/16/23

Job Number: 23-79240

Sampling Case#: 2

Calibration Data for :

Calibration Successful? Yes or No (Please Circle)

pH: Yes No
Conductivity: Yes No
Dissolved Oxygen: Yes No

Turbidity: Conductivity Calibrated Every 3 Months by QA Manager

Well No.	Purge Volume	Sample Time	pH(i)	cond(i)	Temp. (°C)	DO (mg/l)	Turbidity (NTU)	Depth to (feet):			Well Depth (feet)	Water Height *(feet)	Gallons Purged		Notes
								product	initial H ₂ O	final H ₂ O			**calc.	actual	
Dup FB TB	Initial														
	1st	17:08		13.52		Strong odor									
	2nd														
	3rd	13.57													
	4th														
	5th	8:00													
GAC	Initial														
	1st	14:00													
	2nd														
	3rd														
	4th														
	5th	14:15				Spigot on well in barn									
WSW-1	Initial														
	1st	14:25				Spigot on well									
	2nd														
	3rd														
	4th														
	5th														
WSW-2	Initial														
	1st	14:25				Spigot on well									
	2nd														
	3rd														
	4th														
	5th														
WSW-3	Initial														
	1st	14:25				Spigot on well									
	2nd														
	3rd														
	4th														
	5th														
WSW-dup	Initial														
	1st	WSW-1				14:15									
	2nd														
	3rd	14:32													
	4th														
	5th	8:00													
WSW-FB	Initial														
	1st														
	2nd														
	3rd														
	4th														
	5th														
WSW-TB	Initial														
	1st														
	2nd														
	3rd														
	4th														
	5th														

*= (Depth of Well) - (Depth to Water) = Water Height

One Well Volume = x.047 for 1" wells * x .163 for 2" wells, or * x .66 for 4" wells, 1.469 for 6" wells

**= One Well Volume x 5 = Gallons Purged (calculated)

Casing	Gallons
1"	0.047
2"	0.163
4"	0.653
6"	1.469

Sampling Case#	Ph/Conductance SN	DO SN	Turbidity
Case #1	15H101448	17E101302	201301183
Case #2	15E101481	14H103098	201301174
Case #3	17E100512	17E103488	201510251



October 25, 2023

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

RE: Project: JAKE HUGGINS
Pace Project No.: 92694109

Dear Mr. Shane, P.G.:

Enclosed are the analytical results for sample(s) received by the laboratory on October 18, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Charlotte

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Jonathan W Biddix'.

Jonathan W Biddix
jonathan.biddix@pacelabs.com
704-977-0978
Project Manager

Enclosures

cc: Mr. Jeff Coleman, Midlands Environmental



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: JAKE HUGGINS

Pace Project No.: 92694109

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006

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 Laboratory ID: 99006

South Carolina Certification #: 99006001

South Carolina Drinking Water Cert. #: 99006003

Florida/NELAP Certification #: E87627

Kentucky UST Certification #: 84

Louisiana DoH Drinking Water #: LA029

Virginia/VELAP Certification #: 460221

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: JAKE HUGGINS

Pace Project No.: 92694109

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92694109001	MW-1	Water	10/16/23 12:57	10/18/23 08:10
92694109002	MW-2	Water	10/16/23 11:40	10/18/23 08:10
92694109003	MW-3	Water	10/16/23 10:45	10/18/23 08:10
92694109004	MW-4	Water	10/16/23 10:37	10/18/23 08:10
92694109005	MW-5	Water	10/16/23 10:52	10/18/23 08:10
92694109006	MW-6	Water	10/16/23 11:01	10/18/23 08:10
92694109007	MW-7	Water	10/16/23 12:17	10/18/23 08:10
92694109008	MW-8	Water	10/16/23 13:52	10/18/23 08:10
92694109009	MW-9	Water	10/16/23 13:12	10/18/23 08:10
92694109010	MW-10	Water	10/16/23 13:04	10/18/23 08:10
92694109011	DW-1	Water	10/16/23 12:50	10/18/23 08:10
92694109012	DW-2	Water	10/16/23 11:32	10/18/23 08:10
92694109013	DW-3	Water	10/16/23 12:10	10/18/23 08:10
92694109014	DW-4	Water	10/16/23 13:45	10/18/23 08:10
92694109015	SW-1	Water	10/16/23 13:28	10/18/23 08:10
92694109016	SW-2	Water	10/16/23 11:20	10/18/23 08:10
92694109017	SW-3	Water	10/16/23 10:15	10/18/23 08:10
92694109018	SW-4	Water	10/16/23 10:20	10/18/23 08:10
92694109019	SW-5	Water	10/16/23 10:25	10/18/23 08:10
92694109020	SW-6	Water	10/16/23 10:30	10/18/23 08:10
92694109021	DUP	Water	10/16/23 00:00	10/18/23 08:10
92694109022	FB	Water	10/16/23 13:57	10/18/23 08:10
92694109023	TB	Water	10/16/23 08:00	10/18/23 08:10
92694109024	GAC	Water	10/16/23 14:00	10/18/23 08:10
92694109025	WSW-1	Water	10/16/23 14:15	10/18/23 08:10
92694109026	WSW-2	Water	10/16/23 14:25	10/18/23 08:10
92694109027	WSW-DUP	Water	10/16/23 00:00	10/18/23 08:10
92694109028	WSW-FB	Water	10/16/23 14:32	10/18/23 08:10
92694109029	WSW-TB	Water	10/16/23 08:00	10/18/23 08:10

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: JAKE HUGGINS

Pace Project No.: 92694109

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92694109001	MW-1	EPA 8011	SEM	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92694109002	MW-2	EPA 8011	SEM	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92694109003	MW-3	EPA 8011	SEM	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92694109004	MW-4	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92694109005	MW-5	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92694109006	MW-6	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92694109007	MW-7	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92694109008	MW-8	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92694109009	MW-9	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92694109010	MW-10	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92694109011	DW-1	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92694109012	DW-2	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92694109013	DW-3	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92694109014	DW-4	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92694109015	SW-1	EPA 8011	HH	2	PASI-C
		EPA 8260D	JJK	20	PASI-C
92694109016	SW-2	EPA 8011	HH	2	PASI-C
		EPA 8260D	JJK	20	PASI-C
92694109017	SW-3	EPA 8011	HH	2	PASI-C
		EPA 8260D	JJK	20	PASI-C
92694109018	SW-4	EPA 8011	HH	2	PASI-C
		EPA 8260D	JJK	20	PASI-C
92694109019	SW-5	EPA 8011	HH	2	PASI-C

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: JAKE HUGGINS

Pace Project No.: 92694109

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92694109020	SW-6	EPA 8260D	JJK	20	PASI-C
		EPA 8011	HH	2	PASI-C
92694109021	DUP	EPA 8260D	JJK	20	PASI-C
		EPA 8011	HH	2	PASI-C
92694109022	FB	EPA 8260D	SAS	20	PASI-C
		EPA 8011	HH	2	PASI-C
92694109023	TB	EPA 8260D	SAS	20	PASI-C
		EPA 8260D	SAS	20	PASI-C
92694109024	GAC	EPA 8011	HH	2	PASI-C
		EPA 8260D	SAS	20	PASI-C
92694109025	WSW-1	EPA 504.1	HH	2	PASI-C
		EPA 524.2	GAW	11	PASI-C
92694109026	WSW-2	EPA 8260D	JJK	11	PASI-C
		EPA 504.1	HH	2	PASI-C
92694109027	WSW-DUP	EPA 524.2	GAW	11	PASI-C
		EPA 8260D	TMH	11	PASI-C
92694109028	WSW-FB	EPA 504.1	HH	2	PASI-C
		EPA 524.2	GAW	11	PASI-C
92694109029	WSW-TB	EPA 8260D	JJK	11	PASI-C
		EPA 524.2	GAW	11	PASI-C
		EPA 8260D	JJK	11	PASI-C

PASI-C = Pace Analytical Services - Charlotte

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: JAKE HUGGINS
Pace Project No.: 92694109

Sample: MW-1		Lab ID: 92694109001		Collected: 10/16/23 12:57		Received: 10/18/23 08:10		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0074	1	10/23/23 11:37	10/23/23 23:16	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	87	%	60-140		1	10/23/23 11:37	10/23/23 23:16	301-79-56	
8260 MSV		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	5340	ug/L	1000	656	10		10/24/23 19:58	75-85-4	
tert-Amylmethyl ether	82.9J	ug/L	100	30.4	10		10/24/23 19:58	994-05-8	
Benzene	1100	ug/L	50.0	17.4	10		10/24/23 19:58	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	1000	539	10		10/24/23 19:58	624-95-3	
tert-Butyl Alcohol	ND	ug/L	1000	910	10		10/24/23 19:58	75-65-0	
tert-Butyl Formate	ND	ug/L	500	241	10		10/24/23 19:58	762-75-4	
1,2-Dichloroethane	ND	ug/L	50.0	20.6	10		10/24/23 19:58	107-06-2	
Diisopropyl ether	297	ug/L	50.0	34.9	10		10/24/23 19:58	108-20-3	
Ethanol	ND	ug/L	2000	1440	10		10/24/23 19:58	64-17-5	
Ethylbenzene	ND	ug/L	50.0	18.4	10		10/24/23 19:58	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	100	84.6	10		10/24/23 19:58	637-92-3	
Methyl-tert-butyl ether	488	ug/L	50.0	31.0	10		10/24/23 19:58	1634-04-4	
Naphthalene	66.5	ug/L	50.0	20.9	10		10/24/23 19:58	91-20-3	
Toluene	ND	ug/L	50.0	20.1	10		10/24/23 19:58	108-88-3	
Xylene (Total)	ND	ug/L	50.0	50.0	10		10/24/23 19:58	1330-20-7	
m&p-Xylene	ND	ug/L	100	41.1	10		10/24/23 19:58	179601-23-1	
o-Xylene	ND	ug/L	50.0	20.4	10		10/24/23 19:58	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		10		10/24/23 19:58	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130		10		10/24/23 19:58	17060-07-0	
Toluene-d8 (S)	101	%	70-130		10		10/24/23 19:58	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: JAKE HUGGINS
Pace Project No.: 92694109

Sample: MW-2		Lab ID: 92694109002		Collected: 10/16/23 11:40		Received: 10/18/23 08:10		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0075	1	10/23/23 11:37	10/23/23 23:27	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	79	%	60-140		1	10/23/23 11:37	10/23/23 23:27	301-79-56	
8260 MSV		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	200	131	2		10/23/23 18:06	75-85-4	
tert-Amylmethyl ether	8.7J	ug/L	20.0	6.1	2		10/23/23 18:06	994-05-8	
Benzene	76.3	ug/L	10.0	3.5	2		10/23/23 18:06	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	200	108	2		10/23/23 18:06	624-95-3	
tert-Butyl Alcohol	ND	ug/L	200	182	2		10/23/23 18:06	75-65-0	v2
tert-Butyl Formate	ND	ug/L	100	48.2	2		10/23/23 18:06	762-75-4	
1,2-Dichloroethane	ND	ug/L	10.0	4.1	2		10/23/23 18:06	107-06-2	
Diisopropyl ether	30.8	ug/L	10.0	7.0	2		10/23/23 18:06	108-20-3	
Ethanol	ND	ug/L	400	288	2		10/23/23 18:06	64-17-5	
Ethylbenzene	ND	ug/L	10.0	3.7	2		10/23/23 18:06	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	20.0	16.9	2		10/23/23 18:06	637-92-3	
Methyl-tert-butyl ether	200	ug/L	10.0	6.2	2		10/23/23 18:06	1634-04-4	
Naphthalene	4.4J	ug/L	10.0	4.2	2		10/23/23 18:06	91-20-3	
Toluene	ND	ug/L	10.0	4.0	2		10/23/23 18:06	108-88-3	
Xylene (Total)	ND	ug/L	10.0	10.0	2		10/23/23 18:06	1330-20-7	
m&p-Xylene	ND	ug/L	20.0	8.2	2		10/23/23 18:06	179601-23-1	
o-Xylene	ND	ug/L	10.0	4.1	2		10/23/23 18:06	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		2		10/23/23 18:06	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		2		10/23/23 18:06	17060-07-0	
Toluene-d8 (S)	103	%	70-130		2		10/23/23 18:06	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: JAKE HUGGINS
Pace Project No.: 92694109

Sample: MW-3		Lab ID: 92694109003		Collected: 10/16/23 10:45		Received: 10/18/23 08:10		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0075	1	10/23/23 11:37	10/23/23 23:38	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	83	%	60-140		1	10/23/23 11:37	10/23/23 23:38	301-79-56	
8260 MSV		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		10/23/23 14:34	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		10/23/23 14:34	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/23/23 14:34	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		10/23/23 14:34	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		10/23/23 14:34	75-65-0	v2
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		10/23/23 14:34	762-75-4	P5
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		10/23/23 14:34	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		10/23/23 14:34	108-20-3	
Ethanol	ND	ug/L	200	144	1		10/23/23 14:34	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		10/23/23 14:34	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		10/23/23 14:34	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		10/23/23 14:34	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		10/23/23 14:34	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		10/23/23 14:34	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/23/23 14:34	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		10/23/23 14:34	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		10/23/23 14:34	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		1		10/23/23 14:34	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130		1		10/23/23 14:34	17060-07-0	
Toluene-d8 (S)	106	%	70-130		1		10/23/23 14:34	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS
Pace Project No.: 92694109

Sample: MW-4		Lab ID: 92694109004		Collected: 10/16/23 10:37		Received: 10/18/23 08:10		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									
Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0076	1	10/24/23 11:45	10/24/23 18:51	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	93	%	60-140		1	10/24/23 11:45	10/24/23 18:51	301-79-56	
8260 MSV									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		10/23/23 14:52	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		10/23/23 14:52	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/23/23 14:52	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		10/23/23 14:52	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		10/23/23 14:52	75-65-0	v2
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		10/23/23 14:52	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		10/23/23 14:52	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		10/23/23 14:52	108-20-3	
Ethanol	ND	ug/L	200	144	1		10/23/23 14:52	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		10/23/23 14:52	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		10/23/23 14:52	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		10/23/23 14:52	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		10/23/23 14:52	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		10/23/23 14:52	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/23/23 14:52	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		10/23/23 14:52	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		10/23/23 14:52	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		1		10/23/23 14:52	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130		1		10/23/23 14:52	17060-07-0	
Toluene-d8 (S)	108	%	70-130		1		10/23/23 14:52	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS
Pace Project No.: 92694109

Sample: MW-5		Lab ID: 92694109005		Collected: 10/16/23 10:52		Received: 10/18/23 08:10		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									
Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.019	0.0072	1	10/24/23 11:45	10/24/23 19:12	106-93-4	M1
Surrogates									
1-Chloro-2-bromopropane (S)	89	%	60-140		1	10/24/23 11:45	10/24/23 19:12	301-79-56	
8260 MSV									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		10/23/23 16:03	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		10/23/23 16:03	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/23/23 16:03	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		10/23/23 16:03	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		10/23/23 16:03	75-65-0	v2
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		10/23/23 16:03	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		10/23/23 16:03	107-06-2	
Diisopropyl ether	8.5	ug/L	5.0	3.5	1		10/23/23 16:03	108-20-3	
Ethanol	ND	ug/L	200	144	1		10/23/23 16:03	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		10/23/23 16:03	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		10/23/23 16:03	637-92-3	
Methyl-tert-butyl ether	59.5	ug/L	5.0	3.1	1		10/23/23 16:03	1634-04-4	
Naphthalene	2.9J	ug/L	5.0	2.1	1		10/23/23 16:03	91-20-3	C8
Toluene	ND	ug/L	5.0	2.0	1		10/23/23 16:03	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/23/23 16:03	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		10/23/23 16:03	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		10/23/23 16:03	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	105	%	70-130		1		10/23/23 16:03	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		1		10/23/23 16:03	17060-07-0	
Toluene-d8 (S)	107	%	70-130		1		10/23/23 16:03	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS
Pace Project No.: 92694109

Sample: MW-6		Lab ID: 92694109006		Collected: 10/16/23 11:01		Received: 10/18/23 08:10		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									
Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0075	1	10/24/23 11:45	10/24/23 19:44	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	84	%	60-140		1	10/24/23 11:45	10/24/23 19:44	301-79-56	
8260 MSV									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	1930	ug/L	100	65.6	1		10/23/23 17:31	75-85-4	
tert-Amylmethyl ether	28.6	ug/L	10.0	3.0	1		10/23/23 17:31	994-05-8	
Benzene	38.5	ug/L	5.0	1.7	1		10/23/23 17:31	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		10/23/23 17:31	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		10/23/23 17:31	75-65-0	v2
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		10/23/23 17:31	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		10/23/23 17:31	107-06-2	
Diisopropyl ether	111	ug/L	5.0	3.5	1		10/23/23 17:31	108-20-3	
Ethanol	ND	ug/L	200	144	1		10/23/23 17:31	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		10/23/23 17:31	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		10/23/23 17:31	637-92-3	
Methyl-tert-butyl ether	156	ug/L	5.0	3.1	1		10/23/23 17:31	1634-04-4	
Naphthalene	14.6	ug/L	5.0	2.1	1		10/23/23 17:31	91-20-3	
Toluene	2.6J	ug/L	5.0	2.0	1		10/23/23 17:31	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/23/23 17:31	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		10/23/23 17:31	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		10/23/23 17:31	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	103	%	70-130		1		10/23/23 17:31	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-130		1		10/23/23 17:31	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		10/23/23 17:31	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS
Pace Project No.: 92694109

Sample: MW-7 Lab ID: 92694109007 Collected: 10/16/23 12:17 Received: 10/18/23 08:10 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									
Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0075	1	10/24/23 11:45	10/24/23 19:55	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	86	%	60-140		1	10/24/23 11:45	10/24/23 19:55	301-79-56	
8260 MSV									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	166	ug/L	100	65.6	1		10/23/23 16:20	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		10/23/23 16:20	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/23/23 16:20	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		10/23/23 16:20	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		10/23/23 16:20	75-65-0	v2
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		10/23/23 16:20	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		10/23/23 16:20	107-06-2	
Diisopropyl ether	6.0	ug/L	5.0	3.5	1		10/23/23 16:20	108-20-3	
Ethanol	ND	ug/L	200	144	1		10/23/23 16:20	64-17-5	
Ethylbenzene	14.0	ug/L	5.0	1.8	1		10/23/23 16:20	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		10/23/23 16:20	637-92-3	
Methyl-tert-butyl ether	4.7J	ug/L	5.0	3.1	1		10/23/23 16:20	1634-04-4	
Naphthalene	18.6	ug/L	5.0	2.1	1		10/23/23 16:20	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		10/23/23 16:20	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/23/23 16:20	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		10/23/23 16:20	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		10/23/23 16:20	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	105	%	70-130		1		10/23/23 16:20	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		1		10/23/23 16:20	17060-07-0	
Toluene-d8 (S)	108	%	70-130		1		10/23/23 16:20	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS

Pace Project No.: 92694109

Sample: MW-8		Lab ID: 92694109008		Collected: 10/16/23 13:52		Received: 10/18/23 08:10		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									
Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0075	1	10/24/23 11:45	10/24/23 20:06	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	88	%	60-140		1	10/24/23 11:45	10/24/23 20:06	301-79-56	
8260 MSV									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	ND	ug/L	20000	13100	200		10/24/23 20:53	75-85-4	
tert-Amylmethyl ether	ND	ug/L	2000	608	200		10/24/23 20:53	994-05-8	
Benzene	5330	ug/L	1000	348	200		10/24/23 20:53	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	20000	10800	200		10/24/23 20:53	624-95-3	
tert-Butyl Alcohol	ND	ug/L	20000	18200	200		10/24/23 20:53	75-65-0	
tert-Butyl Formate	ND	ug/L	10000	4820	200		10/24/23 20:53	762-75-4	
1,2-Dichloroethane	ND	ug/L	1000	412	200		10/24/23 20:53	107-06-2	
Diisopropyl ether	ND	ug/L	1000	698	200		10/24/23 20:53	108-20-3	
Ethanol	ND	ug/L	40000	28800	200		10/24/23 20:53	64-17-5	
Ethylbenzene	2810	ug/L	1000	368	200		10/24/23 20:53	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	2000	1690	200		10/24/23 20:53	637-92-3	
Methyl-tert-butyl ether	1000J	ug/L	1000	620	200		10/24/23 20:53	1634-04-4	
Naphthalene	975J	ug/L	1000	418	200		10/24/23 20:53	91-20-3	
Toluene	27500	ug/L	1000	402	200		10/24/23 20:53	108-88-3	
Xylene (Total)	16200	ug/L	1000	1000	200		10/24/23 20:53	1330-20-7	
m&p-Xylene	11000	ug/L	2000	822	200		10/24/23 20:53	179601-23-1	
o-Xylene	5260	ug/L	1000	408	200		10/24/23 20:53	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		200		10/24/23 20:53	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-130		200		10/24/23 20:53	17060-07-0	
Toluene-d8 (S)	102	%	70-130		200		10/24/23 20:53	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS
Pace Project No.: 92694109

Sample: MW-9		Lab ID: 92694109009		Collected: 10/16/23 13:12		Received: 10/18/23 08:10		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0074	1	10/24/23 11:45	10/24/23 20:16	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	86	%	60-140		1	10/24/23 11:45	10/24/23 20:16	301-79-56	
8260 MSV		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		10/23/23 15:10	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		10/23/23 15:10	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/23/23 15:10	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		10/23/23 15:10	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		10/23/23 15:10	75-65-0	v2
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		10/23/23 15:10	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		10/23/23 15:10	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		10/23/23 15:10	108-20-3	
Ethanol	ND	ug/L	200	144	1		10/23/23 15:10	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		10/23/23 15:10	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		10/23/23 15:10	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		10/23/23 15:10	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		10/23/23 15:10	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		10/23/23 15:10	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/23/23 15:10	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		10/23/23 15:10	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		10/23/23 15:10	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	106	%	70-130		1		10/23/23 15:10	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130		1		10/23/23 15:10	17060-07-0	
Toluene-d8 (S)	106	%	70-130		1		10/23/23 15:10	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS

Pace Project No.: 92694109

Sample: MW-10		Lab ID: 92694109010		Collected: 10/16/23 13:04		Received: 10/18/23 08:10		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0074	1	10/24/23 11:45	10/24/23 20:27	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	90	%	60-140		1	10/24/23 11:45	10/24/23 20:27	301-79-56	
8260 MSV		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	1460	ug/L	500	328	5		10/23/23 19:17	75-85-4	
tert-Amylmethyl ether	22.5J	ug/L	50.0	15.2	5		10/23/23 19:17	994-05-8	
Benzene	299	ug/L	25.0	8.7	5		10/23/23 19:17	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	500	270	5		10/23/23 19:17	624-95-3	
tert-Butyl Alcohol	ND	ug/L	500	455	5		10/23/23 19:17	75-65-0	v2
tert-Butyl Formate	ND	ug/L	250	120	5		10/23/23 19:17	762-75-4	
1,2-Dichloroethane	ND	ug/L	25.0	10.3	5		10/23/23 19:17	107-06-2	
Diisopropyl ether	68.1	ug/L	25.0	17.4	5		10/23/23 19:17	108-20-3	
Ethanol	ND	ug/L	1000	720	5		10/23/23 19:17	64-17-5	
Ethylbenzene	503	ug/L	25.0	9.2	5		10/23/23 19:17	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	50.0	42.3	5		10/23/23 19:17	637-92-3	
Methyl-tert-butyl ether	112	ug/L	25.0	15.5	5		10/23/23 19:17	1634-04-4	
Naphthalene	244	ug/L	25.0	10.4	5		10/23/23 19:17	91-20-3	
Toluene	83.8	ug/L	25.0	10.0	5		10/23/23 19:17	108-88-3	
Xylene (Total)	747	ug/L	25.0	25.0	5		10/23/23 19:17	1330-20-7	
m&p-Xylene	395	ug/L	50.0	20.6	5		10/23/23 19:17	179601-23-1	
o-Xylene	352	ug/L	25.0	10.2	5		10/23/23 19:17	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		5		10/23/23 19:17	460-00-4	
1,2-Dichloroethane-d4 (S)	91	%	70-130		5		10/23/23 19:17	17060-07-0	
Toluene-d8 (S)	105	%	70-130		5		10/23/23 19:17	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS
Pace Project No.: 92694109

Sample: DW-1 Lab ID: 92694109011 Collected: 10/16/23 12:50 Received: 10/18/23 08:10 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 Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0073	1	10/24/23 11:45	10/24/23 20:38	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	85	%	60-140		1	10/24/23 11:45	10/24/23 20:38	301-79-56	
8260 MSV Analytical Method: EPA 8260D Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		10/23/23 16:38	75-85-4	
tert-Amylmethyl ether	7.3J	ug/L	10.0	3.0	1		10/23/23 16:38	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/23/23 16:38	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		10/23/23 16:38	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		10/23/23 16:38	75-65-0	v2
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		10/23/23 16:38	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		10/23/23 16:38	107-06-2	
Diisopropyl ether	34.2	ug/L	5.0	3.5	1		10/23/23 16:38	108-20-3	
Ethanol	ND	ug/L	200	144	1		10/23/23 16:38	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		10/23/23 16:38	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		10/23/23 16:38	637-92-3	
Methyl-tert-butyl ether	129	ug/L	5.0	3.1	1		10/23/23 16:38	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		10/23/23 16:38	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		10/23/23 16:38	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/23/23 16:38	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		10/23/23 16:38	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		10/23/23 16:38	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	106	%	70-130		1		10/23/23 16:38	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-130		1		10/23/23 16:38	17060-07-0	
Toluene-d8 (S)	104	%	70-130		1		10/23/23 16:38	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS
Pace Project No.: 92694109

Sample: DW-2		Lab ID: 92694109012		Collected: 10/16/23 11:32		Received: 10/18/23 08:10		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									
Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0076	1	10/24/23 11:45	10/24/23 20:48	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	98	%	60-140		1	10/24/23 11:45	10/24/23 20:48	301-79-56	
8260 MSV									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		10/23/23 16:55	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		10/23/23 16:55	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/23/23 16:55	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		10/23/23 16:55	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		10/23/23 16:55	75-65-0	v2
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		10/23/23 16:55	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		10/23/23 16:55	107-06-2	
Diisopropyl ether	5.6	ug/L	5.0	3.5	1		10/23/23 16:55	108-20-3	
Ethanol	ND	ug/L	200	144	1		10/23/23 16:55	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		10/23/23 16:55	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		10/23/23 16:55	637-92-3	
Methyl-tert-butyl ether	36.2	ug/L	5.0	3.1	1		10/23/23 16:55	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		10/23/23 16:55	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		10/23/23 16:55	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/23/23 16:55	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		10/23/23 16:55	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		10/23/23 16:55	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		1		10/23/23 16:55	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130		1		10/23/23 16:55	17060-07-0	
Toluene-d8 (S)	105	%	70-130		1		10/23/23 16:55	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS
Pace Project No.: 92694109

Sample: DW-3		Lab ID: 92694109013		Collected: 10/16/23 12:10		Received: 10/18/23 08:10		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									
Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0075	1	10/24/23 11:45	10/24/23 20:59	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	84	%	60-140		1	10/24/23 11:45	10/24/23 20:59	301-79-56	
8260 MSV									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	ND	ug/L	100	65.6	1		10/23/23 15:27	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	3.0	1		10/23/23 15:27	994-05-8	
Benzene	ND	ug/L	5.0	1.7	1		10/23/23 15:27	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	53.9	1		10/23/23 15:27	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	91.0	1		10/23/23 15:27	75-65-0	v2
tert-Butyl Formate	ND	ug/L	50.0	24.1	1		10/23/23 15:27	762-75-4	
1,2-Dichloroethane	ND	ug/L	5.0	2.1	1		10/23/23 15:27	107-06-2	
Diisopropyl ether	ND	ug/L	5.0	3.5	1		10/23/23 15:27	108-20-3	
Ethanol	ND	ug/L	200	144	1		10/23/23 15:27	64-17-5	
Ethylbenzene	ND	ug/L	5.0	1.8	1		10/23/23 15:27	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	8.5	1		10/23/23 15:27	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	5.0	3.1	1		10/23/23 15:27	1634-04-4	
Naphthalene	ND	ug/L	5.0	2.1	1		10/23/23 15:27	91-20-3	
Toluene	ND	ug/L	5.0	2.0	1		10/23/23 15:27	108-88-3	
Xylene (Total)	ND	ug/L	5.0	5.0	1		10/23/23 15:27	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	4.1	1		10/23/23 15:27	179601-23-1	
o-Xylene	ND	ug/L	5.0	2.0	1		10/23/23 15:27	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	103	%	70-130		1		10/23/23 15:27	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130		1		10/23/23 15:27	17060-07-0	
Toluene-d8 (S)	108	%	70-130		1		10/23/23 15:27	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS

Pace Project No.: 92694109

Sample: DW-4		Lab ID: 92694109014		Collected: 10/16/23 13:45		Received: 10/18/23 08:10		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									
Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0075	1	10/24/23 11:45	10/24/23 21:09	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	94	%	60-140		1	10/24/23 11:45	10/24/23 21:09	301-79-56	
8260 MSV									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	913	ug/L	400	262	4		10/24/23 19:40	75-85-4	
tert-Amylmethyl ether	20.9J	ug/L	40.0	12.2	4		10/24/23 19:40	994-05-8	
Benzene	341	ug/L	20.0	7.0	4		10/24/23 19:40	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	400	216	4		10/24/23 19:40	624-95-3	
tert-Butyl Alcohol	ND	ug/L	400	364	4		10/24/23 19:40	75-65-0	
tert-Butyl Formate	ND	ug/L	200	96.4	4		10/24/23 19:40	762-75-4	
1,2-Dichloroethane	ND	ug/L	20.0	8.2	4		10/24/23 19:40	107-06-2	
Diisopropyl ether	54.4	ug/L	20.0	14.0	4		10/24/23 19:40	108-20-3	
Ethanol	ND	ug/L	800	576	4		10/24/23 19:40	64-17-5	
Ethylbenzene	98.9	ug/L	20.0	7.4	4		10/24/23 19:40	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	40.0	33.8	4		10/24/23 19:40	637-92-3	
Methyl-tert-butyl ether	153	ug/L	20.0	12.4	4		10/24/23 19:40	1634-04-4	
Naphthalene	72.7	ug/L	20.0	8.4	4		10/24/23 19:40	91-20-3	
Toluene	359	ug/L	20.0	8.0	4		10/24/23 19:40	108-88-3	
Xylene (Total)	1630	ug/L	20.0	20.0	4		10/24/23 19:40	1330-20-7	
m&p-Xylene	1120	ug/L	40.0	16.4	4		10/24/23 19:40	179601-23-1	
o-Xylene	510	ug/L	20.0	8.2	4		10/24/23 19:40	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		4		10/24/23 19:40	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130		4		10/24/23 19:40	17060-07-0	
Toluene-d8 (S)	103	%	70-130		4		10/24/23 19:40	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS
Pace Project No.: 92694109

Sample: SW-1		Lab ID: 92694109015		Collected: 10/16/23 13:28		Received: 10/18/23 08:10		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									
Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0075	1	10/24/23 11:45	10/24/23 21:20	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	85	%	60-140		1	10/24/23 11:45	10/24/23 21:20	301-79-56	
8260 MSV Low Level SC									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		10/20/23 21:25	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		10/20/23 21:25	994-05-8	
Benzene	ND	ug/L	1.0	0.34	1		10/20/23 21:25	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		10/20/23 21:25	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		10/20/23 21:25	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		10/20/23 21:25	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		10/20/23 21:25	107-06-2	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		10/20/23 21:25	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		10/20/23 21:25	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		10/20/23 21:25	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		10/20/23 21:25	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		10/20/23 21:25	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		10/20/23 21:25	91-20-3	
Toluene	ND	ug/L	1.0	0.48	1		10/20/23 21:25	108-88-3	
Xylene (Total)	ND	ug/L	1.0	0.34	1		10/20/23 21:25	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		10/20/23 21:25	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		10/20/23 21:25	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		10/20/23 21:25	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130		1		10/20/23 21:25	17060-07-0	
Toluene-d8 (S)	108	%	70-130		1		10/20/23 21:25	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS

Pace Project No.: 92694109

Sample: SW-2		Lab ID: 92694109016		Collected: 10/16/23 11:20		Received: 10/18/23 08:10		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0075	1	10/24/23 11:45	10/24/23 21:31	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	81	%	60-140		1	10/24/23 11:45	10/24/23 21:31	301-79-56	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		10/20/23 21:44	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		10/20/23 21:44	994-05-8	
Benzene	ND	ug/L	1.0	0.34	1		10/20/23 21:44	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		10/20/23 21:44	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		10/20/23 21:44	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		10/20/23 21:44	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		10/20/23 21:44	107-06-2	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		10/20/23 21:44	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		10/20/23 21:44	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		10/20/23 21:44	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		10/20/23 21:44	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		10/20/23 21:44	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		10/20/23 21:44	91-20-3	
Toluene	ND	ug/L	1.0	0.48	1		10/20/23 21:44	108-88-3	
Xylene (Total)	ND	ug/L	1.0	0.34	1		10/20/23 21:44	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		10/20/23 21:44	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		10/20/23 21:44	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	96	%	70-130		1		10/20/23 21:44	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-130		1		10/20/23 21:44	17060-07-0	
Toluene-d8 (S)	109	%	70-130		1		10/20/23 21:44	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS
Pace Project No.: 92694109

Sample: SW-3		Lab ID: 92694109017		Collected: 10/16/23 10:15		Received: 10/18/23 08:10		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0075	1	10/24/23 11:45	10/24/23 21:41	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	83	%	60-140		1	10/24/23 11:45	10/24/23 21:41	301-79-56	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		10/20/23 22:02	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		10/20/23 22:02	994-05-8	
Benzene	ND	ug/L	1.0	0.34	1		10/20/23 22:02	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		10/20/23 22:02	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		10/20/23 22:02	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		10/20/23 22:02	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		10/20/23 22:02	107-06-2	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		10/20/23 22:02	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		10/20/23 22:02	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		10/20/23 22:02	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		10/20/23 22:02	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		10/20/23 22:02	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		10/20/23 22:02	91-20-3	
Toluene	ND	ug/L	1.0	0.48	1		10/20/23 22:02	108-88-3	
Xylene (Total)	ND	ug/L	1.0	0.34	1		10/20/23 22:02	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		10/20/23 22:02	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		10/20/23 22:02	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		10/20/23 22:02	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130		1		10/20/23 22:02	17060-07-0	
Toluene-d8 (S)	107	%	70-130		1		10/20/23 22:02	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS
Pace Project No.: 92694109

Sample: SW-4		Lab ID: 92694109018		Collected: 10/16/23 10:20		Received: 10/18/23 08:10		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0074	1	10/24/23 11:45	10/24/23 21:52	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	84	%	60-140		1	10/24/23 11:45	10/24/23 21:52	301-79-56	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		10/20/23 22:20	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		10/20/23 22:20	994-05-8	
Benzene	ND	ug/L	1.0	0.34	1		10/20/23 22:20	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		10/20/23 22:20	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		10/20/23 22:20	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		10/20/23 22:20	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		10/20/23 22:20	107-06-2	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		10/20/23 22:20	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		10/20/23 22:20	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		10/20/23 22:20	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		10/20/23 22:20	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		10/20/23 22:20	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		10/20/23 22:20	91-20-3	
Toluene	ND	ug/L	1.0	0.48	1		10/20/23 22:20	108-88-3	
Xylene (Total)	ND	ug/L	1.0	0.34	1		10/20/23 22:20	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		10/20/23 22:20	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		10/20/23 22:20	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		10/20/23 22:20	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-130		1		10/20/23 22:20	17060-07-0	
Toluene-d8 (S)	107	%	70-130		1		10/20/23 22:20	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS

Pace Project No.: 92694109

Sample: SW-5		Lab ID: 92694109019		Collected: 10/16/23 10:25		Received: 10/18/23 08:10		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0075	1	10/24/23 11:45	10/24/23 22:03	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	86	%	60-140		1	10/24/23 11:45	10/24/23 22:03	301-79-56	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		10/20/23 22:38	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		10/20/23 22:38	994-05-8	
Benzene	ND	ug/L	1.0	0.34	1		10/20/23 22:38	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		10/20/23 22:38	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		10/20/23 22:38	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		10/20/23 22:38	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		10/20/23 22:38	107-06-2	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		10/20/23 22:38	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		10/20/23 22:38	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		10/20/23 22:38	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		10/20/23 22:38	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		10/20/23 22:38	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		10/20/23 22:38	91-20-3	
Toluene	ND	ug/L	1.0	0.48	1		10/20/23 22:38	108-88-3	
Xylene (Total)	ND	ug/L	1.0	0.34	1		10/20/23 22:38	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		10/20/23 22:38	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		10/20/23 22:38	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		10/20/23 22:38	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-130		1		10/20/23 22:38	17060-07-0	
Toluene-d8 (S)	108	%	70-130		1		10/20/23 22:38	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS

Pace Project No.: 92694109

Sample: SW-6		Lab ID: 92694109020		Collected: 10/16/23 10:30		Received: 10/18/23 08:10		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 Pace Analytical Services - Charlotte							
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0076	1	10/24/23 11:45	10/24/23 22:13	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	83	%	60-140		1	10/24/23 11:45	10/24/23 22:13	301-79-56	
8260 MSV Low Level SC		Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
tert-Amyl Alcohol	ND	ug/L	100	36.4	1		10/20/23 22:56	75-85-4	
tert-Amylmethyl ether	ND	ug/L	10.0	2.7	1		10/20/23 22:56	994-05-8	
Benzene	ND	ug/L	1.0	0.34	1		10/20/23 22:56	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	100	51.9	1		10/20/23 22:56	624-95-3	
tert-Butyl Alcohol	ND	ug/L	100	26.8	1		10/20/23 22:56	75-65-0	
tert-Butyl Formate	ND	ug/L	50.0	29.4	1		10/20/23 22:56	762-75-4	
1,2-Dichloroethane	ND	ug/L	1.0	0.32	1		10/20/23 22:56	107-06-2	
Diisopropyl ether	ND	ug/L	1.0	0.31	1		10/20/23 22:56	108-20-3	
Ethanol	ND	ug/L	200	72.2	1		10/20/23 22:56	64-17-5	
Ethylbenzene	ND	ug/L	1.0	0.30	1		10/20/23 22:56	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	10.0	3.2	1		10/20/23 22:56	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.42	1		10/20/23 22:56	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.64	1		10/20/23 22:56	91-20-3	
Toluene	ND	ug/L	1.0	0.48	1		10/20/23 22:56	108-88-3	
Xylene (Total)	ND	ug/L	1.0	0.34	1		10/20/23 22:56	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.71	1		10/20/23 22:56	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.34	1		10/20/23 22:56	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		10/20/23 22:56	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130		1		10/20/23 22:56	17060-07-0	
Toluene-d8 (S)	108	%	70-130		1		10/20/23 22:56	2037-26-5	

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ANALYTICAL RESULTS

Project: JAKE HUGGINS
Pace Project No.: 92694109

Sample: DUP									
Lab ID: 92694109021 Collected: 10/16/23 00:00 Received: 10/18/23 08:10 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									
Pace Analytical Services - Charlotte									
1,2-Dibromoethane (EDB)	ND	ug/L	0.020	0.0075	1	10/24/23 11:45	10/24/23 22:24	106-93-4	
Surrogates									
1-Chloro-2-bromopropane (S)	88	%	60-140		1	10/24/23 11:45	10/24/23 22:24	301-79-56	
8260 MSV									
Analytical Method: EPA 8260D									
Pace Analytical Services - Charlotte									
tert-Amyl Alcohol	ND	ug/L	20000	13100	200		10/24/23 21:11	75-85-4	
tert-Amylmethyl ether	ND	ug/L	2000	608	200		10/24/23 21:11	994-05-8	
Benzene	4670	ug/L	1000	348	200		10/24/23 21:11	71-43-2	
3,3-Dimethyl-1-Butanol	ND	ug/L	20000	10800	200		10/24/23 21:11	624-95-3	
tert-Butyl Alcohol	ND	ug/L	20000	18200	200		10/24/23 21:11	75-65-0	
tert-Butyl Formate	ND	ug/L	10000	4820	200		10/24/23 21:11	762-75-4	
1,2-Dichloroethane	ND	ug/L	1000	412	200		10/24/23 21:11	107-06-2	
Diisopropyl ether	ND	ug/L	1000	698	200		10/24/23 21:11	108-20-3	
Ethanol	ND	ug/L	40000	28800	200		10/24/23 21:11	64-17-5	
Ethylbenzene	2430	ug/L	1000	368	200		10/24/23 21:11	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	2000	1690	200		10/24/23 21:11	637-92-3	
Methyl-tert-butyl ether	834J	ug/L	1000	620	200		10/24/23 21:11	1634-04-4	
Naphthalene	679J	ug/L	1000	418	200		10/24/23 21:11	91-20-3	
Toluene	23400	ug/L	1000	402	200		10/24/23 21:11	108-88-3	
Xylene (Total)	14000	ug/L	1000	1000	200		10/24/23 21:11	1330-20-7	
m&p-Xylene	9270	ug/L	2000	822	200		10/24/23 21:11	179601-23-1	
o-Xylene	4730	ug/L	1000	408	200		10/24/23 21:11	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		200		10/24/23 21:11	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-130		200		10/24/23 21:11	17060-07-0	
Toluene-d8 (S)	101	%	70-130		200		10/24/23 21:11	2037-26-5	

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