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

Note: Personal information provided on this document is subject to public scrutiny or release.

1. WELL OWNER INFORMATION:
Name: Hilton Head Public Service District (last) (first)
Address: 21 Oak Park Drive
City: Hilton Head Island State: SC Zip: 29926-3641
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Beaufort
Name: Hilton Head Public Service District
Street Address: 21 Oak Park Drive
City: Hilton Head Island Zip: 29926-3641
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

4. ABANDONMENT: ☐ Yes ☐ No
Give Details Below
Grouted Depth: from ____ ft. to ____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-10

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

7. PERMIT NUMBER:

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

9. WELL DEPTH (completed) Date Started: 04/21/21
13.5 ft. Date Completed: 04/21/21

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2"
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 3.5 ft. depth
____ in. to ____ ft. depth
Height: Above/Below
Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 10'
Set Between: 3.5 ft. and 13.5 ft.
____ ft. and ____ ft. NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

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

13. PUMPING LEVEL Below Land Surface
____ ft. after ____ hrs. Pumping ____ GPM.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

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

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 1.5 ft. to 13.5 ft.
Effective size ____ Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Portland Cement ☐ Other ____
Depth: From 0 ft. to 1.5 ft.

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

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

19. WELL DRILLER: Broadus Randall Eddings CERT NO.: 2216D
Address: (Print) Level A B C D (circle one)
1817 Bishopville Hwy
Camden, SC 29020
Telephone No.: Fax No.:

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Signed: Randall Eddings Date: 5/7/21
Well Driller

If D Level Driller, provide supervising driller's name:
Deaaral Rodgers 1461A

DHEC 1903 (08/2017)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

Water Well Record
Bureau of Water
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Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Beaufort
Name: Hilton Head Public Service District
Street Address: 21 Oak Park Drive
City: Hilton Head Island Zip: 29926-3641
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

4. ABANDONMENT: ☐ Yes ☐ No
Give Details Below
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
DCW-1

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

7. PERMIT NUMBER:

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

9. WELL DEPTH (completed) Date Started: 04/20/21
34 ft. Date Completed: 04/20/21

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2"
Type: ☐ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 29 ft. depth
_____ in. to _____ ft. depth
Height: Above/Below Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 10'
Set Between: 29 ft. and 34 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

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

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

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

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 27 ft. to 34 ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other _____
Depth: From 0 ft. to 27 ft.

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

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

19. WELL DRILLER: Broadus Randall Eddings CERT NO.: 2216D
Address: (Print) Level: A B C D (circle one)
1817 Bishopville Hwy
Camden, SC 29020
Telephone No.: Fax No.:

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

Signed: Randall Eddings (Well Driller) Date: 5/7/21

If D Level Driller, provide supervising driller's name:
Deanal Rodgers 1461A

DHEC 1903 (08/2017)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

Water Well Record
Bureau of Water
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Note: Personal information provided on this document is subject to public scrutiny or release.

1. WELL OWNER INFORMATION:
Name: Hilton Head Public Service District (last) (first)
Address: 21 Oak Park Drive
City: Hilton Head State: SC Zip: 29926-0000
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:**
Name: Hilton Head Public Service District
Street Address: 21 Oak Park Drive
City: Hilton Head Zip: 29926-0000
Latitude: Longitude:

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

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0 ft. to 10 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Soil boring - See AECOM report		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
Soill Boring
SB - 05

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

7. PERMIT NUMBER:

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

9. WELL DEPTH (completed) 10' ft. Date Started: 2/3/2021 Date Completed: 2/3/2021

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

11. SCREEN:
Type: _____ Diam.: _____
Slot/Gauge: _____ Length: _____
Set Between: _____ ft. and _____ ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

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

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

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

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from _____ ft. to _____ ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other _____
Depth: From 0 ft. to 10' ft.

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

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

19. WELL DRILLER: Broadus Randall Eddings CERT. NO.: 2216D
Address: (Print) Level: A B C D (circle one)
1817 Bishopville Hwy
Camden, SC 29020
Telephone No.: Fax No.:

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

Signed: Randall Eddings (Well Driller) Date: 1/10/22

If D Level Driller, provide supervising driller's name:
Dearal Rodgers 1461A

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1. WELL OWNER INFORMATION:
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Address: 21 Oak Park Drive
City: Hilton Head State: SC Zip: 29926-0000
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:**
Name: Hilton Head Public Service District
Street Address: 21 Oak Park Drive
City: Hilton Head Zip: 29926-0000
Latitude: Longitude:

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

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0 ft. to 10 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Soil boring – See ABCOM report		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
Soill Boring
SB - 06

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

7. PERMIT NUMBER:

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

9. WELL DEPTH (completed) 10 ft. Date Started: 2/3/2021 Date Completed: 2/3/2021

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

11. SCREEN:
Type: Diam.:
Slot/Gauge: Length:
Set Between: ft. and ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

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

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

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

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ft. to ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other
Depth: From 0 ft. to 10' ft.

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

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

19. WELL DRILLER: Brandon Randall Eddings CERT. NO.: 2216D
Address: (Print)
1817 Bishopville Hwy
Camden, SC 29020
Level: A B C D (circle one)
Telephone No.: Fax No.:

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Signed: Randall Eddings (Well Driller) Date: 1/10/22
If D Level Driller, provide supervising driller's name:
Dearal Rodgers 1461A

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Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY:
Name: Hilton Head Public Service District
Street Address: 21 Oak Park Drive
City: Hilton Head Zip: 29926-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0 ft. to 10 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Soil boring - See ABCOM report		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
Soill Boring
SB - 07

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

7. PERMIT NUMBER:

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

9. WELL DEPTH (completed) 10 ft. Date Started: 2/3/2021 Date Completed: 2/3/2021

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

12. SCREEN:
Type: _____ Diam.: _____
Slot/Gauge: _____ Length: _____
Set Between: _____ ft. and _____ ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

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

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

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

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from _____ ft. to _____ ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other _____
Depth: From 0 ft. to 10 ft.

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

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

19. WELL DRILLER: Brandus Randall Feddings CERT. NO.: 2216D
Address: (Print) 1817 Bishopville Hwy
Camden, SC 29020
Level: A B C D ✓ (circle one)
Telephone No.: Fax No.:

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Signed: Randall Feddings (Well Driller) Date: 1/10/22

If D Level Driller, provide supervising driller's name:
Dearal Rodgers 1461A

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Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY:
Name: Hilton Head Public Service District
Street Address: 21 Oak Park Drive
City: Hilton Head Zip: 29926-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0 ft. to 10 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Soil boring - See AECOM report		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
Soill Boring
SB - 08

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

7. PERMIT NUMBER:

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

9. WELL DEPTH (completed) 10 ft. Date Started: 2/3/2021 Date Completed: 2/3/2021

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

11. SCREEN:
Type: Diam.:
Slot/Gauge: Length:
Set Between: ft. and ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

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

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

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

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ft. to ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other
Depth: From 0 ft. to 10 ft.

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

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

19. WELL DRILLER: Broadus Randall Eddings CERT. NO.: 2216D
Address: (Print)
1817 Bishopville Hwy
Camden, SC 29020
Level: A B C D (circle one)
Telephone No.: Fax No.:

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Signed: Randall Eddings (Well Driller) Date: 1/10/22

If D Level Driller, provide supervising driller's name:
Dearal Rodgers 1461A

DHEC 1903 (08/2017)

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

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

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Address: 21 Oak Park Drive
City: Hilton Head State: SC Zip: 29926-0000
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY:
Name: Hilton Head Public Service District
Street Address: 21 Oak Park Drive
City: Hilton Head Zip: 29926-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0 ft. to 20 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Soil boring - See AECOM report		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
Soil Boring
SB - 09

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

7. PERMIT NUMBER:

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

9. WELL DEPTH (completed) 20 ft. Date Started: 2/3/2021 Date Completed: 2/3/2021

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

11. SCREEN:
Type: Diam.:
Slot/Gauge: Length:
Set Between: ft. and ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

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

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

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

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ft. to ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other
Depth: From 0 ft. to 20 ft.

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

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

19. WELL DRILLER: Broadus Randall Eddings CERT NO.: 2216D
Address: (Print) 1817 Bishopville Hwy
Camden, SC 29020
Level: A B C D (circle one)
Telephone No.: Fax No.:

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Signed: Randall Eddings (Well Driller) Date: 1/10/2022

If D Level Driller, provide supervising driller's name:
Dearal Rodgers 1461A

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

Note: Personal information provided on this document is subject to public scrutiny or release.

1. WELL OWNER INFORMATION:
Name: Hilton Head Public Service District (last) (first)
Address: 21 Oak Park Drive
City: Hilton Head State: SC Zip: 29926-0000
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:**
Name: Hilton Head Public Service District
Street Address: 21 Oak Park Drive
City: Hilton Head Zip: 29926-0000
Latitude: Longitude:

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

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0 ft. to 10 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Soil boring – See AECOM report		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
Soill Boring
SB - 10

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

7. PERMIT NUMBER:

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

9. WELL DEPTH (completed) 10' ft. Date Started: 2/3/2021 Date Completed: 2/3/2021

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

11. SCREEN:
Type: Diam.:
Slot/Gauge: Length:
Set Between: ft. and ft. NOTE: MULTIPLE SCREENS
ft. and ft. USE SECOMD SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

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

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

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

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ft. to ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other
Depth: From 0 ft. to 10' ft.

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

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

19. WELL DRILLER: Brandon Randall Eddings CERT. NO.: 2216D
Address: (Print) Level: A B C D (circle one)
1817 Bishopville Hwy
Camden, SC 29020
Telephone No.: Fax No.:

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

Signed: Randall Eddy Well Driller Date: 1/18/2022

If ☐ Level Driller, provide supervising driller's name:
Dearal Rodgers 1461A

DHEC 1903 (08/2017) COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

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

Note: Personal information provided on this document is subject to public scrutiny or release.

1. WELL OWNER INFORMATION:
Name: Hilton Head Public Service District (last) (first)
Address: 21 Oak Park Drive
City: Hilton Head State: SC Zip: 29926-0000
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:**
Name: Hilton Head Public Service District
Street Address: 21 Oak Park Drive
City: Hilton Head Zip: 29926-0000
Latitude: Longitude:

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

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0 ft. to 10 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Soil boring - See AECOM report		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
Soill Boring
SB - 11

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

7. PERMIT NUMBER:

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

9. WELL DEPTH (completed) 10 ft. Date Started: 2/4/2021 Date Completed: 2/4/2021

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

11. SCREEN:
Type: Diam.:
Slot/Gauge: Length:
Set Between: ft. and ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

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

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

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

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ft. to ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other
Depth: From 0 ft. to 10' ft.

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

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

19. WELL DRILLER: Broadus Randall Eddings CERT NO.: 2216D
Address: (Print)
1817 Bishopville Hwy
Camden, SC 29020
Level: A B C D (circle one)
Telephone No.: Fax No.:

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

Signed: Randall Eddings (Well Driller) Date: 2/10/21

If D Level Driller, provide supervising driller's name:
Dearal Rodgers 1461A

DHEC 1903 (08/2017) COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

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

Note: Personal information provided on this document is subject to public scrutiny or release.

1. WELL OWNER INFORMATION:
Name: Hilton Head Public Service District (last) (first)
Address: 21 Oak Park Drive
City: Hilton Head State: SC Zip: 29926-0000
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:**
Name: Hilton Head Public Service District
Street Address: 21 Oak Park Drive
City: Hilton Head Zip: 29926-0000
Latitude: Longitude:

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

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0 ft. to 10 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Soil boring - See AECOM report		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
Soill Boring
SB - 12

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

7. PERMIT NUMBER:

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

9. WELL DEPTH (completed) 10' ft. Date Started: 2/3/2021 Date Completed: 2/3/2021

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

11. SCREEN:
Type: Diam.:
Slot/Gauge: Length:
Set Between: ft. and ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

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

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

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

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ft. to ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other
Depth: From 0 ft. to 10' ft.

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

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

19. WELL DRILLER: Broadus Randall Eddings CERT. NO.: 2216D
Address: (Print) Level: A B C D (circle one)
1817 Bishopville Hwy
Camden, SC 29020
Telephone No.: Fax No.:

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Signed: Randall Eddings (Well Driller) Date: 1/10/22

If D Level Driller, provide supervising driller's name:
Dearal Rodgers 1461A

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

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Address: 21 Oak Park Drive
City: Hilton Head State: SC Zip: 29926-0000
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:**
Name: Hilton Head Public Service District
Street Address: 21 Oak Park Drive
City: Hilton Head Zip: 29926-0000
Latitude: Longitude:

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

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0 ft. to 10 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Soil boring - See AECOM report		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
Soill Boring
SB - 13

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

7. PERMIT NUMBER:

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

9. WELL DEPTH (completed) 10 ft. Date Started: 2/4/2021 Date Completed: 2/4/2021

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

11. SCREEN:
Type: Diam.:
Slot/Gauge: Length:
Set Between: ft. and ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

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

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

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

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ft. to ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other
Depth: From 0 ft. to 10 ft.

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

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

19. WELL DRILLER: Brandon Randall Eddings CERT. NO.: 2216D
Address: (Print) Level: A B C D (circle one)
1817 Bishopville Hwy
Camden, SC 29020
Telephone No.: Fax No.:

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Signed: Randall Eddings (Well Driller) Date: 2/10/22

If D Level Driller, provide supervising driller's name:
Dearal Rodgers 1461A

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

Note: Personal information provided on this document is subject to public scrutiny or release.

1. WELL OWNER INFORMATION:
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Address: 21 Oak Park Drive
City: Hilton Head State: SC Zip: 29926-0000
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:**
Name: Hilton Head Public Service District
Street Address: 21 Oak Park Drive
City: Hilton Head Zip: 29926-0000
Latitude: Longitude:

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

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0 ft. to 10 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Soil boring - See AECOM report		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
Soill Boring
SB - 14

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

7. PERMIT NUMBER:

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

9. WELL DEPTH (completed) 10 ft. Date Started: 2/4/2021 Date Completed: 2/4/2021

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

11. SCREEN:
Type: Diam.:
Slot/Gauge: Length:
Set Between: ft. and ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

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

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

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

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ft. to ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other
Depth: From 0 ft. to 10 ft.

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

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

19. WELL DRILLER: Broadus Randall Eddings CERT. NO.: 2216D
Address: (Print)
1817 Bishopville Hwy
Camden, SC 29020
Level: A B C D (circle one)
Telephone No.: Fax No.:

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

Signed: Randall Eddings (Well Driller) Date: 1/10/22

If D Level Driller, provide supervising driller's name:
Dearal Rodgers 1461A

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

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City: Hilton Head State: SC Zip: 29926-0000
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY:
Name: Hilton Head Public Service District
Street Address: 21 Oak Park Drive
City: Hilton Head Zip: 29926-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0 ft. to 10 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Soil boring – See AECOM report		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
Soill Boring
SB - 15

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

7. PERMIT NUMBER:

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

9. WELL DEPTH (completed) Date Started: 2/4/2021
10 ft. Date Completed: 2/4/2021

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

11. SCREEN:
Type: Diam.:
Slot/Gauge: Length:
Set Between: ft. and ft. NOTE: MULTIPLE SCREENS
ft. and ft. USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

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

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

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

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ft. to ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other
Depth: From 0 ft. to 10 ft.

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

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

19. WELL DRILLER: Brandus Randall Eddings CERT. NO.: 2216D
Address: (Print) Level: A B C D (circle one)
1817 Bishopville Hwy
Camden, SC 29020
Telephone No.: Fax No.:

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

Signed: Randall Eddings (Well Driller) Date: 2/10/2021

If D Level Driller, provide supervising driller's name:
Dearal Rodgers 1461A

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

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City: Hilton Head State: SC Zip: 29926-0000
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY:
Name: Hilton Head Public Service District
Street Address: 21 Oak Park Drive
City: Hilton Head Zip: 29926-0000
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

4. ABANDONMENT: ☑ Yes ☐ No
Give Details Below
Grouted Depth: from 0 ft. to 10 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Soil boring – See AECOM report		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
Soill Boring
SB - 16

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

7. PERMIT NUMBER:

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

9. WELL DEPTH (completed) 10' ft. Date Started: 2/4/2021 Date Completed: 2/4/2021

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

11. SCREEN:
Type: Diam.:
Slot/Gauge: Length:
Set Between: ft. and ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

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

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

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

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ft. to ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☑ Bentonite/Cement ☐ Other
Depth: From 0 ft. to 10 ft.

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

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

19. WELL DRILLER: Brandon Randall Eddings CERT. NO.: 2216D
Address: (Print) Level: A B C D (circle one)
1817 Bishopville Hwy
Camden, SC 29020
Telephone No.: Fax No.:

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.
Signed: Randall Eddings Well Driller Date: 2/10/2021

If D Level Driller, provide supervising driller's name:
Deanal Rodgers 1461A

COPY 1 MAIL TO SCDHEC, COPY 2 TO WELL OWNER, COPY 3 TO WELL DRILLER

RECEIVED
JAN 31 2022
UST DIVISION

11399 HUGO

Well/Piez. ID: MW-8

AECOM

Well/Piezometer Development Record

Client: Public Works Site Location: Hilton Head

Project No: 60617359 Date: 12-15-21 Developer: James Leaphart

UST 14 Week DOCKETING

WELL/PIEZOMETER DATA

Well ☒ Piezometer ☐ Diameter ~~PVC~~ 2" Material PVC

Measuring Point Description: TOC

Depth to Top of Screen (ft.):

Depth to Bottom of Screen (ft.):

Total Well Depth (ft.): 14.0

Depth to Static Water Level (ft.): 5.14

Geology at Screen Interval (if known):

Time of Water Level Measurement: 0851

Calculate Purge Volume (gal.): 1.44

Disposal Method: DRUM

Wellhead PID/FID: NA

Original Well Development ☐ Redevelopment ☒ Date of Original Development:

DEVELOPMENT METHOD: Peristaltic **PURGE METHOD**:

Field Testing Equipment Used:

Make	Model	Serial Number
INSITU	TROLL 600	808958

Field Testing Calibration Documentation Found in Field Notebook # _____ Page # _____

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (umhos)	Turbidity (NTUs)	DO	Color	Odor	ORP Other
0900	INITIAL	19.36	6.56	613.12	89.08	3.13	CLOUDY	NO	-55.9
0910	2.64	20.82	6.56	601.03	88.24	0.22	"	"	-165.4
0920	5.28	20.94	6.52	581.25	45.74	0.21	CLEAR	"	-176.4
0930	7.92	21.03	6.49	578.17	40.52	0.18	"	"	-183.3

ACCEPTANCE CRITERIA (from workplan)

Min. Purge Volume (3 well volumes) 7.22 gallons
Maximum Turbidity Allowed 50 NTUs
Stabilization of parameters 10 %

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☒	☐	☐
Have parameters stabilized	☒	☐	☐

If no or N/A explain below:

Signature: _____ Date: 12-15-21

AECOM

Well/Piez. ID: MW-6

Well/Piezometer Development Record

Client: Public Works Site Location: Hilton Head

Project No: 60617359 Date: 12-15-21 Developer: James Leaphart

WELL/PIEZOMETER DATA

Well ☒ Piezometer ☐ Diameter 2" Material PVC

Measuring Point Description TOC

Depth to Top of Screen (ft.)

Depth to Bottom of Screen (ft.)

Total Well Depth (ft.) 14.0

Depth to Static Water Level (ft.) 5.42

Geology at Screen Interval (if known)

Time of Water Level Measurement 0937

Calculate Purge Volume (gal.) 1.40

Disposal Method DRUM

Wellhead PID/FID NA

Original Well Development ☐ Redevelopment ☒ Date of Original Development

DEVELOPMENT METHOD PERISTALTIC **PURGE METHOD**

Field Testing Equipment Used:

Make	Model	Serial Number
INSITU	TROLL 600	808958

Field Testing Calibration Documentation Found in Field Notebook # Page #

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (umhos)	Turbidity (NTUs)	DO	Color	Odor	ORP Other
0938	INITIAL	21.11	6.91	585 HQ	935	2.17	BROWN	NO	-149.5
0948	2.80	22.27	6.94	553.35	71.82	0.16	CLOUDY	"	-172.7
0958	5.28	22.20	6.88	562.50	35.09	0.21	CLOUDY	"	-179.6
1008	7.82	22.30	6.88	571.88	16.94	0.20	"	"	-188.5

ACCEPTANCE CRITERIA (from workplan)

Min. Purge Volume (5 well volumes) 7.0 gallons

Maximum Turbidity Allowed 50 NTUs

Stabilization of parameters 10 %

	Yes	No	N/A
Has required volume been removed	☐	☐	☐
Has required turbidity been reached	☐	☐	☐
Have parameters stabilized	☐	☐	☐

If no or N/A explain below:

Signature Date: 12-15-21

AECOM

Well/Piez. ID: MW-9

Well/Piezometer Development Record

Client: PUBLIC WORKS Site Location: HILTON HEAD

Project No: 60617359 Date: 12.15.21 Developer: JAMES LEGHART

WELL/PIEZOMETER DATA

Well ☒ Piezometer ☐ Diameter 2" Material PVC

Measuring Point Description TOC

Depth to Top of Screen (ft.) _____

Depth to Bottom of Screen (ft.) _____

Total Well Depth (ft.) 13.5

Depth to Static Water Level (ft.) 6.87

Geology at Screen Interval (if known) _____

Time of Water Level Measurement 1308

Calculate Purge Volume (gal.) 1.08

Disposal Method DRUM

Wellhead PID/FID NA

Original Well Development ☐ Redevelopment ☒ Date of Original Development _____

DEVELOPMENT METHOD PERISTALTIC **PURGE METHOD** _____

Field Testing Equipment Used:

Make	Model	Serial Number
INSITU	600	808958

Field Testing Calibration Documentation Found in Field Notebook # _____ Page # _____

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (umhos)	Turbidity (NTUs)	DO	Color	Odor	ORP Other
1310	INITIAL	21.13	5.95	294.87	146.26	2.96	CLOUDY	PETRO	-117.5
1326	2.64	22.28	5.72	300.29	52.01	0.20	"	"	-136.8
1336	5.28	22.25	5.66	310.68	20.03	0.15	CLEAR	"	-148.7
1340	7.92	22.23	5.67	307.12	10.26	0.18	"	"	-152.6

ACCEPTANCE CRITERIA (from workplan)

Min. Purge Volume (5 well volumes) 5.40 gallons

Maximum Turbidity Allowed 50 NTUs

Stabilization of parameters 10 %

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☒	☐	☐
Have parameters stabilized	☒	☐	☐

If no or N/A explain below: _____

Signature _____ Date: 12-15-21

AECOM

Well/Piez. ID: MW-5

Well/Piezometer Development Record

Client: Public Works Site Location: Hilton Head

Project No: 60617359 Date: 12-15-21 Developer: James Leinhart

WELL/PIEZOMETER DATA

Well ☒ Piezometer ☐ Diameter 2" Material PVC

Measuring Point Description TOC

Depth to Top of Screen (ft.)

Depth to Bottom of Screen (ft.)

Total Well Depth (ft.) 14.00

Depth to Static Water Level (ft.) 5.16

Geology at Screen Interval (if known)

Time of Water Level Measurement 1226

Calculate Purge Volume (gal.) 1.44

Disposal Method DRUM

Wellhead PID/FID NA

Original Well Development ☐ Redevelopment ☒ Date of Original Development

DEVELOPMENT METHOD PERISTALTIC **PURGE METHOD**

Field Testing Equipment Used: Make: In-Situ Model: 600 Serial Number: 808958

Field Testing Calibration Documentation Found in Field Notebook # Page #

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (umhos)	Turbidity (NTUs)	DO	Color	~~Odor~~	ORP Other
1230	INITIAL	23.19	5.86	261.84	101.45	0.17	CLOUDY	NO	40.2
1235	1.32	23.04	5.87	270.54	67.97	0.14	"	"	3.0
1240	2.64	22.60	5.93	291.27	47.06	0.12	"	"	-52.6
1245	3.96	22.54	5.97	299.69	36.47	0.11	CLEAR	"	-105.9
1250	5.28	22.53	5.91	310.44	27.27	0.10	"	"	-139.4
1255	6.60	22.47	5.90	312.27	21.71	0.10	"	"	-155.9

ACCEPTANCE CRITERIA (from workplan)

Min. Purge Volume (5 well volumes) 7.2 gallons

Maximum Turbidity Allowed 50 NTUs

Stabilization of parameters 10 %

	Yes	No	N/A
Has required volume been removed	☐	☐	☐
Has required turbidity been reached	☐	☐	☐
Have parameters stabilized	☐	☐	☐

If no or N/A explain below:

Signature J. Leinhart Date: 12-15-21

AECOM

Well/Piez. ID: MW-7

Well/Piezometer Development Record

Client: PUBLIC WORKS Site Location: HILTON HEAD

Project No: 60617359 Date: 12-15-21 Developer: [illegible]

WELL/PIEZOMETER DATA

Well ☒ Piezometer ☐ Diameter 2" Material PVC

Measuring Point Description TOC

Depth to Top of Screen (ft.)

Depth to Bottom of Screen (ft.)

Total Well Depth (ft.) 13.0

Depth to Static Water Level (ft.) 4.88

Geology at Screen Interval (if known)

Time of Water Level Measurement 1009

Calculate Purge Volume (gal.) 1.32

Disposal Method DRUMS

Wellhead PID/FID N/A

Original Well Development ☐ Redevelopment ☒ Date of Original Development

DEVELOPMENT METHOD PERISTALTIC **PURGE METHOD**

Field Testing Equipment Used:

Make	Model	Serial Number
INSITU	TROLL 600	882958

Field Testing Calibration Documentation Found in Field Notebook # Page #

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (umhos)	Turbidity (NTUs)	DO	Color	Odor	ORP Other
1015	INITIAL	28.87	5.72	230.33	10.35	0.96	CLEAR	NO	15.1
1025	2.64	30.52	5.60	220.77	15.19	0.16	"	"	-74.6
1035	5.28	30.49	5.62	213.60	13.96	0.15	"	"	-140.0
1045	7.92	30.47	5.59	198.3	12.32	0.14	"	"	-150.9

ACCEPTANCE CRITERIA (from workplan)

Min. Purge Volume (5 well volumes) 6.6 gallons

Maximum Turbidity Allowed 50 NTUs

Stabilization of parameters 10 %

	Yes	No	N/A
Has required volume been removed	☒	☐	☐
Has required turbidity been reached	☒	☐	☐
Have parameters stabilized	☒	☐	☐

If no or N/A explain below:

Signature [signature] Date: 12-15-21

AECOM

Well/Piez. ID: MW-10

Well/Piezometer Development Record

Client: Public Works Site Location: Hilton Head

Project No: 60617359 Date: 12-15-21 Developer: James Leadbetter

WELL/PIEZOMETER DATA

Well ☒ Piezometer ☐ Diameter 2" Material PVC

Measuring Point Description TOC

Geology at Screen Interval (if known)

Depth to Top of Screen (ft.)

Depth to Bottom of Screen (ft.)

Time of Water Level Measurement 1048

Total Well Depth (ft.) 13.0

Calculate Purge Volume (gal.) 1.30

Depth to Static Water Level (ft.) ~~4.88~~ 5.02

Disposal Method ~~NA~~ DRUM

Wellhead PID/FID NA

Original Well Development ☐ Redevelopment ☑ Date of Original Development

DEVELOPMENT METHOD PERISTALTIC **PURGE METHOD**

Field Testing Equipment Used:

Make	Model	Serial Number
INSITU	TROLL 600	808958

Field Testing Calibration Documentation Found in Field Notebook # Page #

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (umhos)	Turbidity (NTUs)	DO	Color	Odor	ORP Other
1049	INITIAL	23.46	5.77	319.61	81.84	0.99	CLOUDY	NO	-87.5
1059	2.64	23.13	5.84	319.44	15.67	0.13	CLEAR	"	-182.7
1109	5.28	23.14	5.90	311.15	15.07	0.10	"	"	-200.7
1119	7.92	23.17	5.83	307.93	14.38	0.10	"	"	-210.8

ACCEPTANCE CRITERIA (from workplan)

Min. Purge Volume (5 well volumes) 6.5 gallons

Maximum Turbidity Allowed 50 NTUs

Stabilization of parameters 10 %

	Yes	No	N/A
Has required volume been removed	☐	☐	☐
Has required turbidity been reached	☐	☐	☐
Have parameters stabilized	☐	☐	☐

If no or N/A explain below:

Signature [signature] Date: 12-15-21

AECOM

Well/Piez. ID: DCW-1

Well/Piezometer Development Record

Client: Public Works Site Location: Hilton Head

Project No: 60617359 Date: 12-15-21 Developer: Jonas Leadbetter

WELL/PIEZOMETER DATA

Well ☒ Piezometer ☐ Diameter 2" Material PVC

Measuring Point Description TOC

Depth to Top of Screen (ft.)

Depth to Bottom of Screen (ft.)

Total Well Depth (ft.) 34

Depth to Static Water Level (ft.) 5.18

Geology at Screen Interval (if known)

Time of Water Level Measurement 1123

Calculate Purge Volume (gal.) 4.70

Disposal Method DRUM

Wellhead PID/FID NA

Original Well Development ☐ Redevelopment ☒ Date of Original Development

DEVELOPMENT METHOD PERISTALTIC **PURGE METHOD**

Field Testing Equipment Used:

Make	Model	Serial Number
INSITU	TROLL 600	808958

Field Testing Calibration Documentation Found in Field Notebook # Page #

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (umhos)	Turbidity (NTUs)	DO	Color	Odor	ORP Other
1124	INITIAL	23.70	6.54	244.18	265.89	0.43	TAN	NO	-172.2
1134	2.64	23.86	6.33	205.87	28.42	0.21	CLEAR	"	-193.1
1144	5.28	23.85	6.36	209.70	1.21	0.16	"	"	-220.9
1154	7.92	23.94	6.37	216.20	0.26	0.11	"	"	-234.8

ACCEPTANCE CRITERIA (from workplan)

Min. Purge Volume (5 well volumes) 23.49 gallons

Maximum Turbidity Allowed 50 NTUs

Stabilization of parameters 10 %

	Yes	No	N/A
Has required volume been removed	☐	☐	☒
Has required turbidity been reached	☑	☐	☐
Have parameters stabilized	☑	☐	☐

If no or N/A explain below:

Signature Date: 12-15-21

AECOM

Well/Piez. ID: MW-4

Well/Piezometer Development Record

Client: Public Works Site Location: Hilton Head

Project No: 60612359 Date: 12-15-21 Developer: James Leathart

WELL/PIEZOMETER DATA

Well ☒ Piezometer ☐ Diameter 2" Material PVC

Measuring Point Description TOC

Depth to Top of Screen (ft.)

Depth to Bottom of Screen (ft.)

Total Well Depth (ft.) 13.0

Depth to Static Water Level (ft.) 5.40

Geology at Screen Interval (if known)

Time of Water Level Measurement 1157

Calculate Purge Volume (gal.) 1.24

Disposal Method DRUM

Wellhead PID/FID NA

Original Well Development ☐ Redevelopment ☒ Date of Original Development

DEVELOPMENT METHOD PERISTALTIC **PURGE METHOD**

Field Testing Equipment Used:

Make	Model	Serial Number
INSITU	TROLL 600	808858

Field Testing Calibration Documentation Found in Field Notebook # Page #

Time	Volume Removed (gal)	T° (C/F)	pH	Spec. Cond (umhos)	Turbidity (NTUs)	DO	Color	Odor	ORP Other
1158	INITIAL	22.29	6.18	268.15	72.88	1.90	CLOUDY	NO	5.8
1208	2.64	22.82	6.18	282.07	59.50	0.78	"	"	-65.7
1218	5.28	22.41	6.17	282.12	38.63	0.17	"	"	-122.1
1228	7.92	22.52	6.19	289.89	26.78	0.15	"	"	-154.6

ACCEPTANCE CRITERIA (from workplan)

Min. Purge Volume (5 well volumes) 6.19 gallons

Maximum Turbidity Allowed 50 NTUs

Stabilization of parameters 10 %

	Yes	No	N/A
Has required volume been removed	☐	☐	☐
Has required turbidity been reached	☐	☐	☐
Have parameters stabilized	☐	☐	☐

If no or N/A explain below:

Signature Date: 12-15-21

dhec
Healthy People. Healthy Communities



HILTON HEAD PUBLIC SERVICE DISTRICT
PO BOX 21264
BEAUFORT SC 29925-1264

MAR 25 2022

Re: **Site-Specific Work Plan Request for Additional Assessment**
Hilton Head Public Service District, 21 Oak Park Dr., Beaufort, SC
UST Permit #11399
Release #2 reported July 27, 2017
Tier II Report Received January 31, 2022
Beaufort County

To Whom It May Concern:

The Underground Storage Tank Management (UST Division) of the South Carolina Department of Health and Environmental Control (DHEC) has reviewed the referenced report submitted by your contractor. The report documents petroleum chemicals in the soil and groundwater above Risk-Based Screening Levels.

To determine what risk the referenced release may pose to human health and the environment, in accordance with Section 280.65 of the South Carolina Underground Storage Tank Control Regulations R.61-92, implementation of additional assessment is necessary. The assessment must be conducted in accordance with the most recent revision of the UST Quality Assurance Program Plan (QAPP), your contractor's Annual Contractor Quality Assurance Plan, and in compliance with all applicable regulations. A copy of the UST QAPP is available at scdhec.gov/Environment/Land-Waste/Underground-Storage-Tanks/Release-Assessment-Clean/Quality-Assurance.

Please install 2 recovery wells flanking MW-1 and 3 monitoring wells at the locations of SB-01, SB-04, and SB-08 for assistance in fully delineating the source area for future product recovery events. Groundwater samples should be collected from all monitoring wells associated with this release along with all water supply wells and surface waters within a 1,000-foot radius of the site or 500 feet from the leading edge of the plume.

Your contractor must complete the SSWP and submit it within 30 days from the date of this letter. Every component may not be necessary to complete the above scope of work. The State Underground Petroleum Environmental Response Bank Account (SUPERB) allowable cost for each component is included on the Assessment Component Cost Agreement Form. **Please note that approval from DHEC must be issued before work begins.**

According to UST Division records, the release at the facility was reported to DHEC on the above referenced date. In accordance with Section 44-2-40(D) of the State Underground Petroleum Environmental Response Bank (SUPERB) Act, you are responsible for the first $25,000 of site rehabilitation costs. To ensure that costs for the assessment apply to the $25,000 deductible, costs must be preapproved, and a cost agreement provided once the QAPPA or SSWP is approved.

On all correspondence concerning this site, please reference the UST Permit number above. Should you have any questions, please contact me by phone at (803) 898-0628, by fax at (803)-898-0673, or by email at gonzalhr@dhec.sc.gov.

Sincerely,

Hugo Gonzalez, Hydrogeologist
Assessment & Non-Permitted Petroleum Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

cc: AECOM, 4016 Salt Pointe Pkwy., North Charleston, SC 29405-8419
Technical file

Hugo

Please print or type
Form Designed for use on elite (12 pitch) typewriter

D327879

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of 1	3. Emergency Response Phone 803-254-4400	4. Waste Tracking Number 01312022

GENERATOR

5. Generator's Name and Mailing Address

Hilton Head Public Service District
21 Oak Park Drive
Hilton Head, SC 29926

Generator's Site Address (if different than mailing address): Jeremy Grant

Generator's Phone:

UST 17 DOCKETING

6. Transporter 1 Company Name: EnviroSmart — U.S. EPA ID Number:

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address

Lee County Solid Waste Facility
3240 Highway 15 South
Bishopville, SC 29010

U.S. EPA ID Number:

Facility's Phone: 803-428-4463

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	NON-HAZARDOUS , NON-REGULATED MATERIAL GROUND WATER 12208	6	DM	330	G	
2.	NON-HAZARDOUS, NON-REGULATED MATERIAL SOIL 12209	3	DM	1500	P	
3.						
4.						

13. Special Handling Instructions and Additional Information

1
2
3
4

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name | Signature | Month | Day | Year

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Jay Gibson | Signature: Jay Gibson | Month: 1 | Day: 31 | Year: 22

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) | Month | Day | Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Robin Hamm | Signature: Robin Grant | Month: 1 | Day: 31 | Year: 22

LEE COUNTY SOLID WASTE FACILITY - 3240 HIGHWAY 15 NORTH - BISHOPVILLE, SC 29010 - (803) 428-4463

CERTIFICATE OF COMPLIANCE AND DISPOSAL

GENERATOR:
HILTON HEAD PUBLIC SERVICE DISTRICT
21 OAK PARK DRIVE
HILTON HEAD ISLAND, SC 29926

BILL-TO/BROKER:
ENVIROSMART INC
PO BOX 20666
CHARLESTON, SC 29413

MANIFEST/SHIPPING DOCUMENT #: 01312022
DATE SHIPPED: 01/31/2022
DATE RECEIVED: 01/31/2022

RECEIVING FACILITY: **LEE COUNTY SOLID WASTE FACILITY**
FACILITY PERMIT #: ***312640-200***
FACILITY ADDRESS: **3240 HIGHWAY 15 NORTH**
BISHOPVILLE, SC 29010

FACILITY MAILING ADDRESS: **960 EGYPT ROAD**
CAMDEN, SC 29020

THIS CERTIFIES THAT THE NON-HAZARDOUS RCRA WASTE RECEIVED ON THE ABOVE LISTED SHIPPING DOCUMENT WAS PROPERLY SAMPLED, TREATED, AND DISPOSED OF IN ACCORDANCE WITH OUR FACILITY PERMIT, AND THE APPROVED FACILITY PROFILE FORM(S).

IF YOU HAVE ANY QUESTIONS, PLEASE CONTACT MATTHEW CHAPMAN AT 803-229-2528 (mchapman@iws-lcswf.com), OR CAROL MORSE AT 803-883-6473 (cmorse@iws-lcswf.com).

LCSWF INTERNAL DOC# D327879

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: July 27, 2017	Permit Number: 11399

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

Name of Contractor: F&ME Consultants, Inc.		
Address: 1825 Blanding Street		
City: Columbia	State: SC	Zip: 29201
Telephone Number: 803-254-4540	Certification Number: UCC-0140	

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: WCD

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: WCD

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: WCD

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: William C. Davis	Date Signed: 5/31/22
Printed Name: William C. Davis	Telephone Number: (843) 681-5525
Affiliation (if applicable): Hilton Head A.S.D.	Email Address: bdavis@hhpsd.com

RECEIVED
JUN 22 2022
UST DIVISION

HUGO

UST 19 DOCKETING

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: July 27, 2017	Permit Number: 11399

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

Name of Contractor: F&ME Consultants, Inc.

Address: 1825 Blanding Street

City: Columbia	State: SC	Zip: 29201
Telephone Number: 803-254-4540	Certification Number: UCC-0140	

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: WCD

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: WCD

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: WCD

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: William C. Davis	Date Signed: 5/31/22
Printed Name: William C. Davis	Telephone Number: (843) 681-5525
Affiliation (if applicable): Hilton Head A.S.D.	Email Address: bdavis@hhpsd.com

F&ME CONSULTANTS

LETTER OF TRANSMITTAL

TO:	Mr. Hugo Gonzalez, Hydrogeologist SCDHEC – UST Mgmt Section 2600 Bull St. Columbia, SC 29201

DATE:	June 20, 2022	**FME NO.:**	E6687.000
ATTN:	Mr. Hugo Gonzalez		
RE:	HHI PSD Site – SSWP UST ID # 11399		

UST 20 Week DOCKETED

WE ARE SENDING YOU THE FOLLOWING: **VIA:** US Mail

☐ AGREEMENT ☐ INVOICE ☐ PHOTOS ☐ PLANS ☐ PROPOSAL ☐ RECORDS ☐ REPORTS ☐ SAMPLES
☐ SPECIFICATIONS ☐ SUBMITTAL ☒ OTHER SSWP

COPIES	DATE	DESCRIPTION
1	6/20/22	SSWP

RECEIVED
JUN 23 2022
UST DIVISION

THESE ARE TRANSMITTED AS CHECKED BELOW:

☒ AS REQUESTED ☐ CORRECTED COPY ☐ FOR YOUR USE ☐ RESUBMITTED
☐ OTHER

COMMENTS:

If you need any additional information, please just ask. A contractor change form was previously submitted to our attention.

SIGNED: Christine A. Cafagna

Christine A. Cafagna, ccafagna@fmeconsultants.com

RECEIVED BY: _____ DATE: _____

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

To: Hugo Gonzalez, Hydrogeologist (SCDHEC Project Manager)
From: Christine A. Cafagna (Contractor Project Manager)
Contractor: F&ME Consultants UST Contractor Certification Number: UCC-0140

Facility Name: Hilton Head Public Service District UST Permit #: 11399
Facility Address: 21 Oak Park Dr., Beaufort, SC 29926
Responsible Party: William C. Davis, Operations Manager Phone: 843-681-5525
RP Address: PO Box 21264, Beaufort, SC 29925
Property Owner (if different): _____
Property Owner Address: _____
Current Use of Property: Water Treatment Facility

Scope of Work (Please check all that apply)

- ☐ IGWA
- ☐ Tier I
- ☐ Tier II
- ☑ Monitoring Well Installation
- ☑ Groundwater Sampling
- ☐ Other _____
- ☐ GAC

Analyses (Please check all that apply)

Groundwater/Surface Water:

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

Drinking Water Supply Wells:

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

Soil:

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

Air:

- ☐ BTEXN

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

_____ Soil	_____ Water Supply Wells	_____ Air	1 Field Blank
16 Monitoring Wells	_____ Surface Water	1 Duplicate	1 Trip Blank

Field Screening Methodology

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

# of shallow points proposed: _____ Estimated Footage: _____ feet per point
# of deep points proposed: _____ Estimated Footage: _____ feet per point
Field Screening Methodology: _____

Permanent Monitoring Wells

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

# of shallow wells: 3 Estimated Footage: 15 feet per point
# of deep wells: _____ Estimated Footage: _____ feet per point
# of recovery wells: 2 Estimated Footage: 12 feet per point
Comments, if warranted:

_____

_____

UST Permit #: 11399 Facility Name: Hilton Head Public Service District

Implementation Schedule (Number of calendar days from approval)

Field Work Start-Up: 30 days depending on drillers availability Field Work Completion: 60 days

Report Submittal: _____ # of Copies Provided to Property Owners: 2

Aquifer Characterization

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

_____

_____

_____

Investigation Derived Waste Disposal

Soil: 2 Tons Purge Water: 350 Gallons

Drilling Fluids: _____ Gallons Free-Phase Product: _____ Gallons

Additional Details For This Scope of Work

For example, list wells to be sampled, wells to be abandoned/repaired, well pads/bolts/caps to replace, details of AFVR event, etc.

Install three (3) shallow wells and two (2) recovery wells in the locations requested by SCDHEC and as shown on the attached site map. The wells will be properly developed after installations following DHEC requirements. A groundwater sampling event will be carried out on the five (5) newly installed wells along with the existing ten (10) shallow wells (MW-1 to MW-10) plus one (1) deep well (DCW-01). The consultant overseeing the well installations is different from the well drilling company, so an additional personnel mob. fee has been included. An additional personnel mob. has been included for the survey of the newly installed wells. A mob. fee has been included for the soil and water waste disposal. A personnel mob. fee has been included for a site recon of the site for planning purposes if deemed necessary. A personnel mob. has been included for sampling the wells. An equipment blank has been included for the submersible pump used to purge and sample the deep well. Two equipment mobs. have been included in case the drilling company has to mob. a geoprobe to site for borings/field screenings and then mob. drill rig to site for well installations.

Compliance With Annual Contractor Quality Assurance Plan (ACQAP)

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

Name of Laboratory: _____

SCDHEC Certification Number: _____

Name of Laboratory Director: _____

Yes Well Driller as indicated in ACQAP? (Yes/No) If no, indicate driller information below.

Name of Well Driller: _____

SCLLR Certification Number: _____

____ 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

dhec
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ASSESSMENT COMPONENT INVOICE
SOUTH CAROLINA
Department of Health and Environmental Control
Underground Storage Tank Management Division
State Underground Petroleum Environmental Response Bank Account
January 1, 2020

Facility Name: Hilton Head Public Service District

UST Permit #: 11399 **Cost Agreement #:** N/A

ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
A. **Plan Preparation**				
1. Site-specific Work Plan	1	each	$160.05	$160.05
2. Tax Map		each	$74.69	$0.00
3. Tier II or Comp. Plan /QAPP Appendix B		each	$250.00	$0.00
B. **Receptor Survey ***		each	$587.92	$0.00
C. **Survey (500 ft x 500 ft)**				
1. Comprehensive Survey		each	$1,109.68	$0.00
Subsurface Geophysical Survey				
2. < 10 meters below grade		each	$1,387.10	$0.00
3. > 10 meters below grade		each	$2,464.77	$0.00
4. Geophysical UST or Drum Survey		each	$970.97	$0.00
D. **Mob/Demob**				
1. Equipment	2	each	$1,088.34	$2,176.68
2. Personnel	5	each	$451.34	$2,256.70
3. Adverse Terrain Vehicle		each	$533.50	$0.00
E.. **Soil Borings (hand auger)***		foot	$5.34	$0.00
F. **Soil Borings (requiring equipment, push technology, etc) or Field Screening (including water sample, soil sample, soil gas sample, etc.)***				
1. Standard		per foot	$16.01	$0.00
2. Fractured Rock		per foot	$21.55	$0.00
G. **Soil Leachability Model**		each	$64.02	$0.00
H. **Abandonment (per foot)***				
1. 2" diameter or less		per foot	$3.31	$0.00
2. Greater than 2" to 6" diameter		per foot	$4.80	$0.00
3. Dug/Bored well (up to 6 feet diameter)		per foot	$16.00	$0.00
I. **Well Installation (per foot)***				
1. Water Table (hand augered)		per foot	$11.31	$0.00
2. Water Table (drill rig) 2" Diameter	45	per foot	$40.55	$1,824.75
3. Telescoping		per foot	$53.35	$0.00
4. Rock Drilling		per foot	$61.89	$0.00
5. 2" Rock Coring		per foot	$32.97	$0.00
6. Rock Multi-sampling ports/screens		per foot	$35.64	$0.00
7. Recovery Well (4" diameter)	24	per foot	$48.02	$1,152.48
8. Pushed Pre-packed screen (1.25" dia)		per foot	$16.01	$0.00
9. Rotosonic (2" diameter)		per foot	$46.95	$0.00
10. Re-develop Existing Well		per foot	$11.74	$0.00
J. **Groundwater Sample Collection / Gauge Depth to Water or Product ***				
1. Groundwater Purge		per well	$64.02	$0.00
2. Air or Vapors		sample	$12.80	$0.00
3. Water Supply Sample or Duplicate		sample	$23.47	$0.00
4. Groundwater No Purge or Duplicate or Grab	11	sample	$29.88	$328.68
5. Gauge Well only		sample	$7.47	$0.00
6. Sample Below Product		sample	$12.80	$0.00
7. Passive Diffusion Bag		sample	$27.74	$0.00
8. Field Blank	1	sample	$26.25	$26.25
9. Groundwater (low flow purge)	6	sample	$97.10	$582.60
10. Equipment Blank	1	sample	$26.25	$26.25

K. Laboratory Analyses-Groundwater					
1. BTEXNM+Oxyg's+1,2 DCA+Eth(8260)	20	per sample	$130.17		$2,603.40
2. Lead, Filtered		per sample	$14.72		$0.00
3. Rush EPA Method 8260		per sample	$163.89		$0.00
4. Trimethal, Butyl, and Isopropyl Benzenes		per sample	$29.88		$0.00
5. PAH's		per sample	$64.66		$0.00
6. Lead		per sample	$17.07		$0.00
7. EDB by EPA 8011		per sample	$48.23		$0.00
8. EDB by EPA Method 8011 Rush		per sample	$72.77		$0.00
9. 8 RCRA Metals		per sample	$67.65		$0.00
10. TPH (9070)		per sample	$43.75		$0.00
11. PH		per sample	$5.55		$0.00
12. BOD		per sample	$21.34		$0.00
13. Ethanol		per sample	$15.79		$0.00
K. Analyses-Drinking Water					
14. BTEXNM+1,2 DCA (524.2)		per sample	$132.36		$0.00
15. 7-OXYGENATES & ETHANOL (8260)		per sample	$97.90		$0.00
16. EDB (504.1)		per sample	$84.83		$0.00
17. RCRA METALS (200.8)		per sample	$106.70		$0.00
K. **Analyses-Soil**					
18. BTEX + Naphth.		per sample	$68.29		$0.00
19. PAH's		per sample	$68.33		$0.00
20. 8 RCRA Metals		per sample	$60.18		$0.00
21. TPH-DRO (3550C/8015C)		per sample	$42.68		$0.00
22. TPH- GRO (5035B/8015C)		per sample	$38.37		$0.00
23. Grain size/hydrometer		per sample	$110.97		$0.00
24. Total Organic Carbon		per sample	$32.65		$0.00
K. **Analyses-Air**					
25. BTEX + Naphthalene		per sample	$230.47		$0.00
K. **Analyses-Free Phase Product**					
26. Hydrocarbon Fuel Identification		per sample	$380.92		$0.00
L. **Aquifer Characterization***					
1. Pumping Test		per hour	$24.54		$0.00
2. Slug Test		per test	$203.80		$0.00
3. Fractured Rock		per test	$106.70		$0.00
M. **Free Product Recovery Rate Test***		each	$40.55		$0.00
N. **Fate/Transport Modeling**					
1. Mathematical Model		each	$106.70		$0.00
2. Computer Model		each	$106.70		$0.00
O. **Risk Evaluation**					
1. Tier I Risk Evaluation		each	$320.10		$0.00
2. Tier II Risk Evaluation		each	$106.70		$0.00
P. **Subsequent Survey***	1	each	$260.00		$260.00
Q. **Disposal (gallons or tons)***					
1. Wastewater	350	gallon	$0.60		$210.00
2. Free Product		gallon	$0.53		$0.00
3. Soil Treatment/Disposal	2	ton	$64.02		$128.04
4. Drilling fluids		gallon	$0.45		$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)**					$0.00
1. Southeast Region		standard	$11,026.00		$0.00
2. All Other Counties		standard	$12,093.00		$0.00
U. IGWA (Use DHEC 3666 form)					
1. Southeast Region		standard	$3,803.00		$0.00
2. All Other Counties		standard	$4,123.00		$0.00
22. **Corrective Action (Use DHEC 3667 form)**		PFP Bid			$0.00

W. **Aggressive Fluid & Vapor Recovery (AFVR)**					
1. 8-hour Event*		per event	$1,467.13		$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. Off-gas Treatment 24 hour		per event	$257.68		$0.00
7. Off-gas Treatment 48 hour		per event	$348.91		$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. AFVR Effluent Disposal(w/chlorinated compounds)		gallon	$0.50		$0.00
14. AFVR Site Reconnaissance		each	$216.87		$0.00
15. Additional Hook-ups		each	$27.48		$0.00
16. AFVR Effluent Disposal		gallon	$0.47		$0.00
17. AFVR Mobilization/Demobilization		each	$417.73		$0.00
X. **Granulated Activated Carbon (GAC) filter system installation & service:**					
1. New GAC System Installation*		each	$2,027.30		$0.00
2. Refurbished GAC Sys. Install*		each	$960.30		$0.00
3. Filter replacement/removal*		each	$373.45		$0.00
4. GAC System removal, cleaning, & refurbishment*		each	$293.43		$0.00
5. GAC System housing*		each	$266.75		$0.00
6. In-line particulate filter		each	$160.05		$0.00
7. Additional piping & fittings		foot	$1.60		$0.00
Y. **Well Repair**					
1. Additional Copies of the Report Delivered		each	$53.35		$0.00
2. Repair 2x2 MW pad*		each	$53.35		$0.00
3. Repair 4x4 MW pad*		each	$93.90		$0.00
4. Replace well vault*		each	$125.91		$0.00
5. Replace well cover bolts		each	$2.77		$0.00
6. Replace locking well cap & lock		each	$16.00		$0.00
7. Replace/Repair stick-up*		each	$142.98		$0.00
8. Convert Flush-mount to Stick-up*		each	$160.05		$0.00
9. Convert Stick-up to Flush-mount*		each	$138.71		$0.00
10. Replace missing/illegible well ID plate		each	$12.80		$0.00
S. Report Prep & Project Management	12%	percent	$11,735.88		$1,408.31
TOTAL					$13,144.19

DHEC D-4073 (1-2020) *The appropriate mobilization cost can be added to complete these tasks, as necessary



Document Path: C:\Users\shawn.mcguire\Desktop\SCDHEC UST Tier II\SCDHEC Figure1 Location Map.mxd

DRAWN BY: CTC APPROVED BY: CAC NOTES:	ORIGINAL: May 10, 2022 REVISIONS: 1 2 3 SCALE: As Noted	F&ME CONSULTANTS 1825 BLANDING STREET COLUMBIA, SC 29201	HHI PSD - UST ID 11399 21 Oak Park Drive Hilton Head Island, Beaufort County, South Carolina Appendix A - Site Vicinity/Topo Map	F&ME CONSULTANTS PROJECT NUMBER: E6687.000	FIGURE NUMBER: 1



DRAWN BY: CTC	ORIGINAL: May 10, 2022	F&ME CONSULTANTS, INC. 1825 BLANDING STREET COLUMBIA, SC 29201	HHI PSD - UST ID 11399 21 Oak Park Drive Hilton Head Island, Beaufort County, South Carolina Appendix B - Well Location Plan
APPROVED BY: CAC	REVISIONS: 1 2 3		F&ME CONSULTANTS PROJECT NUMBER: E6687.000
NOTES:	SCALE: 1"=20'		FIGURE NUMBER: 2

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Healthy People. Healthy Communities.

JUL 22 2022

UST 21T DOCKETING

HILTON HEAD PUBLIC SERVICE DISTRICT
PO BOX 21264
BEAUFORT SC 29925-1264

Re: **Additional Assessment Notice to Proceed**
Hilton Head Public Service District, 21 Oak Park Dr., Beaufort, SC
UST Permit #11399; CA #65759; UMW-29021
Release #2 reported July 27, 2017
Site Specific Work Plan received June 23, 2022
Beaufort County

To Whom It May Concern:

The Underground Storage Tank Management Division (UST 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. All 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. The QAPP is available at scdhec.gov/Environment/LW/UST/ReleaseAssessmentClean-up/QualityAssurance/

The assessment should begin immediately upon receipt of this letter. A monitoring well approval has been enclosed for the monitoring well installation. The above referenced cost agreement number has been approved for tracking purposes.

The contractor is responsible for ensuring that the subsurface is free of any obstructions (e.g., utilities, supply lines, etc.) prior to the installation of any boring or well.

The Contractor must provide the UST Project Manager with a Project Status Report on a weekly basis via e-mail or notify the UST Project Manager via email 4 days prior to initiation of any site rehabilitation activities. If there are any changes or conflicts with the date(s) of site activities, the UST Project Manager must be contacted within 24 hours of those changes.

The Assessment Report and contractor checklist (QAPP Appendix K) should be submitted to the UST Division within ninety (90) days of the date of this correspondence. The report submitted at the completion of these activities should include the required information outlined in the QAPP.

In accordance with Section IV.A.4.c of the SUPERB Site Rehabilitation & Fund Access Regulation (R.61-98), the contractor shall be required to indemnify the property owner, underground storage tank owner/operator and the State of South Carolina from and against all claims, damages, losses, and expenses arising out of or resulting from activity conducted by the contractor, its agents, employees, or subcontractors.

According to UST Division records, the release at the facility was reported to DHEC on the above referenced date. In accordance with Section 44-2-40(D) of the State Underground Petroleum Environmental Response Bank (SUPERB) Act, you are responsible for the first $25,000 of site rehabilitation costs. To ensure that costs for the assessment apply to the $25,000 deductible, please provide proof of costs that will be applied to the deductible with the invoice. Acceptable proof or payment of deductible costs include a copy of the cancelled check (front and back) of payment made to your contractor or a signed notarized statement by your contractor for the amount that was paid directly to your contractor. Your contractor can submit an invoice for direct payment from the State Underground Petroleum Environmental Response Bank (SUPERB) Account for preapproved costs that exceed the $25,000 deductible. By law, the SUPERB Account cannot compensate any costs that are not pre-approved. If the invoice is not submitted within 120 days from the date of this letter, monies allocated to pay this invoice exceeding the deductible 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. An interim well drilling invoice may not be submitted for this scope of work as the deductible has not been met.

Please note that in accordance with R.61-92, Subpart H, Section 280.114, you are required to notify the UST Division by certified mail within ten (10) days of commencing a voluntary or involuntary proceeding in bankruptcy.

Please note that applicable South Carolina certification requirements regarding laboratory services, well installation, and report preparation must be satisfied. Any site rehabilitation activity associated with the UST release must be performed by a DHEC-certified site rehabilitation contractor as required by R.61-98.

The UST Division grants pre-approval for transportation of virgin petroleum impacted soil and groundwater from the referenced site to a permitted treatment facility. There can be no spillage or leakage in transport. All investigation-derived waste (IDW) must be properly contained and labeled prior to disposal. IDW should not be stored on-site longer than ninety (90) days. A copy of the disposal manifest and/or acceptance letter from the receiving facility that clearly designates the quantity received must be included as an appendix to the report. If the Chemical of Concern (CoC) concentrations based on laboratory analysis is below Risk-Based Screening Levels (RBSLs), please contact the project manager for approval to dispose of soil and/or groundwater on-site. Transportation or treatment of soil and/or groundwater with concentrations below RBSLs will not be reimbursed by the SUPERB Account or applied towards the deductible.

On all correspondence regarding this site, please reference the UST Permit number above. Should you have any questions, please contact me by phone at (803) 898-0628, by fax at (803) 898-0673, or by email at gonzalhr@dhec.sc.gov.

Sincerely,

Hugo Gonzalez, Hydrogeologist
Assessment & Non-Permitted Petroleum Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

enc: Monitoring Well Approval Form
Approved Cost Agreement

cc: F&ME Consultants Inc., 1825 Blanding St., Columbia, SC 29201 (w/ enc)
Technical file (w/ enc)

Approved Cost Agreement 65759

Facility: 11399 HILTON HEAD PUBLIC SERVICE DISTRICT
GONZALHR
PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
A	PLAN PREPARATION					
		1	SITE SPECIFIC WORK PLAN	1.0000	$160.050	160.05
D	MOB/DEMOB					
		1	EQUIPMENT	2.0000	$1,088.340	2,176.68
		2	PERSONNEL	5.0000	$451.340	2,256.70
I	WELL INSTALLATION					
		2	WATER TABLE DRILL RIG 2" DIA	45.0000	$40.550	1,824.75
		7	RECOVERY WELL (4" DIAMETER)	24.0000	$48.020	1,152.48
J	SAMPLE COLLECTION					
		10	EQUIPMENT BLANK	1.0000	$26.250	26.25
		4	GROUNDWATER NO-PURGE/DUPL/GRAB	11.0000	$29.880	328.68
		8	FIELD BLANK	1.0000	$26.250	26.25
		9	GROUNDWATER (LOW FLOW PURGE)	6.0000	$97.100	582.60
K	ANALYSES					
	GW GROUNDWATER	1	BTEXNM+OXYGS+1,2-DCA+ETH-8260B	20.0000	$130.170	2,603.40
P	SUBSEQUENT SURVEY					
		1	SUBSEQUENT SURVEY	1.0000	$260.000	260.00
Q	DISPOSAL					
		1	WASTEWATER	350.0000	$0.600	210.00
		3	SOIL TREATMENT DISPOSAL	2.0000	$64.020	128.04
S	REPORT PROJECT MANAGEMENT					
		S	REPORT PREP & PROJ. MANAGEMENT	0.1200	$11,735.880	1,408.31
				Total Amount		13,144.19

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Monitoring Well Approval Form

Approval is hereby granted to:	F&ME Consultants Inc.
(on behalf of):	Hilton Head Public District
Facility:	Hilton Public Service District, 21 Oak Park Dr., Beaufort, SC
UST Permit Number:	11399
County:	Beaufort

This approval is for the installation of 3 shallow monitoring wells and 2 recovery wells. The monitoring wells are to be installed in the approved locations following the South Carolina Well Standards, R.61-71, and the applicable guidance documents.

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

1. All wells shall be drilled, constructed, and abandoned by a South Carolina certified well driller per R.61-71.D.1.
2. All monitoring wells shall be labeled as required by R.61-71.H.2.c.
3. A Water Well Record Form or other form provided or approved by DHEC shall be completed and submitted to DHEC within 30 days after well completion or abandonment unless another schedule has been approved by DHEC. The form should contain the "as-built" construction details and all other information required by R.61-71.H.1.f
4. All analytical data and water levels obtained from each monitoring well shall be submitted to DHEC within 30 days of receipt of laboratory results unless another schedule has been approved by DHEC as required by R.61-71.H.1.d.
5. If any of the information provided to DHEC changes, notification to Hugo Gonzalez (tel: (803) 898-0628 or e-mail: gonzalhr@dhec.sc.gov) shall be provided a minimum of twenty-four (24) hours prior to well construction as required by R.61-71.H.1.a.
6. All temporary monitoring wells shall be abandoned within 5 days of borehole completion using appropriate methods as required by R.61-71.H.4.c. All other wells shall be properly developed per R.61-71.H.2.d.
7. DHEC approval is required prior to abandonment of all monitoring wells as required by R.61-71.H.1.a.

This approval is pursuant to the provisions of Section 44-55-40 of the 1976 South Carolina Code of Laws and R.61-71 of the South Carolina well standards and regulations, dated May 27, 2016. A copy of this approval should be on the site during well installation.

Date of Issuance: July 7, 2022 **Approval #: UMW-29021**

Hugo Gonzalez, Hydrogeologist
Assessment & Non-Permitted Petroleum Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

RECEIVED
NOV 14 2022
SC Department of
Health & Environmental Control

F&ME CONSULTANTS

LETTER OF TRANSMITTAL

TO:	Mr. Hugo Gonzalez, Hydrogeologist SCDHEC – UST Mgmt Section 2600 Bull St. Columbia, SC 29201

RECEIVED
NOV 14 2022
UST DIVISION

DATE:	11/14/22	**FME NO.:**	E6687.000
ATTN:	Mr. Hugo Gonzalez		
RE:	HHI PSD Site – Additional Assessment Report UST ID # 11399		

WE ARE SENDING YOU THE FOLLOWING: **VIA:** Hand Delivery

☐ AGREEMENT ☐ INVOICE ☐ PHOTOS ☐ PLANS ☐ PROPOSAL ☐ RECORDS ☐ REPORTS ☐ SAMPLES
☐ SPECIFICATIONS ☐ SUBMITTAL ☒ OTHER _____

COPIES	DATE	DESCRIPTION
1	11/11/22	Additional Assessment Report, UST ID 11399

UST
23
DOCKETING

THESE ARE TRANSMITTED AS CHECKED BELOW:

☒ AS REQUESTED ☐ CORRECTED COPY ☐ FOR YOUR USE ☐ RESUBMITTED
☐ OTHER _____

COMMENTS:

Hugo,
If you need any additional information, please just ask. An electronic copy of this report was emailed to your attention on Friday.

SIGNED: Christine A. Cafagna

Christine A. Cafagna, ccafagna@fmeconsultants.com

ADDITIONAL ASSESSMENT REPORT

HILTON HEAD ISLAND PUBLIC SERVICE DISTRICT
21 OAK PARK DRIVE
HILTON HEAD ISLAND, BEAUFORT COUNTY, SC
SCDHEC UST PERMIT #11399

PREPARED FOR:

Hilton Head Island Public Service District (HHI PSD)
21 Oak Park Drive
Hilton Head Island, SC 29926

PREPARED BY:

F&ME Consultants
1825 Blanding Street
Columbia, South Carolina 29205



November 11, 2022

F&ME Project No.: E6687.000

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APPENDIX

Appendix A – Figures
Appendix B – Well Logs
Appendix C – Water Well Records SCDHEC 1903
Appendix D – Well Development Data SCDHEC 2099
Appendix E – Laboratory Analytical Report
Appendix F – Field Sampling Data Sheets for Groundwater Sampling
Appendix G – Waste Manifests
Appendix H – Contractor Checklist
Appendix I – SCDHEC Well Installation and Groundwater Sampling Notice to Proceed Letter

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1 Summary of Groundwater Elevations
2 Summary of Groundwater COC Analytical Results
3 Summary of Groundwater Oxygenate Analytical Results

1. TRANSMITTAL LETTER

November 11, 2022

Mr. Bill Davis, Operations Manager
Hilton Head Island Public Service District (HHI PSD)
21 Oak Park Drive
Hilton Head Island, South Carolina 29926

Re: Additional Assessment
SCDHEC UST Permit Number 11399
HHI PSD Release #2 (July 27, 2017)
21 Oak Park Drive
Hilton Head Island, Beaufort County, South Carolina
FME Project No.: E6687.000

Dear Mr. Davis:

Submitted herein is the Additional Assessment report for work conducted at the above referenced site. The Additional Assessment was initiated upon receipt of the South Carolina Department of Health and Environment Control's (SCDHEC) Additional Assessment Notice to Proceed (NTP) letter dated July 22, 2022, outlining the scope of work requested. This report is submitted by F&ME Consultants, Inc. (FME) for your review on behalf of the site owner, Hilton Head Island Public Service District (HHI PSD). This work is being done under SCDHEC Cost Agreement (CA) #65759.

If you have any questions, or if we can provide additional information, please do not hesitate to contact us at (803) 254-4540.

Sincerely,

F&ME CONSULTANTS, INC.

Christine A. Cafagna
Senior Environmental Department Manager

James R. Wessinger, P.G
Project Geologist

Enclosures

2. INTRODUCTION

Site:

HHI PSD Release #2
21 Oak Park Drive
Hilton Head Island, South Carolina 29926
SCDHEC UST Permit #11399
(803) 254-4540
Release Reported: Release #2 (July 27, 2017)

Responsible Party:

Hilton Head Island Public Service District
c/o Mr. Bill Davis
PO Box 21264
Beaufort, South Carolina 29925-1264
(843) 305-0639

This assessment was conducted by:

F&ME Consultants, Inc.
1825 Blanding Street
Columbia, South Carolina 29201
(803) 254-4540
UCC-0140, Class I

F&ME Consultants, Inc. (FME) is submitting the following Additional Assessment Report for the HHI PSD Release #2 site. The HHI PSD Release #2 site (SCDHEC UST Permit #11399) (Site) is located at 21 Oak Park Drive, Hilton Head Island, Beaufort County, South Carolina. The Site currently operates as the Hilton Head Island Public Service District (HHI PSD).

Acting on behalf of Hilton Head Island Public Service District, F&ME Consultants (FME) has completed well installation and groundwater sampling services at the Site. Refer to *Appendix A*, *Figure 1 - Site Vicinity Map*, for the location of the facility and *Figure 2 - Site Topographic Map*, which depicts the relative topography on the site and within the immediate area around the facility. Refer to *Appendix I*, which contains the SCDHEC groundwater sampling and monitoring well install notice to proceed (NTP) letter, for more details regarding SCDHEC's request.

As outlined in the SCDHEC Site Specific Work Plan (SSWP) request letter dated March 25, 2022 and the SCDHEC's groundwater sampling and monitoring well installation NTP letter dated July 22, 2022, the scope of work was to install three (3) monitoring wells adjacent to existing soil boring locations SB-01, SB-04, and SB-08, and install two (2) recovery wells flanking MW-1. Additionally, the scope included carrying out a comprehensive groundwater sampling event on the newly

installed monitoring and recovery wells along with the existing eleven (11) monitoring wells. The locations of monitoring wells sampled during this assessment are provided in *Appendix A, Figure 3 - Well Location Plan*.

3. WELL INSTALLATION

On August 23, 2022, FME personnel and FME's drilling subcontractor, ARM Environmental Services, Inc. (ARM) mobilized to the site to begin the installation of three (3) monitoring wells (i.e., MW-11, MW-12, and MW-13) and two (2) recovery wells (i.e., RW-01 and RW-02). The monitoring wells were installed adjacent to existing soil boring locations SB-01, SB-04, and SB-08 and two (2) recovery wells were installed flanking MW-1.

Each well log contains the general soil descriptions recorded from soils collected from the installation of each well. An Organic Vapor Meter/Photoionization Detector (OVM/PID) was used to screen soils during well installation and the readings were recorded for each soil interval and recorded within each well log. A copy of each well log is included in *Appendix B* of this report.

Each monitoring well was installed to a depth of thirteen (13) feet below ground surface (bgs) with a ten (10) foot well screen in order to bracket the water table. Each recovery well was installed to a depth of twelve (12) feet below ground surface (bgs) with a ten (10) foot well screen. A copy of each SCDHEC Form 1903 - Water Well Record for the newly installed wells is included in *Appendix C*. Following each well installation, ARM carried out the well development of each well using a submersible pump and peristaltic pump with new dedicated tubing. A copy of the SCDHEC 2099 – Well Development Form is also located in *Appendix D*.

Soil cuttings generated during the installation of the well were collected in 55-gallons drums and temporarily staged onsite. Groundwater collected from well development and purge water from sampling was also containerized in 55-gallon drums and temporarily staged onsite. A total of four (4) 55-gallons drums of soil cuttings from the well installation and three (3) 55-gallon drums (i.e., 160 gallons) of groundwater from the well development and purge water from sampling were hauled off the site for proper disposal. A copy of the Waste Manifests from the disposal of collected soils and development water are included in *Appendix G* of this report. On September 13, 2022, Andrews Engineering surveyed the newly installed wells. A copy of the updated Well Location Plan is located in *Appendix A*, *Figure 3*.

4. GROUNDWATER SAMPLING EVENT

On August 25, 2022, F&ME personnel returned to the site to conduct the comprehensive groundwater sampling event of the newly installed monitoring and recovery wells along with the existing eleven (11) monitoring wells within the well network, ten (10) shallow monitoring wells

(i.e., MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, and MW-10) and one (1) deep monitoring well (i.e., DCW-1). Each well sampled during this event was sampled in a manner consistent with the US Environmental Protection Agency (USEPA) and the SCDHEC's Quality Assurance Project Plan (QAPP) (Rev. No. 4.0) protocols. Refer to *Appendix H*, Contractor Checklist, which documents that data elements for the scope of work have been provided.

Prior to the collection of groundwater levels and water quality samples from the wells on site, each well was opened to allow groundwater to stabilize within each well. Static water levels were measured and recorded. The depth to water reading from each well was subtracted from the total well depth to determine the volume of groundwater within the well casing and to determine if the well screen bracketed the water table. Depths to groundwater and groundwater elevations recorded during the sampling event are included here in *Appendix F*, Field Sampling Data Sheets for Groundwater Sampling. Using the shallow groundwater elevations, a groundwater potentiometric map was created for the site. Refer to *Appendix A*, *Figure 4 - Groundwater Potentiometric Map*, which shows the general groundwater contours extrapolated from the observed measurements from the wells obtained during this sampling event. Please note that the deep well (i.e., DCW-1) was not used in developing the depicted groundwater contours.

Groundwater flow directions are somewhat complex at the Site. The northern portion of the site is a topographic high, however, this high is irregular in shape and also extends from MW-2 to MW-11. Groundwater on the northern portion of the Site predominantly flows south. However, the topographic high running from MW-2 to MW-11 causes groundwater to flow from this high in both a southwesterly and easterly direction. In the vicinity of the tank basin, the flow is predominantly westerly in nature. However, south of deep well DCW-1, groundwater elevations plateau and there is almost no difference in the groundwater elevations of MW-4, MW-5, MW-6, and MW-7. Refer to Figure 4 of this report.

Well purging was not required for MW-2, MW-3, MW-4, MW-7 of the monitoring well network, as the well screens bracketed the measured water table within these shallow wells. Additionally, well purging was not required within MW-1, MW-9, MW-13, and RW-2, as these wells contained free product. Each of the remaining wells were purged prior to collecting groundwater samples. A peristaltic pump with disposable polyethylene tubing was used to purge and sample the deep well using low flow and low volume purging and sampling methods. Water quality data collected during the purging and sampling of the wells is presented on the Field Sampling Data Sheets for Groundwater Sampling located in Appendix F. Chain-of-custody procedures were properly followed, and each groundwater sample was placed in sample bottles provided by the analytical laboratory, properly sealed, packaged in a cooler filled with ice, and held at our office for lab pick up by Access Analytical, Inc. personnel.

Table 1 included within this report documents the depth to groundwater and groundwater elevations recorded during the sampling event and previous sampling events. Screened intervals were originally recorded during well installation and are provided here for informational purposes only. Top of Casing (TOC) elevations were provided by Andrews Engineering after FME's

installation of RW-1, RW-2, MW-11, MW-12, and MW-13. It should be noted that the TOC elevations for the remaining wells, which were installed by AECOM, were taken from AECOM's *Tier II Assessment Report UST Permit #11399*, dated November 2021. The respective water table elevations recorded in *Table 1* were calculated using these elevations and field measurements.

5. SAMPLE ANALYSES

The groundwater samples were submitted to Access Analytical Inc., a South Carolina Certified Laboratory, for groundwater sample analyses of typical petroleum volatile organic compounds (VOC), including benzene, toluene, ethylbenzene, xylenes (BTEX), naphthalene, methyl tertiary butyl ether (MTBE), 1,2-dichloroethande (1,2-DCA), and eight (8) oxygenates. A field duplicate sample was collected from DCW-1. Additionally, field blank and trip blank samples were also submitted to the laboratory for analysis for quality assurance/quality control (QA/QC) purposes. Refer to Appendix E, Laboratory Analytical Report, for a copy of the laboratory analytical results and chain of custody documentation.

6. RESULTS OF ANALYSES

Analytical results indicate that two (2) monitoring wells contain Chemicals of Concern (CoC) that are above SCDHEC's Risk Based Screening Levels (RBSL). Based on analytical sample results, the monitoring wells that contain CoC above the RBSL include RW-01 and MW-12. Additionally, four (4) monitoring wells, MW-1, MW-9, MW-13, and RW-2, were not sampled due to the presence of free product petroleum within these monitoring wells. Free product thickness in these four (4) wells ranged from 0.07 feet to 1.17 feet. MW-1 has contained free product since its installation in 2018.

Comparing the previous sampling results from the April 20, 2021, sampling event to the present sampling results (August 25, 2022 sampling event), MW-4, MW-5, MW-10, and DCW-1 indicated decreases in CoC concentrations to below the laboratory detection limit. Free product was found within MW-9 during the August 2022 sampling event. However, free product was not previously observed in this well. Previous sample results from April 22, 2021, event shows various concentrations of elevated CoC within MW-9, including RBSL exceedances of Benzene within the MW-9 sample and duplicate sample. *Table 2 Summary of Groundwater CoC Analytical Results* presents a comparison of analytical results from previous and current sampling events.

Previously sampling events from June 2018 shows that Ethanol was previously detected within MW-2 and MW-3. Additionally, Ethyl-tert-Butyl Ether and tert-Butyl Alcohol were previously detected within MW-9 in April 2021 and in the duplicate sample taken from MW-9. *Table 3 Summary of Groundwater Oxygenate Analytical Results* shows that Ethanol was the only

oxygenate constituent detected within RW-1 during the current August 2022 sampling event. However, MW-9 was not sampled in the August 2022 sampling event due to the presence of free product (0.07-foot thickness).

7. RECOMMENDATIONS

Results of this groundwater sampling event demonstrated that four (4) of the monitoring wells were not sampled due to the presence of free product petroleum that ranged from 0.07 feet to 1.17 feet. Additionally, two (2) monitoring wells contain CoC that are above the SCDHEC RBSL, namely RW-01 and MW-12. It appears that the results are generally consistent with the results obtained from previous sampling events where detected, however, an increase in observed free product is now present in MW-9.

Based on information obtained during this sampling event, FME recommends a 48-hour aggressive fluid vapor recovery (AFVR) event be conducted for HHI PSD Release #2. FME also recommends a comprehensive sampling event be carried out within six (6) months of AFVR event to monitor groundwater conditions and document the effects of the AFVR event.

8. ACKNOWLEDGEMENT

On behalf of Hilton Head Island Public Service District, FME appreciates the opportunity to provide SCDHEC this Additional Assessment report. If you require additional information or have any questions concerning the information presented in this report, please do not hesitate to contact us at (803) 254-4540.

APPENDICES

Appendix A – Figures
Appendix B – Well Logs
Appendix C – Water Well Records SCDHEC 1903
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TABLES

1 - Summary of Groundwater Elevations
2 - Summary of Groundwater COC Analytical Results
3 - Summary of Groundwater Oxygenate Analytical Results

Appendix A

Figures





BEAUFORT COUNTY

1:144,000

0 1 2 4 mi

0 1.5 3 6 km

DRAWN BY:	CTC
APPROVED BY:	CAC
ORIGINAL:	October 24, 2022
REVISIONS:	1 2 3
SCALE:	As Noted
NOTES:	

F&ME CONSULTANTS
1825 BLANDING STREET
COLUMBIA, SC 29201

HHI PSD - UST PERMIT# 11399
21 Oak Park Drive
Hilton Head Island, Beaufort County, South Carolina

Appendix A - Site Vicinity Map

F&ME CONSULTANTS PROJECT NUMBER: E6687.000

FIGURE NUMBER: 1



Document Path: C:\Users\shawn.mcguire\Desktop\SCDHEC UST Ter IIISCDHEC Figure1 Location Map.mxd

DRAWN BY:	CTC
APPROVED BY:	CAC

NOTES:

ORIGINAL: October 24, 2022

REVISIONS:
1
2
3

SCALE: As Noted

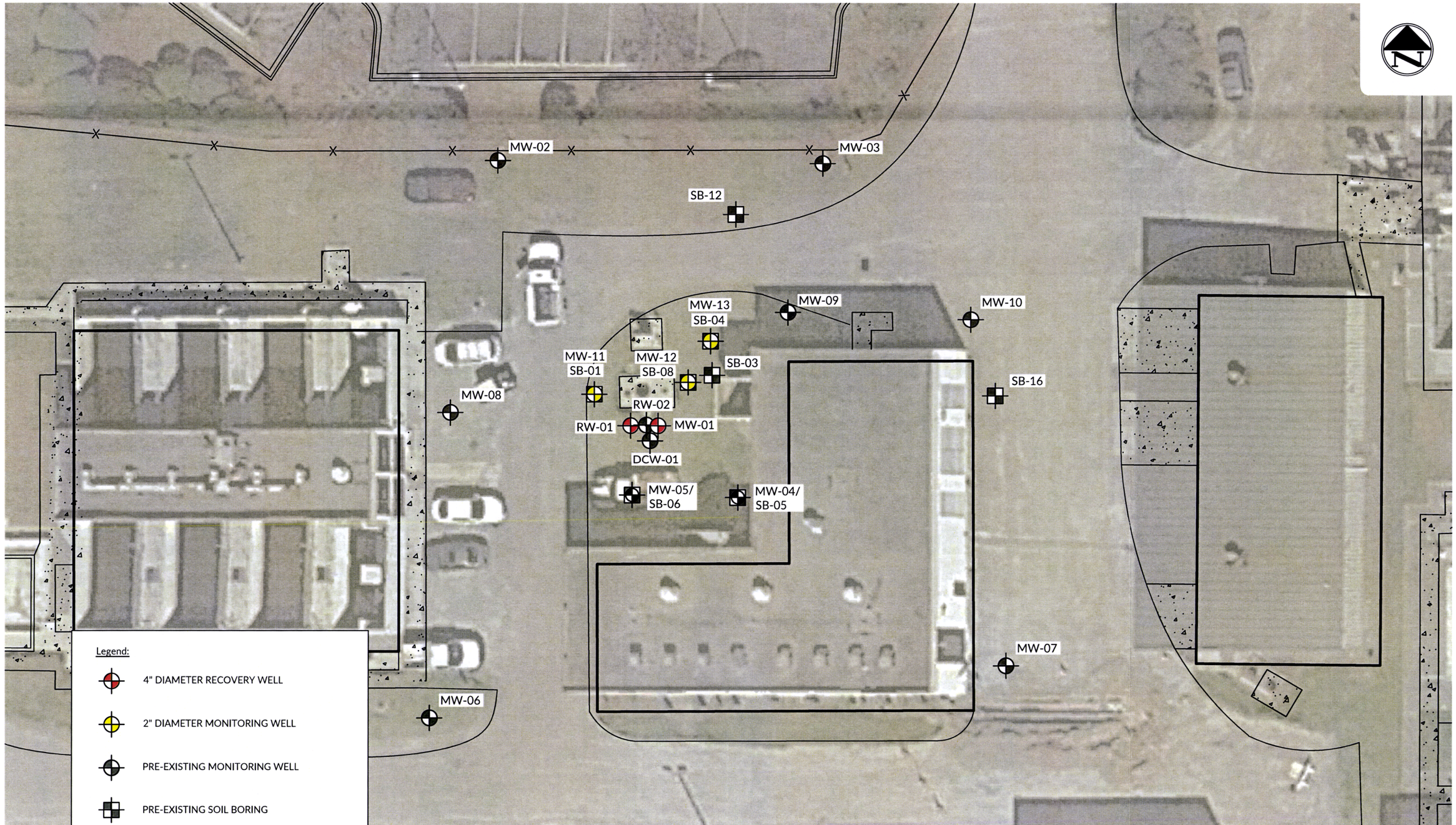
F&ME CONSULTANTS
1825 BLANDING STREET
COLUMBIA, SC 29201

HHI PSD - UST PERMIT# 11399
21 Oak Park Drive
Hilton Head Island, Beaufort County, South Carolina

Appendix B - Site Topo Map

F&ME CONSULTANTS PROJECT NUMBER: E6687.000

FIGURE NUMBER: 2



GRAPHIC SCALE

0 10 20 40

DRAWN BY:	CTC
APPROVED BY:	CAC
NOTES:	

ORIGINAL: October 24, 2022

REVISIONS:
1
2
3

SCALE: 1"=20'

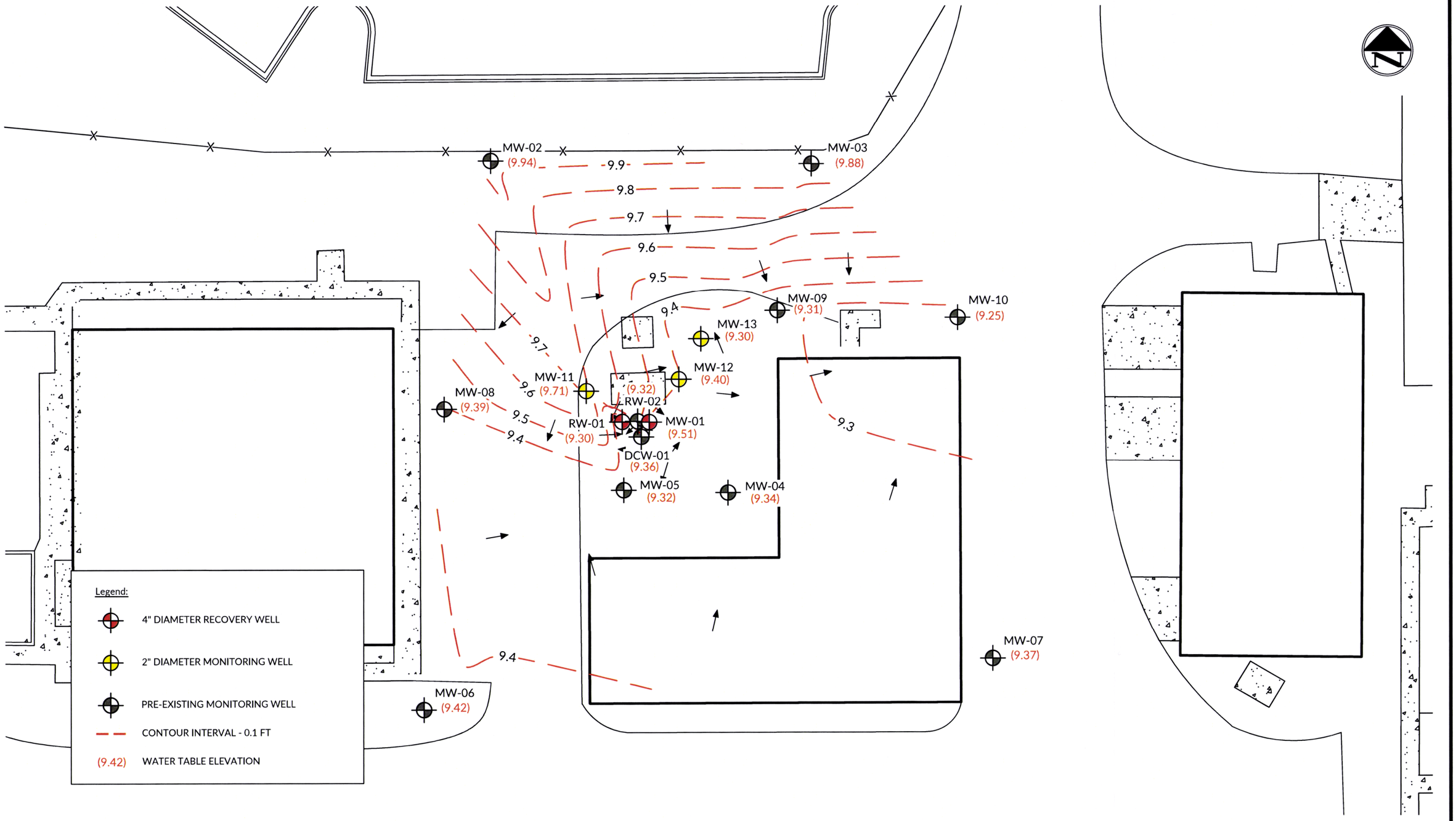
F&ME CONSULTANTS, INC.
1825 BLANDING STREET
COLUMBIA, SC 29201

HHI PSD - UST PERMIT# 11399
21 Oak Park Drive
Hilton Head Island, Beaufort County, South Carolina

Appendix C - Well Location Plan

F&ME CONSULTANTS PROJECT NUMBER: E6687.000

FIGURE NUMBER: 3



GRAPHIC SCALE

0 10 20 40

DRAWN BY:	CTC
APPROVED BY:	CAC
NOTES:	
ORIGINAL:	October 24, 2022
REVISIONS:	1 2 3
SCALE:	1"=20'

F&ME CONSULTANTS

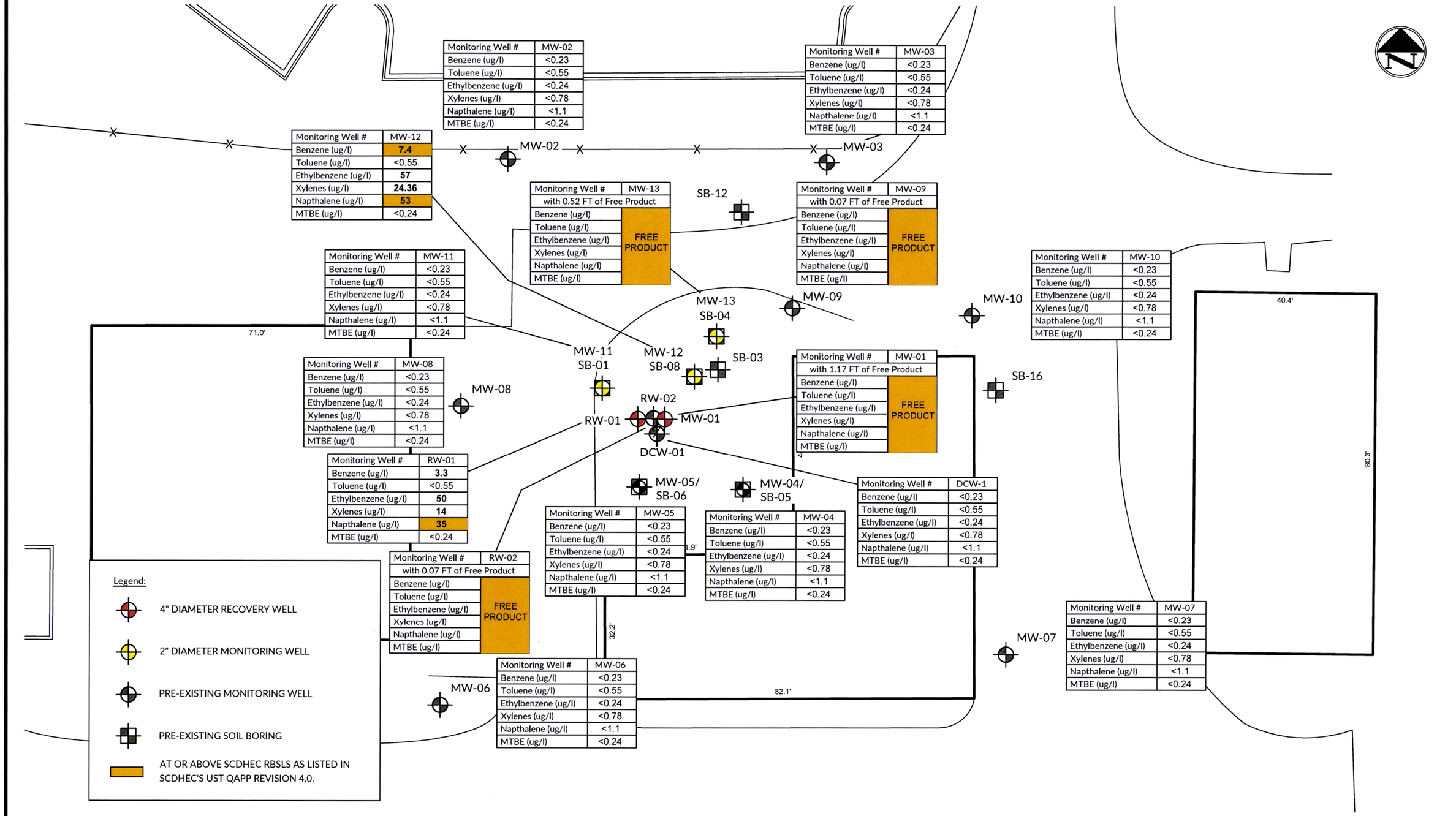
F&ME CONSULTANTS, INC.
1825 BLANDING STREET
COLUMBIA, SC 29201

HHI PSD - UST PERMIT# 11399
21 Oak Park Drive
Hilton Head Island, Beaufort County, South Carolina

DATA COLLECTED AUGUST 25, 2022
Appendix D - Groundwater Potentiometric Map

F&ME CONSULTANTS PROJECT NUMBER: E6687.000

FIGURE NUMBER: 4



GRAPHIC SCALE

0 10 20 40

DRAWN BY:	CTC
APPROVED BY:	CAC
NOTES:	
ORIGINAL:	October 24, 2022
REVISIONS:	1 2 3
SCALE:	1"=20'

F&ME CONSULTANTS, INC.
1825 BLANDING STREET
COLUMBIA, SC 29201

HHI PSD - UST PERMIT# 11399
21 Oak Park Drive
Hilton Head Island, Beaufort County, South Carolina

DATA COLLECTED AUGUST 25, 2022
Appendix E - Groundwater CoC Map

F&ME CONSULTANTS PROJECT NUMBER: E6687.000

FIGURE NUMBER: 5

Appendix B

Well Logs

WELL LOG - MW-11

PROJECT:	Hilton Head Island PSD - UST #11399, UMW-29021
LOCATION:	21 Oak Park Dr., Hilton Head Island, SC - Beaufort County
PROJECT NUMBER:	E6687.000

DRILLING CONTRACTOR:	ARM Environmental Services	BORING LOCATION:	See Well Location Plan
DRILLER:	Josh Register	DATE STARTED:	8/23/2022
F&ME REPRESENTATIVE:	Jeff Leary	DATE COMPLETED:	8/24/2022
DRILLING METHOD:	HSA - Diedrich D-50 Turbo	WATER LEVEL (T.O.B)	3.30' TOC
		TOTAL BORING DEPTH:	14.0'

DRILLING DETAILS			MATERIAL DESCRIPTION		
Depth (ft)	Sample Interval for OVA	OVA (ppm)	DESCRIPTION	Notes	Depth (ft)
	6"-1'	0.0	Grassmat with ~6" topsoil and root matter ~6" Tan (F-M) SAND with pieces of gravel	First 5' Hand Augered, hit something (pipe) @ 3' had to offset three times	
	1'-2'	0.0	At 1' - Dk. Bronw (F) SAND		
	2'-3'	0	From 2'-3' - Tan & Brown with some orange (F) SAND	Wet	
	3'-4'	0.0	From 3'-4' - Dk. Brown (F) SAND		
	4'-5'	0.0	From 4'-5' - SAME with some large pieces of limestone	Saturated @ 4.0'	
	5'-7.5'	0.0	At 5' - Dk. Brown (F) SAND		
	7.5'-10.'	0.0	SAME		
	10'-12'	0.0	SAME		
	12'-14'	19.4	SAME From 13'-14' - SAME but with some pieces of limestone	Slight odor from 12'-14'	
			B.T. @ 14.0' 2" Well set @ 13.0'		

WELL LOG - MW-12

PROJECT:	Hilton Head Island PSD - UST #11399, UMW-29021
LOCATION:	21 Oak Park Dr., Hilton Head Island, SC - Beaufort County
PROJECT NUMBER:	E6687.000

DRILLING CONTRACTOR:	ARM Environmental Services	BORING LOCATION:	See Well Location Plan
DRILLER:	Josh Register	DATE STARTED:	8/23/2022
F&ME REPRESENTATIVE:	Jeff Leary	DATE COMPLETED:	8/24/2022
DRILLING METHOD:	HSA - Diedrich D-50 Turbo	WATER LEVEL (T.O.B)	3.73' TOC
		TOTAL BORING DEPTH:	14.0'

DRILLING DETAILS			MATERIAL DESCRIPTION		
Depth (ft)	Sample Interval for OVA	OVA (ppm)	DESCRIPTION	Notes	Depth (ft)
	6"-1'	71.4	Grassmat with ~6" topsoil and root matter Dk. Brown (F) SAND	First 5' Hand Augered Wet	
	1'-2'	92.7	SAME		
	2'-3'	339.5		Odor starting at 3.0'	
	3'-4'	553.0	At 3.0' - Dk. Brown with some lt. brown and grey (F) SAND		
	4'-5'	864.6		Saturated @ 4.0'	
	5'-7.5'	630.5	At 5' - Dk. Brown (F) SAND		
	7.5'-10.'	306.8	SAME		
	10'-12'	256.5	SAME		
	12'-14'	315.0	SAME From 14'-15' - Dk. Brown (F) SAND with some pieces of limestone		
			B.T. @ 14.0' 2" Well set @ 13.0'		

WELL LOG - MW-13

PROJECT:	Hilton Head Island PSD - UST #11399, UMW-29021
LOCATION:	21 Oak Park Dr., Hilton Head Island, SC - Beaufort County
PROJECT NUMBER:	E6687.000

DRILLING CONTRACTOR:	ARM Environmental Services	BORING LOCATION:	See Well Location Plan
DRILLER:	Josh Register	DATE STARTED:	8/24/2022
F&ME REPRESENTATIVE:	Jeff Leary	DATE COMPLETED:	8/24/2022
DRILLING METHOD:	HSA - Diedrich D-50 Turbo	WATER LEVEL (T.O.B)	4.18' TOC
		TOTAL BORING DEPTH:	14.0'

DRILLING DETAILS			MATERIAL DESCRIPTION		
Depth (ft)	Sample Interval for OVA	OVA (ppm)	DESCRIPTION	Notes	Depth (ft)
	6"-1'	0.0	Grassmat with ~6" topsoil and root matter Dk. Brown (F) SAND to a Lt. brown with some orange color	First 5' Hand Augered Moist	
	1'-2'	0.0	SAME		
	2'-3'	0.0			
	3'-4'	0.0	SAME		
	4'-5'	9.3	At 4.5' - Black with some dk. brown (F) SAND	Slight odor from 4'-5'	
	5'-7.5'	386.5	At 5' - Dk. Brown (F) SAND	Wet @ 5.0' Fuel odor from 5'-7.5'	
	7.5'-10.'	74.2	SAME	Saturated @ 7.5'	
	10'-12'	68.4	SAME		
	12'-14'	74.8	SAME		
			B.T. @ 14.0' 2" Well set @ 13.0'		

WELL LOG - RW-1

PROJECT:	Hilton Head Island PSD - UST #11399, UMW-29021
LOCATION:	21 Oak Park Dr., Hilton Head Island, SC - Beaufort County
PROJECT NUMBER:	E6687.000

DRILLING CONTRACTOR:	ARM Environmental Services	BORING LOCATION:	See Well Location Plan
DRILLER:	Josh Register	DATE STARTED:	8/24/2022
F&ME REPRESENTATIVE:	Jeff Leary	DATE COMPLETED:	8/24/2022
DRILLING METHOD:	HSA - Diedrich D-50 Turbo	WATER LEVEL (T.O.B)	2.75' TOC
		TOTAL BORING DEPTH:	13.0'

DRILLING DETAILS			MATERIAL DESCRIPTION		
Depth (ft)	Sample Interval for OVA	OVA (ppm)	DESCRIPTION	Notes	Depth (ft)
	6"-1'	39.7	Grassmat with ~6" topsoil and root matter Dk. Brown (F) SAND	First 5' Hand Augered Moist	
	1'-2'	45.4	SAME		
	2'-3'	191.5			
	3'-4'	379.8	SAME	Odor @ 3'-4'	
	4'-5'	296.7	SAME	Strong odor @ 4'-5' Saturated	
	5'-7.5'	313.9			
	7.5'-10'	188.3	SAME		
	10'-11.5	206.4	SAME		
	11.5-13.0'	202.5	SAME From 12'-13' SAME but with some small pieces of limestone		
			B.T. @ 13.0' 4" Recovery Well set @ 12.0'		

WELL LOG - RW-2

PROJECT:	Hilton Head Island PSD - UST #11399, UMW-29021
LOCATION:	21 Oak Park Dr., Hilton Head Island, SC - Beaufort County
PROJECT NUMBER:	E6687.000

DRILLING CONTRACTOR:	ARM Environmental Services	BORING LOCATION:	See Well Location Plan
DRILLER:	Josh Register	DATE STARTED:	8/24/2022
F&ME REPRESENTATIVE:	Jeff Leary	DATE COMPLETED:	8/24/2022
DRILLING METHOD:	HSA - Diedrich D-50 Turbo	WATER LEVEL (T.O.B)	3.10' TOC
		TOTAL BORING DEPTH:	13.0'

DRILLING DETAILS			MATERIAL DESCRIPTION		
Depth (ft)	Sample Interval for OVA	OVA (ppm)	DESCRIPTION	Notes	Depth (ft)
	6"-1'	0.0	Grassmat with ~6" topsoil and root matter Dk. Brown (F) SAND	First 5' Hand Augered Moist	
	1'-2'	0.0	SAME		
	2'-3'	67.8			
	3'-4'	271.5	SAME	Odor @ 3' Saturated @ 4.0'	
	4'-5'	566.0			
	5'-7.5'	286.9	SAME	Strong odor @ 5'	
	7.5'-10'	182.3	SAME		
	10'-11.5	186.6	SAME		
	11.5-13.0'	163.2	SAME From 12'-13' SAME but with some small pieces of limestone		
			B.T. @ 13.0' 4" Recovery Well set @ 12.0'		

Appendix C

Water Well Records SCDHEC 1903

DHEC
PROMOTE PROTECT PROSPER

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

1. WELL OWNER INFORMATION:
Name: Hilton Head Public Service District (last) (first)
Address: 21 Oak Park Dr.
City: Hilton Head Island State: SC Zip: 29926
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:**
Name: Hilton Head Public Service District
Street Address: 21 Oak Park Dr.
City: Hilton Head Island Zip: 29926
Latitude: Longitude:

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

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

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-11 Bentonite 2' to 1'

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

7. PERMIT NUMBER:

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

9. WELL DEPTH (completed) 13' ft. Date Started: 8-23-22 Date Completed: 8-23-22

10. CASING: ☒ Threaded ☐ Welded
Diam.: 2"
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
0' in. to 3' ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☒ No

11. SCREEN:
Type: PVC Diam.: 2"
Slot/Gauge: .010 Length: 10'
Set Between: 3' ft. and 13' ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☒ No

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

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

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

15. ARTIFICIAL FILTER (filter pack) ☒ Yes ☐ No
Installed from 13' ft. to 2' ft.
Effective size #2 Uniformity Coefficient _____

16. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 1' ft. to 0' ft.

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

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

19. WELL DRILLER: Joshua Register **CERT. NO.:** 1921
Address: (Print)
ARM Environmental Services, Inc.
P.O. Box 50285
Columbia, SC 29250
Level: A B ☒ C D (circle one)
Telephone No.: 803 783-3314 Fax No.: 803 783-2587

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

Signed: _____ (Well Driller) Date: 8-26-22

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

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

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Hilton Head Public Service District (last) (first)
Address: 21 Oak Park Dr.
City: Hilton Head Island State: SC Zip: 29926
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:**
Name: Hilton Head Publ. Service District
Street Address: 21 Oak Park Dr.
City: Hilton Head Island Zip: 29926
Latitude: Longitude:

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

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

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-12
Bentonite 2' to 1'

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

7. PERMIT NUMBER:

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

9. WELL DEPTH (completed) 13' ft. Date Started: 8-23-22 Date Completed: 8-25-22

10. CASING: ☒ Threaded ☐ Welded
Diam.: 2"
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
0' in. to 3' ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☒ No

11. SCREEN:
Type: PVC Diam.: 2"
Slot/Gauge: .010 Length: 10'
Set Between: 3' ft. and 13' ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☒ No

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

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

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

15. ARTIFICIAL FILTER (filter pack) ☒ Yes ☐ No
Installed from 13' ft. to 2' ft.
Effective size #2 Uniformity Coefficient _____

16. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 1' ft. to 0' ft.

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

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

19. WELL DRILLER: Joshua Register **CERT. NO.:** 1921
Address: (Print)
ARM Environmental Services, Inc.
P.O. Box 50285
Columbia, SC 29250
Level: A ☐ B ☐ C ☒ D ☐ (circle one)
Telephone No.: 803 783-3314 Fax No.: 803 783-2587

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

Signed: _____ (Well Driller) Date: 8-26-22

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

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

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

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Hilton Head Public Service District (last) (first)
Address: 21 Oak Park Dr.
City: Hilton Head Island State: SC Zip: 29926
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY:
Name: Hilton Head Public Service District
Street Address: 21 Oak Park Dr.
City: Hilton Head Island Zip: 29926
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

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

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: MW-13 Bentonite 2' to 1'

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

7. PERMIT NUMBER:

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

9. WELL DEPTH (completed) 13' ft. Date Started: 8-22-22 Date Completed: 8-22-22

10. CASING: ☒ Threaded ☐ Welded Diam.: 2" Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
0' in. to 3' ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐ Surface _____ ft. Weight _____ lb./ft. Drive Shoe? ☐ Yes ☒ No

11. SCREEN: Type: PVC Diam.: 2" Slot/Gauge: .010 Length: 10' Set Between: 3' ft. and 13' ft. NOTE: MULTIPLE SCREENS USE SECOND SHEET
_____ ft. and _____ ft.
Sieve Analysis ☐ Yes (please enclose) ☒ No

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

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

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

15. ARTIFICIAL FILTER (filter pack) ☒ Yes ☐ No
Installed from 13' ft. to 2' ft.
Effective size #2 Uniformity Coefficient _____

16. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 1' ft. to 0' ft.

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

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

19. WELL DRILLER: Joshua Register CERT. NO.: 1921
Address: (Print)
ARM Environmental Services, Inc.
P.O. Box 50285
Columbia, SC 29250
Level: A ☐ B ☐ C ☒ D ☐ (circle one)
Telephone No.: 803 783-3314 Fax No.: 803 783-2587

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

Signed: _____ (Well Driller) Date: 8-26-22

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

DHEC
PROMOTE PROTECT PROSPER

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

1. WELL OWNER INFORMATION:
Name: Hilton Head Public Service District (last) (first)
Address: 21 Oak Park Dr.
City: Hilton Head Island State: SC Zip: 29926
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:**
Name: Hilton Head Public Service District
Street Address: 21 Oak Park Dr.
City: Hilton Head Island Zip: 29926
Latitude: Longitude:

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

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

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
RW-01
Bentonite 1.5' to .5'

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

7. PERMIT NUMBER:

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

9. WELL DEPTH (completed) 12' ft. Date Started: 8-23-22 Date Completed: 8-23-22

10. CASING: ☒ Threaded ☐ Welded
Diam.: 4"
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
_____ in. to _____ ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 4"
Slot/Gauge: .010 Length: 10'
Set Between: 2' ft. and 12' ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☒ No

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

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

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

15. ARTIFICIAL FILTER (filter pack) ☒ Yes ☐ No
Installed from 12' ft. to 1.5' ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From .5' ft. to 0' ft.

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

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

19. WELL DRILLER: Joshua Register **CERT. NO.:** 1921
Address: (Print)
ARM Environmental Services, Inc.
P.O. Box 50285
Columbia, SC 29250
Level: A ☐ B ☐ C ☒ D ☐ (circle one)
Telephone No.: 803 783-3314 Fax No.: 803 783-2587

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

Signed: _____ (Well Driller) Date: 8-26-22

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

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

DHEC
PROMOTE PROTECT PROSPER

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

1. WELL OWNER INFORMATION:
Name: Hilton Head Public Service District (last) (first)
Address: 21 Oak Park Dr.
City: Hilton Head Island State: SC Zip: 29926
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY:
Name: Hilton Head Public Service District
Street Address: 21 Oak Park Dr.
City: Hilton Head Island Zip: 29926
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

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

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
RW-02
Bentonite 1.5' to .5'

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

7. PERMIT NUMBER:

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

9. WELL DEPTH (completed) 12' ft. Date Started: 8-24-22 Date Completed: 8-24-22

10. CASING: ☒ Threaded ☐ Welded
Diam.: 4"
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
_____ in. to _____ ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN: Type: PVC Diam.: 4"
Slot/Gauge: .010 Length: 10'
Set Between: 2' ft. and 12' ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☒ No

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

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

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

15. ARTIFICIAL FILTER (filter pack) ☒ Yes ☐ No
Installed from 12' ft. to 1.5' ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☒ Yes ☐ No
☒ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From .5' ft. to 0' ft.

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

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

19. WELL DRILLER: Joshua Register CERT. NO.: 1921
Address: (Print)
ARM Environmental Services, Inc.
P.O. Box 50285
Columbia, SC 29250
Level: A ☐ B ☐ C ☒ D ☐ (circle one)
Telephone No.: 803 783-3314 Fax No.: 803 783-2587

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

Signed: _____ (Well Driller) Date: 8-26-22

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

Appendix D

Well Development Data SCDHEC 2099

DHEC
PROMOTE PROTECT PROSPER

Well Development Data Verfication Form
Underground Storage Tank Management Division

Facility Name: Hilton Head PSD Site ID#: UST # 11399

Date: 8-24-22 Field Personnel:

Drilling Company: ARM Environmental Services, Inc. Driller's Name: Josh

Driller's Certification Number: 1921 Weather Conditions: 84° Cloudy

Well Development Method

Surge Block ○ Submersible Pump ✓ Air Lifting ○

* Bailing can be combined with any of the above methods, but not utilized alone for development.

Quality Assurance

pH meter		Conductivity meter		Temperature meter	Turbidity meter	
serial no.	19M100336	serial no.	19M100336	serial no. 19M100336	serial no.	17060058880
pH=4.0	3.99	standard	1413		NTU=~~0.0~~	9.98
pH=7.0	6.98				NTU=~~0.0~~	19.6
pH=10.0	9.97				NTU=~~100~~	99.7
					NTU=800	797

Drilling Method

Hollow Stem Augers ✓ Solid Flight Augers ○ Direct Push ○

Air Rotary ○ Mud Rotary ○ Sonic ○

Monitoring Well ID# MW-11 Well Casing Diameter 2" inches Borehole Diameter 8.5 inches

Depth to Ground Water (DGW) 2.62 ft. Screen Length/Slot Size 10' ft./ .010 in.

Total Well Depth (TWD) 13' ft. Screen Interval 3' ft. to 13' ft.

Length of water column (LWC=TWD-DGW) 10.38 ft. Type of Drilling Fluids used: N/A

Total Gallons of Water Removed: 23 gals. Drilling Fluids recovered N/A gals.

Time (military)	1312	1321	1331	1341			
pH (s.u.)*	6.52	6.47	6.50	6.53			
Specific Conductivity (mmhos/cm)*	498	497	498	505			
Water Temperature (C)*	31.1°	30.7°	30.4°	30.4°			
Turbidity (NTU) *	27.8	6.57	9.83	6.49			
Physical Characteristics (color/odor)	clear	clear	clear	clear			
Water Level Measurement (ft) from TOC	2.70	2.84	2.90	2.93			
Total Well Depth (ft) from TOC	13'	13'	13'	13'			
Cumulative Gallons Removed	20 gals	21 gals	22 gals	23 gals	gals	gals	gals

* Development is completed once groundwater turbidity is ≤ 10 NTU and all parameters are ± 10%.

Detailed description of Well Development process: Pumped and Surged Well with a Submersible pump to remove all silts & Solids. Used a peristaltic pump to collect readings.

Driller Signature: Josh B Date: 8-24-22

DHEC
PROMOTE PROTECT PROSPER

Well Development Data Verification Form
Underground Storage Tank Management Division

Facility Name: Hilton Head PSD Site ID#: UST #11399
Date: 8-24-22 Field Personnel: JR/TW/JH
Drilling Company: ARM Environmental Services, Inc. Driller's Name: Josh Register
Driller's Certification Number: 1921 Weather Conditions: 86° P/Cloudy

Well Development Method

Surge Block ○ Submersible Pump ① Air Lifting ○
* Bailing can be combined with any of the above methods, but not utilized alone for development.

Quality Assurance

pH meter		Conductivity meter		Temperature meter	Turbidity meter	
serial no.	19M100336	serial no.	19M100336	serial no. 19M100336	serial no.	170600588880
pH=4.0	3.99	standard	1413		NTU=~~0.0~~	9.98
pH=7.0	6.98				NTU=~~1.0~~	19.6
pH=10.0	9.97				NTU=~~100~~	99.7
					800	797

Drilling Method

Hollow Stem Augers ① Solid Flight Augers ○ Direct Push ○
Air Rotary ○ Mud Rotary ○ Sonic ○

Monitoring Well ID# MW-12 Well Casing Diameter 2" inches Borehole Diameter 8.5" inches
Depth to Ground Water (DGW) 3.16 ft. Screen Length/Slot Size 10' ft./ .010 in.
Total Well Depth (TWD) 13' ft. Screen Interval 3' ft. to 13' ft.
Length of water column (LWC=TWD-DGW) 9.84 ft. Type of Drilling Fluids used: N/A
Total Gallons of Water Removed: 24 gals. Drilling Fluids recovered N/A gals.

Time (military)	1541	1551	1601	1611	1621		
pH (s.u.)*	6.09	6.20	6.20	6.18	6.19		
Specific Conductivity (mmhos/cm)*	718	725	723	714	712		
Water Temperature (C)*	30.8°	29.7°	29.5°	29.3°	29.3°		
Turbidity (NTU) *	24.8	14.1	12.3	10.4	9.60		
Physical Characteristics (color/odor)	Cloudy	Clear	clear	clear	clear		
Water Level Measurement (ft) from TOC	3.44	3.58	3.61	3.64	3.68		
Total Well Depth (ft) from TOC	13'	13'	13'	13'	13'		
Cumulative Gallons Removed	20 gals	21 gals	22 gals	23 gals	24 gals	gals	gals

* Development is completed once groundwater turbidity is ≤ 10 NTU and all parameters are ± 10%.

Detailed description of Well Development process: Pumped and Surged well with a Submersible pump to remove all silts & solids, used a peristaltic pump to Collect readings.

Driller Signature: [signature] Date: 8-24-22

DHEC
PROMOTE PROTECT PROSPER

Well Development Data Verfication Form
Underground Storage Tank Management Division

Facility Name: Hilton Head PSD Site ID#: UST # 11399

Date: 8-24-22 Field Personnel: JR/TW/JH

Drilling Company: ARM Environmental Services, Inc. Driller's Name: Josh Register

Driller's Certification Number: 1921 Weather Conditions: 86° P/Cloudy

Well Development Method

Surge Block ○ Submersible Pump ✓ Air Lifting ○

* Bailing can be combined with any of the above methods, but not utilized alone for development.

Quality Assurance

pH meter		Conductivity meter		Temperature meter	Turbidity meter	
serial no.	19M100336	serial no.	19M100336	serial no. 19M100336	serial no.	706060588990
pH=4.0	3.99	standard	1413		NTU=0.0	9.98
pH=7.0	6.98				NTU=10 20	19.6
pH=10.0	9.97				NTU=100	99.7
					NTU=800	797

Drilling Method

Hollow Stem Augers ✓ Solid Flight Augers ○ Direct Push ○

Air Rotary ○ Mud Rotary ○ Sonic ○

Monitoring Well ID# MW-13 Well Casing Diameter 2" inches Borehole Diameter 8.5" inches

Depth to Ground Water (DGW) 3.87 ft. Screen Length/Slot Size 10' ft./ .010 in.

Total Well Depth (TWD) 13' ft. Screen Interval 3' ft. to 13' ft.

Length of water column (LWC=TWD-DGW) 9.13 ft. Type of Drilling Fluids used: N/A

Total Gallons of Water Removed: 26 gals. Drilling Fluids recovered N/A gals.

Time (military)	1418	1428	1438	1448	1458	1508	1518
pH (s.u.)*	5.88	5.59	5.64	5.65	5.66	5.64	5.64
Specific Conductivity (mmhos/cm)*	318.2	312.1	315.0	318.9	321.7	325.5	326.1
Water Temperature (C)*	31.0°	28.6°	28.8°	28.7°	28.7°	28.7°	28.7°
Turbidity (NTU) *	78.4	56.3	32.7	28.7	19.2	11.1	9.67
Physical Characteristics (color/odor)	cloudy	cloudy	cloudy	cloudy	clear	clear	clear
Water Level Measurement (ft) from TOC	3.93	3.97	4.00	4.02	4.04	4.06	4.07
Total Well Depth (ft) from TOC	13'	13'	13'	13'	13'	13'	13'
Cumulative Gallons Removed	20 gals	21 gals	22 gals	23 gals	24 gals	25 gals	26 gals

* Development is completed once groundwater turbidity is ≤ 10 NTU and all parameters are ± 10%.

Detailed description of Well Development process: Pumped and Surged Well with a Submersible pump to remove all silts & solids, used a peristaltic pump to collect readings.

3.51 product

Driller Signature: Josh Register Date: 8-24-22

DHEC
PROMOTE PROTECT PROSPER

Well Development Data Verfication Form
Underground Storage Tank Management Division

Facility Name: Hilton Head PSD
Site ID#: UST # 11399
Date: 8-24-22
Field Personnel: JR/TW/JH
Drilling Company: ARM Environmental Services, Inc.
Driller's Name: Josh Register
Driller's Certification Number: 1921
Weather Conditions: 84° P/Sunny

Well Development Method

Surge Block ○ Submersible Pump ✓ Air Lifting ○

* Bailing can be combined with any of the above methods, but not utilized alone for development.

Quality Assurance

pH meter		Conductivity meter		Temperature meter	Turbidity meter	
serial no.	19M100336	serial no.	19M100336	serial no. 19M100336	serial no.	
pH=4.0	3.99	standard	1413		NTU=0.0	9.98
pH=7.0	6.98				NTU=~~3.0~~	19.6
pH=10.0	9.97				NTU=~~100~~	99.7
					NTU=800	797

Drilling Method

Hollow Stem Augers ✓ Solid Flight Augers ○ Direct Push ○
Air Rotary ○ Mud Rotary ○ Sonic ○

Monitoring Well ID# RW-1 Well Casing Diameter 4" inches Borehole Diameter 10.5" inches
Depth to Ground Water (DGW) 3.10 ft. Screen Length/Slot Size 10' ft./ .010 in.
Total Well Depth (TWD) 12' ft. Screen Interval 2' ft. to 12' ft.
Length of water column (LWC=TWD-DGW) 8.90 ft. Type of Drilling Fluids used: N/A
Total Gallons of Water Removed: 23 gals. Drilling Fluids recovered N/A gals.

Time (military)	1755	1805	1815	1825			
pH (s.u.)*	6.48	6.50	6.52	6.54			
Specific Conductivity (mmhos/cm)*	456	480	478.7	436.7			
Water Temperature (C)*	29.9°	29.5°	29.6°	29.5°			
Turbidity (NTU) *	39.6	19.0	10.5	9.87			
Physical Characteristics (color/odor)	cloudy	clear	clear	clear			
Water Level Measurement (ft) from TOC	3.15	3.17	3.17	3.17			
Total Well Depth (ft) from TOC	12'	12'	12'	12'			
Cumulative Gallons Removed	20 gals	21 gals	22 gals	23 gals	gals	gals	gals

* Development is completed once groundwater turbidity is ≤ 10 NTU and all parameters are ± 10%.

Detailed description of Well Development process: Pumped & Surged well with Submersible pump to remove all silts & solids, then used a peristaltic pump to collect readings.

Driller Signature: [signature] Date: 8-24-22

DHEC
PROMOTE PROTECT PROSPER

Well Development Data Verfication Form
Underground Storage Tank Management Division

Facility Name: Hilton Head PSD Site ID#: UST # 11399

Date: 8-24-22 Field Personnel: JR/TW/JH

Drilling Company: ARM Environmental Services, Inc. Driller's Name: Josh Register

Driller's Certification Number: 1921 Weather Conditions: 85° P/Cloudy

Well Development Method

Surge Block ○ Submersible Pump ✓ Air Lifting ○

* Bailing can be combined with any of the above methods, but not utilized alone for development.

Quality Assurance

pH meter		Conductivity meter		Temperature meter	Turbidity meter	
serial no.	19M100336	serial no.	19M100336	serial no. 19M100336	serial no.	170601058890
pH=4.0	3.99	standard	1413		NTU=~~0.0~~	9.98
pH=7.0	6.98				NTU=~~10.0~~	19.6
pH=10.0	9.97				NTU=~~100~~ 800	99.7 797

Drilling Method

Hollow Stem Augers ✓ Solid Flight Augers ○ Direct Push ○

Air Rotary ○ Mud Rotary ○ Sonic ○

Monitoring Well ID# RW-2 Well Casing Diameter 4" inches Borehole Diameter 10.5" inches

Depth to Ground Water (DGW) 3.20 ft. Screen Length/Slot Size 10' ft./ .010 in.

Total Well Depth (TWD) 12' ft. Screen Interval 2' ft. to 12' ft.

Length of water column (LWC=TWD-DGW) 8.80 ft. Type of Drilling Fluids used: N/A

Total Gallons of Water Removed: 23 gals. Drilling Fluids recovered N/A gals.

Time (military)	1700	1711	1721	1731			
pH (s.u.)*	6.19	6.13	6.16	6.18			
Specific Conductivity (mmhos/cm)*	302.6	303.5	307.4	310.6			
Water Temperature (C)*	30.4°	30.0°	29.8°	29.7°			
Turbidity (NTU) *	21.2	15.7	9.47	6.00			
Physical Characteristics (color/odor)	clear	clear	clear	clear			
Water Level Measurement (ft) from TOC	3.24	3.35	3.37	3.37			
Total Well Depth (ft) from TOC	12'	12'	12'	12'			
Cumulative Gallons Removed	20 gals	21 gals	22 gals	23 gals	gals	gals	gals

* Development is completed once groundwater turbidity is ≤ 10 NTU and all parameters are ± 10%.

Detailed description of Well Development process: Pumped & Surged well Submersible pump to remove all silts & solids. Used a peristaltic pump to collect readings.

3.18 product

Driller Signature: Josh Register Date: 8-24-22

Appendix E

Laboratory Analytical Report

ACCESS
ANALYTICAL, INC.

ANALYTICAL REPORT

CLIENT

F&ME Consultants, Inc.
1825 Blanding Street
Columbia SC 29201

ATTENTION
Rodney Wingard

PROJECT ID
Hilton Head PSD-UST #11399

LABORATORY REPORT NUMBER
2208W64

DATE
September 06, 2022

Primary Data Review By

Chris Pafford
Project Manager, AES

Secondary Data Review By

Ashley Amick

Project Manager, Access Analytical
aamick@axs-inc.com

PLEASE NOTE:

- **Unless otherwise noted, all analysis on this report performed at Analytical Environmental Services Inc. (AES Inc), 3080 Presidential Drive, Atlanta, GA 30340.**
- **AES is SCDHEC certified laboratory # 98016, NCDENR certified lab # 562, GA certified lab # FL-E87582, NELAP certified laboratory # E87582**
- **AIHA-LAP,LLC Laboratory ID:100671 for Industrial Hygiene samples (Organics, Metals, PCM Asbestos, Gravimetric), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination.**
- Local support services for this project are provided by Access Analytical, Inc. Access Analytical is a representative of AES serving client in the SC/NC/GA areas. All questions regarding this report should be directed to your local Access Analytical representative at 803.781.4243 or toll fee at 883.315.4243

Access Lab #: _____
Sub Lab (if applicable): _____ / Sub Report #: _____
Client Purchase Order #: _____
Access Estimate #: _____

ACCESS ANALYTICAL, INC.

Access Analytical, Inc.
15 Thames Valley Rd. ~ Irmo, SC 29063
Phone: 803-781-4243 / Fax: 803-781-4303 / www.axs-inc.com
SCDHEC Lab Certification # 32571
NELAC Lab ID # E871145

Chain of Custody Record

2208W64

Client:	F&ME Consultants			Preservatives (see codes):	1
Attn:	Christine Cutugno			Bottle Types (see codes):	G
Address:	1825 Blanding St.				
City:	Columbia	State: SC	Zip Code: 29201		
Phone:	803-254-4540	Fax: 803-254-4542			
Email:	ccutugno@fmeconsultants.com				
Project Name:	Hilton Head PSD - UST#11399				
Sampled By (Signature):	J. Leary & J. Leary				

REQUESTED LAB ANALYSIS: → BTEX, Naphthalene, 1,2-DCA, EDB

Lab ID:	Sample Name:	Date Collected:	Time Collected:	C=Comp G=Grab	Matrix (see codes)	Program Area (see codes)	Total # Containers	# Containers per Test >>		Notes / Comments
	MW-2	8-25-22	1028	G	GW	SHW	3	3		Please E-mail Results
	MW-3		1050					1		also to:
	MW-4		1120							jleary@fmeconsultants.com
	MW-5		1554							
	MW-6		1428							
	MW-7		1110							
	MW-8		1239							
	MW-10		1509							
	MW-11		1724							
	MW-12		1844							

Preservation Codes / Bottle Types:

*Preservative Codes:
0 = None, **1** = HCL, **2** = HNO3, **3** = H_2SO_4, **4** = NaOH, **5** = $Na_2S_2O_3$, **6** = Method 5035 set w/ $NaHSO_4$ & CH_3OH, **7** = NaOH/ZnOAC, **8** = H_3PO_4, **9** = cooled to ≤6°C, **10** = cooled to ≤10°C, **11** = Amm.Cl-, **12** = Ascorbic Acid / HCL, **13** = EDA

*Matrix Codes:
GW = ground water, **WW** = waste water, **DW** = drinking water, **SW** = surface/storm water, **S** = soil, **SL** = sludge, **A** = air, **IW** = industrial waste, **O** = other (specify in comments section)

*Program Area Codes:
CWA = Clean Water Act (for wastewaters), **SDWA** = Safe Drinking Water Act (for drinking water), **SHW** = Solid and Hazardous Wastes (for soils, ground waters and waste samples)

***Container Type**: G = Glass, P = Plastic

Turnaround Time Requested:		Project Location:		Relinquished By:	Received By:	Date:	Time (24hr):	Samples Received on Ice:
Standard	✓	SC	✓	J. Leary	[illegible]	8-26-22	1330	✓ Y ___ N ___ N/A
Rush *		NC		[illegible]	Judy	8-29-22	1700	___ Y ___ N ___ N/A
*Date Required		Other (Specify):						___ Y ___ N ___ N/A
Rush data emailed/faxed by end of business day on date required. Standard TAT is 7-10 business days.						08.30.22	1035	___ Y ___ N ___ N/A

Chain of Custody Page 1 of 2

Received in lab by: Coleen [illegible]

Sample Temp. Received in Lab: 1.0 (°C)

Ref: RT1 Ref: RT2

White Copy: Lab original / Canary Copy: Client Copy

NOTE: Relinquishing samples via this Chain of Custody document constitutes client acceptance of Access Analytical terms and conditions.

Access Lab Report #: _____

Sub Lab (if applicable): _____ / Sub Report #: _____

Client Purchase Order #: _____

Access Estimate #: _____

Access Analytical, Inc.
15 Thames Valley Rd. ~ Irmo, SC 29063
Phone: 803-781-4243 / Fax: 803-781-4303 / www.axs-inc.com
SCDHEC Lab Certification # 32571
NELAC Lab ID # E871145

Chain of Custody Record

2208W64

Client:	F&ME Consultants
Attn:	Christine Cafagna
Address:	1825 Blanding St.
City:	Columbia
State:	SC
Zip Code:	29201
Phone:	803-254-4540
Fax:	803-254-4542
Email:	ccafagna@fmeconsultants.com
Project Name:	Hilton Head PSD - UST#11399
Sampled By (Signature):	

Lab ID	Sample Name:	Date Collected:	Time Collected:	C=Comp G=Grab	Matrix (see codes)	Program Area (see codes)	Total # Containers
	DCW-1	8-25-22	1640	G	GW	SHW	3
	RW-1	"	1802	"	"	"	"
	DUPLICATE	"	—	"	"	"	"
	Field Blank	"	1045	—	—	—	"
	Trip Blank	"	—	—	—	—	1

REQUESTED LAB ANALYSIS: → BTEX, Naphth, MTBE, Aug, 1,2Dcl

Preservatives (see codes): 1

Bottle Types (see codes): G

# of Containers per Test >>: 3 / 1

Preservation Codes / Bottle Types:

*Preservative Codes:
0 = None, **1** = HCL, **2** = HNO_3, **3** = H_2SO_4, **4** = NaOH, **5** = $Na_2S_2O_3$, **6** = Method 5035 set w/ $NaHSO_4$ & CH_3OH, **7** = NaOH/ZnOAC, **8** = H_3PO_4, **9** = cooled to ≤6°C, **10** = cooled to ≤10°C, **11** = Amm.Cl-, **12** = Ascorbic Acid / HCL, **13** = EDA

*Matrix Codes:
GW = ground water, **WW** = waste water, **DW** = drinking water, **SW** = surface/storm water, **S** = soil, **SL** = sludge, **A** = air, **IW** = industrial waste, **O** = other (specify in comments section)

*Program Area Codes:
CWA = Clean Water Act (for wastewaters), **SDWA** = Safe Drinking Water Act (for drinking water), **SHW** = Solid and Hazardous Wastes (for soils, ground waters and waste samples)

***Container Type**: G = Glass, P = Plastic

Notes / Comments

Turnaround Time Requested:		Project Location:		Relinquished By:	Received By:	Date:	Time (24hr):	Samples Received on Ice:
Standard	✓	SC	✓					
Rush *		NC			Fedex	8-29-22	1700	___Y ___N ___N/A
*Date Required		Other (Specify):						___Y ___N ___N/A
						08.30.22	1035	___Y ___N ___N/A

Rush data emailed/faxed by end of business day on date required. Standard TAT is 7-10 business days.

Received in lab by: Coleen

Sample Temp. Received in Lab: 1.0 (°C)

Ref: RT1 **Ref: RT2**

Chain of Custody Page 2 of 2

White Copy: Lab original / Canary Copy: Client Copy

NOTE: Relinquishing samples via this Chain of Custody document constitutes client acceptance of Access Analytical terms and conditions.

Analytical Environmental Services, Inc **Date:** 6-Sep-22

Client:	F&ME Consultants, Inc.	**Client Sample ID:**	MW-2
Project Name:	Hilton Head PSD-UST #11399	**Collection Date:**	8/25/2022 10:28:00 AM
Lab ID:	2208W64-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds SW8260D				**(SW5030B)**					
Benzene	BRL		0.23	1.0	ug/L	342489	1	09/01/2022 12:46	CM
Toluene	BRL		0.55	1.0	ug/L	342489	1	09/01/2022 12:46	CM
Ethylbenzene	BRL		0.24	1.0	ug/L	342489	1	09/01/2022 12:46	CM
m,p-Xylene	BRL		0.51	1.0	ug/L	342489	1	09/01/2022 12:46	CM
o-Xylene	BRL		0.27	1.0	ug/L	342489	1	09/01/2022 12:46	CM
Methyl tert-butyl ether	BRL		0.24	1.0	ug/L	342489	1	09/01/2022 12:46	CM
Naphthalene	BRL		1.1	5.0	ug/L	342489	1	09/01/2022 12:46	CM
1,2-Dichloroethane	BRL		0.32	1.0	ug/L	342489	1	09/01/2022 12:46	CM
Ethyl tert-butyl ether	BRL		3.8	10	ug/L	342489	1	09/01/2022 12:46	CM
tert-Amyl methyl ether	BRL		4.2	10	ug/L	342489	1	09/01/2022 12:46	CM
Isopropyl ether	BRL		3.0	10	ug/L	342489	1	09/01/2022 12:46	CM
tert-Butyl Alcohol	BRL		35	100	ug/L	342489	1	09/01/2022 12:46	CM
tert-Amyl alcohol	BRL		31	100	ug/L	342489	1	09/01/2022 12:46	CM
tert-Butyl formate	BRL		33	100	ug/L	342489	1	09/01/2022 12:46	CM
Ethanol	BRL		53	100	ug/L	342489	1	09/01/2022 12:46	CM
3,3-Dimethyl-1-butanol	BRL		40	100	ug/L	342489	1	09/01/2022 12:46	CM
Surr: 4-Bromofluorobenzene	98.1		0	75-118	%REC	342489	1	09/01/2022 12:46	CM
Surr: Dibromofluoromethane	96.4		0	82.5-121	%REC	342489	1	09/01/2022 12:46	CM
Surr: Toluene-d8	105		0	78.3-118	%REC	342489	1	09/01/2022 12:46	CM

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- F Analyzed in the lab which is a deviation from the method
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 6-Sep-22

Client:	F&ME Consultants, Inc.	**Client Sample ID:**	MW-3
Project Name:	Hilton Head PSD-UST #11399	**Collection Date:**	8/25/2022 10:50:00 AM
Lab ID:	2208W64-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds SW8260D				**(SW5030B)**					
Benzene	BRL		0.23	1.0	ug/L	342489	1	09/01/2022 13:10	CM
Toluene	BRL		0.55	1.0	ug/L	342489	1	09/01/2022 13:10	CM
Ethylbenzene	BRL		0.24	1.0	ug/L	342489	1	09/01/2022 13:10	CM
m,p-Xylene	BRL		0.51	1.0	ug/L	342489	1	09/01/2022 13:10	CM
o-Xylene	BRL		0.27	1.0	ug/L	342489	1	09/01/2022 13:10	CM
Methyl tert-butyl ether	BRL		0.24	1.0	ug/L	342489	1	09/01/2022 13:10	CM
Naphthalene	BRL		1.1	5.0	ug/L	342489	1	09/01/2022 13:10	CM
1,2-Dichloroethane	BRL		0.32	1.0	ug/L	342489	1	09/01/2022 13:10	CM
Ethyl tert-butyl ether	BRL		3.8	10	ug/L	342489	1	09/01/2022 13:10	CM
tert-Amyl methyl ether	BRL		4.2	10	ug/L	342489	1	09/01/2022 13:10	CM
Isopropyl ether	BRL		3.0	10	ug/L	342489	1	09/01/2022 13:10	CM
tert-Butyl Alcohol	BRL		35	100	ug/L	342489	1	09/01/2022 13:10	CM
tert-Amyl alcohol	BRL		31	100	ug/L	342489	1	09/01/2022 13:10	CM
tert-Butyl formate	BRL		33	100	ug/L	342489	1	09/01/2022 13:10	CM
Ethanol	BRL		53	100	ug/L	342489	1	09/01/2022 13:10	CM
3,3-Dimethyl-1-butanol	BRL		40	100	ug/L	342489	1	09/01/2022 13:10	CM
Surr: 4-Bromofluorobenzene	98.3		0	75-118	%REC	342489	1	09/01/2022 13:10	CM
Surr: Dibromofluoromethane	97.1		0	82.5-121	%REC	342489	1	09/01/2022 13:10	CM
Surr: Toluene-d8	104		0	78.3-118	%REC	342489	1	09/01/2022 13:10	CM

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- F Analyzed in the lab which is a deviation from the method
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 6-Sep-22

Client:	F&ME Consultants, Inc.	**Client Sample ID:**	MW-4
Project Name:	Hilton Head PSD-UST #11399	**Collection Date:**	8/25/2022 11:20:00 AM
Lab ID:	2208W64-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds SW8260D				**(SW5030B)**					
Benzene	BRL		0.23	1.0	ug/L	342489	1	09/01/2022 13:35	CM
Toluene	BRL		0.55	1.0	ug/L	342489	1	09/01/2022 13:35	CM
Ethylbenzene	BRL		0.24	1.0	ug/L	342489	1	09/01/2022 13:35	CM
m,p-Xylene	BRL		0.51	1.0	ug/L	342489	1	09/01/2022 13:35	CM
o-Xylene	BRL		0.27	1.0	ug/L	342489	1	09/01/2022 13:35	CM
Methyl tert-butyl ether	BRL		0.24	1.0	ug/L	342489	1	09/01/2022 13:35	CM
Naphthalene	BRL		1.1	5.0	ug/L	342489	1	09/01/2022 13:35	CM
1,2-Dichloroethane	BRL		0.32	1.0	ug/L	342489	1	09/01/2022 13:35	CM
Ethyl tert-butyl ether	BRL		3.8	10	ug/L	342489	1	09/01/2022 13:35	CM
tert-Amyl methyl ether	BRL		4.2	10	ug/L	342489	1	09/01/2022 13:35	CM
Isopropyl ether	BRL		3.0	10	ug/L	342489	1	09/01/2022 13:35	CM
tert-Butyl Alcohol	BRL		35	100	ug/L	342489	1	09/01/2022 13:35	CM
tert-Amyl alcohol	BRL		31	100	ug/L	342489	1	09/01/2022 13:35	CM
tert-Butyl formate	BRL		33	100	ug/L	342489	1	09/01/2022 13:35	CM
Ethanol	BRL		53	100	ug/L	342489	1	09/01/2022 13:35	CM
3,3-Dimethyl-1-butanol	BRL		40	100	ug/L	342489	1	09/01/2022 13:35	CM
Surr: 4-Bromofluorobenzene	98.3		0	75-118	%REC	342489	1	09/01/2022 13:35	CM
Surr: Dibromofluoromethane	95.9		0	82.5-121	%REC	342489	1	09/01/2022 13:35	CM
Surr: Toluene-d8	104		0	78.3-118	%REC	342489	1	09/01/2022 13:35	CM

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- F Analyzed in the lab which is a deviation from the method
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 6-Sep-22

Client:	F&ME Consultants, Inc.	**Client Sample ID:**	MW-5
Project Name:	Hilton Head PSD-UST #11399	**Collection Date:**	8/25/2022 3:54:00 PM
Lab ID:	2208W64-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds SW8260D				**(SW5030B)**					
Benzene	BRL		0.23	1.0	ug/L	342489	1	09/01/2022 14:00	CM
Toluene	BRL		0.55	1.0	ug/L	342489	1	09/01/2022 14:00	CM
Ethylbenzene	BRL		0.24	1.0	ug/L	342489	1	09/01/2022 14:00	CM
m,p-Xylene	BRL		0.51	1.0	ug/L	342489	1	09/01/2022 14:00	CM
o-Xylene	BRL		0.27	1.0	ug/L	342489	1	09/01/2022 14:00	CM
Methyl tert-butyl ether	BRL		0.24	1.0	ug/L	342489	1	09/01/2022 14:00	CM
Naphthalene	BRL		1.1	5.0	ug/L	342489	1	09/01/2022 14:00	CM
1,2-Dichloroethane	BRL		0.32	1.0	ug/L	342489	1	09/01/2022 14:00	CM
Ethyl tert-butyl ether	BRL		3.8	10	ug/L	342489	1	09/01/2022 14:00	CM
tert-Amyl methyl ether	BRL		4.2	10	ug/L	342489	1	09/01/2022 14:00	CM
Isopropyl ether	BRL		3.0	10	ug/L	342489	1	09/01/2022 14:00	CM
tert-Butyl Alcohol	BRL		35	100	ug/L	342489	1	09/01/2022 14:00	CM
tert-Amyl alcohol	BRL		31	100	ug/L	342489	1	09/01/2022 14:00	CM
tert-Butyl formate	BRL		33	100	ug/L	342489	1	09/01/2022 14:00	CM
Ethanol	BRL		53	100	ug/L	342489	1	09/01/2022 14:00	CM
3,3-Dimethyl-1-butanol	BRL		40	100	ug/L	342489	1	09/01/2022 14:00	CM
Surr: 4-Bromofluorobenzene	98.6		0	75-118	%REC	342489	1	09/01/2022 14:00	CM
Surr: Dibromofluoromethane	99.3		0	82.5-121	%REC	342489	1	09/01/2022 14:00	CM
Surr: Toluene-d8	104		0	78.3-118	%REC	342489	1	09/01/2022 14:00	CM

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- F Analyzed in the lab which is a deviation from the method
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 6-Sep-22

Client:	F&ME Consultants, Inc.	**Client Sample ID:**	MW-6
Project Name:	Hilton Head PSD-UST #11399	**Collection Date:**	8/25/2022 2:28:00 PM
Lab ID:	2208W64-005	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds SW8260D				**(SW5030B)**					
Benzene	BRL		0.23	1.0	ug/L	342489	1	09/01/2022 14:25	CM
Toluene	BRL		0.55	1.0	ug/L	342489	1	09/01/2022 14:25	CM
Ethylbenzene	BRL		0.24	1.0	ug/L	342489	1	09/01/2022 14:25	CM
m,p-Xylene	BRL		0.51	1.0	ug/L	342489	1	09/01/2022 14:25	CM
o-Xylene	BRL		0.27	1.0	ug/L	342489	1	09/01/2022 14:25	CM
Methyl tert-butyl ether	BRL		0.24	1.0	ug/L	342489	1	09/01/2022 14:25	CM
Naphthalene	BRL		1.1	5.0	ug/L	342489	1	09/01/2022 14:25	CM
1,2-Dichloroethane	BRL		0.32	1.0	ug/L	342489	1	09/01/2022 14:25	CM
Ethyl tert-butyl ether	BRL		3.8	10	ug/L	342489	1	09/01/2022 14:25	CM
tert-Amyl methyl ether	BRL		4.2	10	ug/L	342489	1	09/01/2022 14:25	CM
Isopropyl ether	BRL		3.0	10	ug/L	342489	1	09/01/2022 14:25	CM
tert-Butyl Alcohol	BRL		35	100	ug/L	342489	1	09/01/2022 14:25	CM
tert-Amyl alcohol	BRL		31	100	ug/L	342489	1	09/01/2022 14:25	CM
tert-Butyl formate	BRL		33	100	ug/L	342489	1	09/01/2022 14:25	CM
Ethanol	BRL		53	100	ug/L	342489	1	09/01/2022 14:25	CM
3,3-Dimethyl-1-butanol	BRL		40	100	ug/L	342489	1	09/01/2022 14:25	CM
Surr: 4-Bromofluorobenzene	98.9		0	75-118	%REC	342489	1	09/01/2022 14:25	CM
Surr: Dibromofluoromethane	96.3		0	82.5-121	%REC	342489	1	09/01/2022 14:25	CM
Surr: Toluene-d8	104		0	78.3-118	%REC	342489	1	09/01/2022 14:25	CM

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- F Analyzed in the lab which is a deviation from the method
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 6-Sep-22

Client:	F&ME Consultants, Inc.	**Client Sample ID:**	MW-7
Project Name:	Hilton Head PSD-UST #11399	**Collection Date:**	8/25/2022 11:10:00 AM
Lab ID:	2208W64-006	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds SW8260D				**(SW5030B)**					
Benzene	BRL		0.23	1.0	ug/L	342489	1	09/01/2022 14:50	CM
Toluene	BRL		0.55	1.0	ug/L	342489	1	09/01/2022 14:50	CM
Ethylbenzene	BRL		0.24	1.0	ug/L	342489	1	09/01/2022 14:50	CM
m,p-Xylene	BRL		0.51	1.0	ug/L	342489	1	09/01/2022 14:50	CM
o-Xylene	BRL		0.27	1.0	ug/L	342489	1	09/01/2022 14:50	CM
Methyl tert-butyl ether	BRL		0.24	1.0	ug/L	342489	1	09/01/2022 14:50	CM
Naphthalene	BRL		1.1	5.0	ug/L	342489	1	09/01/2022 14:50	CM
1,2-Dichloroethane	BRL		0.32	1.0	ug/L	342489	1	09/01/2022 14:50	CM
Ethyl tert-butyl ether	BRL		3.8	10	ug/L	342489	1	09/01/2022 14:50	CM
tert-Amyl methyl ether	BRL		4.2	10	ug/L	342489	1	09/01/2022 14:50	CM
Isopropyl ether	BRL		3.0	10	ug/L	342489	1	09/01/2022 14:50	CM
tert-Butyl Alcohol	BRL		35	100	ug/L	342489	1	09/01/2022 14:50	CM
tert-Amyl alcohol	BRL		31	100	ug/L	342489	1	09/01/2022 14:50	CM
tert-Butyl formate	BRL		33	100	ug/L	342489	1	09/01/2022 14:50	CM
Ethanol	BRL		53	100	ug/L	342489	1	09/01/2022 14:50	CM
3,3-Dimethyl-1-butanol	BRL		40	100	ug/L	342489	1	09/01/2022 14:50	CM
Surr: 4-Bromofluorobenzene	99.6		0	75-118	%REC	342489	1	09/01/2022 14:50	CM
Surr: Dibromofluoromethane	96.4		0	82.5-121	%REC	342489	1	09/01/2022 14:50	CM
Surr: Toluene-d8	105		0	78.3-118	%REC	342489	1	09/01/2022 14:50	CM

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- F Analyzed in the lab which is a deviation from the method
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 6-Sep-22

Client:	F&ME Consultants, Inc.	**Client Sample ID:**	MW-8
Project Name:	Hilton Head PSD-UST #11399	**Collection Date:**	8/25/2022 12:39:00 PM
Lab ID:	2208W64-007	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds SW8260D				**(SW5030B)**					
Benzene	BRL		0.23	1.0	ug/L	342489	1	09/01/2022 16:53	CM
Toluene	BRL		0.55	1.0	ug/L	342489	1	09/01/2022 16:53	CM
Ethylbenzene	BRL		0.24	1.0	ug/L	342489	1	09/01/2022 16:53	CM
m,p-Xylene	BRL		0.51	1.0	ug/L	342489	1	09/01/2022 16:53	CM
o-Xylene	BRL		0.27	1.0	ug/L	342489	1	09/01/2022 16:53	CM
Methyl tert-butyl ether	BRL		0.24	1.0	ug/L	342489	1	09/01/2022 16:53	CM
Naphthalene	BRL		1.1	5.0	ug/L	342489	1	09/01/2022 16:53	CM
1,2-Dichloroethane	BRL		0.32	1.0	ug/L	342489	1	09/01/2022 16:53	CM
Ethyl tert-butyl ether	BRL		3.8	10	ug/L	342489	1	09/01/2022 16:53	CM
tert-Amyl methyl ether	BRL		4.2	10	ug/L	342489	1	09/01/2022 16:53	CM
Isopropyl ether	BRL		3.0	10	ug/L	342489	1	09/01/2022 16:53	CM
tert-Butyl Alcohol	BRL		35	100	ug/L	342489	1	09/01/2022 16:53	CM
tert-Amyl alcohol	BRL		31	100	ug/L	342489	1	09/01/2022 16:53	CM
tert-Butyl formate	BRL		33	100	ug/L	342489	1	09/01/2022 16:53	CM
Ethanol	BRL		53	100	ug/L	342489	1	09/01/2022 16:53	CM
3,3-Dimethyl-1-butanol	BRL		40	100	ug/L	342489	1	09/01/2022 16:53	CM
Surr: 4-Bromofluorobenzene	98.8		0	75-118	%REC	342489	1	09/01/2022 16:53	CM
Surr: Dibromofluoromethane	96.5		0	82.5-121	%REC	342489	1	09/01/2022 16:53	CM
Surr: Toluene-d8	104		0	78.3-118	%REC	342489	1	09/01/2022 16:53	CM

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- F Analyzed in the lab which is a deviation from the method
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 6-Sep-22

Client:	F&ME Consultants, Inc.	**Client Sample ID:**	MW-10
Project Name:	Hilton Head PSD-UST #11399	**Collection Date:**	8/25/2022 3:09:00 PM
Lab ID:	2208W64-008	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds SW8260D				**(SW5030B)**					
Benzene	BRL		0.23	1.0	ug/L	342489	1	09/01/2022 16:28	CM
Toluene	BRL		0.55	1.0	ug/L	342489	1	09/01/2022 16:28	CM
Ethylbenzene	BRL		0.24	1.0	ug/L	342489	1	09/01/2022 16:28	CM
m,p-Xylene	BRL		0.51	1.0	ug/L	342489	1	09/01/2022 16:28	CM
o-Xylene	BRL		0.27	1.0	ug/L	342489	1	09/01/2022 16:28	CM
Methyl tert-butyl ether	BRL		0.24	1.0	ug/L	342489	1	09/01/2022 16:28	CM
Naphthalene	BRL		1.1	5.0	ug/L	342489	1	09/01/2022 16:28	CM
1,2-Dichloroethane	BRL		0.32	1.0	ug/L	342489	1	09/01/2022 16:28	CM
Ethyl tert-butyl ether	BRL		3.8	10	ug/L	342489	1	09/01/2022 16:28	CM
tert-Amyl methyl ether	BRL		4.2	10	ug/L	342489	1	09/01/2022 16:28	CM
Isopropyl ether	BRL		3.0	10	ug/L	342489	1	09/01/2022 16:28	CM
tert-Butyl Alcohol	BRL		35	100	ug/L	342489	1	09/01/2022 16:28	CM
tert-Amyl alcohol	BRL		31	100	ug/L	342489	1	09/01/2022 16:28	CM
tert-Butyl formate	BRL		33	100	ug/L	342489	1	09/01/2022 16:28	CM
Ethanol	BRL		53	100	ug/L	342489	1	09/01/2022 16:28	CM
3,3-Dimethyl-1-butanol	BRL		40	100	ug/L	342489	1	09/01/2022 16:28	CM
Surr: 4-Bromofluorobenzene	97.9		0	75-118	%REC	342489	1	09/01/2022 16:28	CM
Surr: Dibromofluoromethane	95.8		0	82.5-121	%REC	342489	1	09/01/2022 16:28	CM
Surr: Toluene-d8	105		0	78.3-118	%REC	342489	1	09/01/2022 16:28	CM

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- F Analyzed in the lab which is a deviation from the method
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 6-Sep-22

Client:	F&ME Consultants, Inc.	**Client Sample ID:**	MW-11
Project Name:	Hilton Head PSD-UST #11399	**Collection Date:**	8/25/2022 5:24:00 PM
Lab ID:	2208W64-009	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds SW8260D				**(SW5030B)**					
Benzene	BRL		0.23	1.0	ug/L	342489	1	09/01/2022 15:14	CM
Toluene	BRL		0.55	1.0	ug/L	342489	1	09/01/2022 15:14	CM
Ethylbenzene	BRL		0.24	1.0	ug/L	342489	1	09/01/2022 15:14	CM
m,p-Xylene	BRL		0.51	1.0	ug/L	342489	1	09/01/2022 15:14	CM
o-Xylene	BRL		0.27	1.0	ug/L	342489	1	09/01/2022 15:14	CM
Methyl tert-butyl ether	BRL		0.24	1.0	ug/L	342489	1	09/01/2022 15:14	CM
Naphthalene	BRL		1.1	5.0	ug/L	342489	1	09/01/2022 15:14	CM
1,2-Dichloroethane	BRL		0.32	1.0	ug/L	342489	1	09/01/2022 15:14	CM
Ethyl tert-butyl ether	BRL		3.8	10	ug/L	342489	1	09/01/2022 15:14	CM
tert-Amyl methyl ether	BRL		4.2	10	ug/L	342489	1	09/01/2022 15:14	CM
Isopropyl ether	BRL		3.0	10	ug/L	342489	1	09/01/2022 15:14	CM
tert-Butyl Alcohol	BRL		35	100	ug/L	342489	1	09/01/2022 15:14	CM
tert-Amyl alcohol	BRL		31	100	ug/L	342489	1	09/01/2022 15:14	CM
tert-Butyl formate	BRL		33	100	ug/L	342489	1	09/01/2022 15:14	CM
Ethanol	BRL		53	100	ug/L	342489	1	09/01/2022 15:14	CM
3,3-Dimethyl-1-butanol	BRL		40	100	ug/L	342489	1	09/01/2022 15:14	CM
Surr: 4-Bromofluorobenzene	98.5		0	75-118	%REC	342489	1	09/01/2022 15:14	CM
Surr: Dibromofluoromethane	96.5		0	82.5-121	%REC	342489	1	09/01/2022 15:14	CM
Surr: Toluene-d8	105		0	78.3-118	%REC	342489	1	09/01/2022 15:14	CM

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- F Analyzed in the lab which is a deviation from the method
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 6-Sep-22

Client:	F&ME Consultants, Inc.	**Client Sample ID:**	MW-12
Project Name:	Hilton Head PSD-UST #11399	**Collection Date:**	8/25/2022 6:44:00 PM
Lab ID:	2208W64-010	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds SW8260D				**(SW5030B)**					
Benzene	7.4		0.23	1.0	ug/L	342489	1	09/01/2022 18:57	CM
Toluene	BRL		0.55	1.0	ug/L	342489	1	09/01/2022 18:57	CM
Ethylbenzene	57		0.24	1.0	ug/L	342489	1	09/01/2022 18:57	CM
m,p-Xylene	24		0.51	1.0	ug/L	342489	1	09/01/2022 18:57	CM
o-Xylene	0.36	J	0.27	1.0	ug/L	342489	1	09/01/2022 18:57	CM
Methyl tert-butyl ether	BRL		0.24	1.0	ug/L	342489	1	09/01/2022 18:57	CM
Naphthalene	53		1.1	5.0	ug/L	342489	1	09/01/2022 18:57	CM
1,2-Dichloroethane	BRL		0.32	1.0	ug/L	342489	1	09/01/2022 18:57	CM
Ethyl tert-butyl ether	BRL		3.8	10	ug/L	342489	1	09/01/2022 18:57	CM
tert-Amyl methyl ether	BRL		4.2	10	ug/L	342489	1	09/01/2022 18:57	CM
Isopropyl ether	BRL		3.0	10	ug/L	342489	1	09/01/2022 18:57	CM
tert-Butyl Alcohol	BRL		35	100	ug/L	342489	1	09/01/2022 18:57	CM
tert-Amyl alcohol	BRL		31	100	ug/L	342489	1	09/01/2022 18:57	CM
tert-Butyl formate	BRL		33	100	ug/L	342489	1	09/01/2022 18:57	CM
Ethanol	BRL		53	100	ug/L	342489	1	09/01/2022 18:57	CM
3,3-Dimethyl-1-butanol	BRL		40	100	ug/L	342489	1	09/01/2022 18:57	CM
Surr: 4-Bromofluorobenzene	103		0	75-118	%REC	342489	1	09/01/2022 18:57	CM
Surr: Dibromofluoromethane	95.3		0	82.5-121	%REC	342489	1	09/01/2022 18:57	CM
Surr: Toluene-d8	103		0	78.3-118	%REC	342489	1	09/01/2022 18:57	CM

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- F Analyzed in the lab which is a deviation from the method
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 6-Sep-22

Client:	F&ME Consultants, Inc.	**Client Sample ID:**	DCW-1
Project Name:	Hilton Head PSD-UST #11399	**Collection Date:**	8/25/2022 4:40:00 PM
Lab ID:	2208W64-011	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds SW8260D				**(SW5030B)**					
Benzene	BRL		0.23	1.0	ug/L	342489	1	09/01/2022 15:39	CM
Toluene	BRL		0.55	1.0	ug/L	342489	1	09/01/2022 15:39	CM
Ethylbenzene	BRL		0.24	1.0	ug/L	342489	1	09/01/2022 15:39	CM
m,p-Xylene	BRL		0.51	1.0	ug/L	342489	1	09/01/2022 15:39	CM
o-Xylene	BRL		0.27	1.0	ug/L	342489	1	09/01/2022 15:39	CM
Methyl tert-butyl ether	BRL		0.24	1.0	ug/L	342489	1	09/01/2022 15:39	CM
Naphthalene	BRL		1.1	5.0	ug/L	342489	1	09/01/2022 15:39	CM
1,2-Dichloroethane	BRL		0.32	1.0	ug/L	342489	1	09/01/2022 15:39	CM
Ethyl tert-butyl ether	BRL		3.8	10	ug/L	342489	1	09/01/2022 15:39	CM
tert-Amyl methyl ether	BRL		4.2	10	ug/L	342489	1	09/01/2022 15:39	CM
Isopropyl ether	BRL		3.0	10	ug/L	342489	1	09/01/2022 15:39	CM
tert-Butyl Alcohol	BRL		35	100	ug/L	342489	1	09/01/2022 15:39	CM
tert-Amyl alcohol	BRL		31	100	ug/L	342489	1	09/01/2022 15:39	CM
tert-Butyl formate	BRL		33	100	ug/L	342489	1	09/01/2022 15:39	CM
Ethanol	BRL		53	100	ug/L	342489	1	09/01/2022 15:39	CM
3,3-Dimethyl-1-butanol	BRL		40	100	ug/L	342489	1	09/01/2022 15:39	CM
Surr: 4-Bromofluorobenzene	99.9		0	75-118	%REC	342489	1	09/01/2022 15:39	CM
Surr: Dibromofluoromethane	95.4		0	82.5-121	%REC	342489	1	09/01/2022 15:39	CM
Surr: Toluene-d8	105		0	78.3-118	%REC	342489	1	09/01/2022 15:39	CM

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- F Analyzed in the lab which is a deviation from the method
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 6-Sep-22

Client:	F&ME Consultants, Inc.	**Client Sample ID:**	RW-1
Project Name:	Hilton Head PSD-UST #11399	**Collection Date:**	8/25/2022 6:02:00 PM
Lab ID:	2208W64-012	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds SW8260D				**(SW5030B)**					
Benzene	3.3		0.23	1.0	ug/L	342489	1	09/01/2022 18:32	CM
Toluene	BRL		0.55	1.0	ug/L	342489	1	09/01/2022 18:32	CM
Ethylbenzene	50		0.24	1.0	ug/L	342489	1	09/01/2022 18:32	CM
m,p-Xylene	14		0.51	1.0	ug/L	342489	1	09/01/2022 18:32	CM
o-Xylene	BRL		0.27	1.0	ug/L	342489	1	09/01/2022 18:32	CM
Methyl tert-butyl ether	BRL		0.24	1.0	ug/L	342489	1	09/01/2022 18:32	CM
Naphthalene	35		1.1	5.0	ug/L	342489	1	09/01/2022 18:32	CM
1,2-Dichloroethane	BRL		0.32	1.0	ug/L	342489	1	09/01/2022 18:32	CM
Ethyl tert-butyl ether	BRL		3.8	10	ug/L	342489	1	09/01/2022 18:32	CM
tert-Amyl methyl ether	BRL		4.2	10	ug/L	342489	1	09/01/2022 18:32	CM
Isopropyl ether	BRL		3.0	10	ug/L	342489	1	09/01/2022 18:32	CM
tert-Butyl Alcohol	BRL		35	100	ug/L	342489	1	09/01/2022 18:32	CM
tert-Amyl alcohol	BRL		31	100	ug/L	342489	1	09/01/2022 18:32	CM
tert-Butyl formate	BRL		33	100	ug/L	342489	1	09/01/2022 18:32	CM
Ethanol	310		53	100	ug/L	342489	1	09/01/2022 18:32	CM
3,3-Dimethyl-1-butanol	BRL		40	100	ug/L	342489	1	09/01/2022 18:32	CM
Surr: 4-Bromofluorobenzene	100		0	75-118	%REC	342489	1	09/01/2022 18:32	CM
Surr: Dibromofluoromethane	97.6		0	82.5-121	%REC	342489	1	09/01/2022 18:32	CM
Surr: Toluene-d8	103		0	78.3-118	%REC	342489	1	09/01/2022 18:32	CM

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- F Analyzed in the lab which is a deviation from the method
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 6-Sep-22

Client:	F&ME Consultants, Inc.	**Client Sample ID:**	Duplicate
Project Name:	Hilton Head PSD-UST #11399	**Collection Date:**	8/25/2022
Lab ID:	2208W64-013	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds SW8260D				**(SW5030B)**					
Benzene	BRL		0.23	1.0	ug/L	342489	1	09/01/2022 16:04	CM
Toluene	BRL		0.55	1.0	ug/L	342489	1	09/01/2022 16:04	CM
Ethylbenzene	BRL		0.24	1.0	ug/L	342489	1	09/01/2022 16:04	CM
m,p-Xylene	BRL		0.51	1.0	ug/L	342489	1	09/01/2022 16:04	CM
o-Xylene	BRL		0.27	1.0	ug/L	342489	1	09/01/2022 16:04	CM
Methyl tert-butyl ether	BRL		0.24	1.0	ug/L	342489	1	09/01/2022 16:04	CM
Naphthalene	BRL		1.1	5.0	ug/L	342489	1	09/01/2022 16:04	CM
1,2-Dichloroethane	BRL		0.32	1.0	ug/L	342489	1	09/01/2022 16:04	CM
Ethyl tert-butyl ether	BRL		3.8	10	ug/L	342489	1	09/01/2022 16:04	CM
tert-Amyl methyl ether	BRL		4.2	10	ug/L	342489	1	09/01/2022 16:04	CM
Isopropyl ether	BRL		3.0	10	ug/L	342489	1	09/01/2022 16:04	CM
tert-Butyl Alcohol	BRL		35	100	ug/L	342489	1	09/01/2022 16:04	CM
tert-Amyl alcohol	BRL		31	100	ug/L	342489	1	09/01/2022 16:04	CM
tert-Butyl formate	BRL		33	100	ug/L	342489	1	09/01/2022 16:04	CM
Ethanol	BRL		53	100	ug/L	342489	1	09/01/2022 16:04	CM
3,3-Dimethyl-1-butanol	BRL		40	100	ug/L	342489	1	09/01/2022 16:04	CM
Surr: 4-Bromofluorobenzene	97.8		0	75-118	%REC	342489	1	09/01/2022 16:04	CM
Surr: Dibromofluoromethane	97.2		0	82.5-121	%REC	342489	1	09/01/2022 16:04	CM
Surr: Toluene-d8	104		0	78.3-118	%REC	342489	1	09/01/2022 16:04	CM

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- F Analyzed in the lab which is a deviation from the method
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 6-Sep-22

Client:	F&ME Consultants, Inc.	**Client Sample ID:**	Field Blank
Project Name:	Hilton Head PSD-UST #11399	**Collection Date:**	8/25/2022 10:45:00 AM
Lab ID:	2208W64-014	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds SW8260D				**(SW5030B)**					
Benzene	BRL		0.23	1.0	ug/L	342489	1	09/01/2022 12:21	CM
Toluene	BRL		0.55	1.0	ug/L	342489	1	09/01/2022 12:21	CM
Ethylbenzene	BRL		0.24	1.0	ug/L	342489	1	09/01/2022 12:21	CM
m,p-Xylene	BRL		0.51	1.0	ug/L	342489	1	09/01/2022 12:21	CM
o-Xylene	BRL		0.27	1.0	ug/L	342489	1	09/01/2022 12:21	CM
Methyl tert-butyl ether	BRL		0.24	1.0	ug/L	342489	1	09/01/2022 12:21	CM
Naphthalene	BRL		1.1	5.0	ug/L	342489	1	09/01/2022 12:21	CM
1,2-Dichloroethane	BRL		0.32	1.0	ug/L	342489	1	09/01/2022 12:21	CM
Ethyl tert-butyl ether	BRL		3.8	10	ug/L	342489	1	09/01/2022 12:21	CM
tert-Amyl methyl ether	BRL		4.2	10	ug/L	342489	1	09/01/2022 12:21	CM
Isopropyl ether	BRL		3.0	10	ug/L	342489	1	09/01/2022 12:21	CM
tert-Butyl Alcohol	BRL		35	100	ug/L	342489	1	09/01/2022 12:21	CM
tert-Amyl alcohol	BRL		31	100	ug/L	342489	1	09/01/2022 12:21	CM
tert-Butyl formate	BRL		33	100	ug/L	342489	1	09/01/2022 12:21	CM
Ethanol	BRL		53	100	ug/L	342489	1	09/01/2022 12:21	CM
3,3-Dimethyl-1-butanol	BRL		40	100	ug/L	342489	1	09/01/2022 12:21	CM
Surr: 4-Bromofluorobenzene	97.4		0	75-118	%REC	342489	1	09/01/2022 12:21	CM
Surr: Dibromofluoromethane	96.8		0	82.5-121	%REC	342489	1	09/01/2022 12:21	CM
Surr: Toluene-d8	104		0	78.3-118	%REC	342489	1	09/01/2022 12:21	CM

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
F	Analyzed in the lab which is a deviation from the method	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 6-Sep-22

Client:	F&ME Consultants, Inc.	**Client Sample ID:**	Trip Blank
Project Name:	Hilton Head PSD-UST #11399	**Collection Date:**	8/25/2022
Lab ID:	2208W64-015	**Matrix:**	Trip Blank

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds SW8260D				**(SW5030B)**					
Benzene	BRL		0.23	1.0	ug/L	342489	1	09/01/2022 11:56	CM
Toluene	BRL		0.55	1.0	ug/L	342489	1	09/01/2022 11:56	CM
Ethylbenzene	BRL		0.24	1.0	ug/L	342489	1	09/01/2022 11:56	CM
m,p-Xylene	BRL		0.51	1.0	ug/L	342489	1	09/01/2022 11:56	CM
o-Xylene	BRL		0.27	1.0	ug/L	342489	1	09/01/2022 11:56	CM
Methyl tert-butyl ether	BRL		0.24	1.0	ug/L	342489	1	09/01/2022 11:56	CM
Naphthalene	BRL		1.1	5.0	ug/L	342489	1	09/01/2022 11:56	CM
1,2-Dichloroethane	BRL		0.32	1.0	ug/L	342489	1	09/01/2022 11:56	CM
Ethyl tert-butyl ether	BRL		3.8	10	ug/L	342489	1	09/01/2022 11:56	CM
tert-Amyl methyl ether	BRL		4.2	10	ug/L	342489	1	09/01/2022 11:56	CM
Isopropyl ether	BRL		3.0	10	ug/L	342489	1	09/01/2022 11:56	CM
tert-Butyl Alcohol	BRL		35	100	ug/L	342489	1	09/01/2022 11:56	CM
tert-Amyl alcohol	BRL		31	100	ug/L	342489	1	09/01/2022 11:56	CM
tert-Butyl formate	BRL		33	100	ug/L	342489	1	09/01/2022 11:56	CM
Ethanol	BRL		53	100	ug/L	342489	1	09/01/2022 11:56	CM
3,3-Dimethyl-1-butanol	BRL		40	100	ug/L	342489	1	09/01/2022 11:56	CM
Surr: 4-Bromofluorobenzene	99.5		0	75-118	%REC	342489	1	09/01/2022 11:56	CM
Surr: Dibromofluoromethane	97.7		0	82.5-121	%REC	342489	1	09/01/2022 11:56	CM
Surr: Toluene-d8	105		0	78.3-118	%REC	342489	1	09/01/2022 11:56	CM

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- F Analyzed in the lab which is a deviation from the method
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 7-Sep-22

SUMMARY OF ANALYTES DETECTED

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	Dilution
Client Sample ID: MW-12				**Lab ID:** 2208W64-010			
Collection Date: 8/25/2022 6:44:00 PM				**Matrix:** Groundwater			
Volatile Organic Compounds SW8260D				**(SW5030B)**			
Benzene	7.4		0.23	1.0	ug/L	342489	1
Ethylbenzene	57		0.24	1.0	ug/L	342489	1
m,p-Xylene	24		0.51	1.0	ug/L	342489	1
o-Xylene	0.36	J	0.27	1.0	ug/L	342489	1
Naphthalene	53		1.1	5.0	ug/L	342489	1
Client Sample ID: RW-1				**Lab ID:** 2208W64-012			
Collection Date: 8/25/2022 6:02:00 PM				**Matrix:** Groundwater			
Volatile Organic Compounds SW8260D				**(SW5030B)**			
Benzene	3.3		0.23	1.0	ug/L	342489	1
Ethylbenzene	50		0.24	1.0	ug/L	342489	1
m,p-Xylene	14		0.51	1.0	ug/L	342489	1
Naphthalene	35		1.1	5.0	ug/L	342489	1
Ethanol	310		53	100	ug/L	342489	1

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	F	Analyzed in the lab which is a deviation from the method
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

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ANALYTICAL ENVIRONMENTAL SERVICES, INC.

SAMPLE/COOLER RECEIPT CHECKLIST

1. Client Name: **Access Analytical, Inc.** AES Work Order Number: **2208W64**

2. Carrier: FedEx ■ UPS ☐ USPS ☐ Client ☐ Courier ☐ Other _____

		Yes	No	N/A	Details	Comments
3.	Shipping container/cooler received in good condition?	◉	○	○	damaged ☐ leaking ☐ other ☐	
4.	Custody seals present on shipping container?	○	◉	○		
5.	Custody seals intact on shipping container?	○	○	◉		
6.	Temperature blanks present?	○	◉	○		
7.	Cooler temperature(s) within limits of 0-6°C? [See item 13 and 14 for temperature recordings.]	◉	○	○	Cooling initiated for recently collected samples / ice present ☐	
8.	Chain of Custody (COC) present?	◉	○	○		
9.	Chain of Custody signed, dated, and timed when relinquished and received?	◉	○	○		
10.	Sampler name and/or signature on COC?	◉	○	○		
11.	Were all samples received within holding time?	◉	○	○		
12.	TAT marked on the COC?	◉	○	○	If no TAT indicated, proceeded with standard TAT per Terms & Conditions. ☐	

13. Cooler 1 Temperature 2.0 °C Cooler 2 Temperature _____ °C Cooler 3 Temperature _____ °C Cooler 4 Temperature _____ °C

14. Cooler 5 Temperature _____ °C Cooler 6 Temperature _____ °C Cooler 7 Temperature _____ °C Cooler 8 Temperature _____ °C

15. Comments: _____

I certify that I have completed sections 1-15 (dated initials). HM 8/31/22

		Yes	No	N/A	Details	Comments
16.	Were sample containers intact upon receipt?	◉	○	○		
17.	Custody seals present on sample containers?	○	◉	○		
18.	Custody seals intact on sample containers?	○	○	◉		
19.	Do sample container labels match the COC?	◉	○	○	incomplete info ☐ illegible ☐ no label ☐ other ☐	
20.	Are analyses requested indicated on the COC?	◉	○	○		
21.	Were all of the samples listed on the COC received?	◉	○	○	samples received but not listed on COC ☐ samples listed on COC not received ☐	
22.	Was the sample collection date/time noted?	◉	○	○		
23.	Did we receive sufficient sample volume for indicated analyses?	◉	○	○		
24.	Were samples received in appropriate containers?	◉	○	○		
25.	Were VOA samples received without headspace (< 1/4" bubble)?	◉	○	○		
26.	Were trip blanks submitted?	◉	○	○	listed on COC ■ not listed on COC ☐	

27. Comments: _____

This section only applies to samples where pH can be checked at Sample Receipt.

I certify that I have completed sections 16-27 (dated initials). HM 8/31/22

		Yes	No	N/A	Details	Comments
28.	Have containers needing chemical preservation been checked? *	○	○	◉		
29.	Containers meet preservation guidelines?	○	○	◉		
30.	Was pH adjusted at Sample Receipt?	○	○	◉		

* Note: Certain analyses require chemical preservation but must be checked in the laboratory and not upon Sample Receipt such as Coliforms, VOCs and Oil & Grease/TPH. This also excludes metals by EPA 200.7, 200.8 and 245.1 which will be verified between 16 and 24 hours after preservation.

I certify that I have completed sections 28-30 (dated initials). HM 8/31/22

★□★★★

Client: F&ME Consultants, Inc.
Project Name Hilton Head PSD-UST #11399
Workorder: 2208W64

ANALYTICAL QC SUMMARY REPORT

BatchID: 342489

Sample ID: **MB-342489** Client ID: Units: **ug/L** Prep Date: **09/01/2022** Run No: **495383**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds SW8260D** BatchID: **342489** Analysis Date: **09/01/2022** Seq No: **11569916**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dichloroethane	BRL	1.0									
3,3-Dimethyl-1-butanol	BRL	100									
Benzene	BRL	1.0									
Ethanol	BRL	100									
Ethyl tert-butyl ether	BRL	10									
Ethylbenzene	BRL	1.0									
Isopropyl ether	BRL	10									
m,p-Xylene	BRL	1.0									
Methyl tert-butyl ether	BRL	1.0									
Naphthalene	BRL	5.0									
o-Xylene	BRL	1.0									
tert-Amyl alcohol	BRL	100									
tert-Amyl methyl ether	BRL	10									
tert-Butyl Alcohol	BRL	100									
tert-Butyl formate	BRL	100									
Toluene	BRL	1.0									
Surr: 4-Bromofluorobenzene	48.58	0	50.00		97.2	75	118				
Surr: Dibromofluoromethane	49.17	0	50.00		98.3	82.5	121				
Surr: Toluene-d8	52.25	0	50.00		104	78.3	118				

Sample ID: **LCS-342489** Client ID: Units: **ug/L** Prep Date: **09/01/2022** Run No: **495383**
SampleType: **LCS** TestCode: **Volatile Organic Compounds SW8260D** BatchID: **342489** Analysis Date: **09/01/2022** Seq No: **11569917**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dichloroethane	52.25	1.0	50.00		104	70	130				
3,3-Dimethyl-1-butanol	456.4	100	500.0		91.3	70	130				
Benzene	54.21	1.0	50.00		108	80.4	126				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: F&ME Consultants, Inc.
Project Name Hilton Head PSD-UST #11399
Workorder: 2208W64

ANALYTICAL QC SUMMARY REPORT

BatchID: 342489

Sample ID: **LCS-342489** Client ID: Units: **ug/L** Prep Date: **09/01/2022** Run No: **495383**
SampleType: **LCS** TestCode: **Volatile Organic Compounds SW8260D** BatchID: **342489** Analysis Date: **09/01/2022** Seq No: **11569917**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethanol	528.0	100	500.0		106	70	130				
Ethyl tert-butyl ether	115.3	10	100.0		115	70	130				
Ethylbenzene	53.42	1.0	50.00		107	82.7	125				
Isopropyl ether	118.1	10	100.0		118	70	130				
m,p-Xylene	107.4	1.0	100.0		107	80.7	127				
Methyl tert-butyl ether	54.95	1.0	50.00		110	70.8	129				
Naphthalene	47.84	5.0	50.00		95.7	70	130				
o-Xylene	52.32	1.0	50.00		105	81.1	124				
tert-Amyl alcohol	472.1	100	500.0		94.4	70	130				
tert-Amyl methyl ether	113.0	10	100.0		113	70	130				
tert-Butyl Alcohol	509.9	100	500.0		102	70	130				
tert-Butyl formate	477.8	100	500.0		95.6	70	130				
Toluene	56.30	1.0	50.00		113	79.2	124				
Surr: 4-Bromofluorobenzene	49.71	0	50.00		99.4	75	118				
Surr: Dibromofluoromethane	49.35	0	50.00		98.7	82.5	121				
Surr: Toluene-d8	51.88	0	50.00		104	78.3	118				

Sample ID: **2208W64-004AMS** Client ID: **MW-5** Units: **ug/L** Prep Date: **09/01/2022** Run No: **495383**
SampleType: **MS** TestCode: **Volatile Organic Compounds SW8260D** BatchID: **342489** Analysis Date: **09/01/2022** Seq No: **11569936**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dichloroethane	54.93	1.0	50.00		110	72.1	135				
3,3-Dimethyl-1-butanol	719.1	100	500.0		144	60.1	130				S
Benzene	58.11	1.0	50.00		116	70.5	136				
Ethanol	689.9	100	500.0		138	61.9	140				
Ethyl tert-butyl ether	117.4	10	100.0		117	71.2	122				
Ethylbenzene	56.88	1.0	50.00		114	70	134				
Isopropyl ether	123.3	10	100.0		123	71	133				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: F&ME Consultants, Inc.
Project Name Hilton Head PSD-UST #11399
Workorder: 2208W64

ANALYTICAL QC SUMMARY REPORT

BatchID: 342489

Sample ID: **2208W64-004AMS** Client ID: **MW-5** Units: **ug/L** Prep Date: **09/01/2022** Run No: **495383**
SampleType: **MS** TestCode: **Volatile Organic Compounds SW8260D** BatchID: **342489** Analysis Date: **09/01/2022** Seq No: **11569936**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
m,p-Xylene	114.2	1.0	100.0		114	66.3	138				
Methyl tert-butyl ether	55.48	1.0	50.00		111	65.7	136				
Naphthalene	55.54	5.0	50.00		111	58.6	135				
o-Xylene	55.10	1.0	50.00		110	67.1	136				
tert-Amyl alcohol	562.8	100	500.0		113	69.7	140				
tert-Amyl methyl ether	114.0	10	100.0		114	70.1	126				
tert-Butyl Alcohol	744.8	100	500.0		149	67	140				S
tert-Butyl formate	198.1	100	500.0		39.6	60	134				S
Toluene	59.77	1.0	50.00		120	66.4	140				
Surr: 4-Bromofluorobenzene	50.36	0	50.00		101	75	118				
Surr: Dibromofluoromethane	49.22	0	50.00		98.4	82.5	121				
Surr: Toluene-d8	51.68	0	50.00		103	78.3	118				

Sample ID: **2208W64-003ADUP** Client ID: **MW-4** Units: **ug/L** Prep Date: **09/01/2022** Run No: **495383**
SampleType: **DUP** TestCode: **Volatile Organic Compounds SW8260D** BatchID: **342489** Analysis Date: **09/01/2022** Seq No: **11569933**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dichloroethane	BRL	1.0						0	0	30	
3,3-Dimethyl-1-butanol	BRL	100						0	0	30	
Benzene	BRL	1.0						0	0	30	
Ethanol	BRL	100						0	0	30	
Ethyl tert-butyl ether	BRL	10						0	0	30	
Ethylbenzene	BRL	1.0						0	0	30	
Isopropyl ether	BRL	10						0	0	30	
m,p-Xylene	BRL	1.0						0	0	30	
Methyl tert-butyl ether	BRL	1.0						0	0	30	
Naphthalene	BRL	5.0						0	0	30	
o-Xylene	BRL	1.0						0	0	30	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: F&ME Consultants, Inc.
Project Name Hilton Head PSD-UST #11399
Workorder: 2208W64

ANALYTICAL QC SUMMARY REPORT

BatchID: 342489

Sample ID: **2208W64-003ADUP** Client ID: **MW-4** Units: **ug/L** Prep Date: **09/01/2022** Run No: **495383**
SampleType: **DUP** TestCode: **Volatile Organic Compounds SW8260D** BatchID: **342489** Analysis Date: **09/01/2022** Seq No: **11569933**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
tert-Amyl alcohol	BRL	100						0	0	30	
tert-Amyl methyl ether	BRL	10						0	0	30	
tert-Butyl Alcohol	BRL	100						0	0	30	
tert-Butyl formate	BRL	100						0	0	30	
Toluene	BRL	1.0						0	0	30	
Surr: 4-Bromofluorobenzene	48.94	0				75	118	49.16	0	30	
Surr: Dibromofluoromethane	50.97	0				82.5	121	47.93	0	30	
Surr: Toluene-d8	52.36	0				78.3	118	51.99	0	30	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

End of Report

Appendix F

Field Sampling Data Sheets for Groundwater Sampling

F&ME CONSULTANTS

Field Data Information Sheet for Groundwater Sampling
Low Flow Purging & Sampling

Date(mm/dd/yy) 08/25/2022
Field Personnel J. Leary
General Weather Conditions Sunny
Ambient Air Temperature

Facility Name Hilton Head Island PSD Site ID# 11399

Quality Assurance

pH Meter
Serial No. 06070c090647
pH=4.0 4.0
pH=7.0 7.0
pH=10.0 10

Conductivity Meter
Serial No. 06070c090647
Standard 1409 1409

Turbidity - Micro TPW S# 201305158, D.O. YSI DO200 S#JCO8479 100%
NTU - 0.02, 10.0, 1000 (0.05, 10.07, 1009 NTU)

Well # MW-1

Well Diameter(d) 2 inch or 0.1667 feet
conversion factor (c): [3.142 x (d/2)^2] x 7.48
for a 2 inch well c = 0.163 gal's/ft
for a 4 inch well c = 0.653 gal's/ft
Total Well Depth(twd) 12.0 feet Screen 2-12
Depth to GW (dwg) *3.29 feet ***Corrected Water Level**

Length of Water Column(lwc=twd-dgw) feet

1 Csg Volume(lwc x c)= gallons
3 Csg Volumes = gallons (Std. Purge Volume)

Volume of Water Purged Before Sampling liters

Didn't sample due to 1.17' of FFP. FFP at 3.16', Water at 4.33'

Volume Purged (liters)						
Time (military)						
pH (s.u.)						
Specific Cond. (umhos/cm)						
Water Temp. (C)						
Turbidity (NTU)						
Dissolved Oxygen (mg/L)						
Water Level (ft.)						

nr = not recorded n/a = not applicable

F&ME CONSULTANTS

Field Data Information Sheet for Groundwater Sampling
Low Flow Purging & Sampling

Date(mm/dd/yy) 08/25/2022
Field Personnel J. Leary
General Weather Conditions P. Cloudy
Ambient Air Temperature 84

Facility Name Hilton Head Island PSD Site ID# 11399

Quality Assurance

pH Meter
Serial No. 06070c090647
pH=4.0 4.0
pH=7.0 7.0
pH=10.0 10

Conductivity Meter
Serial No 06070c090647
Standard 1409 1409

Turbidity - Micro TPW S# 201305158, D.O. YSI DO200 S#JCO8479 100%
NTU - 0.02, 10.0, 1000 (0.05, 10.07, 1009 NTU)

Well # MW-2

Well Diameter(d) 2 inch or 0.1667 feet
conversion factor (c): [3.142 x (d/2)^2] x 7.48
for a 2 inch well c = 0.163 gal's/ft
for a 4 inch well c = 0.653 gal's/ft
Total Well Depth(twd) 14.0 feet Screen 4-14
Depth to GW (dwg) 4.35 feet

Length of Water Column(lwc=twd-dgw) _____ feet

1 Csg Volume(lwc x c)= _____ gallons
3 Csg Volumes = _____ gallons (Std. Purge Volume)

Volume of Water Purged Before Sampling 0.00 liters

No purging required

Volume Purged (liters)	0.00					
Time (military)	1028					
pH (s.u.)	6.41					
Specific Cond. (umhos/cm)	650					
Water Temp. (C)	27.5					
Turbidity (NTU)	1.21					
Dissolved Oxygen (mg/L)	3.42					
Water Level (ft.)	n/a					

nr = not recorded n/a = not applicable

F&ME CONSULTANTS

Field Data Information Sheet for Groundwater Sampling
Low Flow Purging & Sampling

Date(mm/dd/yy) 08/25/2022
Field Personnel J. Leary
General Weather Conditions Cloudy
Ambient Air Temperature 82

Facility Name Hilton Head Island PSD Site ID# 11399

Quality Assurance

pH Meter
Serial No. 06070c090647
pH=4.0 4.0
pH=7.0 7.0
pH=10.0 10

Conductivity Meter
Serial No 06070c090647
Standard 1409 1409

Turbidity - Micro TPW S# 201305158, D.O. YSI DO200 S#JCO8479 100% NTU - 0.02, 10.0, 1000 (0.05, 10.07, 1009 NTU)

Well # MW-3

Well Diameter(d) 2 inch or 0.1667 feet
conversion factor (c): [3.142 x (d/2)^2] x 7.48
for a 2 inch well c = 0.163 gal's/ft
for a 4 inch well c = 0.653 gal's/ft
Total Well Depth(twd) 14.0 feet Screen 4-14
Depth to GW (dwg) 4.25 feet

Length of Water Column(lwc=twd-dgw) _____ feet

1 Csg Volume(lwc x c)= _____ gallons
3 Csg Volumes = _____ gallons (Std. Purge Volume)

Volume of Water Purged Before Sampling 0.00 liters

No purging required

Volume Purged (liters)	0.00					
Time (military)	1050					
pH (s.u.)	5.92					
Specific Cond. (umhos/cm)	980					
Water Temp. (C)	27.3					
Turbidity (NTU)	1.51					
Dissolved Oxygen (mg/L)	1.44					
Water Level (ft.)	n/a					

nr = not recorded n/a = not applicable

F&ME CONSULTANTS

Field Data Information Sheet for Groundwater Sampling
Low Flow Purging & Sampling

Date(mm/dd/yy) 08/25/2022
Field Personnel J. Leary
General Weather Conditions P. Cloudy
Ambient Air Temperature 82

Facility Name Hilton Head Island PSD Site ID# 11399

Quality Assurance

pH Meter
Serial No. 06070c090647
pH=4.0 4.0
pH=7.0 7.0
pH=10.0 10

Conductivity Meter
Serial No 06070c090647
Standard 1409 1409

Turbidity - Micro TPW S# 201305158, D.O. YSI DO200 S#JCO8479 100% NTU - 0.02, 10.0, 1000 (0.05, 10.07, 1009 NTU)

Well # MW-4

Well Diameter(d) 2 inch or 0.1667 feet
conversion factor (c): [3.142 x (d/2)^2] x 7.48
for a 2 inch well c = 0.163 gal's/ft
for a 4 inch well c = 0.653 gal's/ft
Total Well Depth(twd) 13.0 feet Screen 3-13
Depth to GW (dwg) 3.83 feet

Length of Water Column(lwc=twd-dgw) _____ feet

1 Csg Volume(lwc x c)= _____ gallons
3 Csg Volumes = _____ gallons (Std. Purge Volume)

Volume of Water Purged Before Sampling 0.00 liters

No purging required

Volume Purged (liters)	0.00					
Time (military)	1120					
pH (s.u.)	6.26					
Specific Cond. (umhos/cm)	340					
Water Temp. (C)	28.4					
Turbidity (NTU)	0.68					
Dissolved Oxygen (mg/L)	3.55					
Water Level (ft.)	n/a					

nr = not recorded n/a = not applicable

F&ME CONSULTANTS

Field Data Information Sheet for Groundwater Sampling
Low Flow Purging & Sampling

Date(mm/dd/yy) 08/25/2022
Field Personnel J. Leary
General Weather Conditions Sunny
Ambient Air Temperature 82

Facility Name Hilton Head Island PSD Site ID# 11399

Quality Assurance

pH Meter
Serial No. 06070c090647
pH=4.0 4.0
pH=7.0 7.0
pH=10.0 10

Conductivity Meter
Serial No 06070c090647
Standard 1409 1409

Turbidity - Micro TPW S# 201305158, D.O. YSI DO200 S#JCO8479 100%
NTU - 0.02, 10.0, 1000 (0.05, 10.07, 1009 NTU)

Well # MW-5

Well Diameter(d) 2 inch or 0.1667 feet
conversion factor (c): [3.142 x (d/2)^2] x 7.48
for a 2 inch well c = 0.163 gal's/ft
for a 4 inch well c = 0.653 gal's/ft
Total Well Depth(twd) 14.0 feet Screen 4-14
Depth to GW (dwg) 3.63 feet

Length of Water Column(lwc=twd-dgw) _____ feet

1 Csg Volume(lwc x c)= _____ gallons
3 Csg Volumes = _____ gallons (Std. Purge Volume)

Volume of Water Purged Before Sampling 3.50 liters

Containerize Purge Water

Volume Purged (liters)	0.25	1.25	2.50	3.50	Sample	
Time (military)	1538	1543	1548	1553	1554	
pH (s.u.)	6.07	6.16	6.17	6.17		
Specific Cond. (umhos/cm)	283.2	286.2	296.7	304.0		
Water Temp. (C)	29.1	29.0	28.9	28.6		
Turbidity (NTU)	12.01	12.37	12.23	15.54		
Dissolved Oxygen (mg/L)	3.48	3.10	2.67	2.22		
Water Level (ft.)	3.61	3.61	3.62	3.62		

nr = not recorded n/a = not applicable

F&ME CONSULTANTS

Field Data Information Sheet for Groundwater Sampling
Low Flow Purging & Sampling

Date(mm/dd/yy) 08/25/2022
Field Personnel J. Leary
General Weather Conditions Cloudy
Ambient Air Temperature 85

Facility Name Hilton Head Island PSD Site ID# 11399

Quality Assurance

pH Meter
Serial No. 06070c090647
pH=4.0 4.0
pH=7.0 7.0
pH=10.0 10

Conductivity Meter
Serial No 06070c090647
Standard 1409 1409

Turbidity - Micro TPW S# 201305158, D.O. YSI DO200 S#JCO8479 100%
NTU - 0.02, 10.0, 1000 (0.05, 10.07, 1009 NTU)

Well # MW-6

Well Diameter(d) 2 inch or 0.1667 feet
conversion factor (c): [3.142 x (d/2)^2] x 7.48
for a 2 inch well c = 0.163 gal's/ft
for a 4 inch well c = 0.653 gal's/ft
Total Well Depth(twd) 14.0 feet Screen 4-14
Depth to GW (dwg) 3.88 feet

Length of Water Column(lwc=twd-dgw) _____ feet

1 Csg Volume(lwc x c)= _____ gallons
3 Csg Volumes = _____ gallons (Std. Purge Volume)

Volume of Water Purged Before Sampling 4.75 liters

Purge on ground

Volume Purged (liters)	0.75	2.00	3.50	4.75	Sample	
Time (military)	1412	1417	1422	1427	1428	
pH (s.u.)	6.67	6.65	6.65	6.66		
Specific Cond. (umhos/cm)	517	529	532	533		
Water Temp. (C)	29.5	29.4	29.5	29.5		
Turbidity (NTU)	15.36	14.00	7.60	4.22		
Dissolved Oxygen (mg/L)	5.00	3.55	2.85	3.36		
Water Level (ft.)	4.00	4.01	4.02	4.02		

nr = not recorded n/a = not applicable

F&ME CONSULTANTS

Field Data Information Sheet for Groundwater Sampling
Low Flow Purging & Sampling

Date(mm/dd/yy) 08/25/2022
Field Personnel J. Leary
General Weather Conditions P. Cloudy
Ambient Air Temperature 82

Facility Name Hilton Head Island PSD Site ID# 11399

Quality Assurance

pH Meter
Serial No. 06070c090647
pH=4.0 4.0
pH=7.0 7.0
pH=10.0 10

Conductivity Meter
Serial No 06070c090647
Standard 1409 1409

Turbidity - Micro TPW S# 201305158, D.O. YSI DO200 S#JCO8479 100%
NTU - 0.02, 10.0, 1000 (0.05, 10.07, 1009 NTU)

Well # MW-7

Well Diameter(d) 2 inch or 0.1667 feet
conversion factor (c): [3.142 x (d/2)^2] x 7.48
for a 2 inch well c = 0.163 gal's/ft
for a 4 inch well c = 0.653 gal's/ft
Total Well Depth(twd) 13.0 feet Screen 3-13
Depth to GW (dwg) 3.24 feet

Length of Water Column(lwc=twd-dgw) _____ feet

1 Csg Volume(lwc x c)= _____ gallons
3 Csg Volumes = _____ gallons (Std. Purge Volume)

Volume of Water Purged Before Sampling _____ liters

No Purging required

Volume Purged (liters)	0.00					
Time (military)	1110					
pH (s.u.)	5.64					
Specific Cond. (umhos/cm)	134					
Water Temp. (C)	33.5					
Turbidity (NTU)	1.88					
Dissolved Oxygen (mg/L)	1.52					
Water Level (ft.)	n/a					

nr = not recorded n/a = not applicable

F&ME CONSULTANTS

Field Data Information Sheet for Groundwater Sampling
Low Flow Purging & Sampling

Date(mm/dd/yy) 08/25/2022
Field Personnel J. Leary
General Weather Conditions Cloudy/Raining
Ambient Air Temperature 82

Facility Name Hilton Head Island PSD Site ID# 11399

Quality Assurance

pH Meter
Serial No. 06070c090647
pH=4.0 4.0
pH=7.0 7.0
pH=10.0 10

Conductivity Meter
Serial No 06070c090647
Standard 1409 1409

Turbidity - Micro TPW S# 201305158, D.O. YSI DO200 S#JCO8479 100%
NTU - 0.02, 10.0, 1000 (0.05, 10.07, 1009 NTU)

Well # MW-8

Well Diameter(d) 2 inch or 0.1667 feet
conversion factor (c): [3.142 x (d/2)^2] x 7.48
for a 2 inch well c = 0.163 gal's/ft
for a 4 inch well c = 0.653 gal's/ft
Total Well Depth(twd) 14.0 feet Screen 4-14
Depth to GW (dwg) 3.61 feet

Length of Water Column(lwc=twd-dgw) _____ feet

1 Csg Volume(lwc x c)= _____ gallons
3 Csg Volumes = _____ gallons (Std. Purge Volume)

Volume of Water Purged Before Sampling 3.25 liters

Purge on ground

Volume Purged (liters)	0.25	1.50	2.25	3.25	Sample	
Time (military)	1223	1228	1233	1238	1239	
pH (s.u.)	6.30	6.31	6.33	6.34		
Specific Cond. (umhos/cm)	417.4	419.5	420.7	425.9		
Water Temp. (C)	29.3	29.1	29.0	28.8		
Turbidity (NTU)	39.41	13.76	12.53	9.58		
Dissolved Oxygen (mg/L)	2.09	1.77	2.46	2.35		
Water Level (ft.)	3.70	3.70	3.70	3.70		

nr = not recorded n/a = not applicable

F&ME CONSULTANTS

Field Data Information Sheet for Groundwater Sampling
Low Flow Purging & Sampling

Date(mm/dd/yy) 08/25/2022
Field Personnel J. Leary
General Weather Conditions
Ambient Air Temperature

Facility Name Hilton Head Island PSD Site ID# 11399

Quality Assurance

pH Meter
Serial No. 06070c090647
pH=4.0 4.0
pH=7.0 7.0
pH=10.0 10

Conductivity Meter
Serial No 06070c090647
Standard 1409 1409

Turbidity - Micro TPW S# 201305158, D.O. YSI DO200 S#JCO8479 100%
NTU - 0.02, 10.0, 1000 (0.05, 10.07, 1009 NTU)

Well # MW-9

Well Diameter(d) 2 inch or 0.1667 feet
conversion factor (c): [3.142 x (d/2)^2] x 7.48
for a 2 inch well c = 0.163 gal's/ft
for a 4 inch well c = 0.653 gal's/ft
Total Well Depth(twd) 13.5 feet Screen 3.5-13.5
Depth to GW (dwg) *3.60 feet ***Corrected Water Level**

Length of Water Column(lwc=twd-dgw) feet

1 Csg Volume(lwc x c)= gallons
3 Csg Volumes = gallons (Std. Purge Volume)

Volume of Water Purged Before Sampling liters

Didn't sample due to 0.70' of FFP. FFP at 3.52', Water at 4.22'

Volume Purged (liters)						
Time (military)						
pH (s.u.)						
Specific Cond. (umhos/cm)						
Water Temp. (C)						
Turbidity (NTU)						
Dissolved Oxygen (mg/L)						
Water Level (ft.)						

nr = not recorded n/a = not applicable

F&ME CONSULTANTS

Field Data Information Sheet for Groundwater Sampling
Low Flow Purging & Sampling

Date(mm/dd/yy) 08/25/2022
Field Personnel J. Leary
General Weather Conditions Sunny
Ambient Air Temperature 79

Facility Name Hilton Head Island PSD Site ID# 11399

Quality Assurance

pH Meter
Serial No. 06070c090647
pH=4.0 4.0
pH=7.0 7.0
pH=10.0 10

Conductivity Meter
Serial No 06070c090647
Standard 1409 1409

Turbidity - Micro TPW S# 201305158, D.O. YSI DO200 S#JCO8479 100%
NTU - 0.02, 10.0, 1000 (0.05, 10.07, 1009 NTU)

Well # MW-10

Well Diameter(d) 2 inch or 0.1667 feet
conversion factor (c): [3.142 x (d/2)^2] x 7.48
for a 2 inch well c = 0.163 gal's/ft
for a 4 inch well c = 0.653 gal's/ft
Total Well Depth(twd) 13.5 feet Screen 3.5-13.5
Depth to GW (dwg) 3.46 feet

Length of Water Column(lwc=twd-dgw) _____ feet

1 Csg Volume(lwc x c)= _____ gallons
3 Csg Volumes = _____ gallons (Std. Purge Volume)

Volume of Water Purged Before Sampling 2.13 liters

Containerize Purge Water

Volume Purged (liters)	0.13	1.13	2.13	Sample		
Time (military)	1458	1503	1508	1509		
pH (s.u.)	5.67	5.65	5.65			
Specific Cond. (umhos/cm)	296.5	292.6	292.3			
Water Temp. (C)	30.5	30.3	29.9			
Turbidity (NTU)	16.05	2.05	1.78			
Dissolved Oxygen (mg/L)	3.36	2.47	2.30			
Water Level (ft.)	3.45	3.45	3.45			

nr = not recorded

F&ME CONSULTANTS

Field Data Information Sheet for Groundwater Sampling
Low Flow Purging & Sampling

Date(mm/dd/yy) 08/25/2022
Field Personnel J. Leary
General Weather Conditions Sunny
Ambient Air Temperature 83

Facility Name Hilton Head Island PSD Site ID# 11399

Quality Assurance

pH Meter
Serial No. 06070c090647
pH=4.0 4.0
pH=7.0 7.0
pH=10.0 10

Conductivity Meter
Serial No 06070c090647
Standard 1409 1409

Turbidity - Micro TPW S# 201305158, D.O. YSI DO200 S#JCO8479 100%
NTU - 0.02, 10.0, 1000 (0.05, 10.07, 1009 NTU)

Well # MW-11

Well Diameter(d) 2 inch or 0.1667 feet
conversion factor (c): [3.142 x (d/2)^2] x 7.48
for a 2 inch well c = 0.163 gal's/ft
for a 4 inch well c = 0.653 gal's/ft
Total Well Depth(twd) 13.0 feet Screen 3-13
Depth to GW (dwg) 2.75 feet

Length of Water Column(lwc=twd-dgw) _____ feet

1 Csg Volume(lwc x c)= _____ gallons
3 Csg Volumes = _____ gallons (Std. Purge Volume)

Volume of Water Purged Before Sampling 2.75 liters

Containerize Purge Water

Volume Purged (liters)	0.25	1.75	2.75	Sample		
Time (military)	1713	1718	1723	1724		
pH (s.u.)	6.67	6.70	6.69			
Specific Cond. (umhos/cm)	507	515	516			
Water Temp. (C)	30.8	30.6	30.4			
Turbidity (NTU)	3.34	2.73	2.28			
Dissolved Oxygen (mg/L)	2.22	1.85	1.88			
Water Level (ft.)	2.68	2.73	2.73			

nr = not recorded n/a = not applicable

F&ME CONSULTANTS

Field Data Information Sheet for Groundwater Sampling
Low Flow Purging & Sampling

Date(mm/dd/yy) 08/25/2022
Field Personnel J. Leary
General Weather Conditions P. Sunny
Ambient Air Temperature 82

Facility Name Hilton Head Island PSD Site ID# 11399

Quality Assurance

pH Meter
Serial No. 06070c090647
pH=4.0 4.0
pH=7.0 7.0
pH=10.0 10

Conductivity Meter
Serial No 06070c090647
Standard 1409 1409

Turbidity - Micro TPW S# 201305158, D.O. YSI DO200 S#JCO8479 100%
NTU - 0.02, 10.0, 1000 (0.05, 10.07, 1009 NTU)

Well # MW-12

Well Diameter(d) 2 inch or 0.1667 feet
conversion factor (c): [3.142 x (d/2)^2] x 7.48
for a 2 inch well c = 0.163 gal's/ft
for a 4 inch well c = 0.653 gal's/ft
Total Well Depth(twd) 13.0 feet Screen 3-13
Depth to GW (dwg) 3.22 feet

Length of Water Column(lwc=twd-dgw) _____ feet

1 Csg Volume(lwc x c)= _____ gallons
3 Csg Volumes = _____ gallons (Std. Purge Volume)

Volume of Water Purged Before Sampling 2.50 liters

Containerize Purge Water, **Fuel odor and sheen on sample**

Volume Purged (liters)	0.25	1.00	1.75	2.50	Sample		
Time (military)	1828	1833	1838	1843	1844		
pH (s.u.)	6.40	6.41	6.42	6.42			
Specific Cond. (umhos/cm)	770	770	770	770			
Water Temp. (C)	28.9	28.7	28.7	28.5			
Turbidity (NTU)	18.70	17.33	14.26	10.80			
Dissolved Oxygen (mg/L)	5.04	5.16	5.39	5.73			
Water Level (ft.)	3.29	3.34	3.37	3.40			

nr = not recorded n/a = not applicable

F&ME CONSULTANTS

Field Data Information Sheet for Groundwater Sampling
Low Flow Purging & Sampling

Date(mm/dd/yy) 08/25/2022
Field Personnel J. Leary
General Weather Conditions
Ambient Air Temperature

Facility Name Hilton Head Island PSD Site ID# 11399

Quality Assurance

pH Meter Serial No. 06070c090647
pH=4.0 4.0
pH=7.0 7.0
pH=10.0 10

Conductivity Meter Serial No 06070c090647
Standard 1409 1409

Turbidity - Micro TPW S# 201305158, D.O. YSI DO200 S#JCO8479 100%
NTU - 0.02, 10.0, 1000 (0.05, 10.07, 1009 NTU)

Well # MW-13

Well Diameter(d) 2 inch or 0.1667 feet
conversion factor (c): [3.142 x (d/2)^2] x 7.48
for a 2 inch well c = 0.163 gal's/ft
for a 4 inch well c = 0.653 gal's/ft
Total Well Depth(twd) 13.0 feet Screen 3-13
Depth to GW (dwg) *3.58 feet ***Corrected Water Level**

Length of Water Column(lwc=twd-dgw) feet

1 Csg Volume(lwc x c)= gallons
3 Csg Volumes = gallons (Std. Purge Volume)

Volume of Water Purged Before Sampling liters

Didn't sample due to 0.52' of FFP. FFP at 3.52', Water at 4.04'

Volume Purged (liters)						
Time (military)						
pH (s.u.)						
Specific Cond. (umhos/cm)						
Water Temp. (C)						
Turbidity (NTU)						
Dissolved Oxygen (mg/L)						
Water Level (ft.)						

nr = not recorded n/a = not applicable

F&ME CONSULTANTS

Field Data Information Sheet for Groundwater Sampling
Low Flow Purging & Sampling

Date(mm/dd/yy) 08/25/2022
Field Personnel J. Leary
General Weather Conditions
Ambient Air Temperature

Facility Name Hilton Head Island PSD Site ID# 11399

Quality Assurance

pH Meter
Serial No. 06070c090647
pH=4.0 4.0
pH=7.0 7.0
pH=10.0 10

Conductivity Meter
Serial No 06070c090647
Standard 1409 1409

Turbidity - Micro TPW S# 201305158, D.O. YSI DO200 S#JCO8479 100%
NTU - 0.02, 10.0, 1000 (0.05, 10.07, 1009 NTU)

Well # DCW-1

Well Diameter(d) 2 inch or 0.1667 feet
conversion factor (c): [3.142 x (d/2)^2] x 7.48
for a 2 inch well c = 0.163 gal's/ft
for a 4 inch well c = 0.653 gal's/ft
Total Well Depth(twd) 34.0 feet Screen 29-34
Depth to GW (dwg) 3.56 feet

Length of Water Column(lwc=twd-dgw) feet

1 Csg Volume(lwc x c)= gallons
3 Csg Volumes = gallons (Std. Purge Volume)

Volume of Water Purged Before Sampling 3.75 liters

Containerize Purge Water, Used peristaltic pump to purge and sample

						Duplicate
Volume Purged (liters)	0.25	1.50	2.50	3.75	Sample	4.50
Time (military)	1624	1629	1634	1639	1640	1645
pH (s.u.)	6.29	6.34	6.42	6.44		6.43
Specific Cond. (umhos/cm)	235.7	235.0	234.8	234.7		234.7
Water Temp. (C)	25.9	26.0	26.0	25.9		25.9
Turbidity (NTU)	95.23	1.25	0.94	2.06		0.80
Dissolved Oxygen (mg/L)	2.20	1.73	1.24	1.07		1.06
Water Level (ft.)	3.70	3.70	3.70	3.70		3.70

nr = not recorded n/a = not applicable

F&ME CONSULTANTS

Field Data Information Sheet for Groundwater Sampling
Low Flow Purging & Sampling

Date(mm/dd/yy) 08/25/2022
Field Personnel J. Leary
General Weather Conditions Sunny
Ambient Air Temperature 83

Facility Name Hilton Head Island PSD Site ID# 11399

Quality Assurance

pH Meter
Serial No. 06070c090647
pH=4.0 4.0
pH=7.0 7.0
pH=10.0 10

Conductivity Meter
Serial No 06070c090647
Standard 1409 1409

Turbidity - Micro TPW S# 201305158, D.O. YSI DO200 S#JCO8479 100%
NTU - 0.02, 10.0, 1000 (0.05, 10.07, 1009 NTU)

Well # RW-1

Well Diameter(d) 4 inch or 0.3333 feet
conversion factor (c): [3.142 x (d/2)^2] x 7.48
for a 2 inch well c = 0.163 gal's/ft
for a 4 inch well c = 0.653 gal's/ft
Total Well Depth(twd) 12.0 feet Screen 2-12
Depth to GW (dwg) 3.17 feet

Length of Water Column(lwc=twd-dgw) _____ feet

1 Csg Volume(lwc x c)= _____ gallons
3 Csg Volumes = _____ gallons (Std. Purge Volume)

Volume of Water Purged Before Sampling 3.00 liters

Containerize Purge Water

Volume Purged (liters)	0.25	1.75	3.00	Sample		
Time (military)	1751	1756	1801	1802		
pH (s.u.)	6.43	6.47	6.46			
Specific Cond. (umhos/cm)	602	603	602			
Water Temp. (C)	28.8	28.7	28.5			
Turbidity (NTU)	8.39	7.58	8.37			
Dissolved Oxygen (mg/L)	2.14	1.86	2.71			
Water Level (ft.)	3.10	3.10	3.10			

nr = not recorded n/a = not applicable

F&ME CONSULTANTS

Field Data Information Sheet for Groundwater Sampling
Low Flow Purging & Sampling

Date(mm/dd/yy) 08/25/2022
Field Personnel J. Leary
General Weather Conditions
Ambient Air Temperature

Facility Name Hilton Head Island PSD Site ID# 11399

Quality Assurance

pH Meter
Serial No. 06070c090647
pH=4.0 4.0
pH=7.0 7.0
pH=10.0 10

Conductivity Meter
Serial No 06070c090647
Standard 1409 1409

Turbidity - Micro TPW S# 201305158, D.O. YSI DO200 S#JCO8479 100%
NTU - 0.02, 10.0, 1000 (0.05, 10.07, 1009 NTU)

Well # RW-2

Well Diameter(d) 4 inch or 0.3333 feet
conversion factor (c): [3.142 x (d/2)^2] x 7.48
for a 2 inch well c = 0.163 gal's/ft
for a 4 inch well c = 0.653 gal's/ft
Total Well Depth(twd) 12.0 feet Screen 2-12
Depth to GW (dwg) *3.23 feet ***Corrected Water Level**

Length of Water Column(lwc=twd-dgw) feet

1 Csg Volume(lwc x c)= gallons
3 Csg Volumes = gallons (Std. Purge Volume)

Volume of Water Purged Before Sampling liters

Didn't sample due to 0.07' of FFP. FFP at 3.22', Water at 3.29'

Volume Purged (liters)						
Time (military)						
pH (s.u.)						
Specific Cond. (umhos/cm)						
Water Temp. (C)						
Turbidity (NTU)						
Dissolved Oxygen (mg/L)						
Water Level (ft.)						

nr = not recorded n/a = not applicable

Appendix G

Waste Manifests

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. PS-1

2. Page 1 of

3. Generator's Name and Mailing Address
Public Service District
21 Oak Park Drive
Hilton Head, S.C

01-420.1-22

4. Generator's Phone ( )

5. Transporter 1 Company Name
ARM

6. US EPA ID Number

A. State Transporter's ID

B. Transporter 1 Phone

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
Hilton TK Tank Service
425 Boulevard RD
Sumter, S.C

10. US EPA ID Number

E. State Facility's ID

F. Facility's Phone

11. WASTE DESCRIPTION	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. NON-HAZARDOUS PETROLEUM CONTAMINATED SOIL				
b. NON-HAZARDOUS PETROLEUM CONTAMINATED WATER	1	TT	160	Gal
c.				
d.				

G. Additonal Descriptions for Materials Listed Above

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

ARM ENVIRONMENTAL SERVICES, INC.
P.O. BOX 50285
COLUMBIA, SC 29250

GENERATOR

16. **GENERATOR'S CERTIFICATION:** I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name: Billy Pittenger Agent for Ford ME
Signature: Billy Pittenger
Date: Month 9 Day 1 Year 22

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Billy Pittenger
Signature: Billy Pittenger
Date: Month 9 Day 1 Year 22

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name:
Signature:
Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.

Printed/Typed Name: JASMINE ANDERSON
Signature: Jasmine Anderson
Date: Month 9 Day 1 Year 22

NON-HAZARDOUS WASTE

F-14 © 2002 LABELMASTER ®(800) 621-5808 www.labelmaster.com
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Rev. 3/95

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No.: 01-420, 1-22

2. Page 1 of

3. Generator's Name and Mailing Address: Public Service District, 21 Oak Park Drive, Hilton Head Island

4. Generator's Phone ( )

5. Transporter 1 Company Name: ARM Environmental Services

6. US EPA ID Number

A. State Transorter's ID

B. Transporter 1 Phone: 803 783-3314

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address: TK Tank Services, 425 Boulevard Rd, Sumter, SC

10. US EPA ID Number

E. State Facility's ID

F. Facility's Phone: 803 418-5314

11. WASTE DESCRIPTION	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. NON-HAZARDOUS PETROLEUM CONTAMINATED SOIL	4	DM	2	ton
b. NON-HAZARDOUS PETROLEUM CONTAMINATED WATER				
c.				
d.				

GENERATOR

G. Additonal Descriptions for Materials Listed Above: assessment conducted for: FtME of Columbia, SC

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

ARM ENVIRONMENTAL SERVICES, INC.
P.O. BOX 50285
COLUMBIA, SC 29250

16. **GENERATOR'S CERTIFICATION:** I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name: Michael Farris as agent for: FtME

Signature: Michael Farris

Date: Month 08 Day 29 Year 22

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Josh Register (ARM)

Signature

Date: Month 08 Day 26 Year 22

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this maifest, except as noted in item 19.

Printed/Typed Name: Francisco Ramirez Hidalgo

Signature

Date: Month 8 Day 26 Year 22

NON-HAZARDOUS WASTE

Appendix H

Contractor Checklist

South Carolina
Underground Storage Tank Program

F&ME CONSULTANTS

Contractor Checklist

For each report submitted to the UST Management Division, the contractor will be required to verify that all data elements for the required scope of work have been provided. For items not required for the scope of work, the N/A box should be checked. For items required and not completed or provided, the No box should be checked, and a thorough description of the reason must be provided.

Hilton Head Public Service District UST Permit #11399

Item #	Item	Yes	No	N/A
1	Is Facility Name, Permit #, and address provided?	X		
2	Is UST Owner/Operator name, address, & phone number provided?	X		
3	Is name, address, & phone number of current property owner provided?	X		
4	Is the DHEC Certified UST Site Rehabilitation Contractor's Name, Address, telephone number, and certification number provided?	X		
5	Is the name, address, telephone number, and certification number of the well driller that installed borings/monitoring wells provided?	X		
6	Is the name, address, telephone number, and certification number of the certified laboratory(ies) performing analytical analyses provided?	X		
7	Has the facility history been summarized?	X		
8	Has the regional geology and hydrogeology been described?	X		
9	Are the receptor survey results provided as required?			X
10	Has current use of the site and adjacent land been described?			X
11	Has the site-specific geology and hydrogeology been described?			X
12	Has the primary soil type been described?			X
13	Have field screening results been described?			X
14	Has a description of the soil sample collection and preservation been detailed?			X
15	Has the field screening methodology and procedure been detailed?			X
16	Has the monitoring well installation and development dates been provided?	X		
17	Has the method of well development been detailed?	X		
18	Has justification been provided for the locations of the monitoring wells?			X
19	Have the monitoring wells been labeled in accordance with the UST QAPP guidelines?	X		
20	Has the groundwater sampling methodology been detailed?	X		
21	Have the groundwater sampling dates and groundwater measurements been provided?	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?	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

South Carolina
Underground Storage Tank Program

F&ME CONSULTANTS

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 1)	X		
34	Has the current and historical laboratory data been provided in tabular format?	X		
35	Have the aquifer characteristics been provided and summarized on the appropriate form?			X
36	Have the Site conceptual model tables been included? (Tier 1 Risk Evaluation)			X
37	Has the topographic map been provided with all required elements? (Figure 2)	X		
38	Has the site base map been provided with all required elements? (Figure 3)	X		
39	Have the CoC site maps been provided? (Figure 5)	X		
40	Has the site potentiometric map been provided? (Figure 4)	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?			X
44	Have the sampling logs, chain of custody forms, and the analytical data package been included with all required elements? (Appendix F)	X		
45	Is the laboratory performing the analyses properly certified?	X		
46	Has the tax map been included with all necessary elements?			X
47	Have the soil boring/field screening logs been provided?	X		
48	Have the well completion logs and SCDHEC Form 1903 been provided?	X		
49	Have the aquifer evaluation forms, data, graphs, equations, etc. been provided?			X
50	Have the disposal manifests been provided?	X		
51	Has a copy of the local zoning regulations been provided?			X
52	Has all fate and transport modeling been provided?			X
53	Have copies of all access agreements obtained by the contractor been provided?			X
54	Has a copy of this form been attached to the final report and are explanations for any missing or incomplete data been provided?	X		

South Carolina

Underground Storage Tank Management Division
Explanation for missing and incomplete information?

Christine A. Cafagna

Project Verifier (signature) _____

(print name) Christine A. Cafagna

Date _____

Appendix I

SCDHEC Well Installation and Groundwater Sampling Notice to Proceed Letter

dhec
Healthy People. Healthy Communities.

JUL 22 2022

HILTON HEAD PUBLIC SERVICE DISTRICT
PO BOX 21264
BEAUFORT SC 29925-1264

Re: **Additional Assessment Notice to Proceed**
Hilton Head Public Service District, 21 Oak Park Dr., Beaufort, SC
UST Permit #11399; CA #65759; UMW-29021
Release #2 reported July 27, 2017
Site Specific Work Plan received June 23, 2022
Beaufort County

To Whom It May Concern:

The Underground Storage Tank Management Division (UST 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. All 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. The QAPP is available at scdhec.gov/Environment/LW/UST/ReleaseAssessmentClean-up/QualityAssurance/

The assessment should begin immediately upon receipt of this letter. A monitoring well approval has been enclosed for the monitoring well installation. The above referenced cost agreement number has been approved for tracking purposes.

The contractor is responsible for ensuring that the subsurface is free of any obstructions (e.g., utilities, supply lines, etc.) prior to the installation of any boring or well.

The Contractor must provide the UST Project Manager with a Project Status Report on a weekly basis via e-mail or notify the UST Project Manager via email 4 days prior to initiation of any site rehabilitation activities. If there are any changes or conflicts with the date(s) of site activities, the UST Project Manager must be contacted within 24 hours of those changes.

The Assessment Report and contractor checklist (QAPP Appendix K) should be submitted to the UST Division within ninety (90) days of the date of this correspondence. The report submitted at the completion of these activities should include the required information outlined in the QAPP.

In accordance with Section IV.A.4.c of the SUPERB Site Rehabilitation & Fund Access Regulation (R.61-98), the contractor shall be required to indemnify the property owner, underground storage tank owner/operator and the State of South Carolina from and against all claims, damages, losses, and expenses arising out of or resulting from activity conducted by the contractor, its agents, employees, or subcontractors.

According to UST Division records, the release at the facility was reported to DHEC on the above referenced date. In accordance with Section 44-2-40(D) of the State Underground Petroleum Environmental Response Bank (SUPERB) Act, you are responsible for the first $25,000 of site rehabilitation costs. To ensure that costs for the assessment apply to the $25,000 deductible, please provide proof of costs that will be applied to the deductible with the invoice. Acceptable proof or payment of deductible costs include a copy of the cancelled check (front and back) of payment made to your contractor or a signed notarized statement by your contractor for the amount that was paid directly to your contractor. Your contractor can submit an invoice for direct payment from the State Underground Petroleum Environmental Response Bank (SUPERB) Account for preapproved costs that exceed the $25,000 deductible. By law, the SUPERB Account cannot compensate any costs that are not pre-approved. If the invoice is not submitted within 120 days from the date of this letter, monies allocated to pay this invoice exceeding the deductible 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. An interim well drilling invoice may not be submitted for this scope of work as the deductible has not been met.

Please note that in accordance with R.61-92, Subpart H, Section 280.114, you are required to notify the UST Division by certified mail within ten (10) days of commencing a voluntary or involuntary proceeding in bankruptcy.

Please note that applicable South Carolina certification requirements regarding laboratory services, well installation, and report preparation must be satisfied. Any site rehabilitation activity associated with the UST release must be performed by a DHEC-certified site rehabilitation contractor as required by R.61-98.

The UST Division grants pre-approval for transportation of virgin petroleum impacted soil and groundwater from the referenced site to a permitted treatment facility. There can be no spillage or leakage in transport. All investigation-derived waste (IDW) must be properly contained and labeled prior to disposal. IDW should not be stored on-site longer than ninety (90) days. A copy of the disposal manifest and/or acceptance letter from the receiving facility that clearly designates the quantity received must be included as an appendix to the report. If the Chemical of Concern (CoC) concentrations based on laboratory analysis is below Risk-Based Screening Levels (RBSLs), please contact the project manager for approval to dispose of soil and/or groundwater on-site. Transportation or treatment of soil and/or groundwater with concentrations below RBSLs will not be reimbursed by the SUPERB Account or applied towards the deductible.

On all correspondence regarding this site, please reference the UST Permit number above. Should you have any questions, please contact me by phone at (803) 898-0628, by fax at (803) 898-0673, or by email at gonzalhr@dhec.sc.gov.

Sincerely,

Hugo Gonzalez, Hydrogeologist
Assessment & Non-Permitted Petroleum Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

enc: Monitoring Well Approval Form
Approved Cost Agreement

cc: F&ME Consultants Inc., 1825 Blanding St., Columbia, SC 29201 (w/ enc)
Technical file (w/ enc)

Approved Cost Agreement 65759

Facility: 11399 HILTON HEAD PUBLIC SERVICE DISTRICT
GONZALHR
PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
A PLAN PREPARATION						
		1	SITE SPECIFIC WORK PLAN	1.0000	$160.050	160.05
D MOB/DEMOB						
		1	EQUIPMENT	2.0000	$1,088.340	2,176.68
		2	PERSONNEL	5.0000	$451.340	2,256.70
I WELL INSTALLATION						
		2	WATER TABLE DRILL RIG 2" DIA	45.0000	$40.550	1,824.75
		7	RECOVERY WELL (4" DIAMETER)	24.0000	$48.020	1,152.48
J SAMPLE COLLECTION						
		10	EQUIPMENT BLANK	1.0000	$26.250	26.25
		4	GROUNDWATER NO-PURGE/DUPL/GRAB	11.0000	$29.880	328.68
		8	FIELD BLANK	1.0000	$26.250	26.25
		9	GROUNDWATER (LOW FLOW PURGE)	6.0000	$97.100	582.60
K ANALYSES						
	GW GROUNDWATER	1	BTEXNM+OXYGS+1,2-DCA+ETH-8260B	20.0000	$130.170	2,603.40
P SUBSEQUENT SURVEY						
		1	SUBSEQUENT SURVEY	1.0000	$260.000	260.00
Q DISPOSAL						
		1	WASTEWATER	350.0000	$0.600	210.00
		3	SOIL TREATMENT DISPOSAL	2.0000	$64.020	128.04
S REPORT PROJECT MANAGEMENT						
		S	REPORT PREP & PROJ. MANAGEMENT	0.1200	$11,735.880	1,408.31
				Total Amount		13,144.19

Healthy People. Healthy Communities.

Monitoring Well Approval Form

Approval is hereby granted to:	F&ME Consultants Inc.
(on behalf of):	Hilton Head Public District
Facility:	Hilton Public Service District, 21 Oak Park Dr., Beaufort, SC
UST Permit Number:	11399
County:	Beaufort

This approval is for the installation of 3 shallow monitoring wells and 2 recovery wells. The monitoring wells are to be installed in the approved locations following the South Carolina Well Standards, R.61-71, and the applicable guidance documents.

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

1. All wells shall be drilled, constructed, and abandoned by a South Carolina certified well driller per R.61-71.D.1.
2. All monitoring wells shall be labeled as required by R.61-71.H.2.c.
3. A Water Well Record Form or other form provided or approved by DHEC shall be completed and submitted to DHEC within 30 days after well completion or abandonment unless another schedule has been approved by DHEC. The form should contain the "as-built" construction details and all other information required by R.61-71.H.1.f
4. All analytical data and water levels obtained from each monitoring well shall be submitted to DHEC within 30 days of receipt of laboratory results unless another schedule has been approved by DHEC as required by R.61-71.H.1.d.
5. If any of the information provided to DHEC changes, notification to Hugo Gonzalez (tel: (803) 898-0628 or e-mail: gonzalhr@dhec.sc.gov) shall be provided a minimum of twenty-four (24) hours prior to well construction as required by R.61-71.H.1.a.
6. All temporary monitoring wells shall be abandoned within 5 days of borehole completion using appropriate methods as required by R.61-71.H.4.c. All other wells shall be properly developed per R.61-71.H.2.d.
7. DHEC approval is required prior to abandonment of all monitoring wells as required by R.61-71.H.1.a.

This approval is pursuant to the provisions of Section 44-55-40 of the 1976 South Carolina Code of Laws and R.61-71 of the South Carolina well standards and regulations, dated May 27, 2016. A copy of this approval should be on the site during well installation.

Date of Issuance: July 7, 2022 **Approval #: UMW-29021**

Hugo Gonzalez, Hydrogeologist
Assessment & Non-Permitted Petroleum Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

TABLES

1 - Summary of Groundwater Elevations
2 - Summary of Groundwater COC Analytical Results
3 - Summary of Groundwater Oxygenate Analytical Results

Table 1
Summary of Groundwater Elevations
HHI PSD Release #2
Hilton Head Island, SC
SCDHEC Permit #11399

Well No.	Date Installed	Date Measured	Screened Interval (feet bgs)	TOC Elevation (feet MSL)	TOC to Product Level (feet MSL)	TOC to Water Level (feet MSL)	Product Thickness (feet)	Water Table Elevation (feet MSL)
Newly Installed Monitoring Wells								
RW-01	8/23/2022	08/25/2022	2-12	12.47	-	3.17	-	9.30
RW-02	8/24/2022		2-12	12.55	3.22	3.23	0.07	9.32
MW-11	8/23/2022		3-13	12.46	-	2.75	-	9.71
MW-12	8/23/2022		3-13	12.62	-	3.22	-	9.40
MW-13	8/22/2022		3-13	12.88	3.52	3.58	0.52	9.30
Existing Monitoring Wells								
MW-1	6/15/2018	06/18/2018	2-12	12.80	5.21	5.48	0.27	7.40
		04/20/2021			5.18	7.93	-	FP
		08/25/2022			3.16	3.29	1.17	9.51
MW-2	6/15/2018	06/18/2018	3.10-13.10	14.29	-	6.09	-	8.20
		04/20/2021			-	6.56	-	7.73
		08/25/2022			-	4.35	-	9.94
MW-3	6/15/2018	06/18/2018	3.02-13.02	14.13	-	6.09	-	8.04
		04/20/2021			-	6.50	-	7.63
		08/25/2022			-	4.25	-	9.88
MW-4	4/19/2021	04/20/2021		13.17	-	6.14	-	7.03
		08/25/2022	2.77-12.77		-	3.83	-	9.34
MW-5	4/19/2021	04/20/2021		12.95	-	5.88	-	7.07
		08/25/2022	3.80-13.80		-	3.63	-	9.32
MW-6	4/20/2021	04/20/2021		13.30	-	6.20	-	7.10
		08/25/2022	3.68-13.68		-	3.88	-	9.42
MW-7	4/20/2021	04/20/2021		12.61	-	5.65	-	6.96
		08/25/2022	2.72-12.72		-	3.24	-	9.37
MW-8	4/20/2021	04/20/2021		13.00	-	5.86	-	7.14
		08/25/2022	3.75-13.75		-	3.61	-	9.39

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Table 1
Summary of Groundwater Elevations
HHI PSD Release #2
Hilton Head Island, SC
SCDHEC Permit #11399

Well No.	Date Installed	Date Measured	Screened Interval (feet bgs)	TOC Elevation (feet MSL)	TOC to Product Level (feet MSL)	TOC to Water Level (feet MSL)	Product Thickness (feet)	Water Table Elevation (feet MSL)
MW-9	4/20/2021	04/20/2021		12.91	-	5.87		7.04
		08/25/2022	3.22-13.22		3.52	3.60	0.70	9.31
MW-10	4/20/2021	04/20/2021		12.71	-	5.78	-	6.93
		08/25/2022	3.22-13.22		-	3.46	-	9.25
DCW-1	4/19/2021	04/20/2021		12.92	-	5.85	-	7.07
		08/25/2022	29-34		-	3.56	-	9.36

Notes: Groundwater data from sampling events on 6/18/18 and 4/20/21 were taken from the AECOM Tier 1 and Tier II reports.
Corrected TOC Water Level and Water Table Elevation due to the presence of free product.
Screened Interval measurement is represented in feet below ground surface.
TOC = Top of Casing
(bgs) = below land surface
FP=Free Product. The corrected TOC Water Table Elevation was not calculated. Taken from the AECOM Tier I report.

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Table 2
Summary of Groundwater COC Analytical Results (µ/L)
HHI PSD Release #2
Hilton Head Island, SC
SCDHEC Permit #11399

VOCs								
Sample ID	**Sample Date**	**Benzene (µ/L)**	**Toluene (µ/L)**	**Ethylbenzene (µ/L)**	**Xylene (Total) (µ/L)**	**Naphthalene (µ/L)**	**MTBE (µ/L)**	**1,2-DCA (µ/L)**
SCDHEC RBSLs		**5**	**1,000**	**700**	**10,000**	**25**	**NS**	**5**
MW-1	6/18/2018	**Free Product/Not Sampled (0.07-foot thickness)**						
	4/21/2021	**Free Product/Not Sampled (Not reported)**						
	8/25/2022	**Free Product/Not Sampled (1.17-foot thickness)**						
MW-2	6/18/2018	<1	<1	<1	<1	<1	<1	<1
	4/21/2021	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
	8/25/2022	<0.23	<0.55	<0.24	<0.78	<1.1	<0.24	<0.32
MW-3	6/18/2018	<1	<1	<1	<1	<1	<1	<1
	4/22/2021	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
	8/25/2022	<0.23	<0.55	<0.24	<0.78	<1.1	<0.24	<0.32
MW-4	4/22/2021	**7.4**	<0.40	**7.7**	21	**0.78**	<0.40	<0.40
	8/25/2022	<0.23	<0.55	<0.24	<0.78	<1.1	<0.24	<0.32
MW-5	4/22/2021	**9.5**	<0.40	**26**	7.9	**9.6**	<0.40	<0.40
	8/25/2022	<0.23	<0.55	<0.24	<0.78	<1.1	<0.24	<0.32
MW-6	4/22/2021	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
	8/25/2022	<0.23	<0.55	<0.24	<0.78	<1.1	<0.24	<0.32
MW-7	4/22/2021	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
	8/25/2022	<0.23	<0.55	<0.24	<0.78	<1.1	<0.24	<0.32
MW-8	4/22/2021	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
	8/25/2022	<0.23	<0.55	<0.24	<0.78	<1.1	<0.24	<0.32
MW-9	4/22/2021	**45**	**37**	**60**	**170**	**14**	**1.9**	<0.40
	4/22/21 (Dup)	**44**	**34**	**55**	**160**	**14**	**2.4**	<0.40
	8/25/2022	**Free Product/Not Sampled (0.07-foot thickness)**						
MW-10	4/22/2021	<0.40	<0.40	**0.65**	**3.2**	<0.40	<0.40	<0.40
	8/25/2022	<0.23	<0.55	<0.24	<0.78	<1.1	<0.24	<0.32
MW-11	8/25/2022	<0.23	<0.55	<0.24	<0.78	<1.1	<0.24	

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Table 2
Summary of Groundwater COC Analytical Results (µ/L)
HHI PSD Release #2
Hilton Head Island, SC
SCDHEC Permit #11399

MW-12	8/25/2022	**7.4**	<0.55	**57**	**24.36J**	**53**	<0.24	<0.32
MW-13	8/25/2022	**Free Product/Not Sampled (0.52-foot thickness)**						
DCW-1	4/22/2021	<0.40	**0.49**	**1.6**	1.2	**1.1**	<0.40	<0.40
	8/25/2022	<0.23	<0.55	<0.24	<0.78	<1.1	<0.24	<0.32
RW-01	8/25/2022	**3.3**	<0.55	**50**	**14**	**35**	<0.24	<0.32
RW-02	8/25/2022	**Free Product/Not Sampled (0.07-foot thickness)**						

Notes:

At or above SCDHEC RBSLs as listed in SCDHEC's UST QAPP Revision 4.0.

Bold = CoC detected above MDL.

SCDHEC RSBLs are for a sandy soil and are taken from Table D1 in Appendix D of the SCDHECs Qaulilty Assurance Program Plan (QAPP)

(NS) - No Standard Exists

Concentrations are reported in micrograms per kilogram (µg/kg).

J = Estimated value detected below Reporting Limit

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Table 3
Summary of Groundwater Oxygenate Analytical Results (µ/L)
HHI PSD Release #2
Hilton Head Island, SC
SCDHEC Permit #11399

Well No.	Date Sampled	tert-Amyl Alcohol (µ/L)	tert-Amylmethyl ether (µ/L)	tert-Butyl Formate (µ/L)	Di-Isopropyl Ether (µ/L)	3,3-Dimethyl-1-Butanol (µ/L)	Ethanol (µ/L)	Ethyl-tert-Butyl Ether (µ/L)	tert-Butyl Alcohol (µ/L)
Action Levels for Groundwater (Oxygenates)	–	240	128	None	150	None	10,000	47	1,400
MW-1	6/18/2018	**Free Product/Not Sampled (0.07-foot thickness)**							
	4/21/2021	**Free Product/Not Sampled (Not reported)**							
	8/25/2022	**Free Product/Not Sampled (1.17-foot thickness)**							
MW-2	6/18/2018	<100	<10	<50	<1	<100	**297**	<10	<100
	4/21/2021	<8.0	<0.42	<2.0	<0.40	<8.0	<52	<0.40	<0.40
	8/25/2022	<31	<4.2	<33	<3.0	<40	<53	<3.8	<35
MW-3	6/18/2018	<100	<10	<50	<1	<100	**209**	<10	<100
	4/21/2021	<8.0	<0.42	<2.0	<0.40	<8.0	<52	<0.40	<0.40
	8/25/2022	<31	<4.2	<33	<3.0	<40	<53	<3.8	<35
MW-4	4/21/2021	<8.0	<0.42	<2.0	<0.40	<8.0	<52	<0.40	<0.40
	8/25/2022	<31	<4.2	<33	<3.0	<40	<53	<3.8	<35
MW-5	4/21/2021	<8.0	<0.42	<2.0	<0.40	<8.0	<52	<0.40	<0.40
	8/25/2022	<31	<4.2	<33	<3.0	<40	<53	<3.8	<35
MW-6	4/21/2021	<8.0	<0.42	<2.0	<0.40	<8.0	<52	<0.40	<0.40
	8/25/2022	<31	<4.2	<33	<3.0	<40	<53	<3.8	<35
MW-7	4/21/2021	<8.0	<0.42	<2.0	<0.40	<8.0	<52	<0.40	<0.40
	8/25/2022	<31	<4.2	<33	<3.0	<40	<53	<3.8	<35
MW-8	4/21/2021	<8.0	<0.42	<2.0	<0.40	<8.0	<52	<0.40	<0.40
	8/25/2022	<31	<4.2	<33	<3.0	<40	<53	<3.8	<35
MW-9	4/21/2021	<8.0	<0.42	<2.0	<0.40	<8.0	<52	**2.4**	**1.4**
	4/22/21 (Dup)	<8.0	<0.42	<2.0	<0.40	<8.0	<52	**2.8**	**1.4**
	8/25/2022	**Free Product/Not Sampled (0.07-foot thickness)**							
MW-10	4/22/2021	<8.0	<0.42	<2.0	<0.40	<8.0	<52	<0.40	<0.40
	8/25/2022	<31	<4.2	<33	<3.0	<40	<53	<3.8	<35
MW-11	8/25/2022	<31	<4.2	<33	<3.0	<40	<53	<3.8	<35
MW-12	8/25/2022	<31	<4.2	<33	<3.0	<40	<53	<3.8	<35
MW-13	8/25/2022	**Free Product/Not Sampled (0.52-foot thickness)**							
	4/22/2021	<8.0	<0.42	<2.0	<0.40	<8.0	<52	<0.40	<0.40

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Table 3
Summary of Groundwater Oxygenate Analytical Results (µ/L)
HHI PSD Release #2
Hilton Head Island, SC
SCDHEC Permit #11399

Well No.	Date Sampled	tert-Amyl Alcohol (µ/L)	tert-Amylmethyl ether (µ/L)	tert-Butyl Formate (µ/L)	Di-Isopropyl Ether (µ/L)	3,3-Dimethyl-1-Butanol (µ/L)	Ethanol (µ/L)	Ethyl-tert-Butyl Ether (µ/L)	tert-Butyl Alcohol (µ/L)
DCW-1	8/25/2022	<31	<4.2	<33	<3.0	<40	<53	<3.8	<35
	8/25/2022 (Dup	<31	<4.2	<33	<3.0	<40	<53	<3.8	<35
RW-1	8/25/2022	<31	<4.2	<33	<3.0	<40	**310**	<3.8	<35
RW-2	8/25/2022	**Free Product/Not Sampled (0.07-foot thickness)**							

Notes: At or above SCDHEC RBSLs as listed in SCDHEC's UST QAPP Revision 4.0.

Bold = CoC detected above MDL.

Concentrations are represented in micrograms per liter (µg/L)

* denotes a duplicate sample

NA = Not Analyzed

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

Action Levels for Groundwater Oxygenates taken from SCDHEC QAPP Revision 4.0

Dup= duplicate sample

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dhec
Healthy People. Healthy Communities.

JAN 09 2023



HILTON HEAD PUBLIC SERVICE DISTRICT
PO BOX 21264
HILTON HEAD ISLAND SC 29925

Re: **Site Specific Work Plan Request for AFVR and Groundwater Sampling**
Hilton Head Public Service District, 21 Oak Park Drive, Hilton Head Island, SC
UST Permit #11399
Release #2 reported July 27, 2017
Additional Assessment Report received November 14, 2022
Beaufort County

To Whom It May Concern:

The Underground Storage Tank Management Division (UST Division) of the South Carolina Department of Health and Environmental Control (DHEC) has reviewed the referenced report submitted by your contractor. The report documents petroleum chemicals in the soil and groundwater above Risk-Based Screening Levels.

Your selected contractor has proposed conducting Aggressive Fluid and Vapor Recovery (AFVR) followed by groundwater sampling as the next appropriate scope of work. In accordance with Sections 280.64 and 280.65 of the South Carolina Underground Storage Tank Control Regulations R.61-92, submittal of the Site Specific Work Plan (SSWP) for AFVR and groundwater sampling may proceed. This work must be conducted in compliance with the current revision of the UST Quality Assurance Program Plan (QAPP), your contractor's Annual Contractor Quality Assurance Plan, and all applicable regulations. The QAPP is available at scdhec.gov/Environment/Land-Waste/Underground-Storage-Tanks/Release-Assessment-Clean/Quality-Assurance.

The SSWP should include proposed extraction wells, observation wells, target stinger depths, and whether off-gas treatment will be utilized. For the most updated AFVR procedures, refer to Section IV.g of the QAPP. **Any variance from the procedures will be approved on a site specific basis and should be documented in the forthcoming SSWP.**

After completion of the AFVR event, a groundwater sampling event should commence. Groundwater samples should be collected from all monitoring wells associated with this release along with all water supply wells and surface waters within a 1,000 foot radius of the site. Samples should be analyzed for BTEX, Naphthalene, MTBE, 1,2-DCA, the 8 oxygenates, and EDB. Only wells with screens that do not bracket the water table should be purged prior to sampling.

Your contractor must complete the SSWP and submit it within 30 days from the date of this letter. Every component may not be necessary to complete the above scope of work. The State Underground Petroleum Environmental Response Bank (SUPERB) Account allowable cost for each component is included on the Assessment Component Cost Agreement Form. **Please note that approval from DHEC must be issued before work begins.**

On all correspondence concerning this site, please reference the UST Permit number above. Should you have any questions, please contact me by phone at (803) 898-2946, by fax at (803) 898-0673, or by email at hawkij@dhec.sc.gov.

Sincerely,

Ireland Hawk, Hydrogeologist
Corrective Action & Field Support Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

cc: F&ME Consultants, Inc., 1825 Blanding Street, Columbia, SC 29201
Technical file

F&ME CONSULTANTS

LETTER OF TRANSMITTAL

TO:	Ms. Ireland Hawk, Hydrogeologist SCDHEC – UST Mgmt. Section 2600 Bull St. Columbia, SC 29201

DATE:	Feb 23, 2023	**FME NO.:**	E6687.001
ATTN:	Ms. Ireland Hawk		
RE:	HHI PSD Site – SSWP UST ID # 11399		

RECEIVED
FEB 28 2023
UST DIVISION

WE ARE SENDING YOU THE FOLLOWING: **VIA:** US Mail

☐ AGREEMENT ☐ INVOICE ☐ PHOTOS ☐ PLANS ☐ PROPOSAL ☐ RECORDS ☐ REPORTS ☐ SAMPLES
☐ SPECIFICATIONS ☐ SUBMITTAL ☒ OTHER SSWP

COPIES	DATE	DESCRIPTION
1		HHI SSWP for 48-hour AFVR Event and Groundwater Sampling Event- UST #11399

UST 25 DOCKETING

THESE ARE TRANSMITTED AS CHECKED BELOW:

☒ AS REQUESTED ☐ CORRECTED COPY ☐ FOR YOUR USE ☐ RESUBMITTED
☐ OTHER

COMMENTS:

SIGNED: Christine A. Cafagna

Christine A. Cafagna, ccafagna@fmeconsultants.com

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

To: Ireland Hawk, Hydrogeologist (SCDHEC Project Manager)
From: Christine A. Cafagna (Contractor Project Manager)
Contractor: F&ME Consultants UST Contractor Certification Number: UCC-0140

Facility Name: Hilton Head Public Service District UST Permit #: 11399
Facility Address: 21 Oak Park Dr., Beaufort, SC 29926
Responsible Party: William C. Davis, Operations Manager Phone: 843-681-5525
RP Address: PO Box 21264, Beaufort, SC 29925
Property Owner (if different): _____
Property Owner Address: _____
Current Use of Property: Water Treatment Facility

Scope of Work (Please check all that apply)

- ☐ IGWA
- ☐ Tier I
- ☐ Tier II
- ☐ Monitoring Well Installation
- ☑ Groundwater Sampling
- ☑ Other 48-Hr. AFVR Event
- ☐ GAC

Analyses (Please check all that apply)

Groundwater/Surface Water:

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

Drinking Water Supply Wells:

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

Soil:

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

Air:

- ☐ BTEXN

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

_____ Soil	_____ Water Supply Wells	_____ Air	1 Field Blank
16 Monitoring Wells	_____ Surface Water	1 Duplicate	1 Trip Blank

Field Screening Methodology

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

# of shallow points proposed: _____ Estimated Footage: _____ feet per point
# of deep points proposed: _____ Estimated Footage: _____ feet per point
Field Screening Methodology: _____

Permanent Monitoring Wells

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

# of shallow wells: _____ Estimated Footage: _____ feet per point
# of deep wells: _____ Estimated Footage: _____ feet per point
# of recovery wells: _____ Estimated Footage: _____ feet per point
Comments, if warranted:

_____

_____

UST Permit #: 11399 Facility Name: Hilton Head Public Service District

Implementation Schedule (Number of calendar days from approval)

Field Work Start-Up: 30 days depending on AFVR subcontractor availability Field Work Completion: 60 days

Report Submittal: _____ # of Copies Provided to Property Owners: 2

Aquifer Characterization

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

_____

_____

_____

Investigation Derived Waste Disposal

Soil: _____ Tons Purge Water: 5 Gallons

Drilling Fluids: _____ Gallons Free-Phase Product: _____ Gallons

Additional Details For This Scope of Work

For example, list wells to be sampled, wells to be abandoned/repaired, well pads/bolts/caps to replace, details of AFVR event, etc.

A 48-hour AFVR event will be carried out simultaneously on the four (4) wells on site in which free-phase product (FPP) was measured during the last groundwater sampling event that occurred on 08/25/2022. (MW-1, RW-2, MW-9, and MW-13). An AFVR site reconnaissance will be carried out to measure the FPP in the target wells and to check any of the adjacent wells for FPP. RW-1 and MW-12 will probably be the observation wells. During the AFVR event, stingers will be initially set at the water table interface. Stingers will be adjusted both above and below the static water table depth approximately every 30 minutes within the first 8-hours until the highest vapor readings are consistently observed. Since the site is located in the coastal region, there is the potential for high volumes of water being generated during the AFVR event, so 20,000 gallons for affluent disposal has been included. Off-gas treatment has also been included. Approximately thirty (30) days after completion of the 48-hour AFVR event, a groundwater sampling event will be carried out on the the existing thirteen (13) shallow wells (MW-1 to MW-13), two recovery wells (RW-1 and RW-2) plus one (1) deep well (DCW-01). Only wells with screens not bracketing the water table will be purged before sampling. An equipment blank has been included for the submersible pump used to purge and sample the deep well if the peristaltic pump is unable to purge and sample the deep well.

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: _____

____ Well Driller as indicated in ACQAP? (Yes/No) If no, indicate driller information below.

Name of Well Driller: _____

SCLLR Certification Number: _____

____ Other variations from ACQAP. Please describe below.

_____

_____

_____

_____

_____

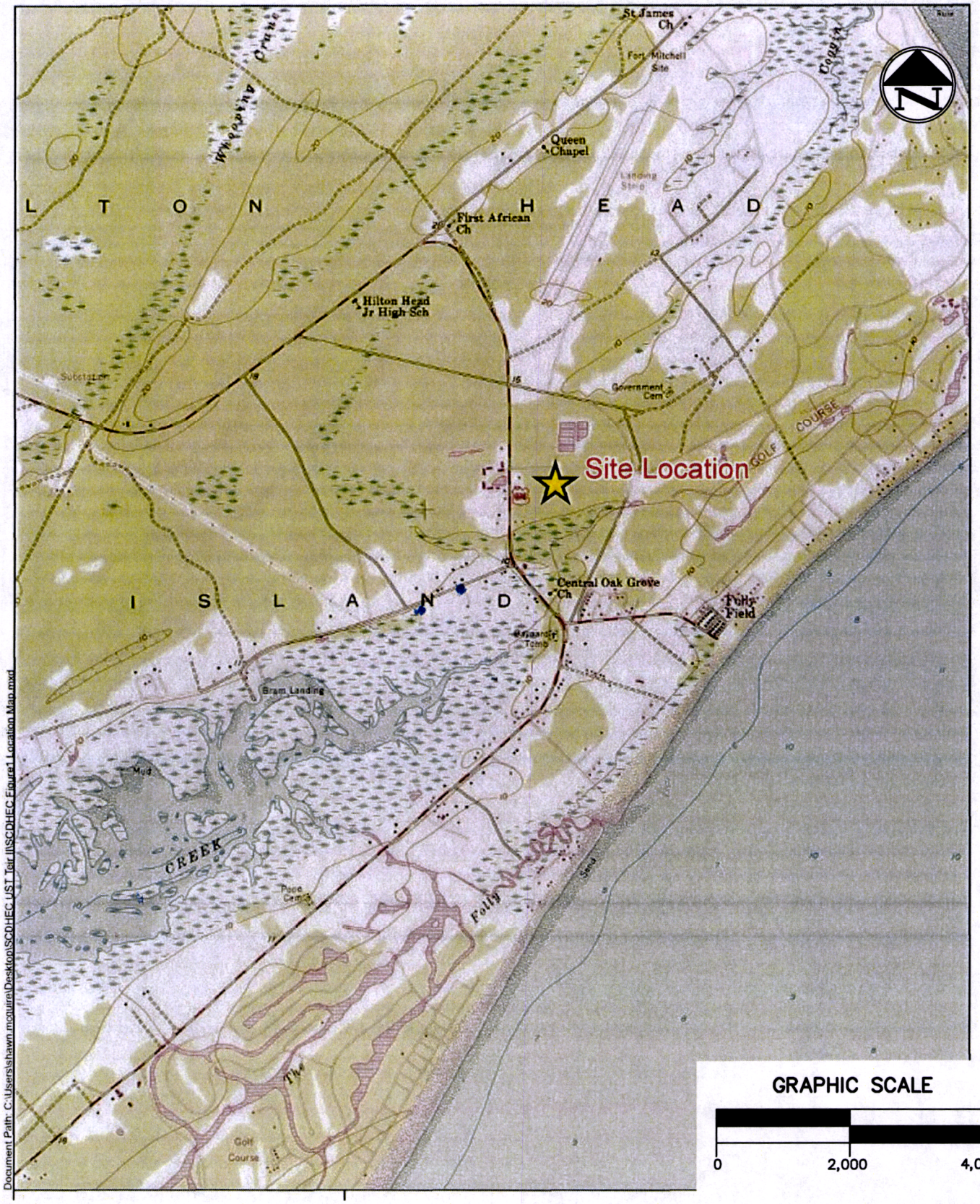
Attachments

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



Document Path: C:\Users\shawn.mcguire\Desktop\SC\DHEC UST Tier II\SC\DHEC Figure1 Location Map.mxd

DRAWN BY:	CTC
APPROVED BY:	CAC
ORIGINAL:	October 24, 2022
REVISIONS:	1 2 3
NOTES:	
SCALE:	As Noted

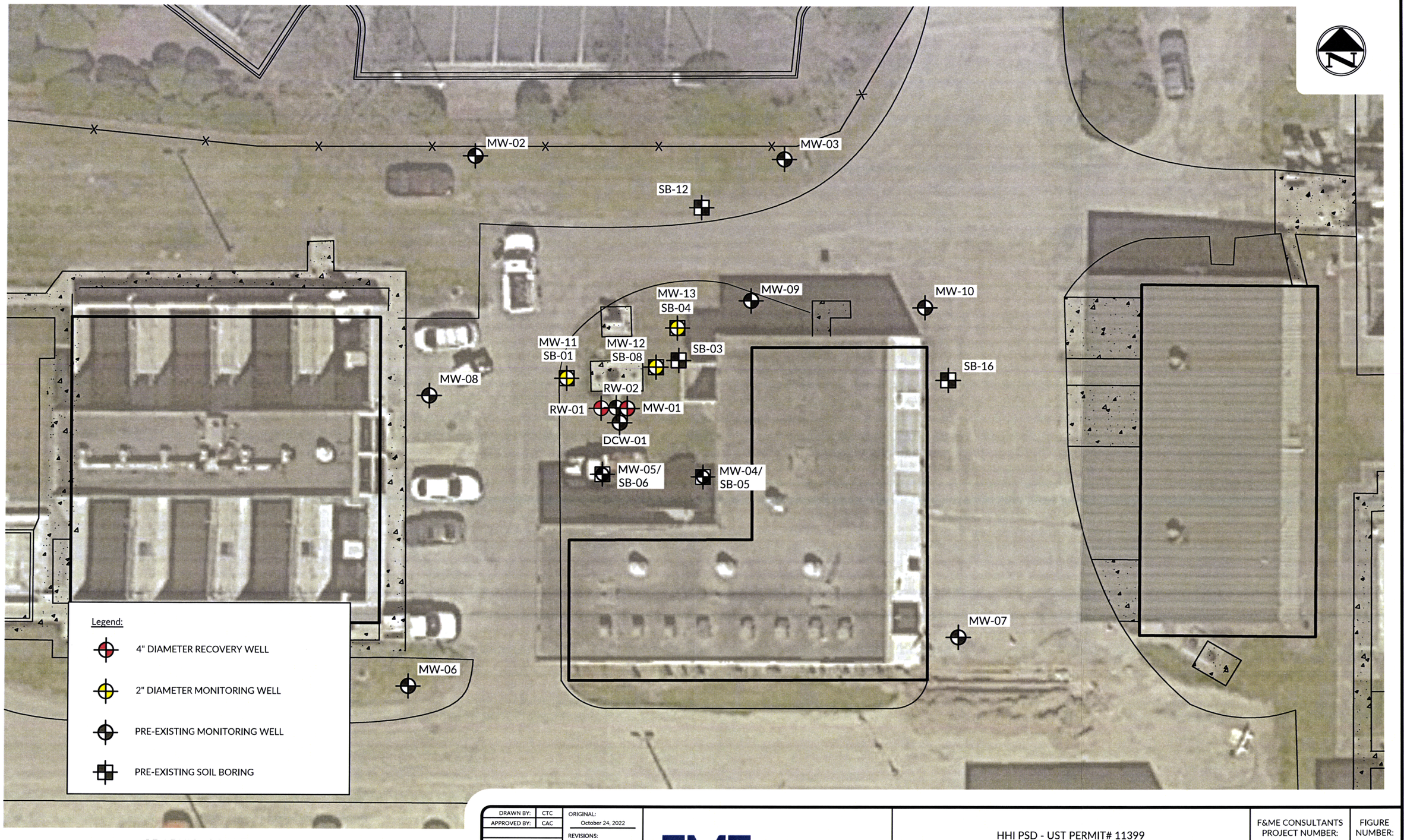
F&ME CONSULTANTS
1825 BLANDING STREET
COLUMBIA, SC 29201

HHI PSD - UST PERMIT# 11399
21 Oak Park Drive
Hilton Head Island, Beaufort County, South Carolina

Appendix B - Site Topo Map

F&ME CONSULTANTS PROJECT NUMBER: E6687.000

FIGURE NUMBER: 2



DRAWN BY:	CTC
APPROVED BY:	CAC
NOTES:	
ORIGINAL:	October 24, 2022
REVISIONS:	1 2 3
SCALE:	1"=20'

F&ME CONSULTANTS, INC.
1825 BLANDING STREET
COLUMBIA, SC 29201

HHI PSD - UST PERMIT# 11399
21 Oak Park Drive
Hilton Head Island, Beaufort County, South Carolina

Appendix C - Well Location Plan

F&ME CONSULTANTS PROJECT NUMBER: E6687.000

FIGURE NUMBER: 3

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: Hilton Head Public Service District

UST Permit #: 11399 **Cost Agreement #:** N/A

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		each	$1,153.64		$0.00
2.1 Personnel	3	each	$478.42		$1,435.26
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	11	sample	$31.67		$348.37
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	2	sample	$27.83		$55.66
9.1 Groundwater (low flow purge)	5	sample	$102.93		$514.65
10.1 Equipment Blank	1	sample	$27.83		$27.83
11. Sample Product		per well	$48.76		$0.00
K. Laboratory Analyses-Groundwater					
1.1 BTEXNM+Oxyg's+1,2 DCA+Eth(8260D)	20	per sample	$137.98		$2,759.60
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	19	per sample	$51.12		$971.28
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	5	gallon	$0.64		$3.20
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*	1	per event	$6,706.10		$6,706.10
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	1	per event	$357.50		$357.50
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	1	each	$280.00		$280.00
15. Additional Hook-ups	1	each	$27.48		$27.48
16.1 AFVR Effluent Disposal	20000	gallon	$0.49		$9,800.00
17.1 AFVR Mobilization/Demobilization	1	each	$720.00		$720.00
18. Mobilization for absorbents/skimmers		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*		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	$24,176.58		$2,901.19
TOTAL					$27,077.77

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

dhec
Healthy People. Healthy Communities.



MAR 28 2023

HILTON HEAD PUBLIC SERVICE DISTRICT
PO BOX 21264
HILTON HEAD ISLAND SC 29925

Re: **Aggressive Fluid Vapor Recovery and Groundwater Sampling Notice to Proceed**
Hilton Head Public Service District, 21 Oak Park Drive, Hilton Head Island, SC
UST Permit #11399; CA #66938
Release #2 reported July 27, 2017
Site Specific Work Plan received February 28, 2023
Beaufort County

To Whom it May Concern:

The Underground Storage Tank Management Division (UST 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.

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 UST Division records, approximately $16,069.64 has been expended from the SUPERB Account to date.** This scope of work, as recommended by your contractor, is anticipated to cost approximately $26,771.82.

In accordance with Sections 280.64 and 280.65 of the South Carolina Underground Storage Tank Control Regulations R.61-92, The Aggressive Fluid Vapor Recovery (AFVR) and groundwater sampling events should begin immediately upon receipt of this letter. The Cost Agreement number shown above has been approved for the amount shown on the enclosed cost agreement form. All work must be conducted in compliance with the current revision of the UST Quality Assurance Program Plan (QAPP), your contractor's Annual Contractor Quality Assurance Plan and submitted SSWP, and all applicable regulations. The QAPP is available at scdhec.gov/Environment/Land-Waste/Underground-Storage-Tanks/Release-Assessment-Clean/Quality-Assurance.

Please note the following changes to the cost agreement and SSWP:

- 1 unit removed from D.2.1 Personnel
- 1 unit added to J.4.2A No-purge Groundwater Sample/Surface water
- 4 units added to J.5.1 Gauge Well only
- 45 units added to Q.1.1 Disposal
- 2 units added to Y.1.1 Additional Copies of the Report Delivered

Any variance from the procedures will be approved on a site specific basis and should be submitted to the UST Division in writing.

The contractor must provide notification to the UST Project Manager via email 4 days prior to initiation of any site rehabilitation activities. If there are any changes to the schedule, the UST Project Manager must be contacted within 24 hours of those changes.

Your contractor can submit an invoice for direct payment from the State Underground Petroleum Environmental Response Bank (SUPERB) Account for pre-approved costs. **The AFVR Report, contractor checklist (QAPP Appendix K), and invoice should be submitted to the UST Division within one hundred-twenty (120) days of the date of this correspondence.** 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.

In accordance with Section IV.A.4.c of the SUPERB Site Rehabilitation & Fund Access Regulation (R.61-98), the contractor shall be required to indemnify the property owner, underground storage tank owner/operator and the State of South Carolina from and against all claims, damages, losses and expenses arising out of or resulting from activity conducted by the contractor, its agents, employees or subcontractors.

Please note that sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that the SUPERB Account cannot compensate any costs that are not pre-approved. If for any reason additional tasks will be completed, these additional tasks, and the associated cost, must be pre-approved by the UST Division for the cost to be paid. The UST Division reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria. Further, the UST Division reserves the right to question and/or reject costs if deemed unreasonable and the right to audit project records at any time during the project or after completion of work.

Please note that applicable South Carolina certification requirements regarding laboratory services, well installation, and report preparation must be satisfied. Any site rehabilitation activity associated with the UST release must be performed by a DHEC-certified site rehabilitation contractor as required by the SUPERB Site Rehabilitation and Fund Access Regulation, R.61-98.

The UST Division grants pre-approval for transportation of virgin petroleum impacted soil and groundwater from the referenced site to a permitted treatment facility. There can be no spillage or leakage in transport. All investigation-derived waste (IDW) must be properly contained and labeled prior to disposal. IDW should not be stored on-site longer than ninety (90) days. A copy of the disposal manifest and/or acceptance letter from the receiving facility that clearly designates the quantity received must be included as an appendix to the report. If the Chemical of Concern (CoC) concentrations based on laboratory analysis is below Risk-Based Screening Levels (RBSLs), please contact the project manager for approval to dispose of soil and/or groundwater on-site. The SUPERB Account will not reimburse for transportation or treatment of soil and/or groundwater with concentrations below RBSLs.

On all correspondence concerning this site, please reference the UST Permit number above. Should you have any questions, please contact me by phone at (803) 898-2946, by fax at (803) 898-0673, or by email at hawkij@dhec.sc.gov.

Sincerely,

Ireland Hawk, Hydrogeologist
Corrective Action & Field Support Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

enc: Approved Cost Agreement

cc: F&ME Consultants Columbia, 1825 Blanding Street, Columbia, SC 29201 (w/ enc)
Technical file (w/ enc)

Approved Cost Agreement 66938

Facility: 11399 HILTON HEAD PUBLIC SERVICE DISTRICT
HAWKU
PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
A PLAN PREPARATION						
		1.1	SITE SPECIFIC WORK PLAN	1.0000	$169.650	169.65
D MOB/DEMOB						
		2.1	PERSONNEL	2.0000	$478.420	956.84
J SAMPLE COLLECTION						
		10.1	EQUIPMENT BLANK	1.0000	$27.830	27.83
		4.2A	NO-PURGE GW SAMPLE/SURFACE	12.0000	$31.670	380.04
		5.1	GAUGE WELL ONLY	4.0000	$7.920	31.68
		8.1	FIELD DUPL. (MWS & WSWS) & FB	2.0000	$27.830	55.66
		9.1	GROUNDWATER (LOW FLOW PURGE)	5.0000	$102.930	514.65
K ANALYSES						
	GW GROUNDWATER	1.1	BTEXNM+OXYGS+1,2 DCA+ETH-8260D	20.0000	$137.980	2,759.60
		7.1	EDB BY EPA 8011	19.0000	$51.120	971.28
Q DISPOSAL						
		1.1	WASTEWATER	50.0000	$0.640	32.00
S REPORT PROJECT MANAGEMENT						
		S	REPORT PREP & PROJ. MANAGEMENT	0.1200	$23,903.410	2,868.41
W AFVR						
		14.1	AFVR SITE RECONNAISSANCE	1.0000	$280.000	280.00
		15	ADDITIONAL HOOK UPS	1.0000	$27.480	27.48
		16.1	AFVR EFFLUENT DISPOSAL	20,000.0000	$0.490	9,800.00
		17.1	AFVR MOB - DEMOB	1.0000	$720.000	720.00
		3	48 HOUR EVENT	1.0000	$6,706.100	6,706.10
		7.1	OFF-GAS TREATMENT 48 HOUR	1.0000	$357.500	357.50
Y WELL REPAIR						
		1.1	ADDITIONAL COPIES OF REPORT	2.0000	$56.550	113.10
					Total Amount	26,771.82

UST
27T
CKETING

F&ME CONSULTANTS

LETTER OF TRANSMITTAL

TO:	Ms. Corie White, Hydrogeologist III SCDHEC – UST Mgmt Section 2600 Bull St. Columbia, SC 29201

DATE:	09/05/23	**FME NO.:**	E6687.001
ATTN:	Ms. Corie White		
RE:	HHI PSD Site – AFVR and GW Sampling Report UST ID # 11399		

WE ARE SENDING YOU THE FOLLOWING: **VIA:** Hand Delivery

☐ AGREEMENT ☐ INVOICE ☐ PHOTOS ☐ PLANS ☐ PROPOSAL ☐ RECORDS ☐ REPORTS ☐ SAMPLES
☐ SPECIFICATIONS ☐ SUBMITTAL ☒ OTHER _____

COPIES	DATE	DESCRIPTION
1	08/30/23	AFVR and Groundwater Sampling Report, HHI PSD, UST ID 11399

THESE ARE TRANSMITTED AS CHECKED BELOW:

☒ AS REQUESTED ☐ CORRECTED COPY ☐ FOR YOUR USE ☐ RESUBMITTED
☐ OTHER _____

COMMENTS:

Corie,
If you need any additional information, please just ask.

RECEIVED
SEP 05 2023
SC Department of
Health & Environmental Control

SIGNED: Christine A. Cafagna

Christine A. Cafagna, ccafagna@fmeconsultants.com

UST
27
DOCKETING

F&ME CONSULTANTS

AFVR AND GROUNDWATER SAMPLING REPORT

HILTON HEAD ISLAND PUBLIC SERVICE DISTRICT
21 OAK PARK DRIVE
HILTON HEAD ISLAND, BEAUFORT COUNTY, SC
SCDHEC UST PERMIT #11399

PREPARED FOR:

Hilton Head Island Public Service District (HHI PSD)
21 Oak Park Drive
Hilton Head Island, SC 29926

PREPARED BY:

F&ME Consultants
211 Business Park Blvd.
Columbia, South Carolina 29203

RECEIVED
SEP 05 2023
SC Department of
Health & Environmental Control

August 30, 2023

F&ME Project No.: E6687.001

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Appendix A – Figures
Appendix B – ARMS AFVR Report and Waste Manifest
Appendix C – Laboratory Analytical Report
Appendix D – Field Sampling Data Sheets for Groundwater Sampling
Appendix E – Contractor Checklist
Appendix F – SCDHEC AFVR and Groundwater Sampling Notice to Proceed Letter

TABLES

1 Summary of Groundwater Elevations
2 Summary of Groundwater COC Analytical Results
3 Summary of Groundwater Oxygenate Analytical Results

1. TRANSMITTAL LETTER

August 30, 2023

Mr. Bill Davis, Operations Manager
Hilton Head Island Public Service District (HHI PSD)
21 Oak Park Drive
Hilton Head Island, South Carolina 29926

Re: AFVR and Groundwater Sampling Event
SCDHEC UST Permit Number 11399
HHI PSD Release #2 (July 27, 2017)
21 Oak Park Drive
Hilton Head Island, Beaufort County, South Carolina
FME Project No.: E6687.001

Dear Mr. Davis:

Submitted herein is the Aggressive Fluid and Vapor Recovery (AFVR) and Groundwater Sampling report for work conducted at the above referenced site. The work was initiated upon receipt of the South Carolina Department of Health and Environment Control's (SCDHEC) AFVR and Groundwater Sampling Notice to Proceed (NTP) letter dated March 28, 2023, outlining the scope of work requested. This report is submitted by F&ME Consultants, Inc. (FME) for your review on behalf of the site owner, Hilton Head Island Public Service District (HHI PSD). This work is being done under SCDHEC Cost Agreement (CA) #66938.

If you have any questions, or if we can provide additional information, please do not hesitate to contact us at (803) 254-4540.

Sincerely,

F&ME CONSULTANTS, INC.

Christine A. Cafagna
Senior Environmental Department Manager

James R. Wessinger, P.G.
Project Geologist

James Richard Wessinger
License #
2512
State of South Carolina
Registered Professional Geologist

Enclosures

2. INTRODUCTION

Site:

HHI PSD Release #2
21 Oak Park Drive
Hilton Head Island, South Carolina 29926
Beaufort County
SCDHEC UST Permit #11399
(803) 254-4540
Release Reported: Release #2 (July 27, 2017)

Responsible Party:

Hilton Head Island Public Service District
c/o Mr. Bill Davis
PO Box 21264
Beaufort, South Carolina 29925-1264
(843) 305-0639

This assessment was conducted by:

F&ME Consultants, Inc.
211 Business Park Blvd.
Columbia, South Carolina 29203
(803) 254-4540
UCC-0140, Class I

F&ME Consultants, Inc. (FME) is submitting the following Aggressive Fluid and Vapor Recovery (AFVR) and Groundwater Sampling report for the HHI PSD Release #2 site. The HHI PSD Release #2 site (SCDHEC UST Permit #11399) (Site) is located at 21 Oak Park Drive, Hilton Head Island, Beaufort County, South Carolina. The Site currently operates as the Hilton Head Island Public Service District (HHI PSD).

Acting on behalf of HHI PSD, F&ME Consultants (FME) has completed the AFVR and groundwater sampling at the Site. Refer to *Appendix A, Figure 1 - Site Vicinity Map*, for the location of the facility and *Figure 2 - Site Topographic Map*, which depicts the relative topography on the site and within the immediate area around the facility. Refer to *Appendix F*, which contains the SCDHEC AFVR and groundwater sampling notice to proceed (NTP) letter, for more details regarding SCDHEC's request.

As outlined in the SCDHEC Site Specific Work Plan (SSWP) request letter dated January 09, 2023 and the SCDHEC's AFVR and groundwater sampling NTP letter dated March 28, 2023, the scope of work was to carry out a 48-hour AFVR event on the three (3) monitoring wells (MW-1, MW-9 and MW-13) and one (1) recovery well (RW-2) that had measured free phase product (FPP) in them during the most recent groundwater sampling event that occurred on August 25, 2022.

Additionally, the scope of work included carrying out a comprehensive groundwater sampling event after the completion of the 48-hour AFVR event. The locations of monitoring wells sampled during this assessment are provided in *Appendix A, Figure 3 - Well Location Plan*.

3. 48-HOUR AFVR EVENT

AFVR Site Reconnaissance. On May 31, 2023, FME personnel arrived at the site to carry out the AFVR site reconnaissance. At that time, the target wells (monitoring wells MW-1, MW-9, and MW-13 and recovery well RW-2) were gauged to determine the groundwater data and the FPP thickness in advance of the AFVR events. Below is a table (Table I) of data collected on the targeted recovery wells during the site reconnaissance. This information along with the proposed date of the startup of the 48-hour AFVR event was e-mailed to the SCDHEC project manager.

Table I. Results of AFVR Site Reconnaissance (05/31/2023)

Well #	Top of Casing (TOC) Elevation (feet)	Screened Interval (feet)	Depth to Free Product (feet)	Depth to Water (feet)	Free Phase Product Thickness (feet)
MW-1	12.80	2-12	4.43	6.09	1.66
MW-9	12.91	3.5-13.5	4.87	5.72	0.85
MW-13	12.88	3-13	4.82	5.82	1.0
RW-2	12.55	2-12	4.26	6.62	2.36

AFVR Events. On June 12, 2023, FME's subcontractor, ARM Environmental Services, Inc., mobilized to the site to start-up the 48-hour AFVR event. The event was performed on the four (4) targeted wells: monitoring wells MW-1, MW-9, MW-13, and recovery well RW-13. The 48-hour AFVR event was completed on June 14, 2023.

The 48-hour AFVR event was conducted as requested in the DHEC AFVR Notice to Proceed (NTP) letter dated March 28, 2023, along with the procedures listed in our SCDHEC approved Site-Specific Work Plan (SSWP) and in accordance with the UST Quality Assurance Program Plan (QAPP) Revision 4.0. A copy of the AFVR event report prepared by ARM Environmental Services, Inc. is included in Appendix B. A summary of the AFVR event results (Table II) is presented below. The following Table II shows the overall results of the AFVR event:

Table II. Results of 48-hour AFVR Events

Well #	Date of 48-hour AFVR Event	Product Thickness Before AFVR (feet)	Product Thickness After AFVR (feet)	Total Volume of Liquid Removed (Gallon)	Total Pounds/Gallons of Petroleum Removed as Vapor	Total Volume of Product Removed (Gallon)
MW-1	6/12-14/2023	1.55	0	17,629	3.54 pounds (0.57 gallons)	20
MW-9		1.15	0			
MW-13		0.82	0			
RW-2		2.36	0			

4. GROUNDWATER SAMPLING EVENT

On July 7, 2023, F&ME personnel returned to the site to conduct the comprehensive groundwater sampling event on the (16) monitoring wells within the well network: thirteen (13) shallow monitoring wells (i.e., MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12, and MW-13), one (1) deep monitoring well (i.e., DCW-1), and two (2) recovery wells (i.e., RW-1 and RW-2). Each well sampled during this event was sampled in a manner consistent with the SCDHEC's Quality Assurance Project Plan (QAPP) (Rev. No. 4.0) protocols. Refer to *Appendix H*, Contractor Checklist, which documents that data elements for the scope of work have been provided.

Prior to the collection of groundwater levels and water quality samples from the wells on site, each well was opened to allow groundwater to stabilize within each well. Static water levels were measured and recorded. The depth to water reading from each well was subtracted from the total well depth to determine the volume of groundwater within the well casing and to determine if the well screen bracketed the water table. Depths to groundwater and groundwater elevations recorded during the sampling event are included here in *Appendix D*, Field Sampling Data Sheets for Groundwater Sampling. The water level for the wells containing FPP were corrected by calculating and subtracting for the density of diesel. Using the shallow groundwater elevations, a groundwater potentiometric map was created for the site. Refer to *Appendix A, Figure 4 - Groundwater Potentiometric Map*, which shows the general groundwater contours extrapolated from the observed measurements from the wells obtained during this sampling event. Please note that the deep well (i.e., DCW-1) was not used in developing the depicted groundwater contours.

Groundwater flow directions are somewhat complex at the Site. The northern portion of the site is a topographic high, and this high runs parallel from MW-2 to MW-3. Groundwater on the northern portion of the Site predominantly flows south. However, the western portion of the site

sits at a relatively higher elevation than the central part of the site (i.e., source area, RW-1 and RW-2) and causes groundwater to flow from this relative high in a more easterly direction. Anomalously, in the vicinity of the tank basin the groundwater is at a small high, and causes flow outward from the tank basin but this represents a very small area. Refer to Figure 4 of this report.

Well purging was not required for MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, MW-10, and MW-11 of the monitoring well network, as the well screens bracketed the measured water table within these shallow wells. Additionally, MW-1, MW-9, MW-12, MW-13, RW-1, and RW-2 were not sampled as these wells contained free phase product (FPP). Therefore, deep well DCW-1 was the only well requiring purging before sampling. The groundwater analytical results from deep well, DCW-1, have historically been below the SCDHEC risked-based screening levels (RBSLs); therefore, the purge water was disposed on the ground beside the deep well. A peristaltic pump with disposable polyethylene tubing was used to purge and sample the deep well using low flow and low volume purging and sampling methods. Since the deep well was able to be sampled with a peristaltic pump with disposable tubing and not a submersible pump, no equipment blank was collected. Water quality data collected during the purging and sampling of the wells is presented on the Field Sampling Data Sheets for Groundwater Sampling located in Appendix D. Chain-of-custody procedures were properly followed, and each groundwater sample was placed in sample bottles provided by the analytical laboratory, properly sealed, packaged in a cooler filled with ice, and held at FME's office for lab pick up by Access Analytical, Inc. personnel.

Table 1 included within this report documents the depth to groundwater and groundwater elevations recorded during the sampling event and previous sampling events. Screened intervals were originally recorded during well installation and are provided here for informational purposes only. Top of Casing (TOC) elevations were provided by Andrews Engineering after FME's installation of RW-1, RW-2, MW-11, MW-12, and MW-13. It should be noted that the TOC elevations for the remaining wells, which were installed by AECOM, were taken from AECOM's *Tier II Assessment Report UST Permit #11399*, dated November 2021. The respective water table elevations recorded in *Table 1* were calculated using these elevations and field measurements.

5. SAMPLE ANALYSES

The groundwater samples were submitted to Access Analytical Inc., a South Carolina Certified Laboratory, for groundwater sample analyses of typical petroleum volatile organic compounds (VOC), including benzene, toluene, ethylbenzene, xylenes (BTEX), naphthalene, methyl tertiary butyl ether (MTBE), 1,2-dichloroethande (1,2-DCA), eight (8) oxygenates and ethylene dibromide (EDB). A field duplicate sample was collected from MW-11. Additionally, field blank and trip blank samples were also submitted to the laboratory for analysis for quality assurance/quality control (QA/QC) purposes. As previously stated, an equipment blank was not collected due to the fact that a peristaltic pump with disposable tubing was used to sample the deep well and not a submersible pump. Refer to Appendix C, Laboratory Analytical Report, for a copy of the laboratory analytical results and chain of custody documentation.

6. RESULTS OF ANALYSES

As noted above, six (6) monitoring wells, MW-1, MW-9, MW-12, MW-13, RW-1, and RW-2, were not sampled due to the presence of free phase product (FPP) within these monitoring wells. FPP thickness in these six (6) wells ranged from 0.08 feet to 0.83 feet at the time of the groundwater sampling event. MW-1 has contained free product since its installation in 2018. Monitoring well MW-9 had FPP present during the previous sampling event that occurred on August 25, 2022. However, no FPP was recorded in MW-9 during the April 20, 2021 sampling event. During the previous 2022 sampling event, monitoring wells MW-12, MW-13, and RW-2 also had measured FFP consistent with this current sampling event.

Analytical results indicate that one (1) monitoring well contains a Chemical of Concern (CoC) that is above SCDHEC's Risk Based Screening Levels (RBSL). Based on analytical sample results, MW-5 contained naphthalene at a concentration of 32 micrograms per liter (µg/L) which is above the established RBSL of 24 µg/L. The groundwater sample collected from MW-5 contained a detectable concentration of ethylbenzene at 13 µg/L which is significantly below the SCDHEC RBSL of 700 µg/L. The sample collected from MW-5 also had a detectable concentration of benzene, but it was an estimated "J-value" concentration. The groundwater sample collected from deep well DCW-1 did have a detectable concentration of toluene at 1.9 µg/L, which was not detected in the previous 2022 sampling event, but was detected at low concentrations during the first sampling event at the site in 2021.

7. RECOMMENDATIONS

Although the 48-hour AFVR event was successful at temporarily reducing the free phase product (FPP) thickness in the targeted wells (MW-1, MW-9, MW-13, and RW-2) as there was no recorded FFP in the targeted wells after completion of the 48-hour AFVR event. However, the results of the groundwater sampling event that followed the AFVR event showed that FFP was now present in six (6) wells. These six (6) monitoring wells were not sampled due to the presence of FPP that ranged from 0.08 feet to 0.83 feet. Additionally, monitoring well MW-5, which is downgradient from the release, had a measured concentration of naphthalene that is above the SCDHEC RBSL. It appears that the results are overall generally consistent with the results obtained from previous sampling events except for the FFP now being documented in six (6) monitoring wells. MW-1 has contained free product since its installation in 2018.

Based on information obtained during this sampling event, FME recommends a 96-hour aggressive fluid vapor recovery (AFVR) event be conducted on the six (6) monitoring wells that had FPP recorded in them (MW-1, MW-9, MW-12, MW-13, RW-1, and RW-2). However, due to equipment constraints, the AFVR extraction will be rotated or staggered to accommodate all six (6) extraction

wells during a single event. That is, a 48-hour event on three (3) extraction wells, followed by a 48-hour event on the remaining three (3) wells. Due to the amount of water to be generated, a temporary "frac tank" will be required to handle/hold water during event, prior to disposal.

8. ACKNOWLEDGEMENT

On behalf of Hilton Head Island Public Service District, FME appreciates the opportunity to provide SCDHEC this AFVR and groundwater sampling report. If you require additional information or have any questions concerning the information presented in this report, please do not hesitate to contact us at (803) 254-4540.

APPENDICES

Appendix A – Figures
Appendix B – ARMS AFVR Report and Waste Manifest
Appendix C – Laboratory Analytical Report
Appendix D – Field Sampling Data Sheets for Groundwater Sampling
Appendix E – Contractor Checklist
Appendix F – SCDHEC AFVR and Groundwater Sampling Notice to Proceed Letter

TABLES

1 - Summary of Groundwater Elevations
2 - Summary of Groundwater COC Analytical Results
3 - Summary of Groundwater Oxygenate Analytical Results

Appendix A

Figures





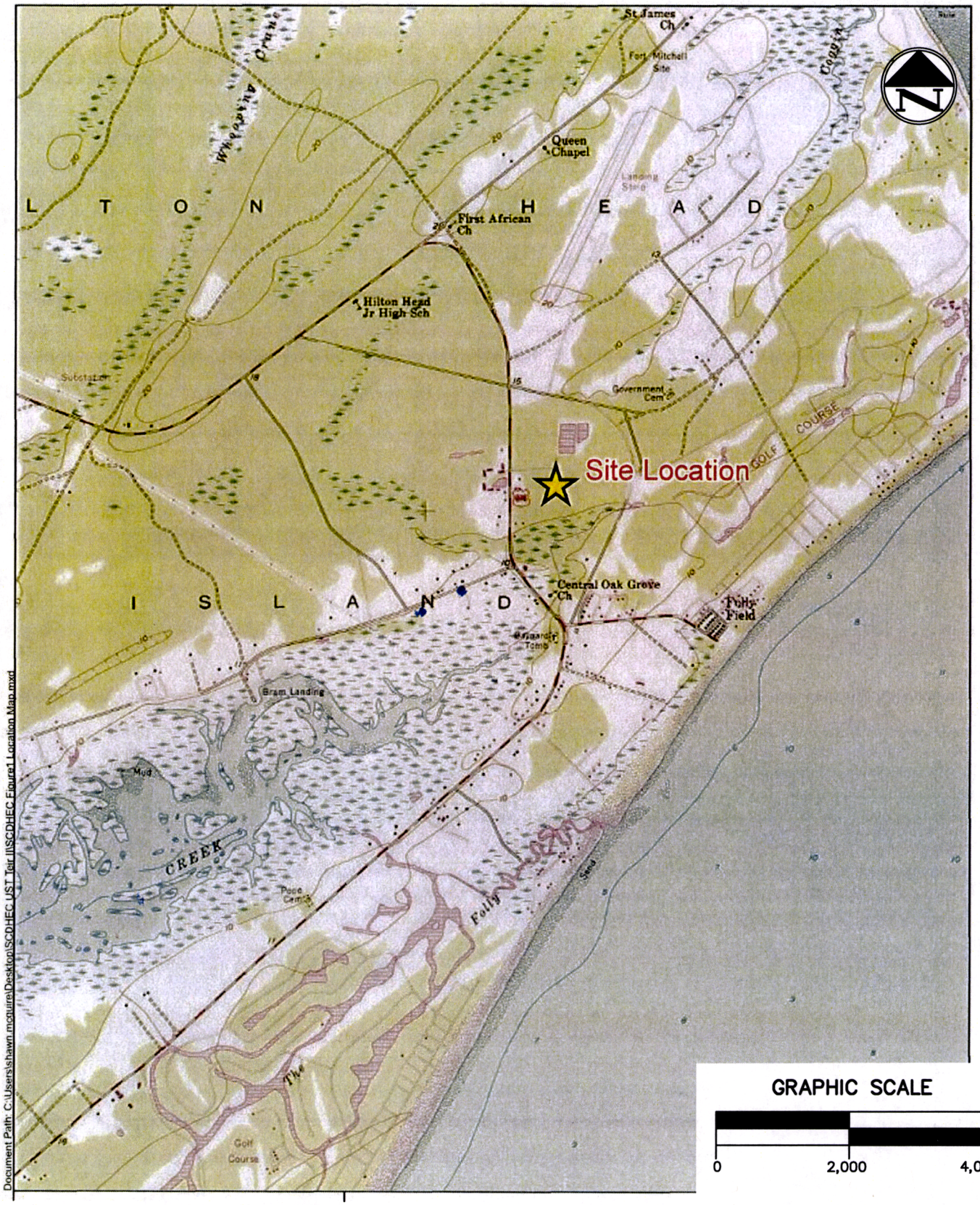
BEAUFORT COUNTY

1:144,000

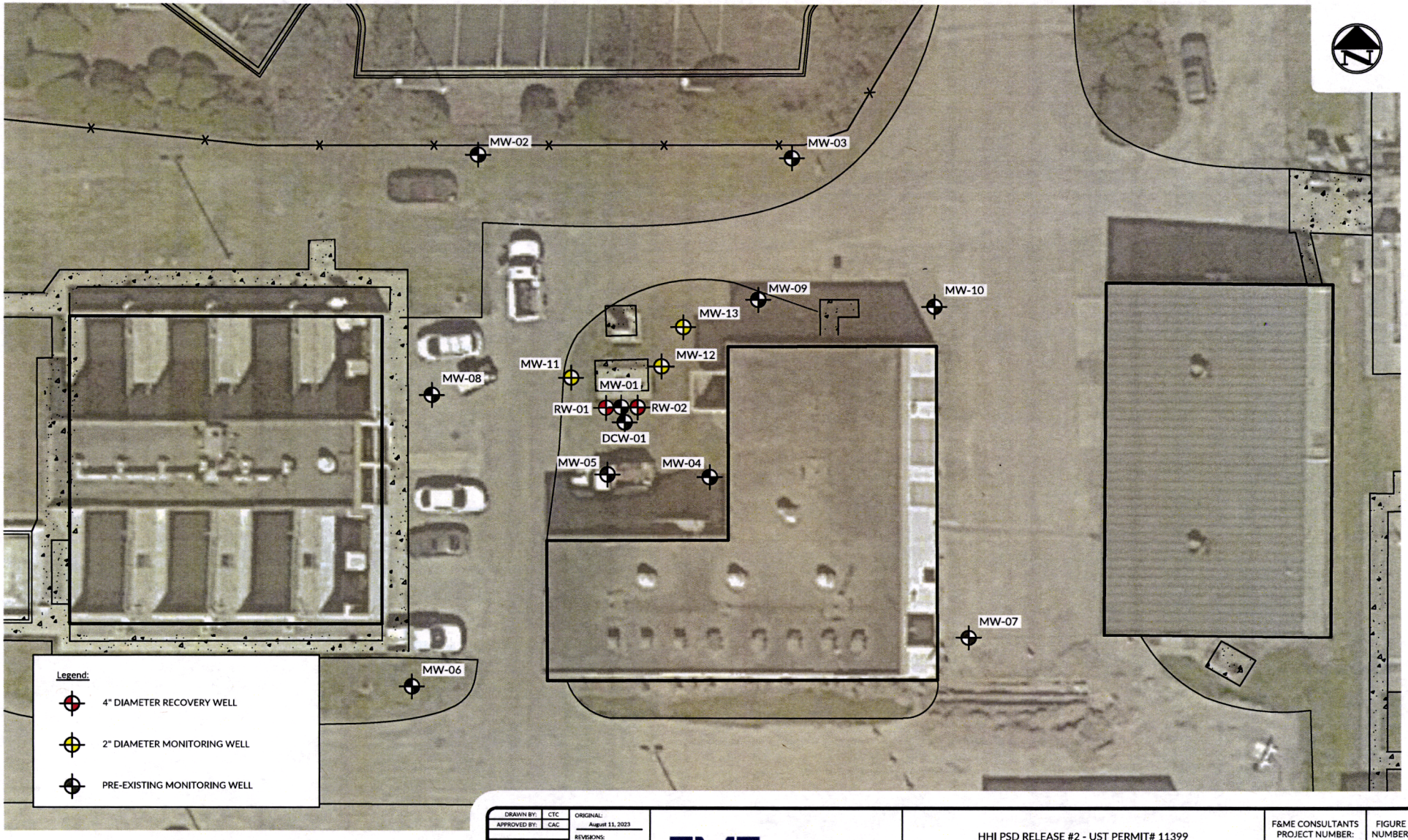
0 1 2 4 mi

0 1.5 3 6 km

DRAWN BY: CTC APPROVED BY: CAC NOTES:	ORIGINAL: August 11, 2023 REVISIONS: 1 2 3 SCALE: As Noted	F&ME CONSULTANTS 1825 BLANDING STREET COLUMBIA, SC 29201	HHI PSD RELEASE #2 - UST PERMIT# 11399 21 Oak Park Drive Hilton Head Island, Beaufort County, South Carolina Appendix A - Site Vicinity Map	F&ME CONSULTANTS PROJECT NUMBER: E6687.001	FIGURE NUMBER: 1



DRAWN BY: CTC APPROVED BY: CAC NOTES:	ORIGINAL: August 11, 2023 REVISIONS: 1 2 3 SCALE: As Noted	F&ME CONSULTANTS 1825 BLANDING STREET COLUMBIA, SC 29201	HHI PSD RELEASE #2 - UST PERMIT# 11399 21 Oak Park Drive Hilton Head Island, Beaufort County, South Carolina Appendix B - Site Topo Map	F&ME CONSULTANTS PROJECT NUMBER: E6687.001	FIGURE NUMBER: 2



GRAPHIC SCALE

0 10 20 40

DRAWN BY:	CTC
APPROVED BY:	CAC
NOTES:	
ORIGINAL:	August 11, 2023
REVISIONS:	1 2 3
SCALE: 1"=20'	

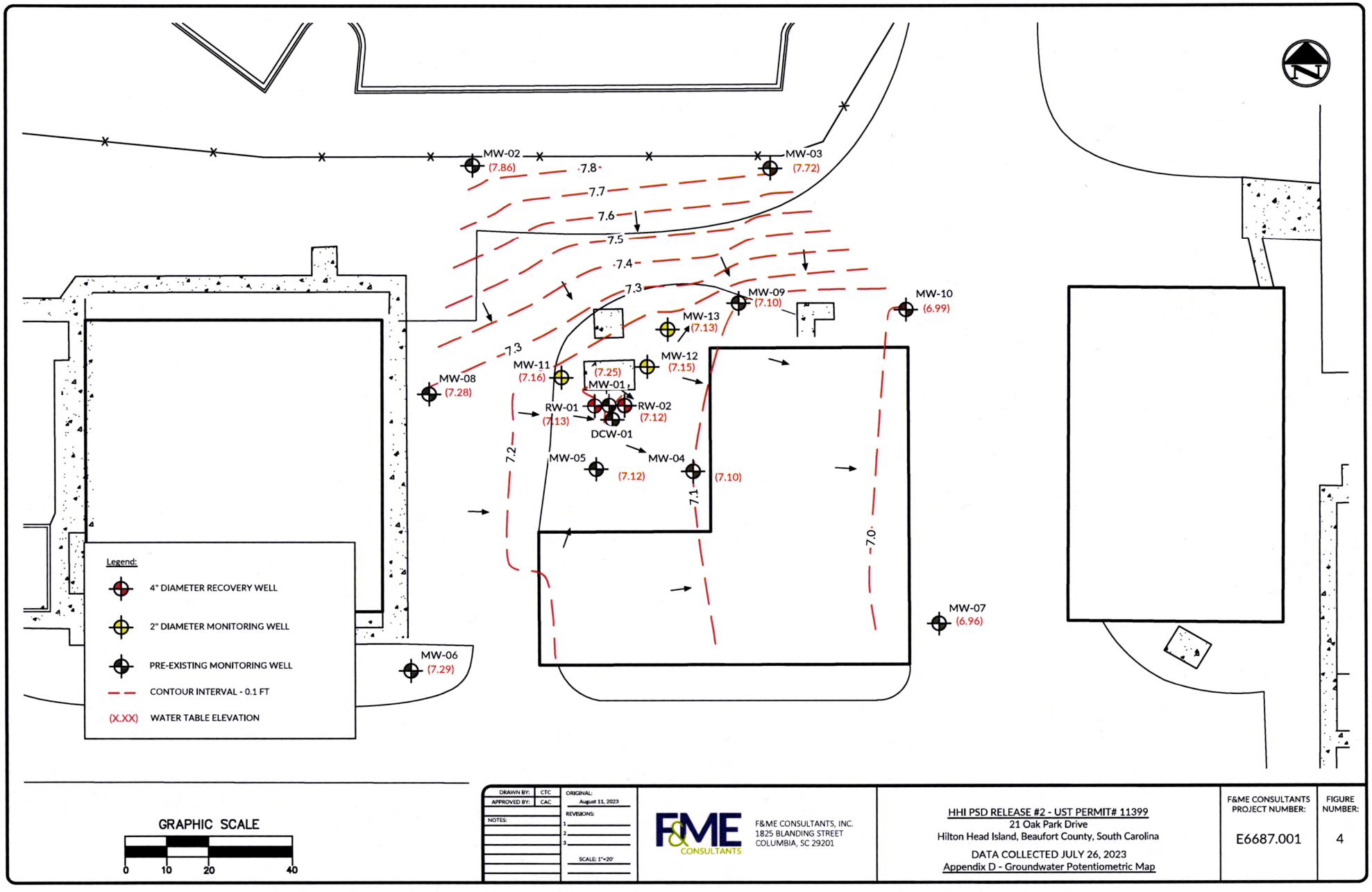
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F&ME CONSULTANTS, INC.
1825 BLANDING STREET
COLUMBIA, SC 29201

HHI PSD RELEASE #2 - UST PERMIT# 11399
21 Oak Park Drive
Hilton Head Island, Beaufort County, South Carolina

Appendix C - Well Location Plan

F&ME CONSULTANTS PROJECT NUMBER:	FIGURE NUMBER:
E6687.001	3

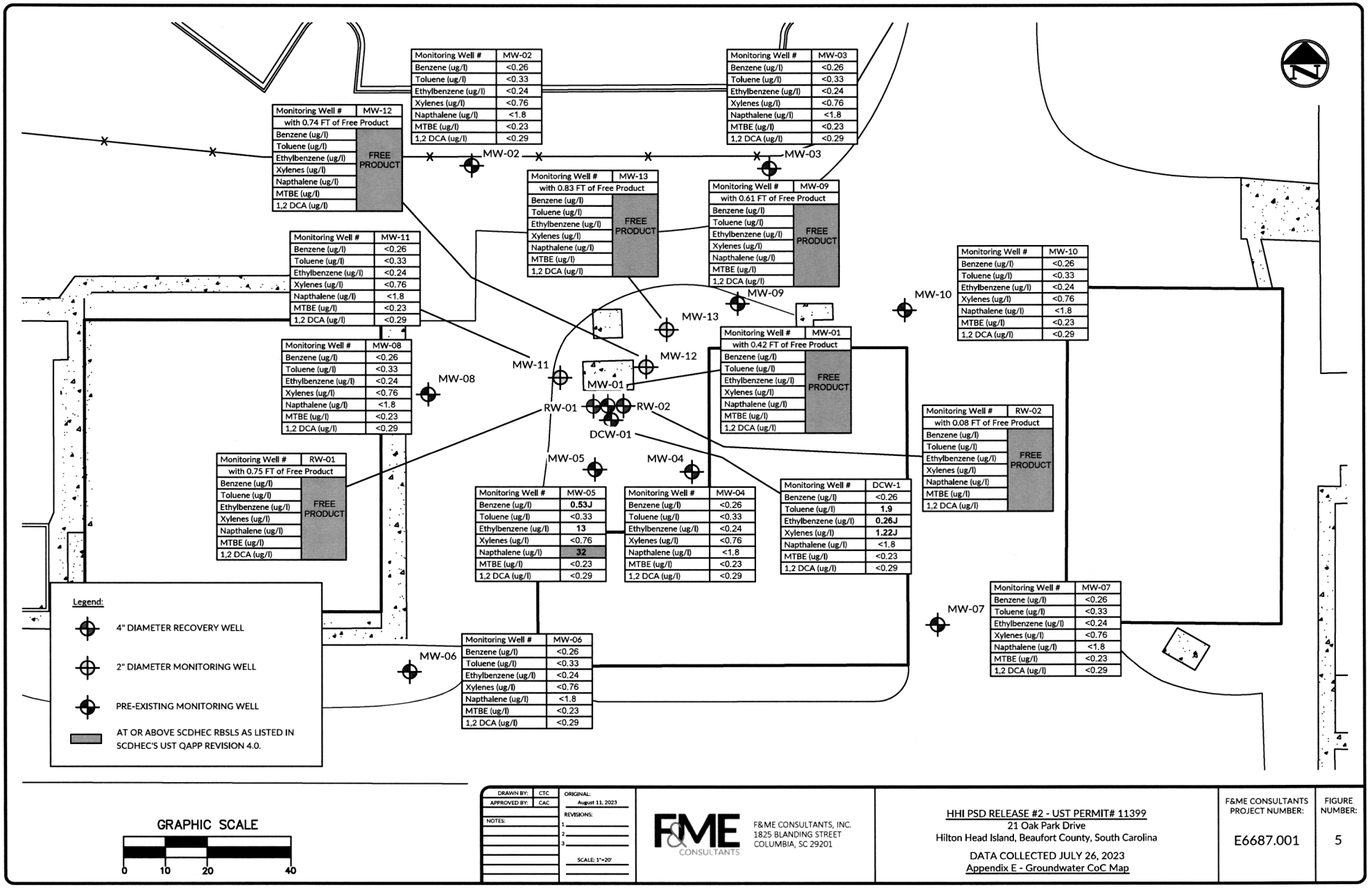


DRAWN BY:	CTC
APPROVED BY:	CAC
NOTES:	
ORIGINAL:	August 11, 2023
REVISIONS:	1 2 3
SCALE: 1"=20'	

F&ME CONSULTANTS, INC.
1825 BLANDING STREET
COLUMBIA, SC 29201

HHI PSD RELEASE #2 - UST PERMIT# 11399
21 Oak Park Drive
Hilton Head Island, Beaufort County, South Carolina
DATA COLLECTED JULY 26, 2023
Appendix D - Groundwater Potentiometric Map

F&ME CONSULTANTS PROJECT NUMBER:	FIGURE NUMBER:
E6687.001	4


Monitoring Well # MW-02
Benzene (ug/l) <0.26
Toluene (ug/l) <0.33
Ethylbenzene (ug/l) <0.24
Xylenes (ug/l) <0.76
Napthalene (ug/l) <1.8
MTBE (ug/l) <0.23
1,2 DCA (ug/l) <0.29
Monitoring Well # MW-03
Benzene (ug/l) <0.26
Toluene (ug/l) <0.33
Ethylbenzene (ug/l) <0.24
Xylenes (ug/l) <0.76
Napthalene (ug/l) <1.8
MTBE (ug/l) <0.23
1,2 DCA (ug/l) <0.29
Monitoring Well # MW-12
with 0.74 FT of Free Product
Benzene (ug/l)
Toluene (ug/l)
Ethylbenzene (ug/l)
Xylenes (ug/l)
Napthalene (ug/l)
MTBE (ug/l)
1,2 DCA (ug/l)
FREE PRODUCT
MW-02
MW-03
Monitoring Well # MW-13
with 0.83 FT of Free Product
Benzene (ug/l)
Toluene (ug/l)
Ethylbenzene (ug/l)
Xylenes (ug/l)
Napthalene (ug/l)
MTBE (ug/l)
1,2 DCA (ug/l)
FREE PRODUCT
Monitoring Well # MW-09
with 0.61 FT of Free Product
Benzene (ug/l)
Toluene (ug/l)
Ethylbenzene (ug/l)
Xylenes (ug/l)
Napthalene (ug/l)
MTBE (ug/l)
1,2 DCA (ug/l)
FREE PRODUCT
MW-09
MW-10
Monitoring Well # MW-10
Benzene (ug/l) <0.26
Toluene (ug/l) <0.33
Ethylbenzene (ug/l) <0.24
Xylenes (ug/l) <0.76
Napthalene (ug/l) <1.8
MTBE (ug/l) <0.23
1,2 DCA (ug/l) <0.29
Monitoring Well # MW-11
Benzene (ug/l) <0.26
Toluene (ug/l) <0.33
Ethylbenzene (ug/l) <0.24
Xylenes (ug/l) <0.76
Napthalene (ug/l) <1.8
MTBE (ug/l) <0.23
1,2 DCA (ug/l) <0.29
MW-13
MW-11
MW-12
Monitoring Well # MW-01
with 0.42 FT of Free Product
Benzene (ug/l)
Toluene (ug/l)
Ethylbenzene (ug/l)
Xylenes (ug/l)
Napthalene (ug/l)
MTBE (ug/l)
1,2 DCA (ug/l)
FREE PRODUCT
Monitoring Well # MW-08
Benzene (ug/l) <0.26
Toluene (ug/l) <0.33
Ethylbenzene (ug/l) <0.24
Xylenes (ug/l) <0.76
Napthalene (ug/l) <1.8
MTBE (ug/l) <0.23
1,2 DCA (ug/l) <0.29
MW-08
MW-01
RW-01
RW-02
DCW-01
Monitoring Well # RW-02
with 0.08 FT of Free Product
Benzene (ug/l)
Toluene (ug/l)
Ethylbenzene (ug/l)
Xylenes (ug/l)
Napthalene (ug/l)
MTBE (ug/l)
1,2 DCA (ug/l)
FREE PRODUCT
Monitoring Well # RW-01
with 0.75 FT of Free Product
Benzene (ug/l)
Toluene (ug/l)
Ethylbenzene (ug/l)
Xylenes (ug/l)
Napthalene (ug/l)
MTBE (ug/l)
1,2 DCA (ug/l)
FREE PRODUCT
MW-05
MW-04
Monitoring Well # MW-05
Benzene (ug/l) 0.53J
Toluene (ug/l) <0.33
Ethylbenzene (ug/l) 13
Xylenes (ug/l) <0.76
Napthalene (ug/l) 32
MTBE (ug/l) <0.23
1,2 DCA (ug/l) <0.29
Monitoring Well # MW-04
Benzene (ug/l) <0.26
Toluene (ug/l) <0.33
Ethylbenzene (ug/l) <0.24
Xylenes (ug/l) <0.76
Napthalene (ug/l) <1.8
MTBE (ug/l) <0.23
1,2 DCA (ug/l) <0.29
Monitoring Well # DCW-1
Benzene (ug/l) <0.26
Toluene (ug/l) 1.9
Ethylbenzene (ug/l) 0.26J
Xylenes (ug/l) 1.22J
Napthalene (ug/l) <1.8
MTBE (ug/l) <0.23
1,2 DCA (ug/l) <0.29
MW-07
Monitoring Well # MW-07
Benzene (ug/l) <0.26
Toluene (ug/l) <0.33
Ethylbenzene (ug/l) <0.24
Xylenes (ug/l) <0.76
Napthalene (ug/l) <1.8
MTBE (ug/l) <0.23
1,2 DCA (ug/l) <0.29
MW-06
Monitoring Well # MW-06
Benzene (ug/l) <0.26
Toluene (ug/l) <0.33
Ethylbenzene (ug/l) <0.24
Xylenes (ug/l) <0.76
Napthalene (ug/l) <1.8
MTBE (ug/l) <0.23
1,2 DCA (ug/l) <0.29
Legend:
4" DIAMETER RECOVERY WELL
2" DIAMETER MONITORING WELL
PRE-EXISTING MONITORING WELL
AT OR ABOVE SCDHEC RBSLS AS LISTED IN SCDHEC'S UST QAPP REVISION 4.0.
GRAPHIC SCALE
0 10 20 40
DRAWN BY: CTC
APPROVED BY: CAC
ORIGINAL: August 11, 2023
REVISIONS:
1
2
3
NOTES:
SCALE: 1"=20'
F&ME CONSULTANTS
F&ME CONSULTANTS, INC.
1825 BLANDING STREET
COLUMBIA, SC 29201
HHI PSD RELEASE #2 - UST PERMIT# 11399
21 Oak Park Drive
Hilton Head Island, Beaufort County, South Carolina
DATA COLLECTED JULY 26, 2023
Appendix E - Groundwater CoC Map
F&ME CONSULTANTS PROJECT NUMBER:
E6687.001
FIGURE NUMBER:
5

Appendix B

ARMS AFVR Report and Waste Manifest

ARM
ENVIRONMENTAL SERVICES

July 31, 2023

Christine Cafagna, Senior Environmental Manager
F&ME Consultants
1825 Blanding Street
Columbia, South Carolina 29201

Re: 48-Hour Aggressive Fluid Vapor Recovery Event
Hilton Head Public Service District
21 Oak Park Drive
Hilton Head Island, South Carolina
ARM Project # 25-420.2-23

Dear Ms. Cafagna;

ARM Environmental Services, Inc. (ARM) has completed one (1) 48-hour Aggressive Fluid Vapor Recovery (AFVR) event at the above-referenced site located in Hilton Head Island, South Carolina. The pertinent information regarding the AFVR event is presented on the following pages and in the appendices of this document.

The 48-hour AFVR event was conducted on monitoring wells MW-1, MW-9, and MW-13 and recovery well RW-2. Based on gauging of the fluid levels upon completion of the AFVR event, it appears that no free product was present above the groundwater in the referenced wells.

If you should have any questions regarding the results of this assessment, or should you need additional information, please do not hesitate to contact our office.

Sincerely,
ARM Environmental Services, Inc.

Michele McLeod Fuller
Project Scientist

Michael L. Faris, P.G.
Senior Geologist

AFVR 1 of 1

ARM personnel mobilized to the Hilton Head Public Service District site on June 12, 2023. Ambient air temperature was 70 - 85° F and the general weather conditions were seasonal with occasional thunderstorms. The depths to product and water were measured and recorded for monitoring wells MW-1, MW-9, and MW-13 and recovery well RW-2 prior to and subsequent to the event. Approximately 1.55 feet (MW-1), 1.15 feet (MW-9), 0.82 foot (MW-13), and 2.36 feet (RW-2) of free product were measured prior to stinger placement into each well.

The AFVR was conducted by ARM utilizing a Travaini liquid ring vacuum pump system, capable of 325 cubic feet per minute (CFM) at 25 inches of mercury, with off-gas treatment through a vapor-phase granular activated carbon scrubber. Vacuuming began at 12:45 on June 12, 2023 and ended at 12:45 on June 14, 2023. At cessation of the 48-hour AFVR event, no appreciable thickness of free product was present in the wells. The field notes summarizing the data collected during the event is included in Appendix A. Approximately 17,629 gallons of petroleum contact water and 20 gallons of free product were removed from the referenced wells during the event.

Pollutant Mass Removal

A weight of 3.54 pounds (a volume of 0.57 gallons) of petroleum as vapor (total gaseous non-methane organic emissions) was removed during the 48-hour event based on the data collected during the AFVR event. The equations, variables, and calculations used to determine the pollutant mass removal are included in Appendix B.

Disposal

Disposal manifests for the 17,629 gallons of petroleum contact water and 20 gallons of free product generated during the event are included in Appendix C.

The quantity of waste fluids generated during the AFVR is determined either by weigh scales before and after offloading the tank at the disposal facility or by gauging the tank with a tank gauging stick (some disposal facilities do not use weigh tickets). When used, the gauging stick is labeled in 1/8th-inch increments and is designed to gauge the quantity of fluids in a tank. The tank stick is inserted to the bottom of the tank and the measurement is recorded on a field data sheet. The measurement is then compared to a tank chart specific to the vacuum truck tank and the volume is recorded. Weigh tickets and / or tank stick measurements are included in Appendix C.

APPENDICES

A. AFVR FIELD DATA
B. POLLUTANT MASS REMOVAL CALCULATIONS
C. DISPOSAL MANIFEST(s)

APPENDIX A

AFVR FIELD DATA

ARM ENVIRONMENTAL SERVICES

AFVR – OVA Field Calibration Sheet

[Page 1 of 1]

Site Name: Hilton Head Public Service District Location: 21 Oak Park Drive Hilton Head S.C

AFVR Contractor: ARM Personnel: Billy, Kevin, Xavion

(check one) Thermo TVA-1000B Flame Ionization Detector ____ Rae Systems Mini Rae 3000 Photo Ionization Detector____

TVA2020

Date	Time	Zero Air	100 PPM Isobutylene	500 PPM Methane	Post-Calibration Zero Air Reading	Post Calibration Gas Standard Reading
6-12-23	12:30	✓		✓	.1	503
	20:30	✓		✓	.16	506
6-13-23	08:00	✓		✓	.12	501
	16:00	✓		✓	.1	496
	24:00	✓		✓	.18	494
6-14-23	08:00	✓		✓	.2	504

25-420.2-23

ARM ENVIRONMENTAL SERVICES

48-hr. AFVR - Field Notes

[Page 1 of 6]

Site Name: Hilton Head Public Service District Location: 21 Oak Park Drive, Hilton Head, S.C

AFVR Contractor: ARM Personnel: Billy, Kevin, Xavion

Date: June 12-14-2023 Ambient Air Temperature and General Weather Condition: seasonal, 70°-85, thundershowers

Start Time 1: 12:45 (6-12) Stop Time 1: 12:45 (6-14) ; Start Time 2: _____ Stop Time 2: _____

Total volume of water removed during the 48-hour AFVR Event: 17,629 gallons

Total volume of product removed during the 48-hour AFVR Event: 20 gallons

Product / Water Recovery Rate: 6.12 gallons/min

Monitoring Well	Depth to product prior to stinger placement (ft. below TOC)	Depth to water prior to stinger placement (ft. below TOC)	Depth to product at cessation of vacuuming (ft. below TOC)	Depth to water at cessation of vacuuming (ft. below TOC)	Estimated volume of water removed during this event	Relevant Observations
MW-9	5.17	6.32	NM	6.25	3530	~20%
MW-13	5.18	6.0	NM	5.78	3530	~20%
RW-2	4.6	6.96	NM	5.72	5,294	~30%
MW-1	4.85	6.40	NM	5.94	5,295	~30%

N/M – Not Measurable (not detected)

48-hr. Aggressive Fluid/Vapor Recovery Notes
[Page 2 of 6]

Monday 6-10

Time	Stinger Placement: MW- 9		Stinger Placement: MW- 13		Stinger Placement: MW- RW-2		Stinger Placement: MW- 1	
	Stinger Depth	Vacuum at Targeted Well (in. Hg)	Stinger Depth	Vacuum at Targeted Well (in. Hg)	Stinger Depth	Vacuum at Targeted Well (in. Hg)	Stinger Depth	Vacuum at Targeted Well (in. Hg)
12:45	5.0	9	5.0	4	4.5	3-4	5.0	10
13:15	↓	↓	↓		↓		↓	10
13:45								9
14:15	↓		↓		↓	3	↓	↓
14:45	5.5	↓	5.5		5.0		5.5	
15:15								
15:45	2.5	8	2.5	5	2.5	4	3.5	
16:15	↓	↓			↓	3.5		
16:45			↓			↓	↓	
17:15								
17:45								
18:15								
18:45				5.5				
19:15								
19:45		↓						
20:15		7.5						
20:45		↓			↓			
21:45			↓			↓	↓	
22:45		↓						↓
23:45	↓				↓			

Vacuum at Pump: 19

48-hr. Aggressive Fluid/Vapor Recovery Notes
[Page 3 of 6]

		Stinger Placement: MW- 9		Stinger Placement: MW- 13		Stinger Placement: MW- RW-2		Stinger Placement: MW- 1	
	Time	Stinger Depth	Vacuum at Targeted Well (in. Hg)	Stinger Depth	Vacuum at Targeted Well (in. Hg)	Stinger Depth	Vacuum at Targeted Well (in. Hg)	Stinger Depth	Vacuum at Targeted Well (in. Hg)
Tuesday 6-13	08:00	2.5	8	2.5	5	2.5	4	2.5	8
	09:00	4.5	↓	4.5	↓	4.5	4	4.5	9
	10:00	↓	↓	↓	↓	↓	↓	↓	↓
	11:00	↓	↓	↓	↓	↓	↓	↓	↓
	12:00	↓	9	↓	↓	↓	↓	↓	↓
	14:00	6.0	9	6.0	↓	6.0	5	6.0	↓
	16:00	6.0	8	6.0	↓	6.0	5	6.0	↓
	18:00	4.5	8	4.5	5-6	4.5	6	4.5	↓
	20:00	↓	7.5	↓	↓	↓	↓		
	22:00	↓	7.5	↓	↓	↓	↓		
	24:00	↓	7.5	↓	↓	↓	↓		
Wednesday 6-14	08:00	5	8	5	5	5.0	6	5.0	8
	10:00	1.5	7.5	1.5	↓	1.5	5	1.5	↓
	12:00	1.5	8	↓	↓	↓	↓	↓	↓
	12:45	1.5	8	↓	↓	↓	↓	↓	↓

Vacuum at Pump: 19-20

48-hr. Aggressive Fluid/Vapor Recovery Notes
[Page 4 of 6]

vacuum conversion: (Inches of water X 0.07355 = inches of mercury)

		Surrounding Well: MW- 4		Surrounding Well: MW-11		Surrounding Well: MW-		Surrounding Well: MW-	
	Time	Water Level	Vacuum Influence at Well (in. Hg)	Water Level	Vacuum Influence at Well (in. Hg)	Water Level	Vacuum Influence at Well (in. Hg)	Water Level	Vacuum Influence at Well (in. Hg)
6-12	12:45	5.71		4.88					
	20:45	6.02	0	5.25	.6				
6-13	08:00	6.37	0	5.65	0				
	16:00	6.4	0	5.7	.1				
	24:00	6.42	0	5.73	.1				
6-14	08:00	6.45	0	5.86	.7				
	12:45	6.37	0	5.72	.7				

48-hr. Aggressive Fluid/Vapor Recovery Notes
[Page 5 of 6]

	Time	FID *at stack* (ppm)	FID *off-gas* (ppm)	% Reduction	Velocity (ft. / min.)	Temperature (°C)	Relative Humidity (%)	Other
Monday 6-12	12:45	2126	1	99	1989	55.2	99.9	
	13:15	3412	1	99	3210	61.6	57.4	
	13:45	1099	1	99	2816	64.2	48.0	
	14:15	1161	1	99	3008	64.8	46.8	
	14:45	1226	1	99	3208	65.4	46.4	
	15:15	1104	1	99	3114	66.0	40.8	
	15:45	1138	1	99	3124	66.4	36.2	
	16:15	1275	1	99	3418	56.6	61.1	
	16:45	1312	1	99	4028	56.5	59.8	
	17:15	1437	1	99	3264	56.7	73.1	
	17:45	1414	1	99	3073	56.7	72.7	
	18:15	1159	2	99	3197	56.6	60.5	
	18:45	1244	2	99	3208	55.1	60.7	
	19:15	1217	4	99	3038	57.4	63.2	
	19:45	1125	4	99	3041	54.1	79.2	
	20:15	928	4	99	3211	53.3	69.0	
	20:45	1019	5	99	3145	54.2	69.8	
	21:45	1087	6	99	3041	53.4	68.3	
	22:45	1181	6	99	3273	55.6	68.9	
	23:45	1226	6	99	3184	54.2	68.5	
Tuesday 6-13	08:00	276	16	94	2941	48.8	61.4	
	09:00	252	16	94	3008	55.6	52.4	
	10:00	386	19	95	3124	62.4	46.6	
	11:00	644	20	97	3016	65.2	44.4	
	12:00	712	22	97	3004	66.0	44.7	
	14:00	688	22	97	3162	62.0	50.4	
	16:00	781	26	97	2918	60.2	61.2	
	18:00	672	27	96	3043	58.1	57.5	

48-hr. Aggressive Fluid/Vapor Recovery Notes
[Page 6 of 6]

	Time	FID *at stack* (ppm)	FID *off-gas* (ppm)	% Reduction	Velocity (ft. / min.)	Temperature (°C)	Relative Humidity (%)	Other
6-13	20:00	717	29	96	3147	56.5	57.9	
	22:00	754	32	96	3173	58.2	54.7	
	24:00	721	35	95	3079	57.9	44.8	
6-14	08:00	682	40	94	2988	57.6	55.4	
	10:00	568	43	92	3124	60.4	48.6	
	12:00	555	47	91	3024	61.0	46.2	
	12:45	624	48	92	2964	61.3	44.4	

APPENDIX B

POLLUTANT MASS REMOVAL CALCULATIONS

Site: Hilton Head Public Service District

EQUATIONS & VARIABLES

Q_{std} = Flow at Dry Standard Cubic Feet Per Minute (DSCFM)

Q_{std} = (60 sec/min) (1-B_{ws}) (V) (A) (528° R / T_s)

B_{wsw} = water vapor % by weight at discharge stack, from high temperature Psychrometric Chart

B_{ws} = water vapor % by volume at discharge stack

= (B_{wsw} / 18 lb-mole H_2O) / [1/28.84 lb-mole dry air) + (B_{wsw} / 18 lb-mole H_2O)]

V = velocity in ft/sec at discharge stack

A = cross sectional area in ft^2 of discharge stack

T_s = stack temperature in R° (dry bulb temp.)

R° = (C° + 273.15) x 9/5

PMR = Pollutant Mass Removal in lb of Total Gaseous Nonmethane Organic (TGNMO) emissions

PMR = PMR_c (# of minutes / 60)

PMR_c = Pollutant Mass Removal rate in lb/hr of Total Gaseous Nonmethane Organic (TGNMO) emissions

= C_c (Q_{std}) (60 min/hr)

C_c = $C_{c:m}$ (62.43 x 10^{-9} lb-m^3/mg-ft^3)

$C_{c:m}$ = mg/dsm^3 - mass concentration of TGNMO emissions

= PPM_c (M_c / K_4)

PPM_c = PPM_v - volumetric concentration of TGNMO emissions as carbon, dry basis, at standard temperature and pressure

= (PPM_{meas}) (K) = PPM_v

PPM_{meas} = concentration in parts per million from organic vapor meter (OVM) at discharge stack

K = number of carbons in OVM calibration gas; methane - K=1, propane - K=3, isobutylene - K=4, hexane - K=6

K_4 = 24.07 $dsm^3/10^6$ mg-mole - mass to volume conversion factor at standard temperature and pressure

M_c = 12.01 mg/mg-mole, molecular weight of carbon

C_c = lb/dcsf - mass concentration of TGNMO emissions sa carbon, dry basis, at standard temperature and pressure

Site: Hilton Head Public Service District

CALCULATIONS - Flow at Dry Standard Cubic Feet Per Minute

Date	Time	Temp	Relative Humidity	B_{wsw}	B_{ws}	V	A	T_s	Q_{std}
		(°C)	(%)	(%)	(%)	(ft/sec)	(ft^2)	(°R)	(dscfm)
6/12/2023	12:45	55.2	99.9	0.117	0.158	33.15	0.022	591.0	32.63
	13:15	61.6	57.4	0.087	0.123	53.50	0.022	602.6	53.79
	13:45	64.2	48.0	0.082	0.116	46.93	0.022	607.2	47.19
	14:15	64.8	46.8	0.082	0.116	50.13	0.022	608.3	50.30
	14:45	65.4	46.4	0.084	0.118	53.47	0.022	609.4	53.42
	15:15	66.0	40.8	0.075	0.107	51.90	0.022	610.5	52.43
	15:45	66.4	36.2	0.067	0.097	52.07	0.022	611.2	53.14
	16:15	56.6	61.1	0.072	0.103	56.97	0.022	593.6	59.45
	16:45	56.5	59.8	0.070	0.100	67.13	0.022	593.4	70.29
	17:15	56.7	73.1	0.088	0.124	54.40	0.022	593.7	55.43
	17:45	56.7	72.7	0.088	0.123	51.22	0.022	593.7	52.23
	18:15	56.6	60.5	0.071	0.102	53.28	0.022	593.6	55.67
	18:45	55.1	60.7	0.066	0.095	53.47	0.022	590.9	56.54
	19:15	57.4	63.2	0.078	0.111	50.63	0.022	595.0	52.26
	19:45	54.1	79.2	0.084	0.118	50.68	0.022	589.1	52.39
	20:15	53.3	69.0	0.069	0.099	53.52	0.022	587.6	56.66
	20:45	54.2	69.8	0.073	0.105	52.42	0.022	589.2	54.99
	21:45	53.4	68.3	0.068	0.099	50.68	0.022	587.8	53.68
	22:45	55.6	68.9	0.078	0.111	54.55	0.022	591.8	56.61
	23:45	54.2	68.5	0.072	0.103	53.07	0.022	589.2	55.80
6/13/2023	8:00	48.8	61.4	0.047	0.071	49.02	0.022	579.5	54.30
	9:00	55.6	52.4	0.057	0.084	50.13	0.022	591.8	53.58
	10:00	62.4	46.6	0.072	0.104	52.07	0.022	604.0	53.37
	11:00	65.2	44.4	0.079	0.112	50.27	0.022	609.0	50.60
	12:00	66.0	44.7	0.083	0.117	50.07	0.022	610.5	50.00
	14:00	62.0	50.4	0.077	0.110	52.70	0.022	603.3	53.70
	16:00	60.2	61.2	0.087	0.123	48.63	0.022	600.0	49.11
	18:00	58.1	57.5	0.073	0.104	50.72	0.022	596.3	52.62
	20:00	56.5	57.9	0.067	0.097	52.45	0.022	593.4	55.11
	22:00	58.2	54.7	0.069	0.100	52.88	0.022	596.4	55.13
6/14/2023	0:00	57.9	44.8	0.055	0.080	51.32	0.022	595.9	54.69
	8:00	57.6	55.4	0.068	0.098	49.80	0.022	595.4	52.10
	10:00	60.4	48.6	0.068	0.098	52.07	0.022	600.4	54.00
	12:00	61.0	46.2	0.066	0.096	50.40	0.022	601.5	52.31
	12:45	61.3	44.4	0.065	0.094	49.40	0.022	602.0	51.36

Site: Hilton Head Public Service District

CALCULATIONS - Pollutant Mass Removal in pounds

Date	Time	Elapsed Time	Q_{std}	PPM_{meas}	PPM_c	$C_{c:m}$	C_c	PMRc	PMR
		(min)	(dscfm)	(ppm)	(ppm)	(mg/dsm^3)	(lb/dscf)	(lb/hr)	(lb)
6/12/2023	12:45	0	32.63	2126	2126	1061	- - -	- - -	0.00
	13:15	30	53.79	3412	3412	1702	0.00011	0.34	0.17
	13:45	30	47.19	1099	1099	548	0.00003	0.10	0.05
	14:15	30	50.30	1161	1161	579	0.00004	0.11	0.05
	14:45	30	53.42	1226	1226	612	0.00004	0.12	0.06
	15:15	30	52.43	1104	1104	551	0.00003	0.11	0.05
	15:45	30	53.14	1138	1138	568	0.00004	0.11	0.06
	16:15	30	59.45	1275	1275	636	0.00004	0.14	0.07
	16:45	30	70.29	1312	1312	655	0.00004	0.17	0.09
	17:15	30	55.43	1437	1437	717	0.00004	0.15	0.07
	17:45	30	52.23	1414	1414	706	0.00004	0.14	0.07
	18:15	30	55.67	1159	1159	578	0.00004	0.12	0.06
	18:45	30	56.54	1244	1244	621	0.00004	0.13	0.07
	19:15	30	52.26	1217	1217	607	0.00004	0.12	0.06
	19:45	30	52.39	1125	1125	561	0.00004	0.11	0.06
	20:15	30	56.66	928	928	463	0.00003	0.10	0.05
	20:45	30	54.99	1019	1019	508	0.00003	0.10	0.05
	21:45	60	53.68	1087	1087	542	0.00003	0.11	0.11
	22:45	60	56.61	1181	1181	589	0.00004	0.12	0.12
	23:45	60	55.80	1226	1226	612	0.00004	0.13	0.13
6/13/2023	8:00	495	54.30	276	276	138	0.00001	0.03	0.23
	9:00	60	53.58	252	252	126	0.00001	0.03	0.03
	10:00	60	53.37	386	386	193	0.00001	0.04	0.04
	11:00	60	50.60	644	644	321	0.00002	0.06	0.06
	12:00	60	50.00	712	712	355	0.00002	0.07	0.07
	14:00	120	53.70	688	688	343	0.00002	0.07	0.14
	16:00	120	49.11	781	781	390	0.00002	0.07	0.14
	18:00	120	52.62	672	672	335	0.00002	0.07	0.13
	20:00	120	55.11	717	717	358	0.00002	0.07	0.15
	22:00	120	55.13	754	754	376	0.00002	0.08	0.16
6/14/2023	0:00	120	54.69	721	721	360	0.00002	0.07	0.15
	8:00	480	52.10	682	682	340	0.00002	0.07	0.53
	10:00	120	54.00	568	568	283	0.00002	0.06	0.11
	12:00	120	52.31	555	555	277	0.00002	0.05	0.11
	12:45	45	51.36	624	624	311	0.00002	0.06	0.04

Total Gaseous Nonmethane Organic emissions removed in pounds from MW-1, MW-9, MW-13, & RW-2 **3.54**

APPENDIX C

DISPOSAL MANIFEST(s)

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 413

2. Page 1 of

3. Generator's Name and Mailing Address: Hilton Head Public Service District, 21 Oak Park Drive, Hilton Head, S.C

25.1120.2-23

4. Generator's Phone ( )

5. Transporter 1 Company Name: Goodsell Trucking

6. US EPA ID Number

A. State Transporter's ID

7. Transporter 2 Company Name

8. US EPA ID Number

B. Transporter 1 Phone

C. State Transporter's ID

9. Designated Facility Name and Site Address: Water Recovery, 511 Old Mt. Holly Rd, Goose Creek, S.C

10. US EPA ID Number

D. Transporter 2 Phone

E. State Facility's ID

F. Facility's Phone

11. WASTE DESCRIPTION

	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. NON-HAZARDOUS PETROLEUM CONTAMINATED SOIL				
b. NON-HAZARDOUS PETROLEUM CONTAMINATED WATER	1	TT	5,546	Gal
c.				
d.				

G. Additonal Descriptions for Materials Listed Above

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

ARM ENVIRONMENTAL SERVICES, INC.
P.O. BOX 50285
COLUMBIA, SC 29250

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

GENERATOR

Printed/Typed Name: Billy Pittenger Agent for FTME | Signature: Billy Pittenger | Date: Month 6 Day 13 Year 23

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: X Doug Dennis | Signature: Doug Dennis | Date: Month 6 Day 13 Year 23

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this maifest, except as noted in item 19.

Printed/Typed Name: Paul Goodsell | Signature: Paul Goodsell | Date: Month 6 Day 13 Year 23

NON-HAZARDOUS WASTE

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Rev 3/95

TICKET NUMBER
1321123164265

THE CAT SCALE GUARANTEE

The CAT Scale Company guarantees that our scales will give an accurate weight. What makes us different from other scale companies is that we back up our guarantee with cash.©

WEIGH FASTER WITH OUR APP. FIND OUT MORE AT WEIGHMYTRUCK.COM

WEIGH WHAT WE SAY OR WE PAY®

If you get an overweight fine from the state **AFTER** one of our CAT Scales showed a legal weight, we will immediately check our scale and we will:

(1) Reimburse you for the cost of the overweight fine if our scale is wrong, **OR**
(2) A representative of CAT Scale Company will appear in court **WITH** the driver as an expert witness if we believe our scale was correct.

IF YOU SHOULD GET AN OVERWEIGHT FINE, YOU SHOULD DO THE FOLLOWING TO GET THE PROBLEM RESOLVED:

1) Post bond and request a court date.
2) Call CAT Scale Company direct 24 hours a day at 1-877-CAT-SCALE, ext. 7 (Toll Free) or visit www.catscaleguarantee.com for instructions.
3) **IMMEDIATELY** send a copy of the citation, CAT Scale Ticket, your name, company, address, and phone number to CAT Scale Company Attn: Guarantee Department.

CERTIFIED AUTOMATED TRUCK SCALE

CAT SCALE COMPANY
P.O. BOX 630
WALCOTT, IA 52773
(877) 228-7225
www.catscale.com

*The four weights shown below are separate weights. The GROSS WEIGHT is the CERTIFIED WEIGHT and was weighed on a full length platform scale. All weights are guaranteed by CAT Scale.

DATE: 6-13-23

SCALE: 3211

LOCATION: LOVES
I95 EXIT 108 NWC
SUMMERTON SC

STEER AXLE	11260 LB
DRIVE AXLE	32560 LB
TRAILER AXLE	31860 LB
* GROSS WEIGHT	75680 LB

PUBLIC WEIGHMASTER'S CERTIFICATE OF WEIGHT & MEASURE

This is to certify that the following described merchandise was weighed, counted, or measured by a public or deputy weighmaster, and when properly signed and sealed shall be prima facia evidence of the accuracy of the weight shown as prescribed by law.

SOUTH CAROLINA PUBLIC WEIGHER DARREN WARTSON

LIVESTOCK, PRODUCE, PROPERTY, COMMODITY, OR ARTICLE WEIGHED: FREIGHT ALL KINDS

COMPANY: GOODSELL SERVICES

TRACTOR # 08 TRAILER # 112

PAID CC (...1199)

FEE $13.50

WEIGHMASTER OR WEIGHER SIGNATURE: Malanysha

TICKET # OF FULL $ WEIGH (IF REWEIGH)

WEIGH NUMBER
4265

© CAT Scale Reg PDF

TICKET NUMBER
1321123033827

THE CAT SCALE GUARANTEE

The CAT Scale Company guarantees that our scales will give an accurate weight. What makes us different from other scale companies is that we back up our guarantee with cash.©

WEIGH FASTER WITH OUR APP. FIND OUT MORE AT WEIGHMYTRUCK.COM

WEIGH WHAT WE SAY OR WE PAY®

If you get an overweight fine from the state **AFTER** one of our CAT Scales showed a legal weight, we will immediately check our scale and we will:

(1) Reimburse you for the cost of the overweight fine if our scale is wrong, **OR**
(2) A representative of CAT Scale Company will appear in court **WITH** the driver as an expert witness if we believe our scale was correct.

IF YOU SHOULD GET AN OVERWEIGHT FINE, YOU SHOULD DO THE FOLLOWING TO GET THE PROBLEM RESOLVED:

1) Post bond and request a court date.
2) Call CAT Scale Company direct 24 hours a day at 1-877-CAT-SCALE, ext. 7 (Toll Free) or visit www.catscaleguarantee.com for instructions.
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WALCOTT, IA 52773
(877) 228-7225
www.catscale.com

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DATE: 2-02-23

05:05

SCALE: 3211

LOCATION: LOVES
I95 EXIT 108 NWC
SUMMERTON SC

STEER AXLE	10420 lb
DRIVE AXLE	11260 lb
TRAILER AXLE	7800 lb
* GROSS WEIGHT	29480 lb

PUBLIC WEIGHMASTER'S CERTIFICATE OF WEIGHT & MEASURE

SOUTH CAROLINA PUBLIC WEIGHER DARREN WARTSBE

This is to certify that the following described merchandise was weighed, counted, or measured by a public or deputy weighmaster, and when properly signed and sealed shall be prima facia evidence of the accuracy of the weight shown as prescribed by law.

WEIGH NUMBER
3824

FREIGHT ALL KINDS

LIVESTOCK, PRODUCE, PROPERTY, COMMODITY, OR ARTICLE WEIGHED

GOOD SELL

11 114

COMPANY _____ TRACTOR # _____ TRAILER # _____

1321123033824

FEE $3.50

WEIGHMASTER OR WEIGHER SIGNATURE _____

TICKET # OF FULL $ WEIGH (IF REWEIGH) _____

ISTOMER COPY

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NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 414

2. Page 1 of

3. Generator's Name and Mailing Address: Hilton Head Public Service District, 21 Oak Park Drive, Hilton Head, S.C

25-420.2-23

4. Generator's Phone ( )

5. Transporter 1 Company Name: Goodsell Trucking

6. US EPA ID Number

A. State Transporter's ID

B. Transporter 1 Phone

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address: Water Recovery, 511 Old Mt. Holly Rd, Goose Creek, S.C

10. US EPA ID Number

E. State Facility's ID

F. Facility's Phone

11. WASTE DESCRIPTION	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. NON-HAZARDOUS PETROLEUM CONTAMINATED SOIL				
b. NON-HAZARDOUS PETROLEUM CONTAMINATED WATER	1	TT	3765	Gal
c.				
d.				

G. Additonal Descriptions for Materials Listed Above

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

ARM ENVIRONMENTAL SERVICES, INC.
P.O. BOX 50285
COLUMBIA, SC 29250

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

GENERATOR

Printed/Typed Name: Billy Pittenger Agent for FAME

Signature: Billy Pittenger

Date: Month 6 Day 14 Year 23

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: X Doug Dennis

Signature: X Doug Dennis

Date: Month 6 Day 15 Year 23

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.

Printed/Typed Name: Paul Goodsell

Signature: P O Goodsell

Date: Month 6 Day 15 Year 23

NON-HAZARDOUS WASTE

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WEIGH WHAT WE SAY OR WE PAY®

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(1) Reimburse you for the cost of the overweight fine if our scale is wrong, **OR**
(2) A representative of CAT Scale Company will appear in court **WITH** the driver as an expert witness if we believe our scale was correct.

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2) Call CAT Scale Company direct 24 hours a day at 1-877-CAT-SCALE, ext. 7 (Toll Free) or visit www.catscaleguarantee.com for instructions.
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WALCOTT, IA 52773
(877) 228-7225
www.catscale.com

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DATE: 6-15-23

SCALE: 1625

LOCATION: FLYING J PILOT
I 95 EXIT 77
ST GEORGE SC

STEER AXLE	11060 LB
DRIVE AXLE	25480 LB
TRAILER AXLE	24300 LB
* GROSS WEIGHT	60840 LB

PUBLIC WEIGHMASTER'S CERTIFICATE OF WEIGHT & MEASURE

This is to certify that the following described merchandise was weighed, counted, or measured by a public or deputy weighmaster, and when properly signed and sealed shall be prima facia evidence of the accuracy of the weight shown as prescribed by law.

SOUTH CAROLINA PUBLIC WEIGHER NICHOLAS STRAYER

LIVESTOCK, PRODUCE, PROPERTY, COMMODITY, OR ARTICLE WEIGHED: FREIGHT ALL KINDS

COMPANY: GOODSELL SERVICES

TRACTOR # 08 TRAILER # 112

PAID CC (...1199)

FEE $13.50

WEIGHMASTER OR WEIGHER SIGNATURE: Rebecca Smart

TICKET # OF FULL $ WEIGH (IF REWEIGH)

WEIGH NUMBER
6857

© CAT Scale Reg PDF

TICKET NUMBER
1321123033827

CERTIFIED AUTOMATED TRUCK SCALE

CAT SCALE COMPANY
P.O. BOX 630
WALCOTT, IA 52773
(877) 228-7225
www.catscale.com

THE CAT SCALE GUARANTEE

The CAT Scale Company guarantees that our scales will give an accurate weight. What makes us different from other scale companies is that we back up our guarantee with cash.®

WEIGH FASTER WITH OUR APP. FIND OUT MORE AT WEIGHMYTRUCK.COM

WEIGH WHAT WE SAY OR WE PAY®

If you get an overweight fine from the state **AFTER** one of our CAT Scales showed a legal weight, we will immediately check our scale and we will:

(1) Reimburse you for the cost of the overweight fine if our scale is wrong, **OR**
(2) A representative of CAT Scale Company will appear in court **WITH** the driver as an expert witness if we believe our scale was correct.

IF YOU SHOULD GET AN OVERWEIGHT FINE, YOU SHOULD DO THE FOLLOWING TO GET THE PROBLEM RESOLVED:

1) Post bond and request a court date.
2) Call CAT Scale Company direct 24 hours a day at 1-877-CAT-SCALE, ext. 7 (Toll Free) or visit www.catscaleguarantee.com for instructions.
3) **IMMEDIATELY** send a copy of the citation, CAT Scale Ticket, your name, company, address, and phone number to CAT Scale Company Attn: Guarantee Department.

* The four weights shown below are separate weights. The GROSS WEIGHT is the CERTIFIED WEIGHT and was weighed on a full length platform scale. All weights are guaranteed by CAT Scale.

DATE: 2-02-23
05:05
SCALE: 3211
LOCATION: LOVES
I95 EXIT 108 NWC
SUMMERTON SC

STEER AXLE	10420 lb
DRIVE AXLE	11260 lb
TRAILER AXLE	7800 lb
* GROSS WEIGHT	29480 lb

PUBLIC WEIGHMASTER'S CERTIFICATE OF WEIGHT & MEASURE

SOUTH CAROLINA PUBLIC WEIGHER DARREN WARTSON

This is to certify that the following described merchandise was weighed, counted, or measured by a public or deputy weighmaster, and when properly signed and sealed shall be prima facia evidence of the accuracy of the weight shown as prescribed by law.

WEIGH NUMBER
3824

LIVESTOCK, PRODUCE, PROPERTY, COMMODITY, OR ARTICLE WEIGHED: FREIGHT ALL KINDS

COMPANY: GOOD SELL

TRACTOR #: 11 TRAILER #: 114

FEE: $3.50

WEIGHMASTER OR WEIGHER SIGNATURE:

TICKET # OF FULL $ WEIGH (IF REWEIGH): 1321123033824

CUSTOMER COPY

© CAT Scale® Reg 3081 6/22

DETACH AND SURRENDER HERE

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 415

2. Page 1 of

3. Generator's Name and Mailing Address: Hilton Head Public Service District, 21 Oak Park Drive, Hilton Head, S.C

25-420-2-23

4. Generator's Phone ( )

5. Transporter 1 Company Name: Goodsell Trucking

6. US EPA ID Number

A. State Transporter's ID

B. Transporter 1 Phone

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address: Water Recovery, 511 Old Mt. Holly Rd, Goose Creek, S.C

10. US EPA ID Number

E. State Facility's ID

F. Facility's Phone

11. WASTE DESCRIPTION	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. NON-HAZARDOUS PETROLEUM CONTAMINATED SOIL				
b. NON-HAZARDOUS PETROLEUM CONTAMINATED WATER	1	TT	5890	Gal
c.				
d.				

G. Additonal Descriptions for Materials Listed Above

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

ARM ENVIRONMENTAL SERVICES, INC.
P.O. BOX 50285
COLUMBIA, SC 29250

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

GENERATOR

Printed/Typed Name	Signature	Date (Month / Day / Year)
Billy Pittenger Agent for F&ME	Billy Pittenger	6 / 14 / 23

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month / Day / Year)
Rick Lewis		6 / 14 / 23

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month / Day / Year)

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.

Printed/Typed Name	Signature	Date (Month / Day / Year)
Paul Goodsell		6 / 14 / 23

TICKET NUMBER
1321123033827

CERTIFIED AUTOMATED TRUCK SCALE

CAT SCALE COMPANY
P.O. BOX 630
WALCOTT, IA 52773
(877) 228-7225
www.catscale.com

THE CAT SCALE GUARANTEE

The CAT Scale Company guarantees that our scales will give an accurate weight. What makes us different from other scale companies is that we back up our guarantee with cash.©

FAS... WITH OUR APP. FIND OUT MORE AT WEIGHMYTRUCK.COM

WEIGH WHAT WE SAY OR WE PAY®

If you get an overweight fine from the state **AFTER** one of our CAT Scales showed a legal weight, we will immediately check our scale and we will:

(1) Reimburse you for the cost of the overweight fine if our scale is wrong, **OR**
(2) A representative of CAT Scale Company will appear in court **WITH** the driver as an expert witness if we believe our scale was correct.

IF YOU SHOULD GET AN OVERWEIGHT FINE, YOU SHOULD DO THE FOLLOWING TO GET THE PROBLEM RESOLVED:

1) Post bond and request a court date.
2) Call CAT Scale Company direct 24 hours a day at 1-877-CAT-SCALE, ext. 7 (Toll Free) or visit www.catscaleguarantee.com for instructions.
3) **IMMEDIATELY** send a copy of the citation, CAT Scale Ticket, your name, company, address, and phone number to CAT Scale Company Attn: Guarantee Department.

*The four weights shown below are separate weights. The GROSS WEIGHT is the CERTIFIED WEIGHT and was weighed on a full length platform scale. All weights are guaranteed by CAT Scale.

DATE: 2-02-23

05:05

SCALE: 3211

LOCATION: LOVES
I95 EXIT 108 NWC
SUMMERTON SC

STEER AXLE	10420 lb
DRIVE AXLE	11260 lb
TRAILER AXLE	7800 lb
*GROSS WEIGHT	29480 lb

PUBLIC WEIGHMASTER'S CERTIFICATE OF WEIGHT & MEASURE

SOUTH CAROLINA PUBLIC WEIGHER DARREN WARTSON

This is to certify that the following described merchandise was weighed, counted, or measured by a public or deputy weighmaster, and when properly signed and sealed shall be prima facia evidence of the accuracy of the weight shown as prescribed by law.

WEIGH NUMBER
3824

LIVESTOCK, PRODUCE, PROPERTY, COMMODITY, OR ARTICLE WEIGHED: FREIGHT ALL KINDS

COMPANY: GOOD SELL

II III

TRACTOR # _____ TRAILER # _____

FEE $3.50

WEIGHMASTER OR WEIGHER SIGNATURE

TICKET # OF FULL $ WEIGH (IF REWEIGH) 1321123033824

ISTOMER COPY

© CAT Scale® Reg 3081 6/22

TICKET NUMBER
1320523165062

CERTIFIED AUTOMATED TRUCK SCALE

CAT SCALE COMPANY
P.O. BOX 630
WALCOTT, IA 52773
(877) 228-7225
www.catscale.com

PUBLIC WEIGHMASTER'S CERTIFICATE OF WEIGHT & MEASURE

SOUTH CAROLINA PUBLIC WEIGHER KATHY HERBST

WEIGH NUMBER
5062

THE CAT SCALE GUARANTEE

The CAT Scale Company guarantees that our scales will give an accurate weight. What makes us different from other scale companies is that we back up our guarantee with cash.©

WEIGH FASTER WITH OUR APP. FIND OUT MORE AT WEIGHMYTRUCK.COM

WEIGH WHAT WE SAY OR WE PAY®

If you get an overweight fine from the state **AFTER** one of our CAT Scales showed a legal weight, we will immediately check our scale and we will:

(1) Reimburse you for the cost of the overweight fine if our scale is wrong, **OR**
(2) A representative of CAT Scale Company will appear in court **WITH** the driver as an expert witness if we believe our scale was correct.

IF YOU SHOULD GET AN OVERWEIGHT FINE, YOU SHOULD DO THE FOLLOWING TO GET THE PROBLEM RESOLVED:

1) Post bond and request a court date.
2) Call CAT Scale Company direct 24 hours a day at 1-877-CAT-SCALE, ext. 7 (Toll Free) or visit www.catscaleguarantee.com for instructions.
3) **IMMEDIATELY** send a copy of the citation, CAT Scale Ticket, your name, company, address, and phone number to CAT Scale Company Attn: Guarantee Department.

*The four weights shown below are separate weights. The GROSS WEIGHT is the CERTIFIED WEIGHT and was weighed on a full length platform scale. All weights are guaranteed by CAT Scale.

DATE: 6-14-23

SCALE: 3205

LOCATION: EMNARKET
I 95 EXT 8
HARDEEVILLE SC

STEER AXLE	11520 LB
DRIVE AXLE	34000 LB
TRAILER AXLE	33020 LB
* GROSS WEIGHT	78540 LB

This is to certify that the following described merchandise was weighed, counted, or measured by a public or deputy weighmaster, and when properly signed and sealed shall be prima facia evidence of the accuracy of the weight shown as prescribed by law.

LIVESTOCK, PRODUCE, PROPERTY, COMMODITY, OR ARTICLE WEIGHED FREIGHT ALL KINDS

COMPANY GOODSELL SERVICES

PAID CC (...1199)
FEE $13.50

WEIGHMASTER OR WEIGHER SIGNATURE

TRACTOR # 08 TRAILER # 112

TICKET # OF FULL $ WEIGH (IF REWEIGH)

© CAT Scale Reg PDF

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 416

2. Page 1 of

3. Generator's Name and Mailing Address
Hilton Head Public Service
21 Oak Park Drive
Hilton Head, S.C

25-420.2-23

4. Generator's Phone ( )

5. Transporter 1 Company Name
ARM

6. US EPA ID Number

A. State Transorter's ID

7. Transporter 2 Company Name

8. US EPA ID Number

B. Transporter 1 Phone

C. State Transporter's ID

9. Designated Facility Name and Site Address
Water Recovery
305 Old Mt. Holly
Goose Creek, S.C

10. US EPA ID Number

D. Transporter 2 Phone

E. State Facility's ID

F. Facility's Phone

11. WASTE DESCRIPTION

	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. NON-HAZARDOUS PETROLEUM CONTAMINATED SOIL				
b. NON-HAZARDOUS PETROLEUM CONTAMINATED WATER	1	TT	2448	Gal
c.				
d.				

G. Additonal Descriptions for Materials Listed Above

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
ARM ENVIRONMENTAL SERVICES, INC.
P.O. BOX 50285
COLUMBIA, SC 29250

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name: Billy Pittenger Agent for FarME
Signature: Billy Pittenger
Date: Month 6 Day 14 Year 23

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Billy Pittenger
Signature: Billy Pittenger
Date: Month 6 Day 14 Year 23

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name:
Signature:
Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this maifest, except as noted in item 19.

Printed/Typed Name: Paul Goodsell
Signature: Paul Goodsell
Date: Month 6 Day 14 Year 23

NON-HAZARDOUS WASTE
GENERATOR
TRANSPORTER
FACILITY

F-14 © 2002 LABELMASTER ®(800) 621-5808 www.labelmaster.com

PRINTED ON RECYCLED PAPER

TICKET NUMBER
1058523165017

B

CAT SCALE

CERTIFIED AUTOMATED TRUCK SCALE

CAT SCALE COMPANY
P.O. BOX 630
WALCOTT, IA 52773
(877) 228-7225
www.catscale.com

The CAT Scale Company guarantees that our scales will give an accurate weight. What makes us different from other scale companies is that we back up our guarantee with cash.©

WEIGH WHAT WE SAY OR WE PAY®

If you get an overweight fine from the state **AFTER** one of our CAT Scales showed a legal weight, we will immediately check our scale and we will:

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(2) A representative of CAT Scale Company will appear in court **WITH** the driver as an expert witness if we believe our scale was correct.

WEIGH FASTER WITH OUR APP. FIND OUT MORE AT WEIGHMYTRUCK.COM

IF YOU SHOULD GET AN OVERWEIGHT FINE, YOU SHOULD DO THE FOLLOWING TO GET THE PROBLEM RESOLVED:

1) Post bond and request a court date.
2) Call CAT Scale Company direct 24 hours a day at 1-877-CAT-SCALE, ext. 7 (Toll Free) or visit www.catscaleguarantee.com for instructions.
3) **IMMEDIATELY** send a copy of the citation, CAT Scale Ticket, your name, company, address, and phone number to CAT Scale Company Attn: Guarantee Department.

*The four weights shown below are separate weights. The GROSS WEIGHT is the CERTIFIED WEIGHT and was weighed on a full length platform scale. All weights are guaranteed by CAT Scale.

DATE: 6-14-23

13640 lb
27700 lb
00 lb

15:46 **SCALE:** 585

LOCATION: PILOT TRAVEL CENTERS
I 95 EXIT 82
ST GEORGE SC

*GROSS WEIGHT 41340 lb

PUBLIC WEIGHMASTER'S CERTIFICATE OF WEIGHT & MEASURE

SOUTH CAROLINA PUBLIC WEIGHER MICHEAL WILLIAMS

This is to certify that the following described merchandise was weighed, counted, or measured by a public or deputy weighmaster, and when properly signed and sealed shall be prima facia evidence of the accuracy of the weight shown as prescribed by law.

2448 gallons manifest 416

LIVESTOCK, PRODUCE, PROPERTY, COMMODITY, OR ARTICLE WEIGHED: FREIGHT ALL KINDS

COMPANY: ARM ENVIRO

TRACTOR# 2 TRAILER # 0

FEE $13.50

WEIGHMASTER OR WEIGHER SIGNATURE

TICKET # OF FULL $ WEIGH (IF REWEIGH)

WEIGH NUMBER
5017

CUSTOMER COPY

© CAT Scale® Reg 3081 11/22

C-1071431

ARM
Vac Truck 2 Empty Weight = 20,920

Appendix C

Laboratory Analytical Report

ACCESS
ANALYTICAL, INC.

ANALYTICAL REPORT

CLIENT

F&ME Consultants, Inc.
1825 Blanding Street
Columbia SC 29201

ATTENTION
Christine Cafagna

PROJECT ID
Hilton Head PSD UST #11399

LABORATORY REPORT NUMBER
2307U78

DATE
August 02, 2023

Primary Data Review By

Chris Pafford
Project Manager, AES

Secondary Data Review By

Ashley Amick
Project Manager, Access Analytical

PLEASE NOTE:

- **Unless otherwise noted, all analysis on this report performed at Analytical Environmental Services Inc. (AES Inc), 3080 Presidential Drive, Atlanta, GA 30340.**
- **AES is SCDHEC certified laboratory # 98016, NCDENR certified lab # 562, GA certified lab # FL-E87582, NELAP certified laboratory # E87582**
- **AIHA-LAP,LLC Laboratory ID:100671 for Industrial Hygiene samples (Organics, Metals, PCM Asbestos, Gravimetric), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination.**
- Local support services for this project are provided by Access Analytical, Inc. Access Analytical is a representative of AES serving client in the SC/NC/GA areas. All questions regarding this report should be directed

Access Lab Report #: _____
Sub Lab (if applicable): _____ / Sub Report #: _____
Client Purchase Order #: _____
Access Estimate #: _____

Access Analytical, Inc.
15 Thames Valley Rd. ~ Irmo, SC 29063
Phone: 803-781-4243 / Fax: 803-781-4303 / www.axs-inc.com
SCDHEC Lab Certification # 32571
NELAC Lab ID # E871145

Chain of Custody Record

2307478

Client:	F&ME Consultants
Attn:	Christine Cafagna
Address:	211 Business Park Blvd.
City:	Columbia
State:	SC
Zip Code:	29203
Phone:	803-254-4540
Fax:	803-254-4542
Email:	ccafagna@fmeconsultants.com
Project Name:	Hilton Head PSD; UST #11399
Sampled By (Signature):	

Preservatives (see codes): 1 1
Bottle Types (see codes): G G

REQUESTED LAB ANALYSIS: → BTEX, Naphth, MTBE, 1,2DCA, EDB

Lab ID:	Sample Name:	Date Collected:	Time Collected:	C=Comp G=Grab	Matrix (see codes)	Program Area (see codes)	Total # Containers	# Containers per Test >>		Notes / Comments
	MW-2	7-26-23	1455	G	GW	SHW	5	3	2	Please also e-mail Results to
	MW-3		1515							jleary@fmeconsultants.com
	MW-4		1600							
	MW-5		1616							
	MW-6		1350							
	MW-7		1315							
	MW-8		1417							
	MW-10		1535							
	MW-11		1637							Please include EDD w/ report.
	DCW-1		1214							

Preservation Codes / Bottle Types:

*Preservative Codes:
0 = None, **1** = HCL, **2** = HNO3, **3** = H_2SO_4, **4** = NaOH, **5** = $Na_2S_2O_3$, **6** = Method 5035 set w/ $NaHSO_4$ & CH_3OH, **7** = NaOH/ZnOAC, **8** = H_3PO_4, **9** = cooled to ≤6°C, **10** = cooled to ≤10°C, **11** = Amm.Cl-, **12** = Ascorbic Acid / HCL, **13** = EDA

*Matrix Codes:
GW = ground water, **WW** = waste water, **DW** = drinking water, **SW** = surface/storm water, **S** = soil, **SL** = sludge, **A** = air, **IW** = industrial waste, **O** = other (specify in comments section)

*Program Area Codes:
CWA = Clean Water Act (for wastewaters), **SDWA** = Safe Drinking Water Act (for drinking water), **SHW** = Solid and Hazardous Wastes (for soils, ground waters and waste samples)

***Container Type:** G = Glass, P = Plastic

Turnaround Time Requested:		Project Location:		Relinquished By:	Received By:	Date:	Time (24hr):	Samples Received on Ice:
Standard	✓	SC	✓			7-27-23	0952	✓ Y ___ N ___ N/A
Rush *		NC				7/27	4:25PM	___ Y ___ N ___ N/A
*Date Required		Other (Specify):						___ Y ___ N ___ N/A
Rush data emailed/faxed by end of business day on date required. Standard TAT is 7-10 business days.						7/27	8:30PM	___ Y ___ N ___ N/A

Received in lab by: _____ courier

Sample Temp. Received in Lab: 2.1 (°C)
Ref: RT1 Ref: RT2

Chain of Custody Page 1 of 2

White Copy: Lab original / Canary Copy: Client Copy

NOTE: Relinquishing samples via this Chain of Custody document constitutes client acceptance of Access Analytical terms and conditions.

Access Lab Report #: _____
Sub Lab (if applicable): _____ / Sub Report #: _____
Client Purchase Order #: _____
Access Estimate #: _____

ACCESS ANALYTICAL, INC.
Access Analytical, Inc.
15 Thames Valley Rd. ~ Irmo, SC 29063
Phone: 803-781-4243 / Fax: 803-781-4303 / www.axs-inc.com
SCDHEC Lab Certification # 32571
NELAC Lab ID # E871145

Chain of Custody Record

2307478

Client:	F&ME Consultants				Preservatives (see codes):	1	1
Attn:	Christine Cafagna				Bottle Types (see codes):	G	G
Address:	211 Business Park Blvd.				REQUESTED LAB ANALYSIS: →	BTEX, Naphthalene, MTBE, 1,2-DCA, EDB	EDB
City:	Columbia	State: SC	Zip Code: 29203				
Phone:	803-254-4544	Fax: 803-254-4547					
Email:	ccafagna@fmeconsultants.com						
Project Name:	Hilton Head PSD, UST # 11399						
Sampled By (Signature):	Jeffrey L. Leary						

Lab ID:	Sample Name:	Date Collected:	Time Collected:	C=Comp G=Grab	Matrix (see codes)	Program Area (see codes)	Total # Containers	# Containers per Test > >		
	DUP	7-26-23	—	C	GW	SHW	5	3	2	
	Field Blank	↓	1335	G	W	↓	5	3	2	
	Trip Blank	↓	—	G	W	↓	1	1		

Preservation Codes / Bottle Types:

*Preservative Codes:
0 = None, **1** = HCL, **2** = HNO_3, **3** = H_2SO_4, **4** = NaOH, **5** = $Na_2S_2O_3$, **6** = Method 5035 set w/ $NaHSO_4$ & CH_3OH, **7** = NaOH/ZnOAC, **8** = H_3PO_4, **9** = cooled to ≤6°C, **10** = cooled to ≤10°C, **11** = Amm.Cl-, **12** = Ascorbic Acid / HCL, **13** = EDA

*Matrix Codes:
GW = ground water, **WW** = waste water, **DW** = drinking water, **SW** = surface/storm water, **S** = soil, **SL** = sludge, **A** = air, **IW** = industrial waste, **O** = other (specify in comments section)

*Program Area Codes:
CWA = Clean Water Act (for wastewaters), **SDWA** = Safe Drinking Water Act (for drinking water), **SHW** = Solid and Hazardous Wastes (for soils, ground waters and waste samples)

***Container Type**: G = Glass, P = Plastic

Notes / Comments

Turnaround Time Requested:		Project Location:		Relinquished By:	Received By:	Date:	Time (24hr):	Samples Received on Ice:
Standard	✓	SC	✓	Jeffrey L. Leary	[illegible]	7-27-23	0952	___Y ___N ___N/A
Rush *		NC		[illegible]	[illegible]	7/27	4:25PM	___Y ___N ___N/A
*Date Required		Other (Specify):						___Y ___N ___N/A
Rush data emailed/faxed by end of business day on date required. Standard TAT is 7-10 business days.					courier	7/27	8:30PM	___Y ___N ___N/A

Chain of Custody Page 2 **of** 2

Received in lab by: [illegible]

Sample Temp. Received in Lab: 2.1 (°C)

Ref: RT1 **Ref: RT2**

White Copy: Lab original / Canary Copy: Client Copy

NOTE: Relinquishing samples via this Chain of Custody document constitutes client acceptance of Access Analytical terms and conditions.

Analytical Environmental Services, Inc

Date: 2-Aug-23

Client: F&ME Consultants, Inc.
Project: Hilton Head PSD UST #11399
Lab ID: 2307U78

Case Narrative

Chain of Custody was received 7/27/23 via courier while samples were received 7/28/23 via FedEx.

Analytical Environmental Services, Inc **Date:** 2-Aug-23

Client:	F&ME Consultants, Inc.	**Client Sample ID:**	MW-2
Project Name	Hilton Head PSD UST #11399	**Collection Date:**	7/26/2023 2:55:00 PM
Lab ID:	2307U78-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds SW8260D				**(SW5030B)**					
Benzene	BRL		0.26	1.0	ug/L	360624	1	07/31/2023 20:12	OM
Toluene	BRL		0.33	1.0	ug/L	360624	1	07/31/2023 20:12	OM
Ethylbenzene	BRL		0.24	1.0	ug/L	360624	1	07/31/2023 20:12	OM
m,p-Xylene	BRL		0.49	1.0	ug/L	360624	1	07/31/2023 20:12	OM
o-Xylene	BRL		0.27	1.0	ug/L	360624	1	07/31/2023 20:12	OM
Methyl tert-butyl ether	BRL		0.23	1.0	ug/L	360624	1	07/31/2023 20:12	OM
Naphthalene	BRL		1.8	5.0	ug/L	360624	1	07/31/2023 20:12	OM
1,2-Dichloroethane	BRL		0.29	1.0	ug/L	360624	1	07/31/2023 20:12	OM
Ethyl tert-butyl ether	BRL		3.8	10	ug/L	360624	1	07/31/2023 20:12	OM
tert-Amyl methyl ether	BRL		4.2	10	ug/L	360624	1	07/31/2023 20:12	OM
Isopropyl ether	BRL		2.4	10	ug/L	360624	1	07/31/2023 20:12	OM
tert-Butyl Alcohol	BRL		35	100	ug/L	360624	1	07/31/2023 20:12	OM
tert-Amyl alcohol	BRL		31	100	ug/L	360624	1	07/31/2023 20:12	OM
tert-Butyl formate	BRL		33	100	ug/L	360624	1	07/31/2023 20:12	OM
Ethanol	BRL		53	100	ug/L	360624	1	07/31/2023 20:12	OM
3,3-Dimethyl-1-butanol	BRL		40	100	ug/L	360624	1	07/31/2023 20:12	OM
Surr: 4-Bromofluorobenzene	103		0	70-126	%REC	360624	1	07/31/2023 20:12	OM
Surr: Dibromofluoromethane	98		0	77-121	%REC	360624	1	07/31/2023 20:12	OM
Surr: Toluene-d8	109		0	78.6-119	%REC	360624	1	07/31/2023 20:12	OM
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011				**(SW8011)**					
1,2-Dibromoethane	BRL		0.016	0.020	ug/L	360522	1	07/31/2023 19:59	TB
Surr: 4-Bromofluorobenzene	92.5		0	69.7-138	%REC	360522	1	07/31/2023 19:59	TB

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
F	Analyzed in the lab which is a deviation from the method	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 2-Aug-23

Client:	F&ME Consultants, Inc.	**Client Sample ID:**	MW-3
Project Name	Hilton Head PSD UST #11399	**Collection Date:**	7/26/2023 3:15:00 PM
Lab ID:	2307U78-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds SW8260D				**(SW5030B)**					
Benzene	BRL		0.26	1.0	ug/L	360624	1	07/31/2023 20:34	OM
Toluene	BRL		0.33	1.0	ug/L	360624	1	07/31/2023 20:34	OM
Ethylbenzene	BRL		0.24	1.0	ug/L	360624	1	07/31/2023 20:34	OM
m,p-Xylene	BRL		0.49	1.0	ug/L	360624	1	07/31/2023 20:34	OM
o-Xylene	BRL		0.27	1.0	ug/L	360624	1	07/31/2023 20:34	OM
Methyl tert-butyl ether	BRL		0.23	1.0	ug/L	360624	1	07/31/2023 20:34	OM
Naphthalene	BRL		1.8	5.0	ug/L	360624	1	07/31/2023 20:34	OM
1,2-Dichloroethane	BRL		0.29	1.0	ug/L	360624	1	07/31/2023 20:34	OM
Ethyl tert-butyl ether	BRL		3.8	10	ug/L	360624	1	07/31/2023 20:34	OM
tert-Amyl methyl ether	BRL		4.2	10	ug/L	360624	1	07/31/2023 20:34	OM
Isopropyl ether	BRL		2.4	10	ug/L	360624	1	07/31/2023 20:34	OM
tert-Butyl Alcohol	BRL		35	100	ug/L	360624	1	07/31/2023 20:34	OM
tert-Amyl alcohol	BRL		31	100	ug/L	360624	1	07/31/2023 20:34	OM
tert-Butyl formate	BRL		33	100	ug/L	360624	1	07/31/2023 20:34	OM
Ethanol	BRL		53	100	ug/L	360624	1	07/31/2023 20:34	OM
3,3-Dimethyl-1-butanol	BRL		40	100	ug/L	360624	1	07/31/2023 20:34	OM
Surr: 4-Bromofluorobenzene	105		0	70-126	%REC	360624	1	07/31/2023 20:34	OM
Surr: Dibromofluoromethane	101		0	77-121	%REC	360624	1	07/31/2023 20:34	OM
Surr: Toluene-d8	109		0	78.6-119	%REC	360624	1	07/31/2023 20:34	OM
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011				**(SW8011)**					
1,2-Dibromoethane	BRL		0.015	0.020	ug/L	360522	1	07/31/2023 20:33	TB
Surr: 4-Bromofluorobenzene	92.4		0	69.7-138	%REC	360522	1	07/31/2023 20:33	TB

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
F	Analyzed in the lab which is a deviation from the method	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 2-Aug-23

Client:	F&ME Consultants, Inc.	**Client Sample ID:**	MW-4
Project Name	Hilton Head PSD UST #11399	**Collection Date:**	7/26/2023 4:00:00 PM
Lab ID:	2307U78-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds SW8260D				**(SW5030B)**					
Benzene	BRL		0.26	1.0	ug/L	360624	1	07/31/2023 20:57	OM
Toluene	BRL		0.33	1.0	ug/L	360624	1	07/31/2023 20:57	OM
Ethylbenzene	BRL		0.24	1.0	ug/L	360624	1	07/31/2023 20:57	OM
m,p-Xylene	BRL		0.49	1.0	ug/L	360624	1	07/31/2023 20:57	OM
o-Xylene	BRL		0.27	1.0	ug/L	360624	1	07/31/2023 20:57	OM
Methyl tert-butyl ether	BRL		0.23	1.0	ug/L	360624	1	07/31/2023 20:57	OM
Naphthalene	BRL		1.8	5.0	ug/L	360624	1	07/31/2023 20:57	OM
1,2-Dichloroethane	BRL		0.29	1.0	ug/L	360624	1	07/31/2023 20:57	OM
Ethyl tert-butyl ether	BRL		3.8	10	ug/L	360624	1	07/31/2023 20:57	OM
tert-Amyl methyl ether	BRL		4.2	10	ug/L	360624	1	07/31/2023 20:57	OM
Isopropyl ether	BRL		2.4	10	ug/L	360624	1	07/31/2023 20:57	OM
tert-Butyl Alcohol	BRL		35	100	ug/L	360624	1	07/31/2023 20:57	OM
tert-Amyl alcohol	BRL		31	100	ug/L	360624	1	07/31/2023 20:57	OM
tert-Butyl formate	BRL		33	100	ug/L	360624	1	07/31/2023 20:57	OM
Ethanol	BRL		53	100	ug/L	360624	1	07/31/2023 20:57	OM
3,3-Dimethyl-1-butanol	BRL		40	100	ug/L	360624	1	07/31/2023 20:57	OM
Surr: 4-Bromofluorobenzene	104		0	70-126	%REC	360624	1	07/31/2023 20:57	OM
Surr: Dibromofluoromethane	99		0	77-121	%REC	360624	1	07/31/2023 20:57	OM
Surr: Toluene-d8	106		0	78.6-119	%REC	360624	1	07/31/2023 20:57	OM
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011				**(SW8011)**					
1,2-Dibromoethane	BRL		0.015	0.020	ug/L	360522	1	07/31/2023 21:07	TB
Surr: 4-Bromofluorobenzene	96.4		0	69.7-138	%REC	360522	1	07/31/2023 21:07	TB

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
F	Analyzed in the lab which is a deviation from the method	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 2-Aug-23

Client:	F&ME Consultants, Inc.	**Client Sample ID:**	MW-5
Project Name	Hilton Head PSD UST #11399	**Collection Date:**	7/26/2023 4:16:00 PM
Lab ID:	2307U78-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds SW8260D					**(SW5030B)**				
Benzene	0.53	J	0.26	1.0	ug/L	360624	1	07/31/2023 21:19	OM
Toluene	BRL		0.33	1.0	ug/L	360624	1	07/31/2023 21:19	OM
Ethylbenzene	13		0.24	1.0	ug/L	360624	1	07/31/2023 21:19	OM
m,p-Xylene	BRL		0.49	1.0	ug/L	360624	1	07/31/2023 21:19	OM
o-Xylene	BRL		0.27	1.0	ug/L	360624	1	07/31/2023 21:19	OM
Methyl tert-butyl ether	BRL		0.23	1.0	ug/L	360624	1	07/31/2023 21:19	OM
Naphthalene	32		1.8	5.0	ug/L	360624	1	07/31/2023 21:19	OM
1,2-Dichloroethane	BRL		0.29	1.0	ug/L	360624	1	07/31/2023 21:19	OM
Ethyl tert-butyl ether	BRL		3.8	10	ug/L	360624	1	07/31/2023 21:19	OM
tert-Amyl methyl ether	BRL		4.2	10	ug/L	360624	1	07/31/2023 21:19	OM
Isopropyl ether	BRL		2.4	10	ug/L	360624	1	07/31/2023 21:19	OM
tert-Butyl Alcohol	BRL		35	100	ug/L	360624	1	07/31/2023 21:19	OM
tert-Amyl alcohol	BRL		31	100	ug/L	360624	1	07/31/2023 21:19	OM
tert-Butyl formate	BRL		33	100	ug/L	360624	1	07/31/2023 21:19	OM
Ethanol	BRL		53	100	ug/L	360624	1	07/31/2023 21:19	OM
3,3-Dimethyl-1-butanol	BRL		40	100	ug/L	360624	1	07/31/2023 21:19	OM
Surr: 4-Bromofluorobenzene	106		0	70-126	%REC	360624	1	07/31/2023 21:19	OM
Surr: Dibromofluoromethane	98.3		0	77-121	%REC	360624	1	07/31/2023 21:19	OM
Surr: Toluene-d8	108		0	78.6-119	%REC	360624	1	07/31/2023 21:19	OM
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.015	0.019	ug/L	360522	1	07/31/2023 21:24	TB
Surr: 4-Bromofluorobenzene	97.9		0	69.7-138	%REC	360522	1	07/31/2023 21:24	TB

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- F Analyzed in the lab which is a deviation from the method
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 2-Aug-23

Client:	F&ME Consultants, Inc.	**Client Sample ID:**	MW-6
Project Name	Hilton Head PSD UST #11399	**Collection Date:**	7/26/2023 1:50:00 PM
Lab ID:	2307U78-005	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds SW8260D				**(SW5030B)**					
Benzene	BRL		0.26	1.0	ug/L	360624	1	07/31/2023 21:40	OM
Toluene	BRL		0.33	1.0	ug/L	360624	1	07/31/2023 21:40	OM
Ethylbenzene	BRL		0.24	1.0	ug/L	360624	1	07/31/2023 21:40	OM
m,p-Xylene	BRL		0.49	1.0	ug/L	360624	1	07/31/2023 21:40	OM
o-Xylene	BRL		0.27	1.0	ug/L	360624	1	07/31/2023 21:40	OM
Methyl tert-butyl ether	BRL		0.23	1.0	ug/L	360624	1	07/31/2023 21:40	OM
Naphthalene	BRL		1.8	5.0	ug/L	360624	1	07/31/2023 21:40	OM
1,2-Dichloroethane	BRL		0.29	1.0	ug/L	360624	1	07/31/2023 21:40	OM
Ethyl tert-butyl ether	BRL		3.8	10	ug/L	360624	1	07/31/2023 21:40	OM
tert-Amyl methyl ether	BRL		4.2	10	ug/L	360624	1	07/31/2023 21:40	OM
Isopropyl ether	BRL		2.4	10	ug/L	360624	1	07/31/2023 21:40	OM
tert-Butyl Alcohol	BRL		35	100	ug/L	360624	1	07/31/2023 21:40	OM
tert-Amyl alcohol	BRL		31	100	ug/L	360624	1	07/31/2023 21:40	OM
tert-Butyl formate	BRL		33	100	ug/L	360624	1	07/31/2023 21:40	OM
Ethanol	BRL		53	100	ug/L	360624	1	07/31/2023 21:40	OM
3,3-Dimethyl-1-butanol	BRL		40	100	ug/L	360624	1	07/31/2023 21:40	OM
Surr: 4-Bromofluorobenzene	107		0	70-126	%REC	360624	1	07/31/2023 21:40	OM
Surr: Dibromofluoromethane	95.7		0	77-121	%REC	360624	1	07/31/2023 21:40	OM
Surr: Toluene-d8	108		0	78.6-119	%REC	360624	1	07/31/2023 21:40	OM
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011				**(SW8011)**					
1,2-Dibromoethane	BRL		0.016	0.020	ug/L	360522	1	07/31/2023 21:41	TB
Surr: 4-Bromofluorobenzene	97.6		0	69.7-138	%REC	360522	1	07/31/2023 21:41	TB

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
F	Analyzed in the lab which is a deviation from the method	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 2-Aug-23

Client:	F&ME Consultants, Inc.	**Client Sample ID:**	MW-7
Project Name	Hilton Head PSD UST #11399	**Collection Date:**	7/26/2023 1:15:00 PM
Lab ID:	2307U78-006	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds SW8260D					**(SW5030B)**				
Benzene	BRL		0.26	1.0	ug/L	360624	1	07/31/2023 22:02	OM
Toluene	BRL		0.33	1.0	ug/L	360624	1	07/31/2023 22:02	OM
Ethylbenzene	BRL		0.24	1.0	ug/L	360624	1	07/31/2023 22:02	OM
m,p-Xylene	BRL		0.49	1.0	ug/L	360624	1	07/31/2023 22:02	OM
o-Xylene	BRL		0.27	1.0	ug/L	360624	1	07/31/2023 22:02	OM
Methyl tert-butyl ether	BRL		0.23	1.0	ug/L	360624	1	07/31/2023 22:02	OM
Naphthalene	BRL		1.8	5.0	ug/L	360624	1	07/31/2023 22:02	OM
1,2-Dichloroethane	BRL		0.29	1.0	ug/L	360624	1	07/31/2023 22:02	OM
Ethyl tert-butyl ether	BRL		3.8	10	ug/L	360624	1	07/31/2023 22:02	OM
tert-Amyl methyl ether	BRL		4.2	10	ug/L	360624	1	07/31/2023 22:02	OM
Isopropyl ether	BRL		2.4	10	ug/L	360624	1	07/31/2023 22:02	OM
tert-Butyl Alcohol	BRL		35	100	ug/L	360624	1	07/31/2023 22:02	OM
tert-Amyl alcohol	BRL		31	100	ug/L	360624	1	07/31/2023 22:02	OM
tert-Butyl formate	BRL		33	100	ug/L	360624	1	07/31/2023 22:02	OM
Ethanol	BRL		53	100	ug/L	360624	1	07/31/2023 22:02	OM
3,3-Dimethyl-1-butanol	BRL		40	100	ug/L	360624	1	07/31/2023 22:02	OM
Surr: 4-Bromofluorobenzene	104		0	70-126	%REC	360624	1	07/31/2023 22:02	OM
Surr: Dibromofluoromethane	98.8		0	77-121	%REC	360624	1	07/31/2023 22:02	OM
Surr: Toluene-d8	109		0	78.6-119	%REC	360624	1	07/31/2023 22:02	OM
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.015	0.020	ug/L	360522	1	07/31/2023 21:58	TB
Surr: 4-Bromofluorobenzene	102		0	69.7-138	%REC	360522	1	07/31/2023 21:58	TB

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
F	Analyzed in the lab which is a deviation from the method	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 2-Aug-23

Client:	F&ME Consultants, Inc.	**Client Sample ID:**	MW-8
Project Name	Hilton Head PSD UST #11399	**Collection Date:**	7/26/2023 2:17:00 PM
Lab ID:	2307U78-007	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds SW8260D				**(SW5030B)**					
Benzene	BRL		0.26	1.0	ug/L	360624	1	08/01/2023 01:23	OM
Toluene	BRL		0.33	1.0	ug/L	360624	1	08/01/2023 01:23	OM
Ethylbenzene	BRL		0.24	1.0	ug/L	360624	1	08/01/2023 01:23	OM
m,p-Xylene	BRL		0.49	1.0	ug/L	360624	1	08/01/2023 01:23	OM
o-Xylene	BRL		0.27	1.0	ug/L	360624	1	08/01/2023 01:23	OM
Methyl tert-butyl ether	BRL		0.23	1.0	ug/L	360624	1	08/01/2023 01:23	OM
Naphthalene	BRL		1.8	5.0	ug/L	360624	1	08/01/2023 01:23	OM
1,2-Dichloroethane	BRL		0.29	1.0	ug/L	360624	1	08/01/2023 01:23	OM
Ethyl tert-butyl ether	BRL		3.8	10	ug/L	360624	1	08/01/2023 01:23	OM
tert-Amyl methyl ether	BRL		4.2	10	ug/L	360624	1	08/01/2023 01:23	OM
Isopropyl ether	BRL		2.4	10	ug/L	360624	1	08/01/2023 01:23	OM
tert-Butyl Alcohol	BRL		35	100	ug/L	360624	1	08/01/2023 01:23	OM
tert-Amyl alcohol	BRL		31	100	ug/L	360624	1	08/01/2023 01:23	OM
tert-Butyl formate	BRL		33	100	ug/L	360624	1	08/01/2023 01:23	OM
Ethanol	BRL		53	100	ug/L	360624	1	08/01/2023 01:23	OM
3,3-Dimethyl-1-butanol	BRL		40	100	ug/L	360624	1	08/01/2023 01:23	OM
Surr: 4-Bromofluorobenzene	106		0	70-126	%REC	360624	1	08/01/2023 01:23	OM
Surr: Dibromofluoromethane	102		0	77-121	%REC	360624	1	08/01/2023 01:23	OM
Surr: Toluene-d8	111		0	78.6-119	%REC	360624	1	08/01/2023 01:23	OM
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011				**(SW8011)**					
1,2-Dibromoethane	BRL		0.016	0.020	ug/L	360522	1	07/31/2023 22:16	TB
Surr: 4-Bromofluorobenzene	99.8		0	69.7-138	%REC	360522	1	07/31/2023 22:16	TB

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
F	Analyzed in the lab which is a deviation from the method	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 2-Aug-23

Client:	F&ME Consultants, Inc.	**Client Sample ID:**	MW-10
Project Name	Hilton Head PSD UST #11399	**Collection Date:**	7/26/2023 3:35:00 PM
Lab ID:	2307U78-008	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds SW8260D					**(SW5030B)**				
Benzene	BRL		0.26	1.0	ug/L	360624	1	08/01/2023 01:46	OM
Toluene	BRL		0.33	1.0	ug/L	360624	1	08/01/2023 01:46	OM
Ethylbenzene	BRL		0.24	1.0	ug/L	360624	1	08/01/2023 01:46	OM
m,p-Xylene	BRL		0.49	1.0	ug/L	360624	1	08/01/2023 01:46	OM
o-Xylene	BRL		0.27	1.0	ug/L	360624	1	08/01/2023 01:46	OM
Methyl tert-butyl ether	BRL		0.23	1.0	ug/L	360624	1	08/01/2023 01:46	OM
Naphthalene	BRL		1.8	5.0	ug/L	360624	1	08/01/2023 01:46	OM
1,2-Dichloroethane	BRL		0.29	1.0	ug/L	360624	1	08/01/2023 01:46	OM
Ethyl tert-butyl ether	BRL		3.8	10	ug/L	360624	1	08/01/2023 01:46	OM
tert-Amyl methyl ether	BRL		4.2	10	ug/L	360624	1	08/01/2023 01:46	OM
Isopropyl ether	BRL		2.4	10	ug/L	360624	1	08/01/2023 01:46	OM
tert-Butyl Alcohol	BRL		35	100	ug/L	360624	1	08/01/2023 01:46	OM
tert-Amyl alcohol	BRL		31	100	ug/L	360624	1	08/01/2023 01:46	OM
tert-Butyl formate	BRL		33	100	ug/L	360624	1	08/01/2023 01:46	OM
Ethanol	BRL		53	100	ug/L	360624	1	08/01/2023 01:46	OM
3,3-Dimethyl-1-butanol	BRL		40	100	ug/L	360624	1	08/01/2023 01:46	OM
Surr: 4-Bromofluorobenzene	106		0	70-126	%REC	360624	1	08/01/2023 01:46	OM
Surr: Dibromofluoromethane	103		0	77-121	%REC	360624	1	08/01/2023 01:46	OM
Surr: Toluene-d8	108		0	78.6-119	%REC	360624	1	08/01/2023 01:46	OM
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011					**(SW8011)**				
1,2-Dibromoethane	BRL		0.015	0.020	ug/L	360522	1	07/31/2023 22:33	TB
Surr: 4-Bromofluorobenzene	96.6		0	69.7-138	%REC	360522	1	07/31/2023 22:33	TB

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
F	Analyzed in the lab which is a deviation from the method	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 2-Aug-23

Client:	F&ME Consultants, Inc.	**Client Sample ID:**	MW-11
Project Name	Hilton Head PSD UST #11399	**Collection Date:**	7/26/2023 4:37:00 PM
Lab ID:	2307U78-009	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds SW8260D				**(SW5030B)**					
Benzene	BRL		0.26	1.0	ug/L	360624	1	08/01/2023 02:08	OM
Toluene	BRL		0.33	1.0	ug/L	360624	1	08/01/2023 02:08	OM
Ethylbenzene	BRL		0.24	1.0	ug/L	360624	1	08/01/2023 02:08	OM
m,p-Xylene	BRL		0.49	1.0	ug/L	360624	1	08/01/2023 02:08	OM
o-Xylene	BRL		0.27	1.0	ug/L	360624	1	08/01/2023 02:08	OM
Methyl tert-butyl ether	BRL		0.23	1.0	ug/L	360624	1	08/01/2023 02:08	OM
Naphthalene	BRL		1.8	5.0	ug/L	360624	1	08/01/2023 02:08	OM
1,2-Dichloroethane	BRL		0.29	1.0	ug/L	360624	1	08/01/2023 02:08	OM
Ethyl tert-butyl ether	BRL		3.8	10	ug/L	360624	1	08/01/2023 02:08	OM
tert-Amyl methyl ether	BRL		4.2	10	ug/L	360624	1	08/01/2023 02:08	OM
Isopropyl ether	BRL		2.4	10	ug/L	360624	1	08/01/2023 02:08	OM
tert-Butyl Alcohol	BRL		35	100	ug/L	360624	1	08/01/2023 02:08	OM
tert-Amyl alcohol	BRL		31	100	ug/L	360624	1	08/01/2023 02:08	OM
tert-Butyl formate	BRL		33	100	ug/L	360624	1	08/01/2023 02:08	OM
Ethanol	BRL		53	100	ug/L	360624	1	08/01/2023 02:08	OM
3,3-Dimethyl-1-butanol	BRL		40	100	ug/L	360624	1	08/01/2023 02:08	OM
Surr: 4-Bromofluorobenzene	105		0	70-126	%REC	360624	1	08/01/2023 02:08	OM
Surr: Dibromofluoromethane	98.7		0	77-121	%REC	360624	1	08/01/2023 02:08	OM
Surr: Toluene-d8	106		0	78.6-119	%REC	360624	1	08/01/2023 02:08	OM
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011				**(SW8011)**					
1,2-Dibromoethane	BRL		0.015	0.020	ug/L	360522	1	07/31/2023 23:24	TB
Surr: 4-Bromofluorobenzene	97.7		0	69.7-138	%REC	360522	1	07/31/2023 23:24	TB

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- F Analyzed in the lab which is a deviation from the method
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 2-Aug-23

Client:	F&ME Consultants, Inc.	**Client Sample ID:**	DCW-1
Project Name	Hilton Head PSD UST #11399	**Collection Date:**	7/26/2023 12:14:00 PM
Lab ID:	2307U78-010	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds SW8260D				(SW5030B)					
Benzene	BRL		0.26	1.0	ug/L	360624	1	08/01/2023 02:30	OM
Toluene	1.9		0.33	1.0	ug/L	360624	1	08/01/2023 02:30	OM
Ethylbenzene	0.26	J	0.24	1.0	ug/L	360624	1	08/01/2023 02:30	OM
m,p-Xylene	0.90	J	0.49	1.0	ug/L	360624	1	08/01/2023 02:30	OM
o-Xylene	0.32	J	0.27	1.0	ug/L	360624	1	08/01/2023 02:30	OM
Methyl tert-butyl ether	BRL		0.23	1.0	ug/L	360624	1	08/01/2023 02:30	OM
Naphthalene	BRL		1.8	5.0	ug/L	360624	1	08/01/2023 02:30	OM
1,2-Dichloroethane	BRL		0.29	1.0	ug/L	360624	1	08/01/2023 02:30	OM
Ethyl tert-butyl ether	BRL		3.8	10	ug/L	360624	1	08/01/2023 02:30	OM
tert-Amyl methyl ether	BRL		4.2	10	ug/L	360624	1	08/01/2023 02:30	OM
Isopropyl ether	BRL		2.4	10	ug/L	360624	1	08/01/2023 02:30	OM
tert-Butyl Alcohol	BRL		35	100	ug/L	360624	1	08/01/2023 02:30	OM
tert-Amyl alcohol	BRL		31	100	ug/L	360624	1	08/01/2023 02:30	OM
tert-Butyl formate	BRL		33	100	ug/L	360624	1	08/01/2023 02:30	OM
Ethanol	BRL		53	100	ug/L	360624	1	08/01/2023 02:30	OM
3,3-Dimethyl-1-butanol	BRL		40	100	ug/L	360624	1	08/01/2023 02:30	OM
Surr: 4-Bromofluorobenzene	105		0	70-126	%REC	360624	1	08/01/2023 02:30	OM
Surr: Dibromofluoromethane	103		0	77-121	%REC	360624	1	08/01/2023 02:30	OM
Surr: Toluene-d8	111		0	78.6-119	%REC	360624	1	08/01/2023 02:30	OM
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011				(SW8011)					
1,2-Dibromoethane	BRL		0.015	0.020	ug/L	360522	1	07/31/2023 23:41	TB
Surr: 4-Bromofluorobenzene	89.6		0	69.7-138	%REC	360522	1	07/31/2023 23:41	TB

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
F	Analyzed in the lab which is a deviation from the method	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 2-Aug-23

Client:	F&ME Consultants, Inc.	**Client Sample ID:**	DUP
Project Name	Hilton Head PSD UST #11399	**Collection Date:**	7/26/2023
Lab ID:	2307U78-011	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds SW8260D				**(SW5030B)**					
Benzene	BRL		0.26	1.0	ug/L	360624	1	08/01/2023 02:52	OM
Toluene	BRL		0.33	1.0	ug/L	360624	1	08/01/2023 02:52	OM
Ethylbenzene	BRL		0.24	1.0	ug/L	360624	1	08/01/2023 02:52	OM
m,p-Xylene	BRL		0.49	1.0	ug/L	360624	1	08/01/2023 02:52	OM
o-Xylene	BRL		0.27	1.0	ug/L	360624	1	08/01/2023 02:52	OM
Methyl tert-butyl ether	BRL		0.23	1.0	ug/L	360624	1	08/01/2023 02:52	OM
Naphthalene	BRL		1.8	5.0	ug/L	360624	1	08/01/2023 02:52	OM
1,2-Dichloroethane	BRL		0.29	1.0	ug/L	360624	1	08/01/2023 02:52	OM
Ethyl tert-butyl ether	BRL		3.8	10	ug/L	360624	1	08/01/2023 02:52	OM
tert-Amyl methyl ether	BRL		4.2	10	ug/L	360624	1	08/01/2023 02:52	OM
Isopropyl ether	BRL		2.4	10	ug/L	360624	1	08/01/2023 02:52	OM
tert-Butyl Alcohol	BRL		35	100	ug/L	360624	1	08/01/2023 02:52	OM
tert-Amyl alcohol	BRL		31	100	ug/L	360624	1	08/01/2023 02:52	OM
tert-Butyl formate	BRL		33	100	ug/L	360624	1	08/01/2023 02:52	OM
Ethanol	BRL		53	100	ug/L	360624	1	08/01/2023 02:52	OM
3,3-Dimethyl-1-butanol	BRL		40	100	ug/L	360624	1	08/01/2023 02:52	OM
Surr: 4-Bromofluorobenzene	105		0	70-126	%REC	360624	1	08/01/2023 02:52	OM
Surr: Dibromofluoromethane	104		0	77-121	%REC	360624	1	08/01/2023 02:52	OM
Surr: Toluene-d8	111		0	78.6-119	%REC	360624	1	08/01/2023 02:52	OM
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011				**(SW8011)**					
1,2-Dibromoethane	BRL		0.015	0.020	ug/L	360522	1	07/31/2023 23:58	TB
Surr: 4-Bromofluorobenzene	101		0	69.7-138	%REC	360522	1	07/31/2023 23:58	TB

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- F Analyzed in the lab which is a deviation from the method
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 2-Aug-23

Client:	F&ME Consultants, Inc.	**Client Sample ID:**	Field Blank
Project Name	Hilton Head PSD UST #11399	**Collection Date:**	7/26/2023 1:35:00 PM
Lab ID:	2307U78-012	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds SW8260D				**(SW5030B)**					
Benzene	BRL		0.26	1.0	ug/L	360624	1	07/31/2023 11:40	OM
Toluene	BRL		0.33	1.0	ug/L	360624	1	07/31/2023 11:40	OM
Ethylbenzene	BRL		0.24	1.0	ug/L	360624	1	07/31/2023 11:40	OM
m,p-Xylene	BRL		0.49	1.0	ug/L	360624	1	07/31/2023 11:40	OM
o-Xylene	BRL		0.27	1.0	ug/L	360624	1	07/31/2023 11:40	OM
Methyl tert-butyl ether	BRL		0.23	1.0	ug/L	360624	1	07/31/2023 11:40	OM
Naphthalene	BRL		1.8	5.0	ug/L	360624	1	07/31/2023 11:40	OM
1,2-Dichloroethane	BRL		0.29	1.0	ug/L	360624	1	07/31/2023 11:40	OM
Ethyl tert-butyl ether	BRL		3.8	10	ug/L	360624	1	07/31/2023 11:40	OM
tert-Amyl methyl ether	BRL		4.2	10	ug/L	360624	1	07/31/2023 11:40	OM
Isopropyl ether	BRL		2.4	10	ug/L	360624	1	07/31/2023 11:40	OM
tert-Butyl Alcohol	BRL		35	100	ug/L	360624	1	07/31/2023 11:40	OM
tert-Amyl alcohol	BRL		31	100	ug/L	360624	1	07/31/2023 11:40	OM
tert-Butyl formate	BRL		33	100	ug/L	360624	1	07/31/2023 11:40	OM
Ethanol	BRL		53	100	ug/L	360624	1	07/31/2023 11:40	OM
3,3-Dimethyl-1-butanol	BRL		40	100	ug/L	360624	1	07/31/2023 11:40	OM
Surr: 4-Bromofluorobenzene	108		0	70-126	%REC	360624	1	07/31/2023 11:40	OM
Surr: Dibromofluoromethane	112		0	77-121	%REC	360624	1	07/31/2023 11:40	OM
Surr: Toluene-d8	108		0	78.6-119	%REC	360624	1	07/31/2023 11:40	OM
MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011				**(SW8011)**					
1,2-Dibromoethane	BRL		0.015	0.020	ug/L	360522	1	08/01/2023 00:15	TB
Surr: 4-Bromofluorobenzene	94.5		0	69.7-138	%REC	360522	1	08/01/2023 00:15	TB

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
F	Analyzed in the lab which is a deviation from the method	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 2-Aug-23

Client:	F&ME Consultants, Inc.	**Client Sample ID:**	Trip Blank
Project Name	Hilton Head PSD UST #11399	**Collection Date:**	7/26/2023
Lab ID:	2307U78-013	**Matrix:**	Trip Blank

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds SW8260D				**(SW5030B)**					
Benzene	BRL		0.26	1.0	ug/L	360624	1	07/31/2023 12:02	OM
Toluene	BRL		0.33	1.0	ug/L	360624	1	07/31/2023 12:02	OM
Ethylbenzene	BRL		0.24	1.0	ug/L	360624	1	07/31/2023 12:02	OM
m,p-Xylene	BRL		0.49	1.0	ug/L	360624	1	07/31/2023 12:02	OM
o-Xylene	BRL		0.27	1.0	ug/L	360624	1	07/31/2023 12:02	OM
Methyl tert-butyl ether	BRL		0.23	1.0	ug/L	360624	1	07/31/2023 12:02	OM
Naphthalene	BRL		1.8	5.0	ug/L	360624	1	07/31/2023 12:02	OM
1,2-Dichloroethane	BRL		0.29	1.0	ug/L	360624	1	07/31/2023 12:02	OM
Ethyl tert-butyl ether	BRL		3.8	10	ug/L	360624	1	07/31/2023 12:02	OM
tert-Amyl methyl ether	BRL		4.2	10	ug/L	360624	1	07/31/2023 12:02	OM
Isopropyl ether	BRL		2.4	10	ug/L	360624	1	07/31/2023 12:02	OM
tert-Butyl Alcohol	BRL		35	100	ug/L	360624	1	07/31/2023 12:02	OM
tert-Amyl alcohol	BRL		31	100	ug/L	360624	1	07/31/2023 12:02	OM
tert-Butyl formate	BRL		33	100	ug/L	360624	1	07/31/2023 12:02	OM
Ethanol	BRL		53	100	ug/L	360624	1	07/31/2023 12:02	OM
3,3-Dimethyl-1-butanol	BRL		40	100	ug/L	360624	1	07/31/2023 12:02	OM
Surr: 4-Bromofluorobenzene	108		0	70-126	%REC	360624	1	07/31/2023 12:02	OM
Surr: Dibromofluoromethane	106		0	77-121	%REC	360624	1	07/31/2023 12:02	OM
Surr: Toluene-d8	103		0	78.6-119	%REC	360624	1	07/31/2023 12:02	OM

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- F Analyzed in the lab which is a deviation from the method
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 2-Aug-23

SUMMARY OF ANALYTES DETECTED

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	Dilution
Client Sample ID: MW-5				**Lab ID:** 2307U78-004			
Collection Date: 7/26/2023 4:16:00 PM				**Matrix:** Groundwater			
Volatile Organic Compounds SW8260D				**(SW5030B)**			
Benzene	0.53	J	0.26	1.0	ug/L	360624	1
Ethylbenzene	13		0.24	1.0	ug/L	360624	1
Naphthalene	32		1.8	5.0	ug/L	360624	1
Client Sample ID: DCW-1				**Lab ID:** 2307U78-010			
Collection Date: 7/26/2023 12:14:00 PM				**Matrix:** Groundwater			
Volatile Organic Compounds SW8260D				**(SW5030B)**			
Toluene	1.9		0.33	1.0	ug/L	360624	1
Ethylbenzene	0.26	J	0.24	1.0	ug/L	360624	1
m,p-Xylene	0.90	J	0.49	1.0	ug/L	360624	1
o-Xylene	0.32	J	0.27	1.0	ug/L	360624	1

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

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ANALYTICAL ENVIRONMENTAL SERVICES, INC.

SAMPLE/COOLER RECEIPT CHECKLIST

1. Client Name: **Access Analytical, Inc** AES Work Order Number: **2307U78**

2. Carrier: FedEx ☐ UPS ☐ USPS ☐ Client ☐ Courier ■ Other _____

		Yes	No	N/A	Details	Comments
3.	Shipping container/cooler received in good condition?	●	○	○	damaged ☐ leaking ☐ other ☐	
4.	Custody seals present on shipping container?	○	●	○		
5.	Custody seals intact on shipping container?	○	○	●		
6.	Temperature blanks present?	○	●	○		
7.	Cooler temperature(s) within limits of 0-6°C? [See item 13 and 14 for temperature recordings.]	●	○	○	Cooling initiated for recently collected samples / ice present ☐	
8.	Chain of Custody (COC) present?	●	○	○		
9.	Chain of Custody signed, dated, and timed when relinquished and received?	●	○	○		
10.	Sampler name and/or signature on COC?	●	○	○		
11.	Were all samples received within holding time?	●	○	○		
12.	TAT marked on the COC?	●	○	○	If no TAT indicated, proceeded with standard TAT per Terms & Conditions. ☐	

13. Cooler 1 Temperature 0.6 °C Cooler 2 Temperature _____ °C Cooler 3 Temperature _____ °C Cooler 4 Temperature _____ °C

14. Cooler 5 Temperature _____ °C Cooler 6 Temperature _____ °C Cooler 7 Temperature _____ °C Cooler 8 Temperature _____ °C

15. Comments: _____

I certify that I have completed sections 1-15 (dated initials). MW 7/28/23

		Yes	No	N/A	Details	Comments
16.	Were sample containers intact upon receipt?	●	○	○		
17.	Custody seals present on sample containers?	○	●	○		
18.	Custody seals intact on sample containers?	○	○	●		
19.	Do sample container labels match the COC?	●	○	○	incomplete info ☐ illegible ☐ no label ☐ other ☐	
20.	Are analyses requested indicated on the COC?	●	○	○		
21.	Were all of the samples listed on the COC received?	●	○	○	samples received but not listed on COC ☐ samples listed on COC not received ☐	
22.	Was the sample collection date/time noted?	●	○	○		
23.	Did we receive sufficient sample volume for indicated analyses?	●	○	○		
24.	Were samples received in appropriate containers?	●	○	○		
25.	Were VOA samples received without headspace (< 1/4" bubble)?	●	○	○		
26.	Were trip blanks submitted?	●	○	○	listed on COC ■ not listed on COC ☐	

27. Comments: _____

I certify that I have completed sections 16-27 (dated initials). MW 7/28/23

This section only applies to samples where pH can be checked at Sample Receipt.

		Yes	No	N/A	Details	Comments
28.	Have containers needing chemical preservation been checked? *	○	○	●		
29.	Containers meet preservation guidelines?	○	○	●		
30.	Was pH adjusted at Sample Receipt?	○	○	●		

* Note: Certain analyses require chemical preservation but must be checked in the laboratory and not upon Sample Receipt such as Coliforms, VOCs and Oil & Grease/TPH. This also excludes metals by EPA 200.7, 200.8 and 245.1 which will be verified between 16 and 24 hours after preservation.

I certify that I have completed sections 28-30 (dated initials). MW 7/28/23

Locked

Client: F&ME Consultants, Inc.
Project Name Hilton Head PSD UST #11399
Workorder: 2307U78

ANALYTICAL QC SUMMARY REPORT

BatchID: 360522

Sample ID: **MB-360522**	Client ID:				Units: **ug/L**		Prep Date: **07/31/2023**		Run No: **522786**	
SampleType: **MBLK**	TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011**				BatchID: **360522**		Analysis Date: **07/31/2023**		Seq No: **12367684**	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
1,2-Dibromoethane	BRL	0.020								
Surr: 4-Bromofluorobenzene	4.779	0	5.000		95.6	70	130			

Sample ID: **LCS-360522**	Client ID:				Units: **ug/L**		Prep Date: **07/31/2023**		Run No: **522786**	
SampleType: **LCS**	TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011**				BatchID: **360522**		Analysis Date: **07/31/2023**		Seq No: **12367685**	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
1,2-Dibromoethane	0.09800	0.020	0.1000		98.0	60	140			
Surr: 4-Bromofluorobenzene	4.823	0	5.000		96.5	70	130			

Sample ID: **LCSD-360522**	Client ID:				Units: **ug/L**		Prep Date: **07/31/2023**		Run No: **522786**	
SampleType: **LCSD**	TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011**				BatchID: **360522**		Analysis Date: **07/31/2023**		Seq No: **12367686**	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
1,2-Dibromoethane	0.09800	0.020	0.1000		98.0	60	140	0.09800	0	15.6
Surr: 4-Bromofluorobenzene	4.697	0	5.000		93.9	70	130	4.823	0	0

Sample ID: **2307U78-002BMS**	Client ID: **MW-3**				Units: **ug/L**		Prep Date: **07/31/2023**		Run No: **522786**	
SampleType: **MS**	TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011**				BatchID: **360522**		Analysis Date: **07/31/2023**		Seq No: **12367695**	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
1,2-Dibromoethane	0.09500	0.020	0.1000		95.0	67.7	130			
Surr: 4-Bromofluorobenzene	4.956	0	5.000		99.1	69.7	138			

Sample ID: **2307U78-008BDUP**	Client ID: **MW-10**				Units: **ug/L**		Prep Date: **07/31/2023**		Run No: **522786**	
SampleType: **DUP**	TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011**				BatchID: **360522**		Analysis Date: **07/31/2023**		Seq No: **12367702**	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
1,2-Dibromoethane	BRL	0.020						0	0	30

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: F&ME Consultants, Inc.
Project Name Hilton Head PSD UST #11399
Workorder: 2307U78

ANALYTICAL QC SUMMARY REPORT

BatchID: 360522

Sample ID: **2307U78-008BDUP** Client ID: **MW-10** Units: **ug/L** Prep Date: **07/31/2023** Run No: **522786**
SampleType: **DUP** TestCode: **MICRO-EXTRACTABLE VOLATILE ORGANICS SW8011** BatchID: **360522** Analysis Date: **07/31/2023** Seq No: **12367702**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: 4-Bromofluorobenzene	5.174	0	5.034		103	69.7	138	4.820	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: F&ME Consultants, Inc.
Project Name Hilton Head PSD UST #11399
Workorder: 2307U78

ANALYTICAL QC SUMMARY REPORT

BatchID: 360624

Sample ID: **MB-360624** Client ID: Units: **ug/L** Prep Date: **07/31/2023** Run No: **522689**
SampleType: **MBLK** TestCode: **Volatile Organic Compounds SW8260D** BatchID: **360624** Analysis Date: **07/31/2023** Seq No: **12364769**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dichloroethane	BRL	1.0									
3,3-Dimethyl-1-butanol	BRL	100									
Benzene	BRL	1.0									
Ethanol	BRL	100									
Ethyl tert-butyl ether	BRL	10									
Ethylbenzene	BRL	1.0									
Isopropyl ether	BRL	10									
m,p-Xylene	BRL	1.0									
Methyl tert-butyl ether	BRL	1.0									
Naphthalene	BRL	5.0									
o-Xylene	BRL	1.0									
tert-Amyl alcohol	BRL	100									
tert-Amyl methyl ether	BRL	10									
tert-Butyl Alcohol	BRL	100									
tert-Butyl formate	BRL	100									
Toluene	BRL	1.0									
Surr: 4-Bromofluorobenzene	53.18	0	50.00		106	70	126				
Surr: Dibromofluoromethane	56.90	0	50.00		114	77	121				
Surr: Toluene-d8	51.57	0	50.00		103	78.6	119				

Sample ID: **LCS-360624** Client ID: Units: **ug/L** Prep Date: **07/31/2023** Run No: **522689**
SampleType: **LCS** TestCode: **Volatile Organic Compounds SW8260D** BatchID: **360624** Analysis Date: **07/31/2023** Seq No: **12364893**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dichloroethane	52.67	1.0	50.00		105	74.5	128				
3,3-Dimethyl-1-butanol	485.9	100	500.0		97.2	65.9	123				
Benzene	52.41	1.0	50.00		105	78.8	120				
Ethanol	421.1	100	500.0		84.2	60.1	128				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: F&ME Consultants, Inc.
Project Name Hilton Head PSD UST #11399
Workorder: 2307U78

ANALYTICAL QC SUMMARY REPORT

BatchID: 360624

Sample ID: **LCS-360624** Client ID: Units: **ug/L** Prep Date: **07/31/2023** Run No: **522689**
SampleType: **LCS** TestCode: **Volatile Organic Compounds SW8260D** BatchID: **360624** Analysis Date: **07/31/2023** Seq No: **12364893**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethyl tert-butyl ether	104.5	10	100.0		104	79.6	125				
Ethylbenzene	55.52	1.0	50.00		111	81.1	122				
Isopropyl ether	104.7	10	100.0		105	78	125				
m,p-Xylene	107.8	1.0	100.0		108	80.7	123				
Methyl tert-butyl ether	47.15	1.0	50.00		94.3	76.6	124				
Naphthalene	46.95	5.0	50.00		93.9	67.6	126				
o-Xylene	52.79	1.0	50.00		106	77	124				
tert-Amyl alcohol	499.7	100	500.0		99.9	67.6	130				
tert-Amyl methyl ether	101.8	10	100.0		102	78.6	123				
tert-Butyl Alcohol	438.8	100	500.0		87.8	69.7	132				
tert-Butyl formate	478.8	100	500.0		95.8	67	131				
Toluene	56.37	1.0	50.00		113	76.6	125				
Surr: 4-Bromofluorobenzene	50.70	0	50.00		101	70	126				
Surr: Dibromofluoromethane	49.38	0	50.00		98.8	77	121				
Surr: Toluene-d8	54.34	0	50.00		109	78.6	119				

Sample ID: **2307U78-008AMS** Client ID: **MW-10** Units: **ug/L** Prep Date: **07/31/2023** Run No: **522689**
SampleType: **MS** TestCode: **Volatile Organic Compounds SW8260D** BatchID: **360624** Analysis Date: **08/01/2023** Seq No: **12366101**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dichloroethane	59.29	1.0	50.00		119	72.1	135				
3,3-Dimethyl-1-butanol	471.7	100	500.0		94.3	64.6	131				
Benzene	54.86	1.0	50.00		110	71.4	135				
Ethanol	531.7	100	500.0		106	54.6	139				
Ethyl tert-butyl ether	106.2	10	100.0		106	70.2	129				
Ethylbenzene	60.61	1.0	50.00		121	77	131				
Isopropyl ether	109.5	10	100.0		109	65	132				
m,p-Xylene	123.5	1.0	100.0		123	71.4	136				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: F&ME Consultants, Inc.
Project Name Hilton Head PSD UST #11399
Workorder: 2307U78

ANALYTICAL QC SUMMARY REPORT

BatchID: 360624

Sample ID: **2307U78-008AMS**	Client ID: **MW-10**	Units: **ug/L**	Prep Date: **07/31/2023**	Run No: **522689**
SampleType: **MS**	TestCode: **Volatile Organic Compounds SW8260D**	BatchID: **360624**	Analysis Date: **08/01/2023**	Seq No: **12366101**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Methyl tert-butyl ether	47.23	1.0	50.00		94.5	68.9	135				
Naphthalene	47.13	5.0	50.00		94.3	60.2	132				
o-Xylene	58.02	1.0	50.00		116	72.5	132				
tert-Amyl alcohol	451.4	100	500.0		90.3	56.4	139				
tert-Amyl methyl ether	104.0	10	100.0		104	69	130				
tert-Butyl Alcohol	401.2	100	500.0		80.2	66.5	137				
tert-Butyl formate	462.0	100	500.0		92.4	50.2	129				
Toluene	59.93	1.0	50.00		120	70.3	136				
Surr: 4-Bromofluorobenzene	52.81	0	50.00		106	70	126				
Surr: Dibromofluoromethane	51.57	0	50.00		103	77	121				
Surr: Toluene-d8	53.98	0	50.00		108	78.6	119				

Sample ID: **2307U78-007ADUP**	Client ID: **MW-8**	Units: **ug/L**	Prep Date: **07/31/2023**	Run No: **522689**
SampleType: **DUP**	TestCode: **Volatile Organic Compounds SW8260D**	BatchID: **360624**	Analysis Date: **08/01/2023**	Seq No: **12366100**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,2-Dichloroethane	BRL	1.0						0	0	30	
3,3-Dimethyl-1-butanol	BRL	100						0	0	30	
Benzene	BRL	1.0						0	0	30	
Ethanol	BRL	100						0	0	30	
Ethyl tert-butyl ether	BRL	10						0	0	30	
Ethylbenzene	BRL	1.0						0	0	30	
Isopropyl ether	BRL	10						0	0	30	
m,p-Xylene	BRL	1.0						0	0	30	
Methyl tert-butyl ether	BRL	1.0						0	0	30	
Naphthalene	BRL	5.0						0	0	30	
o-Xylene	BRL	1.0						0	0	30	
tert-Amyl alcohol	BRL	100						0	0	30	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: F&ME Consultants, Inc.
Project Name Hilton Head PSD UST #11399
Workorder: 2307U78

ANALYTICAL QC SUMMARY REPORT

BatchID: 360624

Sample ID: **2307U78-007ADUP** Client ID: **MW-8** Units: **ug/L** Prep Date: **07/31/2023** Run No: **522689**
SampleType: **DUP** TestCode: **Volatile Organic Compounds SW8260D** BatchID: **360624** Analysis Date: **08/01/2023** Seq No: **12366100**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
tert-Amyl methyl ether	BRL	10						0	0	30	
tert-Butyl Alcohol	BRL	100						0	0	30	
tert-Butyl formate	BRL	100						0	0	30	
Toluene	BRL	1.0						0	0	30	
Surr: 4-Bromofluorobenzene	53.42	0				70	126	52.86	0	30	
Surr: Dibromofluoromethane	51.33	0				77	121	50.88	0	30	
Surr: Toluene-d8	53.41	0				78.6	119	55.57	0	30	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

End of Report

Appendix D

Field Sampling Data Sheets for Groundwater Sampling

F&ME CONSULTANTS

Field Data Information Sheet for Groundwater Sampling
Low Flow Purging & Sampling

Date(mm/dd/yy) 07/26/2023
Field Personnel J. Leary
General Weather Conditions Sunny
Ambient Air Temperature F. 85

Facility Name Hilton Head Island PSD Site ID# 11399

Quality Assurance

Multi Meter - YSI 556 (pH, Cond., D.O., Temp.)
Serial No. 57671 Serial No.
pH=4.0 3.95 Standard 1409 1410
pH=7.0 7.05 D.O. 100% 100.6%
pH=10.0 9.97
Temp. C. 22.92 23.10
Turbidity - Micro TPW S# 201305158
NTU - 0.02, 10.0, 1000 (NTU) 0.02, 9.92, 997.1

Well # MW-1

Well Diameter(d) 2 inch or 0.1667 feet
conversion factor (c): [3.142 x (d/2)^2] x 7.48
for a 2 inch well c = 0.163 gal's/ft
for a 4 inch well c = 0.653 gal's/ft
Total Well Depth(twd) 12.0 feet Screen 2-12
Depth to GW (dwg) *5.55 feet ***Corrected Water Level**

Length of Water Column(lwc=twd-dgw) _____ feet

1 Csg Volume(lwc x c)= _____ gallons
3 Csg Volumes = _____ gallons (Std. Purge Volume)

Volume of Water Purged Before Sampling _____ liters

Not sampled due to free product in well. FP @ 5.50', H_20 @ 5.92', FPT = 0.42'

Volume Purged (liters)						
Time (military)						
pH (s.u.)						
Specific Cond. (umhos/cm)						
Water Temp. (C)						
Turbidity (NTU)						
Dissolved Oxygen (mg/L)						
Water Level (ft.)						

nr = not recorded n/a = not applicable

F&ME CONSULTANTS

Field Data Information Sheet for Groundwater Sampling
Low Flow Purging & Sampling

Date(mm/dd/yy) 07/26/2023
Field Personnel J. Leary
General Weather Conditions Sunny
Ambient Air Temperature F. 90

Facility Name Hilton Head Island PSD Site ID# 11399

Quality Assurance

Multi Meter - YSI 556 (pH, Cond., D.O., Temp.)
Serial No. 57671 Serial No.
pH=4.0 3.95 Standard 1409 1410
pH=7.0 7.05 D.O. 100% 100.6%
pH=10.0 9.97
Temp. C. 22.92 23.10
Turbidity - Micro TPW S# 201305158
NTU - 0.02, 10.0, 1000 (NTU) 0.02, 9.92, 997.1

Well # MW-2

Well Diameter(d) 2 inch or 0.1667 feet
conversion factor (c): [3.142 x (d/2)^2] x 7.48
for a 2 inch well c = 0.163 gal's/ft
for a 4 inch well c = 0.653 gal's/ft
Total Well Depth(twd) 13.0 feet Screen 3-13
Depth to GW (dwg) 6.43 feet

Length of Water Column(lwc=twd-dgw) _____ feet

1 Csg Volume(lwc x c)= _____ gallons
3 Csg Volumes = _____ gallons (Std. Purge Volume)

Volume of Water Purged Before Sampling 0.00 liters

No purging required.

Volume Purged (liters)	0.00					
Time (military)	1455					
pH (s.u.)	5.98					
Specific Cond. (umhos/cm)	353					
Water Temp. (C)	26.46					
Turbidity (NTU)	1.38					
Dissolved Oxygen (mg/L)	1.41					
Water Level (ft.)	n/a					

nr = not recorded n/a = not applicable

F&ME CONSULTANTS

Field Data Information Sheet for Groundwater Sampling
Low Flow Purging & Sampling

Date(mm/dd/yy) 07/26/2023
Field Personnel J. Leary
General Weather Conditions Sunny
Ambient Air Temperature F. 90

Facility Name Hilton Head Island PSD Site ID# 11399

Quality Assurance

Multi Meter - YSI 556 (pH, Cond., D.O., Temp.)
Serial No. 57671 Serial No.
pH=4.0 3.95 Standard 1409 1410
pH=7.0 7.05 D.O. 100% 100.6%
pH=10.0 9.97
Temp. C. 22.92 23.10
Turbidity - Micro TPW S# 201305158
NTU - 0.02, 10.0, 1000 (NTU) 0.02, 9.92, 997.1

Well # MW-3

Well Diameter(d) 2 inch or 0.1667 feet
conversion factor (c): [3.142 x (d/2)^2] x 7.48
for a 2 inch well c = 0.163 gal's/ft
for a 4 inch well c = 0.653 gal's/ft
Total Well Depth(twd) 13.0 feet Screen 3-13
Depth to GW (dwg) 6.41 feet

Length of Water Column(lwc=twd-dgw) _____ feet

1 Csg Volume(lwc x c)= _____ gallons
3 Csg Volumes = _____ gallons (Std. Purge Volume)

Volume of Water Purged Before Sampling 0.00 liters

No purging required.

Volume Purged (liters)	0.00					
Time (military)	1515					
pH (s.u.)	5.65					
Specific Cond. (umhos/cm)	287					
Water Temp. (C)	26.41					
Turbidity (NTU)	0.53					
Dissolved Oxygen (mg/L)	1.74					
Water Level (ft.)	n/a					

nr = not recorded n/a = not applicable

F&ME CONSULTANTS

Field Data Information Sheet for Groundwater Sampling
Low Flow Purging & Sampling

Date(mm/dd/yy) 07/26/2023
Field Personnel J. Leary
General Weather Conditions Sunny
Ambient Air Temperature F. 89

Facility Name Hilton Head Island PSD Site ID# 11399

Quality Assurance

Multi Meter - YSI 556 (pH, Cond., D.O., Temp.)

Serial No.	57671	Serial No.		
pH=4.0	3.95	Standard	1409	1410
pH=7.0	7.05	D.O.	100%	100.6%
pH=10.0	9.97			
Temp. C.	22.92	23.10		

Turbidity - Micro TPW S# 201305158
NTU - 0.02, 10.0, 1000 (NTU) 0.02, 9.92, 997.1

Well # MW-4

Well Diameter(d) 2 inch or 0.1667 feet
conversion factor (c): [3.142 x (d/2)^2] x 7.48
for a 2 inch well c = 0.163 gal's/ft
for a 4 inch well c = 0.653 gal's/ft
Total Well Depth(twd) 13.0 feet Screen 3-13
Depth to GW (dwg) 6.07 feet

Length of Water Column(lwc=twd-dgw) _____ feet

1 Csg Volume(lwc x c)= _____ gallons
3 Csg Volumes = _____ gallons (Std. Purge Volume)

Volume of Water Purged Before Sampling 0.00 liters

No purging required.

Volume Purged (liters)	0.00					
Time (military)	1600					
pH (s.u.)	5.65					
Specific Cond. (umhos/cm)	165					
Water Temp. (C)	27.37					
Turbidity (NTU)	3.05					
Dissolved Oxygen (mg/L)	1.40					
Water Level (ft.)	n/a					

nr = not recorded n/a = not applicable

F&ME CONSULTANTS

Field Data Information Sheet for Groundwater Sampling
Low Flow Purging & Sampling

Date(mm/dd/yy) 07/26/2023
Field Personnel J. Leary
General Weather Conditions Sunny
Ambient Air Temperature F. 89

Facility Name Hilton Head Island PSD Site ID# 11399

Quality Assurance

Multi Meter - YSI 556 (pH, Cond., D.O., Temp.)
Serial No. 57671 Serial No.
pH=4.0 3.95 Standard 1409 1410
pH=7.0 7.05 D.O. 100% 100.6%
pH=10.0 9.97
Temp. C. 22.92 23.10
Turbidity - Micro TPW S# 201305158
NTU - 0.02, 10.0, 1000 (NTU) 0.02, 9.92, 997.1

Well # MW-5

Well Diameter(d) 2 inch or 0.1667 feet
conversion factor (c): [3.142 x (d/2)^2] x 7.48
for a 2 inch well c = 0.163 gal's/ft
for a 4 inch well c = 0.653 gal's/ft
Total Well Depth(twd) 14.0 feet Screen 4-14
Depth to GW (dwg) 5.83 feet

Length of Water Column(lwc=twd-dgw) _____ feet

1 Csg Volume(lwc x c)= _____ gallons
3 Csg Volumes = _____ gallons (Std. Purge Volume)

Volume of Water Purged Before Sampling 0.00 liters

No purging required.

Volume Purged (liters)	0.00					
Time (military)	1616					
pH (s.u.)	6.01					
Specific Cond. (umhos/cm)	341					
Water Temp. (C)	27.92					
Turbidity (NTU)	2.12					
Dissolved Oxygen (mg/L)	1.17					
Water Level (ft.)	n/a					

nr = not recorded n/a = not applicable

F&ME CONSULTANTS

Field Data Information Sheet for Groundwater Sampling
Low Flow Purging & Sampling

Date(mm/dd/yy) 07/26/2023
Field Personnel J. Leary
General Weather Conditions Sunny
Ambient Air Temperature F. 89

Facility Name Hilton Head Island PSD Site ID# 11399

Quality Assurance

Multi Meter - YSI 556 (pH, Cond., D.O., Temp.)
Serial No. 57671 Serial No.
pH=4.0 3.95 Standard 1409 1410
pH=7.0 7.05 D.O. 100% 100.6%
pH=10.0 9.97
Temp. C. 22.92 23.10
Turbidity - Micro TPW S# 201305158
NTU - 0.02, 10.0, 1000 (NTU) 0.02, 9.92, 997.1

Well # MW-6

Well Diameter(d) 2 inch or 0.1667 feet
conversion factor (c): [3.142 x (d/2)^2] x 7.48
for a 2 inch well c = 0.163 gal's/ft
for a 4 inch well c = 0.653 gal's/ft
Total Well Depth(twd) 14.0 feet Screen 4-14
Depth to GW (dwg) 6.01 feet

Length of Water Column(lwc=twd-dgw) _____ feet

1 Csg Volume(lwc x c)= _____ gallons
3 Csg Volumes = _____ gallons (Std. Purge Volume)

Volume of Water Purged Before Sampling 0.00 liters

No purging required.

Volume Purged (liters)	0.00					
Time (military)	1350					
pH (s.u.)	6.89					
Specific Cond. (umhos/cm)	322					
Water Temp. (C)	29.05					
Turbidity (NTU)	13.68					
Dissolved Oxygen (mg/L)	3.95					
Water Level (ft.)	n/a					

nr = not recorded n/a = not applicable

F&ME CONSULTANTS

Field Data Information Sheet for Groundwater Sampling
Low Flow Purging & Sampling

Date(mm/dd/yy) 07/26/2023
Field Personnel J. Leary
General Weather Conditions Sunny
Ambient Air Temperature F. 90

Facility Name Hilton Head Island PSD Site ID# 11399

Quality Assurance

Multi Meter - YSI 556 (pH, Cond., D.O., Temp.)
Serial No. 57671 Serial No.
pH=4.0 3.95 Standard 1409 1410
pH=7.0 7.05 D.O. 100% 100.6%
pH=10.0 9.97
Temp. C. 22.92 23.10
Turbidity - Micro TPW S# 201305158
NTU - 0.02, 10.0, 1000 (NTU) 0.02, 9.92, 997.1

Well # MW-7

Well Diameter(d) 2 inch or 0.1667 feet
conversion factor (c): [3.142 x (d/2)^2] x 7.48
for a 2 inch well c = 0.163 gal's/ft
for a 4 inch well c = 0.653 gal's/ft
Total Well Depth(twd) 13.0 feet Screen 3-13
Depth to GW (dwg) 5.65 feet

Length of Water Column(lwc=twd-dgw) _____ feet

1 Csg Volume(lwc x c)= _____ gallons
3 Csg Volumes = _____ gallons (Std. Purge Volume)

Volume of Water Purged Before Sampling 0.00 liters

No purging required.

Volume Purged (liters)	0.00					
Time (military)	1315					
pH (s.u.)	5.80					
Specific Cond. (umhos/cm)	147					
Water Temp. (C)	34.54					
Turbidity (NTU)	1.98					
Dissolved Oxygen (mg/L)	2.30					
Water Level (ft.)	n/a					

nr = not recorded n/a = not applicable

F&ME CONSULTANTS

Field Data Information Sheet for Groundwater Sampling
Low Flow Purging & Sampling

Date(mm/dd/yy) 07/26/2023
Field Personnel J. Leary
General Weather Conditions Sunny
Ambient Air Temperature F. 90

Facility Name Hilton Head Island PSD Site ID# 11399

Quality Assurance

Multi Meter - YSI 556 (pH, Cond., D.O., Temp.)
Serial No. 57671 Serial No.
pH=4.0 3.95 Standard 1409 1410
pH=7.0 7.05 D.O. 100% 100.6%
pH=10.0 9.97
Temp. C. 22.92 23.10
Turbidity - Micro TPW S# 201305158
NTU - 0.02, 10.0, 1000 (NTU) 0.02, 9.92, 997.1

Well # MW-8

Well Diameter(d) 2 inch or 0.1667 feet
conversion factor (c): [3.142 x (d/2)^2] x 7.48
for a 2 inch well c = 0.163 gal's/ft
for a 4 inch well c = 0.653 gal's/ft
Total Well Depth(twd) 14.0 feet Screen 4-14
Depth to GW (dwg) 5.72 feet

Length of Water Column(lwc=twd-dgw) _____ feet

1 Csg Volume(lwc x c)= _____ gallons
3 Csg Volumes = _____ gallons (Std. Purge Volume)

Volume of Water Purged Before Sampling 0.00 liters

No purging required.

Volume Purged (liters)	0.00					
Time (military)	1417					
pH (s.u.)	6.50					
Specific Cond. (umhos/cm)	387					
Water Temp. (C)	30.00					
Turbidity (NTU)	4.23					
Dissolved Oxygen (mg/L)	7.50					
Water Level (ft.)	n/a					

nr = not recorded n/a = not applicable

F&ME CONSULTANTS

Field Data Information Sheet for Groundwater Sampling
Low Flow Purging & Sampling

Date(mm/dd/yy) 07/26/2023
Field Personnel J. Leary
General Weather Conditions Sunny
Ambient Air Temperature F. 85

Facility Name Hilton Head Island PSD Site ID# 11399

Quality Assurance

Multi Meter - YSI 556 (pH, Cond., D.O., Temp.)
Serial No. 57671 Serial No.
pH=4.0 3.95 Standard 1409 1410
pH=7.0 7.05 D.O. 100% 100.6%
pH=10.0 9.97
Temp. C. 22.92 23.10
Turbidity - Micro TPW S# 201305158
NTU - 0.02, 10.0, 1000 (NTU) 0.02, 9.92, 997.1

Well # MW-9

Well Diameter(d) 2 inch or 0.1667 feet
conversion factor (c): [3.142 x (d/2)^2] x 7.48
for a 2 inch well c = 0.163 gal's/ft
for a 4 inch well c = 0.653 gal's/ft
Total Well Depth(twd) 13.5 feet Screen 3.5-13.5
Depth to GW (dwg) *5.81 feet ***Corrected Water Level**

Length of Water Column(lwc=twd-dgw) _____ feet

1 Csg Volume(lwc x c)= _____ gallons
3 Csg Volumes = _____ gallons (Std. Purge Volume)

Volume of Water Purged Before Sampling _____ liters

Not sampled due to free product in well. FP @ 5.74', H_20 @ 6.35', FPT = 0.61'

Volume Purged (liters)						
Time (military)						
pH (s.u.)						
Specific Cond. (umhos/cm)						
Water Temp. (C)						
Turbidity (NTU)						
Dissolved Oxygen (mg/L)						
Water Level (ft.)						

nr = not recorded n/a = not applicable

F&ME CONSULTANTS

Field Data Information Sheet for Groundwater Sampling
Low Flow Purging & Sampling

Date(mm/dd/yy)	07/26/2023
Field Personnel	J. Leary
General Weather Conditions	Sunny
Ambient Air Temperature F.	89
Facility Name	Hilton Head Island PSD
Site ID#	11399

Quality Assurance

Multi Meter - YSI 556 (pH, Cond., D.O., Temp.)

Serial No.	57671	Serial No.		
pH=4.0	3.95	Standard	1409	1410
pH=7.0	7.05	D.O.	100%	100.6%
pH=10.0	9.97			
Temp. C.	22.92	23.10		

Turbidity - Micro TPW S# 201305158
NTU - 0.02, 10.0, 1000 (NTU) 0.02, 9.92, 997.1

Well # MW-10

Well Diameter(d) 2 inch or 0.1667 feet
conversion factor (c): [3.142 x (d/2)^2] x 7.48
for a 2 inch well c = 0.163 gal's/ft
for a 4 inch well c = 0.653 gal's/ft
Total Well Depth(twd) 13.5 feet Screen 3.5-13.5
Depth to GW (dwg) 5.72 feet

Length of Water Column(lwc=twd-dgw) _____ feet

1 Csg Volume(lwc x c)= _____ gallons
3 Csg Volumes = _____ gallons (Std. Purge Volume)

Volume of Water Purged Before Sampling 0.00 liters

No purging required.

Volume Purged (liters)	0.00					
Time (military)	1535					
pH (s.u.)	5.77					
Specific Cond. (umhos/cm)	207					
Water Temp. (C)	29.61					
Turbidity (NTU)	0.69					
Dissolved Oxygen (mg/L)	1.07					
Water Level (ft.)	n/a					

nr = not recorded

F&ME CONSULTANTS

Field Data Information Sheet for Groundwater Sampling
Low Flow Purging & Sampling

Date(mm/dd/yy) 07/26/2023
Field Personnel J. Leary
General Weather Conditions Sunny
Ambient Air Temperature F. 89

Facility Name Hilton Head Island PSD Site ID# 11399

Quality Assurance

Multi Meter - YSI 556 (pH, Cond., D.O., Temp.)
Serial No. 57671 Serial No.
pH=4.0 3.95 Standard 1409 1410
pH=7.0 7.05 D.O. 100% 100.6%
pH=10.0 9.97
Temp. C. 22.92 23.10
Turbidity - Micro TPW S# 201305158
NTU - 0.02, 10.0, 1000 (NTU) 0.02, 9.92, 997.1

Well # MW-11

Well Diameter(d) 2 inch or 0.1667 feet
conversion factor (c): [3.142 x (d/2)^2] x 7.48
for a 2 inch well c = 0.163 gal's/ft
for a 4 inch well c = 0.653 gal's/ft
Total Well Depth(twd) 13.0 feet Screen 3-13
Depth to GW (dwg) 5.30 feet

Length of Water Column(lwc=twd-dgw) _____ feet

1 Csg Volume(lwc x c)= _____ gallons
3 Csg Volumes = _____ gallons (Std. Purge Volume)

Volume of Water Purged Before Sampling 0.00 liters

No purging required.

Volume Purged (liters)	0.00	Duplicate				
Time (military)	1637	1642				
pH (s.u.)	6.47	6.51				
Specific Cond. (umhos/cm)	638	637				
Water Temp. (C)	29.07	29.07				
Turbidity (NTU)	0.31	8.44				
Dissolved Oxygen (mg/L)	0.94	1.31				
Water Level (ft.)	n/a	n/a				

nr = not recorded n/a = not applicable

F&ME CONSULTANTS

Field Data Information Sheet for Groundwater Sampling
Low Flow Purging & Sampling

Date(mm/dd/yy) 07/26/2023
Field Personnel J. Leary
General Weather Conditions Sunny
Ambient Air Temperature F. 85

Facility Name Hilton Head Island PSD Site ID# 11399

Quality Assurance

Multi Meter - YSI 556 (pH, Cond., D.O., Temp.)
Serial No. 57671 Serial No.
pH=4.0 3.95 Standard 1409 1410
pH=7.0 7.05 D.O. 100% 100.6%
pH=10.0 9.97
Temp. C. 22.92 23.10
Turbidity - Micro TPW S# 201305158
NTU - 0.02, 10.0, 1000 (NTU) 0.02, 9.92, 997.1

Well # MW-12

Well Diameter(d) 2 inch or 0.1667 feet
conversion factor (c): [3.142 x (d/2)^2] x 7.48
for a 2 inch well c = 0.163 gal's/ft
for a 4 inch well c = 0.653 gal's/ft
Total Well Depth(twd) 13.0 feet Screen 3-13
Depth to GW (dwg) *5.47 feet ***Corrected Water Level**

Length of Water Column(lwc=twd-dgw) _____ feet

1 Csg Volume(lwc x c)= _____ gallons
3 Csg Volumes = _____ gallons (Std. Purge Volume)

Volume of Water Purged Before Sampling _____ liters

Not sampled due to free product in well. FP @ 5.39', H_20 @ 6.13', FPT = 0.74'

Volume Purged (liters)							
Time (military)							
pH (s.u.)							
Specific Cond. (umhos/cm)							
Water Temp. (C)							
Turbidity (NTU)							
Dissolved Oxygen (mg/L)							
Water Level (ft.)							

nr = not recorded n/a = not applicable

F&ME CONSULTANTS

Field Data Information Sheet for Groundwater Sampling
Low Flow Purging & Sampling

Date(mm/dd/yy) 07/26/2023
Field Personnel J. Leary
General Weather Conditions Sunny
Ambient Air Temperature F. 85

Facility Name Hilton Head Island PSD Site ID# 11399

Quality Assurance

Multi Meter - YSI 556 (pH, Cond., D.O., Temp.)
Serial No. 57671 Serial No.
pH=4.0 3.95 Standard 1409 1410
pH=7.0 7.05 D.O. 100% 100.6%
pH=10.0 9.97
Temp. C. 22.92 23.10
Turbidity - Micro TPW S# 201305158
NTU - 0.02, 10.0, 1000 (NTU) 0.02, 9.92, 997.1

Well # MW-13

Well Diameter(d) 2 inch or 0.1667 feet
conversion factor (c): [3.142 x (d/2)^2] x 7.48
for a 2 inch well c = 0.163 gal's/ft
for a 4 inch well c = 0.653 gal's/ft
Total Well Depth(twd) 13.0 feet Screen 3-13
Depth to GW (dwg) *5.75 feet ***Corrected Water Level**

Length of Water Column(lwc=twd-dgw) _____ feet

1 Csg Volume(lwc x c)= _____ gallons
3 Csg Volumes = _____ gallons (Std. Purge Volume)

Volume of Water Purged Before Sampling _____ liters

Not sampled due to free product in well. FP @ 5.65', H_20 @ 6.48', FPT = 0.83'

Volume Purged (liters)						
Time (military)						
pH (s.u.)						
Specific Cond. (umhos/cm)						
Water Temp. (C)						
Turbidity (NTU)						
Dissolved Oxygen (mg/L)						
Water Level (ft.)						

nr = not recorded n/a = not applicable

F&ME CONSULTANTS

Field Data Information Sheet for Groundwater Sampling
Low Flow Purging & Sampling

Date(mm/dd/yy) 07/26/2023
Field Personnel J. Leary
General Weather Conditions Sunny
Ambient Air Temperature F. 85

Facility Name Hilton Head Island PSD Site ID# 11399

Quality Assurance

Multi Meter - YSI 556 (pH, Cond., D.O., Temp.)
Serial No. 57671 Serial No.
pH=4.0 3.95 Standard 1409 1410
pH=7.0 7.05 D.O. 100% 100.6%
pH=10.0 9.97
Temp. C. 22.92 23.10
Turbidity - Micro TPW S# 201305158
NTU - 0.02, 10.0, 1000 (NTU) 0.02, 9.92, 997.1

Well # DCW-1

Well Diameter(d) 2 inch or 0.1667 feet
conversion factor (c): [3.142 x (d/2)^2] x 7.48
for a 2 inch well c = 0.163 gal's/ft
for a 4 inch well c = 0.653 gal's/ft
Total Well Depth(twd) 34.0 feet Screen 29-34
Depth to GW (dwg) 5.76 feet

Length of Water Column(lwc=twd-dgw) _____ feet

1 Csg Volume(lwc x c)= _____ gallons
3 Csg Volumes = _____ gallons (Std. Purge Volume)

Volume of Water Purged Before Sampling 5.50 liters

Purged and sampled with peristaltic pump. Purged on ground.

				Sample		
Volume Purged (liters)	1.00	2.50	3.50	5.50		
Time (military)	1159	1204	1209	1214		
pH (s.u.)	6.17	6.10	6.17	6.20		
Specific Cond. (umhos/cm)	278	271	267	268		
Water Temp. (C)	25.15	25.07	25.00	24.94		
Turbidity (NTU)	48.75	2.06	0.71	0.21		
Dissolved Oxygen (mg/L)	8.25	7.70	7.44	7.14		
Water Level (ft.)	6.05	6.03	6.03	6.05		

nr = not recorded n/a = not applicable

F&ME CONSULTANTS

Field Data Information Sheet for Groundwater Sampling
Low Flow Purging & Sampling

Date(mm/dd/yy) 07/26/2023
Field Personnel J. Leary
General Weather Conditions Sunny
Ambient Air Temperature F. 85

Facility Name Hilton Head Island PSD Site ID# 11399

Quality Assurance

Multi Meter - YSI 556 (pH, Cond., D.O., Temp.)
Serial No. 57671 Serial No.
pH=4.0 3.95 Standard 1409 1410
pH=7.0 7.05 D.O. 100% 100.6%
pH=10.0 9.97
Temp. C. 22.92 23.10
Turbidity - Micro TPW S# 201305158
NTU - 0.02, 10.0, 1000 (NTU) 0.02, 9.92, 997.1

Well # RW-1

Well Diameter(d) 4 inch or 0.3333 feet
conversion factor (c): [3.142 x (d/2)^2] x 7.48
for a 2 inch well c = 0.163 gal's/ft
for a 4 inch well c = 0.653 gal's/ft
Total Well Depth(twd) 12.0 feet Screen 2-12
Depth to GW (dwg) *5.34 feet **Corrected Water Level**

Length of Water Column(lwc=twd-dgw) _____ feet

1 Csg Volume(lwc x c)= _____ gallons
3 Csg Volumes = _____ gallons (Std. Purge Volume)

Volume of Water Purged Before Sampling _____ liters

Not sampled due to free product in well. FP @ 5.25', H_20 @ 6.00', FPT = 0.75'

Volume Purged (liters)						
Time (military)						
pH (s.u.)						
Specific Cond. (umhos/cm)						
Water Temp. (C)						
Turbidity (NTU)						
Dissolved Oxygen (mg/L)						
Water Level (ft.)						

nr = not recorded n/a = not applicable

F&ME CONSULTANTS

Field Data Information Sheet for Groundwater Sampling
Low Flow Purging & Sampling

Date(mm/dd/yy) 07/26/2023
Field Personnel J. Leary
General Weather Conditions Sunny
Ambient Air Temperature F. 85

Facility Name Hilton Head Island PSD Site ID# 11399

Quality Assurance

Multi Meter - YSI 556 (pH, Cond., D.O., Temp.)
Serial No. 57671 Serial No.
pH=4.0 3.95 Standard 1409 1410
pH=7.0 7.05 D.O. 100% 100.6%
pH=10.0 9.97
Temp. C. 22.92 23.10
Turbidity - Micro TPW S# 201305158
NTU - 0.02, 10.0, 1000 (NTU) 0.02, 9.92, 997.1

Well # RW-2

Well Diameter(d) 4 inch or 0.3333 feet
conversion factor (c): [3.142 x (d/2)^2] x 7.48
for a 2 inch well c = 0.163 gal's/ft
for a 4 inch well c = 0.653 gal's/ft
Total Well Depth(twd) 12.0 feet Screen 2-12
Depth to GW (dwg) *5.43 feet **Corrected Water Level**

Length of Water Column(lwc=twd-dgw) _____ feet

1 Csg Volume(lwc x c)= _____ gallons
3 Csg Volumes = _____ gallons (Std. Purge Volume)

Volume of Water Purged Before Sampling _____ liters

Not sampled due to free product in well. FP @ 5.42', H_20 @ 5.50', FPT = 0.08'

Volume Purged (liters)						
Time (military)						
pH (s.u.)						
Specific Cond. (umhos/cm)						
Water Temp. (C)						
Turbidity (NTU)						
Dissolved Oxygen (mg/L)						
Water Level (ft.)						

nr = not recorded n/a = not applicable

Appendix E

Contractor Checklist

South Carolina
Underground Storage Tank Program

F&ME CONSULTANTS

Contractor Checklist

For each report submitted to the UST Management Division, the contractor will be required to verify that all data elements for the required scope of work have been provided. For items not required for the scope of work, the N/A box should be checked. For items required and not completed or provided, the No box should be checked, and a thorough description of the reason must be provided.

Hilton Head Public Service District UST Permit #11399

Item #	Item	Yes	No	N/A
1	Is Facility Name, Permit #, and address provided?	X		
2	Is UST Owner/Operator name, address, & phone number provided?	X		
3	Is name, address, & phone number of current property owner provided?	X		
4	Is the DHEC Certified UST Site Rehabilitation Contractor's Name, Address, telephone number, and certification number provided?	X		
5	Is the name, address, telephone number, and certification number of the well driller that installed borings/monitoring wells provided?	X		
6	Is the name, address, telephone number, and certification number of the certified laboratory(ies) performing analytical analyses provided?	X		
7	Has the facility history been summarized?	X		
8	Has the regional geology and hydrogeology been described?	X		
9	Are the receptor survey results provided as required?			X
10	Has current use of the site and adjacent land been described?			X
11	Has the site-specific geology and hydrogeology been described?			X
12	Has the primary soil type been described?			X
13	Have field screening results been described?			X
14	Has a description of the soil sample collection and preservation been detailed?			X
15	Has the field screening methodology and procedure been detailed?			X
16	Has the monitoring well installation and development dates been provided?	X		
17	Has the method of well development been detailed?	X		
18	Has justification been provided for the locations of the monitoring wells?			X
19	Have the monitoring wells been labeled in accordance with the UST QAPP guidelines?	X		
20	Has the groundwater sampling methodology been detailed?	X		
21	Have the groundwater sampling dates and groundwater measurements been provided?	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?	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

South Carolina
Underground Storage Tank Program

F&ME CONSULTANTS

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 1)	X		
34	Has the current and historical laboratory data been provided in tabular format?	X		
35	Have the aquifer characteristics been provided and summarized on the appropriate form?			X
36	Have the Site conceptual model tables been included? (Tier 1 Risk Evaluation)			X
37	Has the topographic map been provided with all required elements? (Figure 2)	X		
38	Has the site base map been provided with all required elements? (Figure 3)	X		
39	Have the CoC site maps been provided? (Figure 5)	X		
40	Has the site potentiometric map been provided? (Figure 4)	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?			X
44	Have the sampling logs, chain of custody forms, and the analytical data package been included with all required elements? (Appendix F)	X		
45	Is the laboratory performing the analyses properly certified?	X		
46	Has the tax map been included with all necessary elements?			X
47	Have the soil boring/field screening logs been provided?	X		
48	Have the well completion logs and SCDHEC Form 1903 been provided?	X		
49	Have the aquifer evaluation forms, data, graphs, equations, etc. been provided?			X
50	Have the disposal manifests been provided?	X		
51	Has a copy of the local zoning regulations been provided?			X
52	Has all fate and transport modeling been provided?			X
53	Have copies of all access agreements obtained by the contractor been provided?			X
54	Has a copy of this form been attached to the final report and are explanations for any missing or incomplete data been provided?	X		

South Carolina

Underground Storage Tank Management Division
Explanation for missing and incomplete information?

Christine A. Cafagna

Project Verifier (signature) _____

(print name) Christine A. Cafagna

Date August 30, 2023

Appendix F

SCDHEC AFVR and Groundwater Sampling Notice to Proceed Letter

dhec
Healthy People. Healthy Communities.

MAR 28 2023

HILTON HEAD PUBLIC SERVICE DISTRICT
PO BOX 21264
HILTON HEAD ISLAND SC 29925

Re: **Aggressive Fluid Vapor Recovery and Groundwater Sampling Notice to Proceed**
Hilton Head Public Service District, 21 Oak Park Drive, Hilton Head Island, SC
UST Permit #11399; CA #66938
Release #2 reported July 27, 2017
Site Specific Work Plan received February 28, 2023
Beaufort County

To Whom it May Concern:

The Underground Storage Tank Management Division (UST 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.

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 UST Division records, approximately $16,069.64 has been expended from the SUPERB Account to date.** This scope of work, as recommended by your contractor, is anticipated to cost approximately $26,771.82.

In accordance with Sections 280.64 and 280.65 of the South Carolina Underground Storage Tank Control Regulations R.61-92, The Aggressive Fluid Vapor Recovery (AFVR) and groundwater sampling events should begin immediately upon receipt of this letter. The Cost Agreement number shown above has been approved for the amount shown on the enclosed cost agreement form. All work must be conducted in compliance with the current revision of the UST Quality Assurance Program Plan (QAPP), your contractor's Annual Contractor Quality Assurance Plan and submitted SSWP, and all applicable regulations. The QAPP is available at scdhec.gov/Environment/Land-Waste/Underground-Storage-Tanks/Release-Assessment-Clean/Quality-Assurance.

Please note the following changes to the cost agreement and SSWP:

- 1 unit removed from D.2.1 Personnel
- 1 unit added to J.4.2A No-purge Groundwater Sample/Surface water
- 4 units added to J.5.1 Gauge Well only
- 45 units added to Q.1.1 Disposal
- 2 units added to Y.1.1 Additional Copies of the Report Delivered

Any variance from the procedures will be approved on a site specific basis and should be submitted to the UST Division in writing.

The contractor must provide notification to the UST Project Manager via email 4 days prior to initiation of any site rehabilitation activities. If there are any changes to the schedule, the UST Project Manager must be contacted within 24 hours of those changes.

Your contractor can submit an invoice for direct payment from the State Underground Petroleum Environmental Response Bank (SUPERB) Account for pre-approved costs. **The AFVR Report, contractor checklist (QAPP Appendix K), and invoice should be submitted to the UST Division within one hundred-twenty (120) days of the date of this correspondence.** 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.

In accordance with Section IV.A.4.c of the SUPERB Site Rehabilitation & Fund Access Regulation (R.61-98), the contractor shall be required to indemnify the property owner, underground storage tank owner/operator and the State of South Carolina from and against all claims, damages, losses and expenses arising out of or resulting from activity conducted by the contractor, its agents, employees or subcontractors.

Please note that sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that the SUPERB Account cannot compensate any costs that are not pre-approved. If for any reason additional tasks will be completed, these additional tasks, and the associated cost, must be pre-approved by the UST Division for the cost to be paid. The UST Division reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria. Further, the UST Division reserves the right to question and/or reject costs if deemed unreasonable and the right to audit project records at any time during the project or after completion of work.

Please note that applicable South Carolina certification requirements regarding laboratory services, well installation, and report preparation must be satisfied. Any site rehabilitation activity associated with the UST release must be performed by a DHEC-certified site rehabilitation contractor as required by the SUPERB Site Rehabilitation and Fund Access Regulation, R.61-98.

The UST Division grants pre-approval for transportation of virgin petroleum impacted soil and groundwater from the referenced site to a permitted treatment facility. There can be no spillage or leakage in transport. All investigation-derived waste (IDW) must be properly contained and labeled prior to disposal. IDW should not be stored on-site longer than ninety (90) days. A copy of the disposal manifest and/or acceptance letter from the receiving facility that clearly designates the quantity received must be included as an appendix to the report. If the Chemical of Concern (CoC) concentrations based on laboratory analysis is below Risk-Based Screening Levels (RBSLs), please contact the project manager for approval to dispose of soil and/or groundwater on-site. The SUPERB Account will not reimburse for transportation or treatment of soil and/or groundwater with concentrations below RBSLs.

On all correspondence concerning this site, please reference the UST Permit number above. Should you have any questions, please contact me by phone at (803) 898-2946, by fax at (803) 898-0673, or by email at hawkij@dhec.sc.gov.

Sincerely,

Ireland Hawk, Hydrogeologist
Corrective Action & Field Support Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

enc: Approved Cost Agreement

cc: F&ME Consultants Columbia, 1825 Blanding Street, Columbia, SC 29201 (w/ enc)
Technical file (w/ enc)

Approved Cost Agreement 66938

Facility: 11399 HILTON HEAD PUBLIC SERVICE DISTRICT
HAWKU
PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
A PLAN PREPARATION						
		1.1	SITE SPECIFIC WORK PLAN	1.0000	$169.650	169.65
D MOB/DEMOB						
		2.1	PERSONNEL	2.0000	$478.420	956.84
J SAMPLE COLLECTION						
		10.1	EQUIPMENT BLANK	1.0000	$27.830	27.83
		4.2A	NO-PURGE GW SAMPLE/SURFACE	12.0000	$31.670	380.04
		5.1	GAUGE WELL ONLY	4.0000	$7.920	31.68
		8.1	FIELD DUPL. (MWS & WSWS) & FB	2.0000	$27.830	55.66
		9.1	GROUNDWATER (LOW FLOW PURGE)	5.0000	$102.930	514.65
K ANALYSES						
	GW GROUNDWATER	1.1	BTEXNM+OXYGS+1,2 DCA+ETH-8260D	20.0000	$137.980	2,759.60
		7.1	EDB BY EPA 8011	19.0000	$51.120	971.28
Q DISPOSAL						
		1.1	WASTEWATER	50.0000	$0.640	32.00
S REPORT PROJECT MANAGEMENT						
		S	REPORT PREP & PROJ. MANAGEMENT	0.1200	$23,903.410	2,868.41
W AFVR						
		14.1	AFVR SITE RECONNAISSANCE	1.0000	$280.000	280.00
		15	ADDITIONAL HOOK UPS	1.0000	$27.480	27.48
		16.1	AFVR EFFLUENT DISPOSAL	20,000.0000	$0.490	9,800.00
		17.1	AFVR MOB - DEMOB	1.0000	$720.000	720.00
		3	48 HOUR EVENT	1.0000	$6,706.100	6,706.10
		7.1	OFF-GAS TREATMENT 48 HOUR	1.0000	$357.500	357.50
Y WELL REPAIR						
		1.1	ADDITIONAL COPIES OF REPORT	2.0000	$56.550	113.10
					Total Amount	26,771.82

TABLES

1 - Summary of Groundwater Elevations
2 - Summary of Groundwater COC Analytical Results
3 - Summary of Groundwater Oxygenate Analytical Results

Table 1
Summary of Groundwater Elevations
HHI PSD Release #2
Hilton Head Island, SC
SCDHEC Permit #11399

Well No.	Date Installed	Date Measured	Screened Interval (feet bgs)	TOC Elevation (feet MSL)	TOC to Product Level (feet MSL)	TOC to Water Level (feet MSL)	Free Product Petroleum (FPP) Thickness (feet)	Water Table Elevation (feet MSL)
Newly Installed Monitoring Wells								
RW-01	8/23/2022	08/25/2022	2-12	12.47	-	3.17	-	9.30
		07/26/2023			5.25	5.34	0.75	7.13
RW-02	8/24/2022	08/25/2022	2-12	12.55	3.22	3.23	0.07	9.32
		07/26/2023			5.42	5.43	0.08	7.12
MW-11	8/23/2022	08/25/2022	3-13	12.46	-	2.75	-	9.71
		07/26/2023			-	5.30	-	7.16
MW-12	8/23/2022	08/25/2022	3-13	12.62	-	3.22	-	9.40
		07/26/2023			5.39	5.47	0.74	7.15
MW-13	8/22/2022	08/25/2022	3-13	12.88	3.52	3.58	0.52	9.30
		07/26/2023			5.65	5.75	0.83	7.13
Existing Monitoring Wells								
MW-1	6/15/2018	06/18/2018	2-12	12.80	5.21	5.48	0.27	7.40
		04/20/2021			5.18	7.93	-	FP
		08/25/2022			3.16	3.29	1.17	9.51
		07/26/2023			5.50	5.55	0.42	7.25
MW-2	6/15/2018	06/18/2018	3-13	14.29	-	6.09	-	8.20
		04/20/2021			-	6.56	-	7.73
		08/25/2022			-	4.35	-	9.94
		07/26/2023			-	6.43	-	7.86
MW-3	6/15/2018	06/18/2018	3-13	14.13	-	6.09	-	8.04
		04/20/2021			-	6.50	-	7.63
		08/25/2022			-	4.25	-	9.88
		07/26/2023			-	6.41	-	7.72
MW-4	4/19/2021	04/20/2021	3-13	13.17	-	6.14	-	7.03
		08/25/2022			-	3.83	-	9.34
		07/26/2023			-	6.07	-	7.10
MW-5	4/19/2021	04/20/2021	4-14	12.95	-	5.88	-	7.07
		08/25/2022			-	3.63	-	9.32
		07/26/2023			-	5.83	-	7.12
MW-6	4/20/2021	04/20/2021	4-14	13.30	-	6.20	-	7.10
		08/25/2022			-	3.88	-	9.42
		07/26/2023			-	6.01	-	7.29
MW-7	4/20/2021	04/20/2021	3-13	12.61	-	5.65	-	6.96
		08/25/2022			-	3.24	-	9.37
		07/26/2023			-	5.65	-	6.96
MW-8	4/20/2021	04/20/2021	4-14	13.00	-	5.86	-	7.14
		08/25/2022			-	3.61	-	9.39
		07/26/2023			-	5.72	-	7.28
MW-9	4/20/2021	04/20/2021	3.5-13.5	12.91	-	5.87	-	7.04
		08/25/2022			3.52	3.60	0.70	9.31
		07/26/2023			5.74	5.81	0.61	7.10
MW-10	4/20/2021	04/20/2021	3.5-13.5	12.71	-	5.78	-	6.93
		08/25/2022			-	3.46	-	9.25
		07/26/2023			-	5.72	-	6.99
DCW-1	4/19/2021	04/20/2021	29-34	12.92	-	5.85	-	7.07
		08/25/2022			-	3.56	-	9.36
		07/26/2023			-	5.76	-	7.16

Notes: Groundwater data from sampling events on 6/18/18 and 4/20/21 were taken from the AECOM Tier 1 and Tier II reports.
Corrected TOC Water Level and Water Table Elevation due to the presence of free product (Diesel).
Screened Interval measurement is represented in feet below ground surface.
TOC = Top of Casing
(bgs) = below ground surface
FP=Free Product. The corrected TOC Water Table Elevation was not calculated. Taken from the AECOM Tier I report.

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Table 2
Summary of Groundwater COC Analytical Results (µ/L)
HHI PSD Release #2
Hilton Head Island, SC
SCDHEC Permit #11399

VOCs								
Sample ID	**Sample Date**	**Benzene (µg/L)**	**Toluene (µg/L)**	**Ethylbenzene (µg/L)**	**Xylene (Total) (µg/L)**	**Naphthalene (µg/L)**	**MTBE (µg/L)**	**1,2-DCA (µg/L)**
SCDHEC RBSLs		**5**	**1,000**	**700**	**10,000**	**25**	**NS**	**5**
MW-1	6/18/2018	**Free Product/Not Sampled (0.07-foot thickness)**						
	4/21/2021	**Free Product/Not Sampled (Not reported)**						
	8/25/2022	**Free Product/Not Sampled (1.17-foot thickness)**						
	7/26/2023	**Free Product/Not Sampled (0.42-foot thickness)**						
MW-2	6/18/2018	<1	<1	<1	<1	<1	<1	<1
	4/21/2021	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
	8/25/2022	<0.23	<0.55	<0.24	<0.78	<1.1	<0.24	<0.32
	7/26/2023	<0.26	<0.33	<0.24	<0.76	<1.8	<0.23	<0.29
MW-3	6/18/2018	<1	<1	<1	<1	<1	<1	<1
	4/22/2021	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
	8/25/2022	<0.23	<0.55	<0.24	<0.78	<1.1	<0.24	<0.32
	7/26/2023	<0.26	<0.33	<0.24	<0.76	<1.8	<0.23	<0.29
MW-4	4/22/2021	**7.4**	<0.40	**7.7**	21	**0.78**	<0.40	<0.40
	8/25/2022	<0.23	<0.55	<0.24	<0.78	<1.1	<0.24	<0.32
	7/26/2023	<0.26	<0.33	<0.24	<0.76	<1.8	<0.23	<0.29
MW-5	4/22/2021	**9.5**	<0.40	**26**	7.9	**9.6**	<0.40	<0.40
	8/25/2022	<0.23	<0.55	<0.24	<0.78	<1.1	<0.24	<0.32
	7/26/2023	**0.53J**	<0.33	**13**	<0.76	**32**	<0.23	<0.29
MW-6	4/22/2021	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
	8/25/2022	<0.23	<0.55	<0.24	<0.78	<1.1	<0.24	<0.32
	7/26/2023	<0.26	<0.33	<0.24	<0.76	<1.8	<0.23	<0.29
MW-7	4/22/2021	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
	8/25/2022	<0.23	<0.55	<0.24	<0.78	<1.1	<0.24	<0.32
	7/26/2023	<0.26	<0.33	<0.24	<0.76	<1.8	<0.23	<0.29

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Table 2
Summary of Groundwater COC Analytical Results (µ/L)
HHI PSD Release #2
Hilton Head Island, SC
SCDHEC Permit #11399

MW-8	4/22/2021	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
	8/25/2022	<0.23	<0.55	<0.24	<0.78	<1.1	<0.24	<0.32
	7/26/2023	<0.26	<0.33	<0.24	<0.76	<1.8	<0.23	<0.29
MW-9	4/22/2021	**45**	**37**	**60**	**170**	**14**	**1.9**	<0.40
	4/22/21 (Dup)	**44**	**34**	**55**	**160**	**14**	**2.4**	<0.40
	8/25/2022	**Free Product/Not Sampled (0.07-foot thickness)**						
	7/26/2023	**Free Product/Not Sampled (0.61-foot thickness)**						
MW-10	4/22/2021	<0.40	<0.40	**0.65**	**3.2**	<0.40	<0.40	<0.40
	8/25/2022	<0.23	<0.55	<0.24	<0.78	<1.1	<0.24	<0.32
	7/26/2023	<0.26	<0.33	<0.24	<0.76	<1.8	<0.23	<0.29
MW-11	8/25/2022	<0.23	<0.55	<0.24	<0.78	<1.1	<0.24	<0.32
	7/26/2023	<0.26	<0.33	<0.24	<0.76	<1.8	<0.23	<0.29
	7/26/23 (Dup)	<0.26	<0.33	<0.24	<0.76	<1.8	<0.23	<0.29
MW-12	8/25/2022	**7.4**	<0.55	**57**	**24.36J**	**53**	<0.24	<0.32
	7/26/2023	**Free Product/Not Sampled (0.74-foot thickness)**						
MW-13	8/25/2022	**Free Product/Not Sampled (0.52-foot thickness)**						
	7/26/2023	**Free Product/Not Sampled (0.83-foot thickness)**						
DCW-1	4/22/2021	<0.40	**0.49**	**1.6**	**1.2**	**1.1**	<0.40	<0.40
	8/25/2022	<0.23	<0.55	<0.24	<0.78	<1.1	<0.24	<0.32
	7/26/2023	<0.26	**1.9**	**0.26J**	**1.22J**	<1.8	<0.23	<0.29
RW-01	8/25/2022	**3.3**	<0.55	**50**	**14**	**35**	<0.24	<0.32
	7/26/2023	**Free Product/Not Sampled (0.75-foot thickness)**						
RW-02	8/25/2022	**Free Product/Not Sampled (0.07-foot thickness)**						
	7/26/2023	**Free Product/Not Sampled (0.08-foot thickness)**						

Notes:

At or above SCDHEC RBSLs as listed in SCDHEC's UST QAPP Revision 4.0.

Bold = CoC detected above MDL.

SCDHEC RSBLs are for a sandy soil and are taken from Table D1 in Appendix D of the SCDHECs Qaulilty Assurance Program Plan (QAPP) Revision

(NS) - No Standard Exists

Concentrations are reported in micrograms per kilogram (µg/kg).

J = Estimated value detected below Reporting Limit

Dup= duplicate sample

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Table 3
Summary of Groundwater Oxygenate Analytical Results (µ/L)
HHI PSD Release #2
Hilton Head Island, SC
SCDHEC Permit #11399

Well No.	Date Sampled	tert-Amyl Alcohol (µg/L)	tert-Amylmethyl ether (µg/L)	tert-Butyl Formate (µg/L)	Di-Isopropyl Ether (µg/L)	3,3-Dimethyl-1-Butanol (µg/L)	Ethanol (µg/L)	Ethyl-tert-Butyl Ether (µg/L)	tert-Butyl Alcohol (µg/L)
Action Levels for Groundwater (Oxygenates)	–	240	128	None	150	None	10,000	47	1,400
MW-1	6/18/2018	**Free Product/Not Sampled (0.07-foot thickness)**							
	4/21/2021	**Free Product/Not Sampled (Not reported)**							
	8/25/2022	**Free Product/Not Sampled (1.17-foot thickness)**							
	7/26/2023	**Free Product/Not Sampled (0.42-foot thickness)**							
MW-2	6/18/2018	<100	<10	<50	<1	<100	**297**	<10	<100
	4/21/2021	<8.0	<0.42	<2.0	<0.40	<8.0	<52	<0.40	<0.40
	8/25/2022	<31	<4.2	<33	<3.0	<40	<53	<3.8	<35
	7/26/2023	<31	<4.2	<33	<2.4	<40	<53	<3.8	<35
MW-3	6/18/2018	<100	<10	<50	<1	<100	**209**	<10	<100
	4/21/2021	<8.0	<0.42	<2.0	<0.40	<8.0	<52	<0.40	<0.40
	8/25/2022	<31	<4.2	<33	<3.0	<40	<53	<3.8	<35
	7/26/2023	<31	<4.2	<33	<2.4	<40	<53	<3.8	<35
MW-4	4/21/2021	<8.0	<0.42	<2.0	<0.40	<8.0	<52	<0.40	<0.40
	8/25/2022	<31	<4.2	<33	<3.0	<40	<53	<3.8	<35
	7/26/2023	<31	<4.2	<33	<2.4	<40	<53	<3.8	<35
MW-5	4/21/2021	<8.0	<0.42	<2.0	<0.40	<8.0	<52	<0.40	<0.40
	8/25/2022	<31	<4.2	<33	<3.0	<40	<53	<3.8	<35
	7/26/2023	<31	<4.2	<33	<2.4	<40	<53	<3.8	<35
MW-6	4/21/2021	<8.0	<0.42	<2.0	<0.40	<8.0	<52	<0.40	<0.40
	8/25/2022	<31	<4.2	<33	<3.0	<40	<53	<3.8	<35
	7/26/2023	<31	<4.2	<33	<2.4	<40	<53	<3.8	<35
MW-7	4/21/2021	<8.0	<0.42	<2.0	<0.40	<8.0	<52	<0.40	<0.40
	8/25/2022	<31	<4.2	<33	<3.0	<40	<53	<3.8	<35
	7/26/2023	<31	<4.2	<33	<2.4	<40	<53	<3.8	<35
MW-8	4/21/2021	<8.0	<0.42	<2.0	<0.40	<8.0	<52	<0.40	<0.40
	8/25/2022	<31	<4.2	<33	<3.0	<40	<53	<3.8	<35
	7/26/2023	<31	<4.2	<33	<2.4	<40	<53	<3.8	<35

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Table 3
Summary of Groundwater Oxygenate Analytical Results (µ/L)
HHI PSD Release #2
Hilton Head Island, SC
SCDHEC Permit #11399

Well No.	Date Sampled	tert-Amyl Alcohol (µg/L)	tert-Amylmethyl ether (µg/L)	tert-Butyl Formate (µg/L)	Di-Isopropyl Ether (µg/L)	3,3-Dimethyl-1-Butanol (µg/L)	Ethanol (µg/L)	Ethyl-tert-Butyl Ether (µg/L)	tert-Butyl Alcohol (µg/L)
MW-9	4/21/2021	<8.0	<0.42	<2.0	<0.40	<8.0	<52	**2.4**	**1.4**
	4/22/21 (Dup)	<8.0	<0.42	<2.0	<0.40	<8.0	<52	**2.8**	**1.4**
	8/25/2022	**Free Product/Not Sampled (0.07-foot thickness)**							
	7/26/2023	**Free Product/Not Sampled (0.61-foot thickness)**							
MW-10	4/22/2021	<8.0	<0.42	<2.0	<0.40	<8.0	<52	<0.40	<0.40
	8/25/2022	<31	<4.2	<33	<3.0	<40	<53	<3.8	<35
	7/26/2023	<31	<4.2	<33	<2.4	<40	<53	<3.8	<35
MW-11	8/25/2022	<31	<4.2	<33	<3.0	<40	<53	<3.8	<35
	7/26/2023	<31	<4.2	<33	<2.4	<40	<53	<3.8	<35
	7/26/2023 (Dup)	<31	<4.2	<33	<2.4	<40	<53	<3.8	<35
MW-12	8/25/2022	<31	<4.2	<33	<3.0	<40	<53	<3.8	<35
	7/26/2023	<31	<4.2	<33	<2.4	<40	<53	<3.8	<35
MW-13	8/25/2022	**Free Product/Not Sampled (0.52-foot thickness)**							
	7/26/2023	**Free Product/Not Sampled (0.83-foot thickness)**							
DCW-1	4/22/2021	<8.0	<0.42	<2.0	<0.40	<8.0	<52	<0.40	<0.40
	8/25/2022	<31	<4.2	<33	<3.0	<40	<53	<3.8	<35
	8/25/2022 (Dup)	<31	<4.2	<33	<3.0	<40	<53	<3.8	<35
	7/26/2023	<31	<4.2	<33	<2.4	<40	<53	<3.8	<35
RW-1	8/25/2022	<31	<4.2	<33	<3.0	<40	**310**	<3.8	<35
	7/26/2023	**Free Product/Not Sampled (0.75-foot thickness)**							
RW-2	8/25/2022	**Free Product/Not Sampled (0.07-foot thickness)**							
	7/26/2023	**Free Product/Not Sampled (0.08-foot thickness)**							

Notes: At or above SCDHEC RBSLs as listed in SCDHEC's UST QAPP Revision 4.0.

Bold = CoC detected above MDL.

Concentrations are represented in micrograms per liter (µg/L)

* denotes a duplicate sample

NA = Not Analyzed

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

Action Levels for Groundwater Oxygenates taken from SCDHEC QAPP Revision 4.0

Dup= duplicate sample

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dhec
Healthy People. Healthy Communities.

APR 08 2024

UST 28 DOCKETING

HILTON HEAD PUBLIC SERVICE DISTRICT
PO BOX 21264
HILTON HEAD ISLAND SC 29925

Re: **Site Specific Work Plan Request for Groundwater Sampling**
Hilton Head Public Service District, 21 Oak Park Drive, Hilton Head Island, SC
UST Permit #11399
Release #2 reported July 27, 2017
AFVR GWS Report received September 5, 2023
Beaufort County

To Whom It May Concern:

The Underground Storage Tank Management Division (UST Division) of the South Carolina Department of Health and Environmental Control (DHEC) has reviewed the referenced report submitted by your contractor. The report documents petroleum chemicals in the soil and/or groundwater above Risk-Based Screening Levels.

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 UST Division records, approximately $38,771.64 has been expended from the SUPERB Account to date.**

Your selected contractor has proposed groundwater sampling as the next appropriate scope of work. To determine what risk the referenced release may pose to human health and the environment, and in accordance with Section 280.65 of the South Carolina Underground Storage Tank Control Regulations R.61-92, submittal of the Site Specific Work Plan (SSWP) for groundwater sampling may proceed. All work must be conducted in compliance with the current revision of the UST Quality Assurance Program Plan (QAPP), your contractor's Annual Contractor Quality Assurance Plan, and all applicable regulations. The QAPP is available at scdhec.gov/Environment/Land-Waste/Underground-Storage-Tanks/Release-Assessment-Clean/Quality-Assurance.

Groundwater samples should be collected from all monitoring wells associated with this release along with all water supply wells and surface waters within a 1,000-foot radius of the site. Samples should be analyzed for BTEX, Naphthalene, MTBE, 1,2-DCA, the 8 oxygenates, and EDB. Only wells with screens that do not bracket the water table should be purged prior to sampling.

Your contractor must complete the SSWP and submit it within 30 days from the date of this letter. Every component may not be necessary to complete the above scope of work. The State Underground Petroleum Environmental Response Bank (SUPERB) Account allowable cost for each component is included on the Assessment Component Cost Agreement Form. **Please note that approval from DHEC must be issued before work begins.**

If the plan cannot be submitted by the required due date, an extension must be requested by submitting a written request, either via postal mail or email, to my attention prior to the due date. The Department will issue a Notice of Alleged Violation if the report/plan is not submitted by the required due date.

On all correspondence concerning this site, please reference UST Permit number above. Should you have any questions, please contact me by phone at (803) 898-0605, by fax at (803) 898-0673, or by email at medlinlj@dhec.sc.gov.

Sincerely,

Jason Medlin, Hydrogeologist
Corrective Action & Field Support Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

cc: F&ME Consultants Columbia, 1825 Blanding Street, Columbia, SC 29201 (w/ enc)
Technical file (w/enc)

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

RECEIVED
MAY 03 2024
UST DIVISION

To: Jason Medlin, Hydrogeologist (SCDHEC Project Manager)
From: Christine A. Cafagna (Contractor Project Manager)
Contractor: F&ME Consultants UST Contractor Certification Number: UCC-0140

UST DOCKETING 29T

Facility Name: Hilton Head Public Service District UST Permit #: 11399
Facility Address: 21 Oak Park Dr., Beaufort, SC 29926
Responsible Party: William C. Davis, Operations Manager Phone: 843-681-5525
RP Address: PO Box 21264, Beaufort, SC 29925
Property Owner (if different): _____
Property Owner Address: _____
Current Use of Property: Water Treatment Facility

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) ☐ Mecury (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 _____ Equipment 1 Field Blank
10 Monitoring Wells _____ Surface Water 1 Duplicate 1 Trip Blank

Field Screening Methodology

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

# of shallow points proposed: _____ Estimated Footage: _____ feet per point
# of deep points proposed: _____ Estimated Footage: _____ feet per point
Field Screening Methodology: _____

Permanent Monitoring Wells

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

# of shallow wells: _____ Estimated Footage: _____ feet per point
# of deep wells: _____ Estimated Footage: _____ feet per point
# of recovery wells: _____ Estimated Footage: _____ feet per point
Comments, if warranted:

_____

_____

UST Permit #: 11399 Facility Name: Hilton Head Public Service District

Implementation Schedule (Number of calendar days from approval)

Field Work Start-Up: 7 days Field Work Completion: 30 days

Report Submittal: 60 days # of Copies Provided to Property Owners: 1

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/repaired, well pads/bolts/caps to replace, details of AFVR event, etc.

There are a total of sixteen (16) monitoring wells on site (13 shallow wells, 1 deep well, and 2 recovery wells). At the time of the last sampling event on 7-26-2023, six of the wells contained Free-Phase Product (FPP) [MW-1, 9, 12, 13, and RW-1 and RW-2]. We anticipate only gauging these six wells during the groundwater sampling event. This will leave ten (10) monitoring wells to be sampled (Shallow wells MW-2,3,4,5,6,7,8,10,11, and deep well DCW-1). As stated in the DHEC SSWP request for groundwater sampling letter dated 4-8-2024, "only wells with screens that do not bracket the water table should be purged prior to sampling". It is anticipated that the deep well, DCW-1, will be the only well requiring purging before sampling. Low-flow purging methods will be implemented using a peristaltic pump. The purge water from DCW-1 will be disposed of on the ground by the well since the well meets the DHEC QAPP requirements for on-site disposal. The wells not requiring purging before sampling will be sampled with a disposable bailer between each well. To our knowledge, there are no water supply wells or surface waters within a 1000-foot radius of the site that will require sampling.

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: _____

____ Well Driller as indicated in ACQAP? (Yes/No) If no, indicate driller information below.

Name of Well Driller: _____

SCLLR Certification Number: _____

____ Other variations from ACQAP. Please describe below.

_____

_____

_____

_____

_____

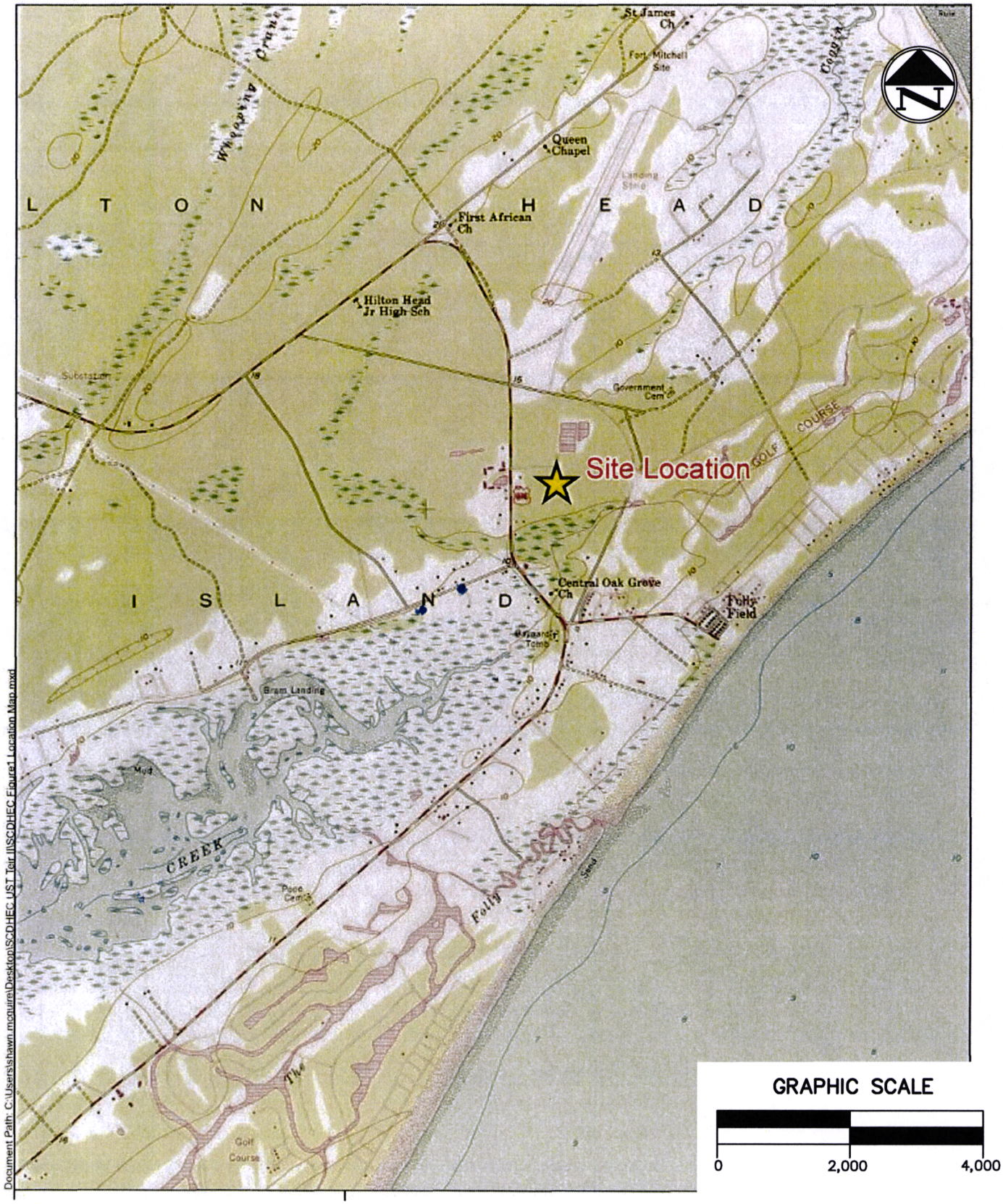
Attachments

1. Attach a copy of the relevant portion of the USGS topographic map showing the site location.

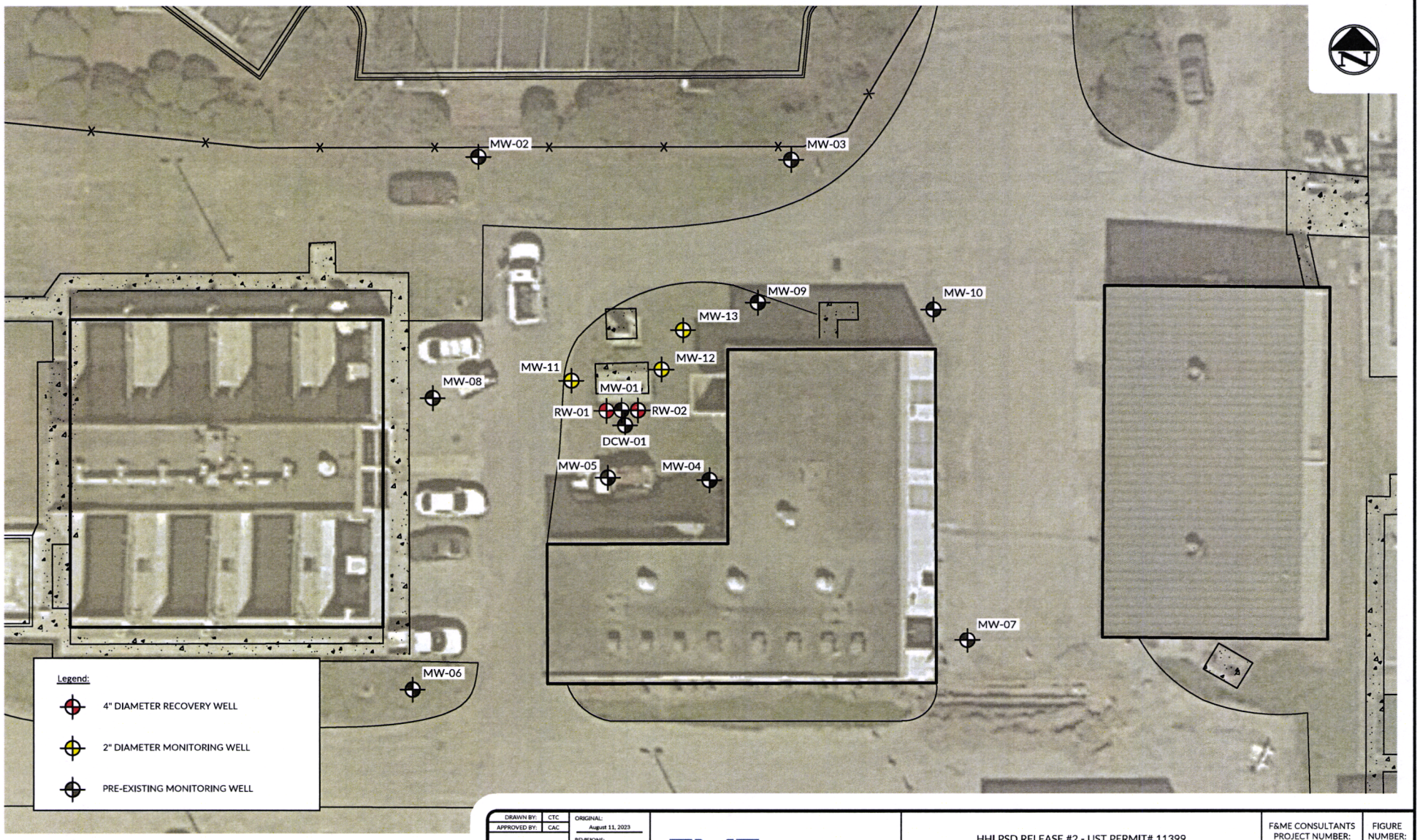
2. Prepare a site base map. This map must be accurately scaled, but does not need to be surveyed. The map must include the following:

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



DRAWN BY: CTC APPROVED BY: CAC NOTES:	ORIGINAL: August 11, 2023 REVISIONS: 1 2 3 SCALE: As Noted	F&ME CONSULTANTS 1825 BLANDING STREET COLUMBIA, SC 29201	HHI PSD RELEASE #2 - UST PERMIT# 11399 21 Oak Park Drive Hilton Head Island, Beaufort County, South Carolina Appendix B - Site Topo Map	F&ME CONSULTANTS PROJECT NUMBER: E6687.001	FIGURE NUMBER: 2



GRAPHIC SCALE

0 10 20 40

DRAWN BY:	CTC
APPROVED BY:	CAC
NOTES:	
ORIGINAL:	August 11, 2023
REVISIONS:	1. 2. 3.
SCALE: 1"=20'	

F&ME CONSULTANTS

F&ME CONSULTANTS, INC.
1825 BLANDING STREET
COLUMBIA, SC 29201

HHI PSD RELEASE #2 - UST PERMIT# 11399
21 Oak Park Drive
Hilton Head Island, Beaufort County, South Carolina

Appendix C - Well Location Plan

F&ME CONSULTANTS PROJECT NUMBER:	FIGURE NUMBER:
E6687.001	3

ASSESSMENT COMPONENT INVOICE

South Carolina Department of Health and Environmental Control
Underground Storage Tank Management Division
State Underground Petroleum Environmental Response Bank Account
August 9, 2023

Facility Name: Hilton Head Public Service District

UST Permit #: 11399 **Cost Agreement #:** N/A

ITEM	QUANTITY	UNIT	UNIT PRICE		TOTAL
A. Plan Preparation					
1.2 Site-specific Work Plan	1	each	$183.22		$183.22
2.2 Tax Map		each	$85.50		$0.00
3.2 QAPP Contractor Addendum (App B)		each	$250.00		$0.00
B. Survey					
1.1 Receptor Survey		each	$673.06		$0.00
C. Survey					
1.2 Comprehensive Survey		each	$1,270.36		$0.00
5.1 Ground Penetrating Radar Survey (100 x 100)		each	$1,111.57		$0.00
D. Mob/Demob					
1.2 Equipment		each	$1,245.93		$0.00
2.2 Personnel	1	each	$516.69		$516.69
3.2 Adverse Terrain Vehicle		each	$610.75		$0.00
E. Soil Borings					
1.1 Soil Borings (hand auger)		foot	$21.80		$0.00
F. Soil Borings (requiring equipment, push technology, etc) or Field Screening (including sampling and analyst)					
1.2 Standard		per foot	$33.50		$0.00
2.2 Fractured Rock		per foot	$41.40		$0.00
G.					
H. Well Abandonment					
1.2 2" diameter or less		per foot	$3.79		$0.00
2.2 Greater than 2" to 6" diameter		per foot	$5.50		$0.00
3.2 Dug/Bored well (up to 6 feet diameter)		per foot	$18.32		$0.00
I. Well Installation (In accordance with R.61-71)					
1.2 Water Table (hand augered)		per foot	$31.40		$0.00
2.B Water Table (drill rig) 2" Diameter		per foot	$54.90		$0.00
2.2 Single-cased 2" Diameter Monitoring Well >50ft		per foot	$59.80		$0.00
3.2 Telescoping		per foot	$84.70		$0.00
4.2 Rock Drilling		per foot	$81.80		$0.00
5.2 2" Rock Coring		per foot	$88.50		$0.00
6.2 Multi-sampling ports/screens		per foot	$59.40		$0.00
7.2 Recovery Well (4" diameter)		per foot	$69.60		$0.00
9.2 Rotosonic (2" diameter)		per foot	$119.00		$0.00
10.2 Re-develop Existing Well		per foot	$13.44		$0.00
J. Groundwater Sample Collection / Gauging Depth to Water/Product					
1.2 Groundwater Purge		per well	$73.29		$0.00
2.2 Air or Vapors		sample	$14.66		$0.00
3.2 Water Supply Sample		sample	$26.87		$0.00
4.1A HydraSleeve		sample	$34.20		$0.00
4.2B No-purge Groundwater Sample/Surface wate	9	sample	$57.24		$515.16
5.2 Gauge Well only	6	sample	$8.55		$51.30
6.2 Sample Below Product		sample	$14.66		$0.00
7.2 Passive Diffusion Bag		sample	$31.75		$0.00
8.2 Field Duplicates (MWs & WSWs) and Field Bla	2	sample	$30.06		$60.12
9.2 Groundwater (low flow purge)	1	sample	$111.16		$111.16
10.2 Equipment Blank		sample	$30.06		$0.00
11.1 Sample Product		per well	$52.66		$0.00

K. Laboratory Analyses-Groundwater					
1.2 BTEXNM+Oxyg's+1,2 DCA+Eth(8260D)	13	per sample	$149.02		$1,937.26
2.2 Lead, Filtered		per sample	$16.85		$0.00
3.2 Rush EPA Method 8260B		per sample	$187.62		$0.00
4.2 Trimethal, Butyl, and Isopropyl Benzenes		per sample	$34.20		$0.00
5.2 PAH's		per sample	$74.02		$0.00
6.2 Lead		per sample	$19.54		$0.00
7.2 EDB by EPA 8011	12	per sample	$55.21		$662.52
8.2 EDB by EPA Method 8011 Rush		per sample	$83.31		$0.00
9.2 8 RCRA Metals		per sample	$77.45		$0.00
10.2 TPH (9070)		per sample	$50.09		$0.00
11.2 PH		per sample	$6.35		$0.00
12.2 BOD		per sample	$24.42		$0.00
13.2 Ethanol		per sample	$18.08		$0.00
K. Analyses-Drinking Water					
14.2 BTEXNM+1,2 DCA (524.2)		per sample	$151.52		$0.00
15.2 7-OXYGENATES & ETHANOL (8260D)		per sample	$112.07		$0.00
16.2 EDB (504.1)		per sample	$97.11		$0.00
17.2 RCRA METALS (200.8)		per sample	$122.15		$0.00
K. Analyses-Soil					
18.2 BTEX + Naphth.		per sample	$78.18		$0.00
19.2 PAH's		per sample	$78.22		$0.00
20.2 8 RCRA Metals		per sample	$68.89		$0.00
21.2 TPH-DRO (3550C/8015C)		per sample	$48.86		$0.00
22.2 TPH-GRO (5035B/8015C)		per sample	$43.92		$0.00
23.2 Grain size/hydrometer		per sample	$127.04		$0.00
24.2 Total Organic Carbon		per sample	$37.38		$0.00
K. Analyses-Air					
25.2 BTEX + Naphthalene		per sample	$263.84		$0.00
K. Hydrocarbon Fuel Identification					
27.1 C3-C44 Whole Oil (ASTM D3328)		per sample	$465.93		$0.00
28.1 Fuel Oxygenates (1624 Mod)		per sample	$398.39		$0.00
29.1 ALKYL Leads, EDB MMT (8080)		per sample	$398.39		$0.00
30.1 C8-C40 Full Scan (ASTM 5739)		per sample	$629.64		$0.00
31.1 Simulated Distillation (ASTM 2887)		per sample	$398.39		$0.00
32.1 Parent & Alk. PAH Com. (8270 SIM)		per sample	$723.63		$0.00
33.1 C3-C10 Piano (8260 MOD)		per sample	$599.88		$0.00
34.1 C10+Alkane Fingerprints		per sample	$599.88		$0.00
35.1 Expert Data Interpretation & Report		each	$595.30		$0.00
L. Aquifer Characterization					
1.2 Pumping Test		per hour	$28.09		$0.00
2.2 Slug Test		per test	$233.31		$0.00
3.2 Fractured Rock		per test	$122.15		$0.00
M. Free Product					
1.1 Free Product Recovery Rate Test		each	$46.42		$0.00
N.					
O. Risk Evaluation					
1.2 Tier I Risk Evaluation		each	$366.45		$0.00
2.2 Tier II Risk Evaluation		each	$122.15		$0.00
P. Survey					
1.1 Subsequent Survey		each	$297.65		$0.00
Q. Disposal (gallons or tons)					
1.2 Wastewater		gallon	$1.19		$0.00
2.2 Free Product		gallon	$1.63		$0.00
3.2 Soil Treatment/Disposal		ton	$156.25		$0.00
4.2 Drilling fluids		gallon	$1.25		$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)					
1.2 Southeast Region		standard	$12,622.56		$0.00
2.2 All Other Counties		standard	$13,844.06		$0.00
U. IGWA (Use DHEC 3666 form)					
1.2 Southeast Region		standard	$4,353.67		$0.00
2.2 All Other Counties		standard	$4,720.01		$0.00
22. Active Correction Action		PFP	Bid Cost		$0.00
W. Aggressive Fluid & Vapor Recovery (AFVR)					
1.2 8-hour Event		per event	$1,787.40		$0.00
2.1 24-hour Event		per event	$4,407.78		$0.00
3.1 48-hour Event		per event	$7,242.29		$0.00
4.1 96-hour Event		per event	$14,482.28		$0.00
5.1 Off-gas Treatment 8 hour		per event	$141.17		$0.00
6.2 Off-gas Treatment 24 hour		per event	$294.30		$0.00
7.2 Off-gas Treatment 48 hour		per event	$386.10		$0.00
8.1 Off-gas Treatment 96 hour		per event	$898.84		$0.00
9.1 Off-gas Treatment 8 hour (w/chlorinated compounds)		per event	$464.40		$0.00
10.1 Off-gas Treatment 24 hour (w/chlorinated compounds)		per event	$540.00		$0.00
11.1 Off-gas Treatment 48 hour (w/chlorinated compounds)		per event	$1,080.00		$0.00
12.1 Off-gas Treatment 96 hour (w/chlorinated compounds)		per event	$2,160.00		$0.00
13.2 AFVR Effluent Disposal(w/chlorinated compounds)		gallon	$0.64		$0.00
14.2 AFVR Site Reconnaissance		each	$302.40		$0.00
15.1 Additional Hook-ups		each	$29.68		$0.00
16.2 AFVR Effluent Disposal		gallon	$0.53		$0.00
17.2 AFVR Mobilization/Demobilization		each	$777.60		$0.00
18.1 Mobilization for absorbents/skimmers		each	$516.69		$0.00
19.1 Well sock 2" ID well		each	$36.94		$0.00
20.1 Well sock 4" ID well		each	$49.03		$0.00
21.1 pad (per pad)		each	$49.95		$0.00
22.1 3" diameter x 10' length boom		each	$108.00		$0.00
23.1 5" diameter x 10' length boom		each	$132.84		$0.00
24.1 New FPP recovery skimmer (2" wells)		each	$791.10		$0.00
25.1 New FPP recovery skimmer (4" wells)		each	$1,247.40		$0.00
26.1 Refurbished FPP recovery skimmer (2" or 4" wells)		each	$760.32		$0.00
27.1 Disposal of Absorbents		pound	$4.10		$0.00
28.1 Disposal of product from skimmers		gallon	$0.50		$0.00
X. Granulated Activated Carbon (GAC) filter system installation & service:					
1.2 New GAC System Installation		each	$2,320.86		$0.00
2.2 Refurbished GAC Sys. Install		each	$1,099.35		$0.00
3.2 Filter replacement/removal		each	$427.53		$0.00
4.2 GAC System removal, cleaning, & refurbishment		each	$335.92		$0.00
5.2 GAC System housing		each	$305.38		$0.00
6.2 In-line particulate filter		each	$183.22		$0.00
7.2 Additional piping & fittings		foot	$1.84		$0.00
Y. Well Repair					
1.2 Additional Copies of the Report Delivered		each	$61.07		$0.00
2.2 Repair 2x2 MW pad		each	$61.07		$0.00
3.2 Repair 4x4 MW pad		each	$107.49		$0.00
4.2 Replace well vault		each	$144.14		$0.00

5.2 Replace well cover bolts		each	$3.18		$0.00
6.2 Replace locking well cap & lock		each	$18.32		$0.00
7.2 Replace/Repair stick-up		each	$163.68		$0.00
8.2 Convert Flush-mount to Stick-up		each	$183.22		$0.00
9.2 Convert Stick-up to Flush-mount		each	$158.79		$0.00
10.2 Replace missing/illegible well ID plate		each	$14.66		$0.00
11.1 Down-hole Camera		per foot	$29.25		$0.00
Z. High Resolution Site Characterization					
1.1 HRSC Screening Equipment Mobilization		each	$1,468.80		$0.00
2.1 HRSC Drilling Category 1		per foot	$31.32		$0.00
3.1 HRSC Drilling Category 2		per foot	$36.18		$0.00
4.1 HRSC Drilling Category 3		per foot	$29.16		$0.00
5.1 HRSC 3-D Model		each	$4,363.20		$0.00
S. Report Prep & Project Management	12%	percent	$4,037.43		$484.49
TOTAL					$4,521.92

dhec
Healthy People. Healthy Communities.

MAY 22 2024



HILTON HEAD PUBLIC SERVICE DISTRICT
PO BOX 21264
HILTON HEAD ISLAND SC 29925

Re: **Site Specific Work Plan Approval and Groundwater Sampling Notice to Proceed**
Hilton Head Public Service District, 21 Oak Park Drive, Hilton Head Island, SC
UST Permit #11399; CA #68706
Release #2 reported July 27, 2017
Site Specific Work Plan received May 3, 2024
Beaufort County

To Whom It May Concern :

The Underground Storage Tank Management Division (UST 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. The groundwater sampling event should begin immediately upon receipt of this letter. All work should be conducted in compliance with the current revision of the UST Quality Assurance Program Plan (QAPP), your contractor's Annual Contractor Quality Assurance Plan, and all applicable regulations. The QAPP is available at scdhec.gov/environment/land-waste/underground-storage-tanks/release-assessment-clean/quality-assurance.

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 UST Division records, approximately $38,771.64 has been expended from the SUPERB Account to date.** This scope of work, as recommended by your contractor, is anticipated to cost approximately **$4,521.93**.

The contractor must provide notification to the UST Project Manager via email 4 days prior to initiation of any site rehabilitation activities. If there are any changes to the schedule, the UST Project Manager must be contacted within 24 hours of those changes.

In accordance with Section IV.A.4.c of the SUPERB Site Rehabilitation & Fund Access Regulation (R.61-98), the contractor shall be required to indemnify the property owner, underground storage tank owner/operator and the State of South Carolina from and against all claims, damages, losses and expenses arising out of or resulting from activity conducted by the contractor, its agents, employees or subcontractors.

Your contractor can submit an invoice for direct payment from the State Underground Petroleum Environmental Response Bank (SUPERB) Account for pre-approved costs. **The Monitoring Report, contractor checklist (QAPP Appendix K), and invoice should be submitted to the UST Division within sixty (60) days of the date of this correspondence.** 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 the report cannot be submitted by the required due date, an extension may be requested by submitting a written request, either via postal mail or email, to my attention prior to the due date. The Department will issue a Notice of Alleged Violation if the report is not submitted by the required due date.

Please note that sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that the SUPERB Account cannot compensate any costs that are not pre-approved. If for any reason additional tasks will be completed, these additional tasks, and the associated cost, must be pre-approved by the UST Division for the cost to be paid. The UST Division reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria. Further, the UST Division reserves the right to question and/or reject costs if deemed unreasonable and the right to audit project records at any time during the project or after completion of work. **Per Section III.3.b of the SUPERB Site Rehabilitation and Fund Access Regulations (R.61-98), reimbursement for site rehabilitation activities shall in no event exceed the actual costs incurred.**

Please note that applicable South Carolina certification requirements regarding laboratory services, well installation, and report preparation must be satisfied. Any site rehabilitation activity associated with the UST release must be performed by a DHEC-certified site rehabilitation contractor as required by the SUPERB Site Rehabilitation and Fund Access Regulation, R.61-98.

The UST Division grants pre-approval for transportation of virgin petroleum impacted soil and groundwater from the referenced site to a permitted treatment facility. There can be no spillage or leakage in transport. All investigation-derived waste (IDW) must be properly contained and labeled prior to disposal. IDW should not be stored on-site longer than ninety (90) days. A copy of the disposal manifest and/or acceptance letter from the receiving facility that clearly designates the quantity received must be included as an appendix to the report. If the Chemical of Concern (CoC) concentrations based on laboratory analysis is below Risk-Based Screening Levels (RBSLs), please contact the project manager for approval to dispose of soil and/or groundwater on-site. The SUPERB Account will not reimburse for transportation or treatment of soil and/or groundwater with concentrations below RBSLs.

On all correspondence regarding this site, please reference the UST Permit number above. Should you have any questions, please contact me by phone at (803) 898-0605, by fax at (803) 898-0673, or by email at medlinlj@dhec.sc.gov.

Sincerely,

Jason Medlin, Hydrogeologist
Corrective Action & Field Support Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

enc: Approved Cost Agreement

cc: F&ME Consultants Columbia, 1825 Blanding Street, Columbia, SC 29201 (w/ enc)
Technical file (w/ enc)

Approved Cost Agreement 68706

Facility: 11399 HILTON HEAD PUBLIC SERVICE DISTRICT
MEDLINLJ
PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
A PLAN PREPARATION						
		1.2	SITE SPECIFIC WORK PLAN	1.0000	$183.220	183.22
D MOB/DEMOB						
		2.2	PERSONNEL	1.0000	$516.690	516.69
J SAMPLE COLLECTION						
		4.2B	NO-PURGE GROUNDWATER	9.0000	$57.240	515.16
		5.2	GAUGE WELL ONLY	6.0000	$8.550	51.30
		8.2	FIELD DUPL. (MWS & WSWS) & FB	2.0000	$30.060	60.12
		9.2	GROUNDWATER (LOW FLOW PURGE)	1.0000	$111.160	111.16
K ANALYSES						
	GW GROUNDWATER	1.2	BTEXNM+OXYGS+1,2 DCA+ETH 8260D	13.0000	$149.020	1,937.26
		7.2	EDB BY EPA 8011	12.0000	$55.210	662.52
S REPORT PROJECT MANAGEMENT						
		S	REPORT PREP & PROJ. MANAGEMENT	0.1200	$4,037.430	484.49
					Total Amount	4,521.92

11399

Lawerence J. Medlin



From: Christine A. Cafagna <ccafagna@fmeconsultants.com>
Sent: Monday, July 15, 2024 11:23 AM
To: Lawerence J. Medlin
Subject: HHI PSD - ID 68706 - Billing Addendum
Attachments: Addendum - Assessment Component Cost Agreement D-4406.pdf

*** Caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. ***

Jason,
We submitted the report for HHI PSD and I was getting ready to submit invoice to you. But realized we needed approval of a small addendum. See attached, and thank you.

Christine

Christine A. Cafagna
Senior Environmental Manager

FME CONSULTANTS

FME Consultants, Inc.
211 Business Park Blvd. | Columbia, SC 29203
D 803.995.8856 | O 803.254.4540 | M 803.719.6489
ccafagna@fmeconsultants.com | www.fmeconsultants.com

ASSESSMENT COMPONENT COST AGREEMENT
South Carolina Department of Health and Environmental Control
Underground Storage Tank Management Division
State Underground Petroleum Environmental Response Bank Account
August 9, 2023

Facility Name: Hilton Head Public Service District

UST Permit #: 11399 **Cost Agreement #:** 68706

ITEM	QUANTITY	UNIT	UNIT PRICE		TOTAL
A. Plan Preparation					
1.2 Site-specific Work Plan		each	$183.22		$0.00
2.2 Tax Map		each	$85.50		$0.00
3.2 QAPP Contractor Addendum (App B)		each	$250.00		$0.00
B. Survey					
1.1 Receptor Survey		each	$673.06		$0.00
C. Survey					
1.2 Comprehensive Survey		each	$1,270.36		$0.00
5.1 Ground Penetrating Radar Survey (100 x 100)		each	$1,111.57		$0.00
D. Mob/Demob					
1.2 Equipment		each	$1,245.93		$0.00
2.2 Personnel		each	$516.69		$0.00
3.2 Adverse Terrain Vehicle		each	$610.75		$0.00
E. Soil Borings					
1.1 Soil Borings (hand auger)		foot	$21.80		$0.00
F. Soil Borings (requiring equipment, push technology, etc) or Field Screening (including sampling and analyst)					
1.2 Standard		per foot	$33.50		$0.00
2.2 Fractured Rock		per foot	$41.40		$0.00
G.					
H. Well Abandonment					
1.2 2" diameter or less		per foot	$3.79		$0.00
2.2 Greater than 2" to 6" diameter		per foot	$5.50		$0.00
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I. Well Installation (In accordance with R.61-71)					
1.2 Water Table (hand augered)		per foot	$31.40		$0.00
2.B Water Table (drill rig) 2" Diameter		per foot	$54.90		$0.00
2.2 Single-cased 2" Diameter Monitoring Well >50ft		per foot	$59.80		$0.00
3.2 Telescoping		per foot	$84.70		$0.00
4.2 Rock Drilling		per foot	$81.80		$0.00
5.2 2" Rock Coring		per foot	$88.50		$0.00
6.2 Multi-sampling ports/screens		per foot	$59.40		$0.00
7.2 Recovery Well (4" diameter)		per foot	$69.60		$0.00
9.2 Rotosonic (2" diameter)		per foot	$119.00		$0.00
10.2 Re-develop Existing Well		per foot	$13.44		$0.00
J. Groundwater Sample Collection / Gauging Depth to Water/Product					
1.2 Groundwater Purge		per well	$73.29		$0.00
2.2 Air or Vapors		sample	$14.66		$0.00
3.2 Water Supply Sample		sample	$26.87		$0.00
4.1A HydraSleeve		sample	$34.20		$0.00
4.2B No-purge Groundwater Sample/Surface wate	1	sample	$57.24		$57.24
5.2 Gauge Well only	-1	sample	$8.55		($8.55)
6.2 Sample Below Product		sample	$14.66		$0.00
7.2 Passive Diffusion Bag		sample	$31.75		$0.00
8.2 Field Duplicates (MWs & WSWs) and Field Blanks		sample	$30.06		$0.00
9.2 Groundwater (low flow purge)		sample	$111.16		$0.00
10.2 Equipment Blank		sample	$30.06		$0.00
11.1 Sample Product		per well	$52.66		$0.00
K. Laboratory Analyses-Groundwater					
1.2 BTEXNM+Oxyg's+1,2 DCA+Eth(8260D)	1	per sample	$149.02		$149.02
2.2 Lead, Filtered		per sample	$16.85		$0.00
3.2 Rush EPA Method 8260B		per sample	$187.62		$0.00
4.2 Trimethal, Butyl, and Isopropyl Benzenes		per sample	$34.20		$0.00
5.2 PAH's		per sample	$74.02		$0.00
6.2 Lead		per sample	$19.54		$0.00

Addendum

Previously Approved:	$4,521.92
Increase:	$283.27
New Approved Total:	**$4,805.19**
Project Manager:	
Section Manager:	
Finance:	
Date:	

# of pages ___	
	From:
	UST/SCDHEC
fax # ( )	
Phone # ( )	

The SCDHEC reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria.

7.2 EDB by EPA 8011	1	per sample	$55.21		$55.21
8.2 EDB by EPA Method 8011 Rush		per sample	$83.31		$0.00
9.2 8 RCRA Metals		per sample	$77.45		$0.00
10.2 TPH (9070)		per sample	$50.09		$0.00
11.2 PH		per sample	$6.35		$0.00
12.2 BOD		per sample	$24.42		$0.00
13.2 Ethanol		per sample	$18.08		$0.00
K. Analyses-Drinking Water					
14.2 BTEXNM+1,2 DCA (524.2)		per sample	$151.52		$0.00
15.2 7-OXYGENATES & ETHANOL (8260D)		per sample	$112.07		$0.00
16.2 EDB (504.1)		per sample	$97.11		$0.00
17.2 RCRA METALS (200.8)		per sample	$122.15		$0.00
K. Analyses-Soil					
18.2 BTEX + Naphth.		per sample	$78.18		$0.00
19.2 PAH's		per sample	$78.22		$0.00
20.2 8 RCRA Metals		per sample	$68.89		$0.00
21.2 TPH-DRO (3550C/8015C)		per sample	$48.86		$0.00
22.2 TPH-GRO (5035B/8015C)		per sample	$43.92		$0.00
23.2 Grain size/hydrometer		per sample	$127.04		$0.00
24.2 Total Organic Carbon		per sample	$37.38		$0.00
K. Analyses-Air					
25.2 BTEX + Naphthalene		per sample	$263.84		$0.00
K. Hydrocarbon Fuel Identification					
27.1 C3-C44 Whole Oil (ASTM D3328)		per sample	$465.93		$0.00
28.1 Fuel Oxygenates (1624 Mod)		per sample	$398.39		$0.00
29.1 ALKYL Leads, EDB MMT (8080)		per sample	$398.39		$0.00
30.1 C8-C40 Full Scan (ASTM 5739)		per sample	$629.64		$0.00
31.1 Simulated Distillation (ASTM 2887)		per sample	$398.39		$0.00
32.1 Parent & Alk. PAH Com. (8270 SIM)		per sample	$723.63		$0.00
33.1 C3-C10 Piano (8260 MOD)		per sample	$599.88		$0.00
34.1 C10+Alkane Fingerprints		per sample	$599.88		$0.00
35.1 Expert Data Interpretation & Report		each	$595.30		$0.00
L. Aquifer Characterization					
1.2 Pumping Test		per hour	$28.09		$0.00
2.2 Slug Test		per test	$233.31		$0.00
3.2 Fractured Rock		per test	$122.15		$0.00
M. Free Product					
1.1 Free Product Recovery Rate Test		each	$46.42		$0.00
N.					
O. Risk Evaluation					
1.2 Tier I Risk Evaluation		each	$366.45		$0.00
2.2 Tier II Risk Evaluation		each	$122.15		$0.00
P. Survey					
1.1 Subsequent Survey		each	$297.65		$0.00
Q. Disposal (gallons or tons)					
1.2 Wastewater		gallon	$1.19		$0.00
2.2 Free Product		gallon	$1.63		$0.00
3.2 Soil Treatment/Disposal		ton	$156.25		$0.00
4.2 Drilling fluids		gallon	$1.25		$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)					
1.2 Southeast Region		standard	$12,622.56		$0.00
2.2 All Other Counties		standard	$13,844.06		$0.00
U. IGWA (Use DHEC 3666 form)					
1.2 Southeast Region		standard	$4,353.67		$0.00
2.2 All Other Counties		standard	$4,720.01		$0.00
22. Active Correction Action		PFP	Bid Cost		$0.00
W. Aggressive Fluid & Vapor Recovery (AFVR)					
1.2 8-hour Event		per event	$1,787.40		$0.00
2.1 24-hour Event		per event	$4,407.78		$0.00
3.1 48-hour Event		per event	$7,242.29		$0.00
4.1 96-hour Event		per event	$14,482.28		$0.00
5.1 Off-gas Treatment 8 hour		per event	$141.17		$0.00
6.2 Off-gas Treatment 24 hour		per event	$294.30		$0.00
7.2 Off-gas Treatment 48 hour		per event	$386.10		$0.00
8.1 Off-gas Treatment 96 hour		per event	$898.84		$0.00
9.1 Off-gas Treatment 8 hour (w/chlorinated compounds)		per event	$464.40		$0.00

10.1 Off-gas Treatment 24 hour (w/chlorinated compounds)		per event	$540.00		$0.00
11.1 Off-gas Treatment 48 hour (w/chlorinated compounds)		per event	$1,080.00		$0.00
12.1 Off-gas Treatment 96 hour (w/chlorinated compounds)		per event	$2,160.00		$0.00
13.2 AFVR Effluent Disposal(w/chlorinated compounds)		gallon	$0.64		$0.00
14.2 AFVR Site Reconnaissance		each	$302.40		$0.00
15.1 Additional Hook-ups		each	$29.68		$0.00
16.2 AFVR Effluent Disposal		gallon	$0.53		$0.00
17.2 AFVR Mobilization/Demobilization		each	$777.60		$0.00
18.1 Mobilization for absorbents/skimmers		each	$516.69		$0.00
19.1 Well sock 2" ID well		each	$36.94		$0.00
20.1 Well sock 4" ID well		each	$49.03		$0.00
21.1 pad (per pad)		each	$49.95		$0.00
22.1 3" diameter x 10' length boom		each	$108.00		$0.00
23.1 5" diameter x 10' length boom		each	$132.84		$0.00
24.1 New FPP recovery skimmer (2" wells)		each	$791.10		$0.00
25.1 New FPP recovery skimmer (4" wells)		each	$1,247.40		$0.00
26.1 Refurbished FPP recovery skimmer (2" or 4" wells)		each	$760.32		$0.00
27.1 Disposal of Absorbents		pound	$4.10		$0.00
28.1 Disposal of product from skimmers		gallon	$0.50		$0.00
X. Granulated Activated Carbon (GAC) filter system installation & service:					
1.2 New GAC System Installation		each	$2,320.86		$0.00
2.2 Refurbished GAC Sys. Install		each	$1,099.35		$0.00
3.2 Filter replacement/removal		each	$427.53		$0.00
4.2 GAC System removal, cleaning, & refurbishment		each	$335.92		$0.00
5.2 GAC System housing		each	$305.38		$0.00
6.2 In-line particulate filter		each	$183.22		$0.00
7.2 Additional piping & fittings		foot	$1.84		$0.00
Y. Well Repair					
1.2 Additional Copies of the Report Delivered		each	$61.07		$0.00
2.2 Repair 2x2 MW pad		each	$61.07		$0.00
3.2 Repair 4x4 MW pad		each	$107.49		$0.00
4.2 Replace well vault		each	$144.14		$0.00
5.2 Replace well cover bolts		each	$3.18		$0.00
6.2 Replace locking well cap & lock		each	$18.32		$0.00
7.2 Replace/Repair stick-up		each	$163.68		$0.00
8.2 Convert Flush-mount to Stick-up		each	$183.22		$0.00
9.2 Convert Stick-up to Flush-mount		each	$158.79		$0.00
10.2 Replace missing/illegible well ID plate		each	$14.66		$0.00
11.1 Down-hole Camera		per foot	$29.25		$0.00
Z. High Resolution Site Characterization					
1.1 HRSC Screening Equipment Mobilization		each	$1,468.80		$0.00
2.1 HRSC Drilling Category 1		per foot	$31.32		$0.00
3.1 HRSC Drilling Category 2		per foot	$36.18		$0.00
4.1 HRSC Drilling Category 3		per foot	$29.16		$0.00
5.1 HRSC 3-D Model		each	$4,363.20		$0.00
S. Report Prep & Project Management	12%	percent	$252.92		$30.35
TOTAL					$283.27

F&ME CONSULTANTS

LETTER OF TRANSMITTAL

TO:	Mr. Jason Medlin, Hydrogeologist SCDES – UST Mgmt. Section 2600 Bull St. Columbia, SC 29201

DATE:	07/10/24	**FME NO.:**	E6687.002
ATTN:	Mr. Jason Medlin		
RE:	HHI PSD Site – GW Sampling Report UST ID # 11399		

WE ARE SENDING YOU THE FOLLOWING: **VIA:** US Mail

☐ AGREEMENT ☐ INVOICE ☐ PHOTOS ☐ PLANS ☐ PROPOSAL ☐ RECORDS ☐ REPORTS ☐ SAMPLES

☐ SPECIFICATIONS ☐ SUBMITTAL ☒ OTHER

UST 32 Docketing

RECEIVED JUL 18 2024 UST DIVISION

COPIES	DATE	DESCRIPTION
1	07/09/24	Groundwater Sampling Report, HHI PSD, UST ID 11399

THESE ARE TRANSMITTED AS CHECKED BELOW:

☒ AS REQUESTED ☐ CORRECTED COPY ☐ FOR YOUR USE ☐ RESUBMITTED

☐ OTHER

COMMENTS:

Jason,

If you need any additional information, please just ask. An electronic copy of the groundwater report was emailed to your attention. A completed ACI package will be forwarded to your attention shortly.

SIGNED: Christine A. Cafagna

Christine A. Cafagna, ccafagna@fmeconsultants.com

GROUNDWATER SAMPLING REPORT

HILTON HEAD ISLAND PUBLIC SERVICE DISTRICT
21 OAK PARK DRIVE
HILTON HEAD ISLAND, BEAUFORT COUNTY, SC
SCDHEC/SCDES UST PERMIT #11399

PREPARED FOR:

Hilton Head Island Public Service District (HHI PSD)
21 Oak Park Drive
Hilton Head Island, SC 29926

PREPARED BY:

F&ME Consultants
211 Business Park Blvd.
Columbia, South Carolina 29203

July 9, 2024

F&ME Project No.: E6687.002

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1. TRANSMITTAL LETTER 1
2. INTRODUCTION 2
3. GROUNDWATER SAMPLING EVENT 3
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APPENDICES

Appendix A – Figures
Appendix B – Laboratory Analytical Report
Appendix C – Field Sampling Data Sheets for Groundwater Sampling
Appendix D – Contractor Checklist
Appendix E – SCDHEC Groundwater Sampling Notice to Proceed Letter

TABLES

1 Summary of Groundwater Elevations
2 Summary of Groundwater COC Analytical Results
3 Summary of Groundwater Oxygenate Analytical Results

1. TRANSMITTAL LETTER

July 9, 2024

Mr. Bill Davis, Operations Manager
Hilton Head Island Public Service District (HHI PSD)
21 Oak Park Drive
Hilton Head Island, South Carolina 29926

Re: Groundwater Sampling Report
SCDHEC/SCDES UST Permit Number 11399
HHI PSD Release #2 (July 27, 2017)
21 Oak Park Drive
Hilton Head Island, Beaufort County, South Carolina
FME Project No.: E6687.002

Dear Mr. Davis:

Submitted herein is the Groundwater Sampling Report for work conducted at the above referenced site. The work was initiated upon receipt of the South Carolina Department of Health and Environment Control's (SCDHEC, now referred to as South Carolina Department of Environmental Services or SCDES) Groundwater Sampling Notice to Proceed (NTP) letter dated May 22, 2024, outlining the scope of work requested. This report is submitted by F&ME Consultants, Inc. (FME) for your review on behalf of the site owner, Hilton Head Island Public Service District (HHI PSD). This work is being done under SCDHEC Cost Agreement (CA) #68706.

If you have any questions, or if we can provide additional information, please do not hesitate to contact us at (803) 254-4540.

Sincerely,

F&ME CONSULTANTS, INC.

Christine A. Cafagna
Senior Environmental Department Manager

CRAIG A. PIERCY REGISTERED No. 2800 SOUTH CAROLINA PROFESSIONAL GEOLOGIST

Craig A. Piercy, P.G
Project Geologist

Enclosures

2. INTRODUCTION

Site:

HHI PSD Release #2
21 Oak Park Drive
Hilton Head Island, South Carolina 29926
Beaufort County
SCDHEC/SCDES UST Permit #11399
(843) 681-5525
Release Reported: Release #2 (July 27, 2017)

Responsible Party:

Hilton Head Island Public Service District
c/o Mr. Bill Davis
PO Box 21264
Beaufort, South Carolina 29925-1264
(843) 305-0639

This assessment was conducted by:

F&ME Consultants, Inc.
211 Business Park Blvd.
Columbia, South Carolina 29203
(803) 254-4540
UCC-0140, Class I

It is worth noting that on July 1, 2024, SCDHEC transitioned into two (2) new state entities, including the new South Carolina Department of Environmental Services (SCDES). However, since the regulatory correspondence related to this report was issued by the former SCDHEC, this report refers to the regulatory agency as SCDHEC within this report.

F&ME Consultants, Inc. (FME) is submitting the following Groundwater Sampling report for the HHI PSD Release #2 site. The HHI PSD Release #2 site (SCDHEC/SCDES UST Permit #11399) (Site) is located at 21 Oak Park Drive, Hilton Head Island, Beaufort County, South Carolina. The Site currently operates as the Hilton Head Island Public Service District (HHI PSD).

Acting on behalf of HHI PSD, F&ME Consultants (FME) has completed the groundwater sampling at the Site. Refer to *Appendix A*, *Figure 1 - Site Vicinity Map*, for the location of the facility and *Figure 2 - Site Topographic Map*, which depicts the relative topography on the site and within the immediate area around the facility. Refer to *Appendix E*, which contains the SCDHEC groundwater sampling notice to proceed (NTP) letter, for more details regarding SCDHEC's request.

As outlined in the SCDHEC Site Specific Work Plan (SSWP) request letter dated April 8, 2024 and the SCDHEC's groundwater sampling NTP letter dated May 22, 2024, the scope of work included conducting a comprehensive groundwater sampling event on all the monitoring wells associated with Release #2. The locations of monitoring wells sampled during this assessment are provided in *Appendix A, Figure 3 - Well Location Plan*.

3. GROUNDWATER SAMPLING EVENT

On June 5, 2024, F&ME personnel arrived at the site to conduct the comprehensive groundwater sampling event on the (16) monitoring wells within the well network: thirteen (13) shallow monitoring wells (i.e., MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12, and MW-13), one (1) deep monitoring well (i.e., DCW-1), and two (2) recovery wells (i.e., RW-01 and RW-02). Each well sampled during this event was sampled in a manner consistent with the SCDHEC's Quality Assurance Project Plan (QAPP) (Rev. No. 4.0) protocols. Refer to *Appendix D*, Contractor Checklist, which documents that data elements for the scope of work have been provided.

Prior to the collection of groundwater levels and water quality samples from the wells on site, each well was opened to allow groundwater to stabilize within each well. Static water levels were measured and recorded. The depth to water reading from each well was subtracted from the total well depth to determine the volume of groundwater within the well casing and to determine if the well screen bracketed the water table. Depths to groundwater and groundwater elevations recorded during the sampling event are included here in *Appendix B*, Field Sampling Data Sheets for Groundwater Sampling. The water level for the wells containing free product petroleum (FPP) were corrected by calculating and subtracting for the thickness of observed petroleum (diesel). Using the shallow groundwater elevations, a groundwater potentiometric map was created for the site. Refer to *Appendix A*, *Figure 4 - Groundwater Potentiometric Map*, which shows the general groundwater contours extrapolated from the observed measurements from the wells obtained during this sampling event. Please note that the deep well (i.e., DCW-1) was not used in developing the depicted groundwater contours.

Groundwater flow direction at the Site is generally in a south-southeasterly direction. There is a small anomaly or possibly perched water at the location of MW-1, which exhibits a small rise in groundwater elevation. However, excluding MW-1, the groundwater flow direction is generally consistent across the site. MW-1 is located immediately to the south of the diesel tank island and likely exhibits non-homogeneous subsurface conditions or likely a disturbed soil profile (which may explain groundwater elevation anomaly). Refer to Figure 4 of this report.

Well purging was not required for MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, MW-10, MW-11, and RW-02 of the monitoring well network, as the well screens bracketed the measured water table within these shallow wells; therefore, the wells were sampled with a new disposable bailer for each well. Additionally, MW-1, MW-9, MW-12, MW-13, and RW-01 were not sampled

as these wells contained observed FPP. The thickness of observed FPP is recorded and depicted on Table 1 and Figure 5. Deep well DCW-1 was the only well requiring purging before sampling during this event. The groundwater analytical results from deep well, DCW-1, have historically been below the SCDHEC risked-based screening levels (RBSLs); therefore, the purge water was disposed on the ground beside the deep well. A peristaltic pump with disposable polyethylene tubing was used to purge and sample the deep well using low flow and low volume purging and sampling methods. Since the deep well was able to be sampled with a peristaltic pump with disposable tubing and not a submersible pump, no equipment blank was collected. Water quality data collected during the purging and sampling of the wells is presented on the Field Sampling Data Sheets for Groundwater Sampling located in Appendix B. Chain-of-custody procedures were properly followed, and each groundwater sample was placed in sample bottles provided by the analytical laboratory, properly sealed, packaged in a cooler filled with ice, and held at FME's office for lab pick up by Access Analytical, Inc. personnel.

Table 1 included within this report documents the depth to groundwater and groundwater elevations recorded during the sampling event and previous sampling events. Screened intervals were originally recorded during well installation and are provided here for informational purposes only. Top of Casing (TOC) elevations were provided by Andrews Engineering after FME's installation of RW-01, RW-02, MW-11, MW-12, and MW-13. It should be noted that the TOC elevations for the remaining wells, which were installed by a previous consultant, AECOM, were taken from AECOM's *Tier II Assessment Report UST Permit #11399*, dated November 2021. The respective water table elevations recorded in *Table 1* were calculated using these elevations and field measurements.

4. SAMPLE ANALYSES

The groundwater samples were picked up by Access Analytical Inc., who had the samples delivered by FedEx to Eurofins Atlanta lab, a South Carolina Certified Laboratory, for groundwater sample analyses of typical petroleum volatile organic compounds (VOC), including benzene, toluene, ethylbenzene, xylenes (BTEX), naphthalene, methyl tertiary butyl ether (MTBE), 1,2-dichloroethande (1,2-DCA), eight (8) oxygenates and ethylene dibromide (EDB). A field duplicate sample was collected from RW-02. Additionally, field blank and trip blank samples were also submitted to the laboratory for analysis for quality assurance/quality control (QA/QC) purposes. As previously stated, an equipment blank was not collected due to the fact that a peristaltic pump with disposable tubing was used to sample the deep well and not a submersible pump. Refer to Appendix C, Laboratory Analytical Report, for a copy of the laboratory analytical results and chain of custody documentation.

5. RESULTS OF ANALYSES

As noted above, five (5) monitoring wells, MW-1, MW-9, MW-12, MW-13, and RW-01, were not sampled due to the presence of free phase product (FPP) within these monitoring wells. FPP thickness in these five (5) wells ranged from 1.14 feet to 1.77 feet at the time of the groundwater sampling event. MW-1 has contained FPP since its installation in 2018. Monitoring wells MW-9, MW-12, MW-13, and recovery wells RW-01 and RW-02 had FPP present during the previous sampling event that occurred on July 26, 2023. However, no FPP was recorded in RW-02 during the current sampling event. There has been a substantial increase in FPP in the wells containing FPP compared to the last sampling event in July of 2023, with the exception on RW-02 that had no FPP recorded during the current sampling event.

Analytical results indicate that none of the monitoring wells contains a Chemical of Concern (CoC) that are above SCDHEC's Risk Based Screening Levels (RBSL). Based on analytical sample results, monitoring wells MW-2, MW-3, MW-4, MW-5, MW-6, MW-8, MW-10, and MW-11 were found to contain toluene, however, the analyzed concentrations were reported as estimated "J-value" concentration results. "J-values" are estimated concentrations above the method detection limit (MDL) but below the analytical reporting limit (RL). MW-5 also had a detected concentration of naphthalene at a concentration of 4.9J micrograms per liter (µg/L) which is a decrease from the previous sampling event that documented naphthalene concentration of 32 µg/L. The groundwater sample collected from deep well DCW-1 contained a detectable concentration of toluene at 3.0 µg/L and a "J-value" detection at 0.69J µg/L of total xylene. Recovery well RW-02, which during previous sampling events had FPP present, did not have measurable FPP during this event, but rather was sampled and had a recorded "J-value" detection for benzene at 0.23J ug/L. RW-02 had detections of toluene recorded at 1.8 ug/L, ethylbenzene at 12 ug/L, and total xylene at 16 ug/L. The duplicate sample results collected from RW-02 were fairly consistent with the "sister" sample collected from RW-02. However, to restate, none of the sampled wells had any petroleum constituent greater than the RBSL.

The field blank that was submitted for laboratory analysis with the collected samples had a detection of naphthalene with the result being 4.5J ug/L. This was a "J-value" result which is an estimated value detected below the reporting limits. At this time, FME cannot determine the source of the of naphthalene as typical decontamination and QA/QC procedures were followed and documented during sampling. The laboratory was also contacted to inquire about possibly equipment or cross-contamination, but no source was clearly identified by the laboratory. However, FME will review all QA/QC and decontamination procedures going forward. It should be noted that detections of naphthalene within collected samples was consistent with the previous sampling event; therefore, it does not appear that the detection of naphthalene in the field blank caused any significant discrepancies with the lab results of the monitoring wells that were analyzed.

6. RECOMMENDATIONS

As previously stated, five (5) monitoring wells, MW-1, MW-9, MW-12, MW-13, and RW-01, were not sampled due to the presence of FPP within these monitoring wells. FPP thickness in these five (5) wells ranged from 1.14 feet to 1.77 feet at the time of the groundwater sampling event. MW-1 has contained free product since its installation in 2018. Monitoring wells MW-9, MW-12, MW-13, and recovery wells RW-01 and RW-02 had FPP present during the previous sampling event that occurred on July 26, 2023. However, no FPP was recorded in RW-02 during the current sampling event. There has been a substantial increase in FPP thickness in the wells containing FPP compared to the last sampling event (e.g., increase of FPP over a foot in MW-1 and MW-9) in July of 2023, with the exception on RW-02 that had no FPP recorded during the current sampling event but contained 0.08-foot FPP in 2023. However, no CoC were detected above the established RBSL during this sampling event.

Based on information obtained during this sampling event, FME recommends a 96-hour aggressive fluid vapor recovery (AFVR) event be conducted on the five (5) monitoring wells that contained FPP during this sampling event (MW-1, MW-9, MW-12, MW-13, and RW-01) along with recovery well RW-02 in order to remove the FFP. Due to equipment constraints, the AFVR extraction will be rotated or staggered to accommodate all six (6) extraction wells during a single event. That is, during the 96-hour AFVR event, three (3) extraction wells will be targeted for part of the AFVR event followed by targeting the remaining three (3) wells. Due to the amount of water to be generated, a temporary "frac tank" will probably be required to manage/hold water during event, prior to disposal.

7. ACKNOWLEDGEMENT

On behalf of Hilton Head Island Public Service District, FME appreciates the opportunity to provide SCDES this groundwater sampling report. If you require additional information or have any questions concerning the information presented in this report, please do not hesitate to contact us at (803) 254-4540.

APPENDICES

Appendix A – Figures
Appendix B – Laboratory Analytical Report
Appendix C – Field Sampling Data Sheets for Groundwater Sampling
Appendix D – Contractor Checklist
Appendix E – Groundwater Sampling Notice to Proceed Letter

TABLES

1 - Summary of Groundwater Elevations
2 - Summary of Groundwater COC Analytical Results
3 - Summary of Groundwater Oxygenate Analytical Results

Appendix A

Figures





BEAUFORT COUNTY

1:144,000

0 1 2 4 mi

0 1.5 3 6 km

DRAWN BY:	CTC
APPROVED BY:	CAC
NOTES:	

ORIGINAL: July 2, 2024

REVISIONS:
1
2
3

SCALE: As Noted

F&ME CONSULTANTS
211 BUSINESS PARK BLVD.
COLUMBIA, SC 29203

HHI PSD RELEASE #2 - UST PERMIT# 11399
21 Oak Park Drive
Hilton Head Island, Beaufort County, South Carolina

Appendix A - Site Vicinity Map

F&ME CONSULTANTS PROJECT NUMBER: E6687.002

FIGURE NUMBER: 1



DRAWN BY:	CTC
APPROVED BY:	CAC
NOTES:	
ORIGINAL:	July 2, 2024
REVISIONS:	1 2 3
SCALE:	As Noted

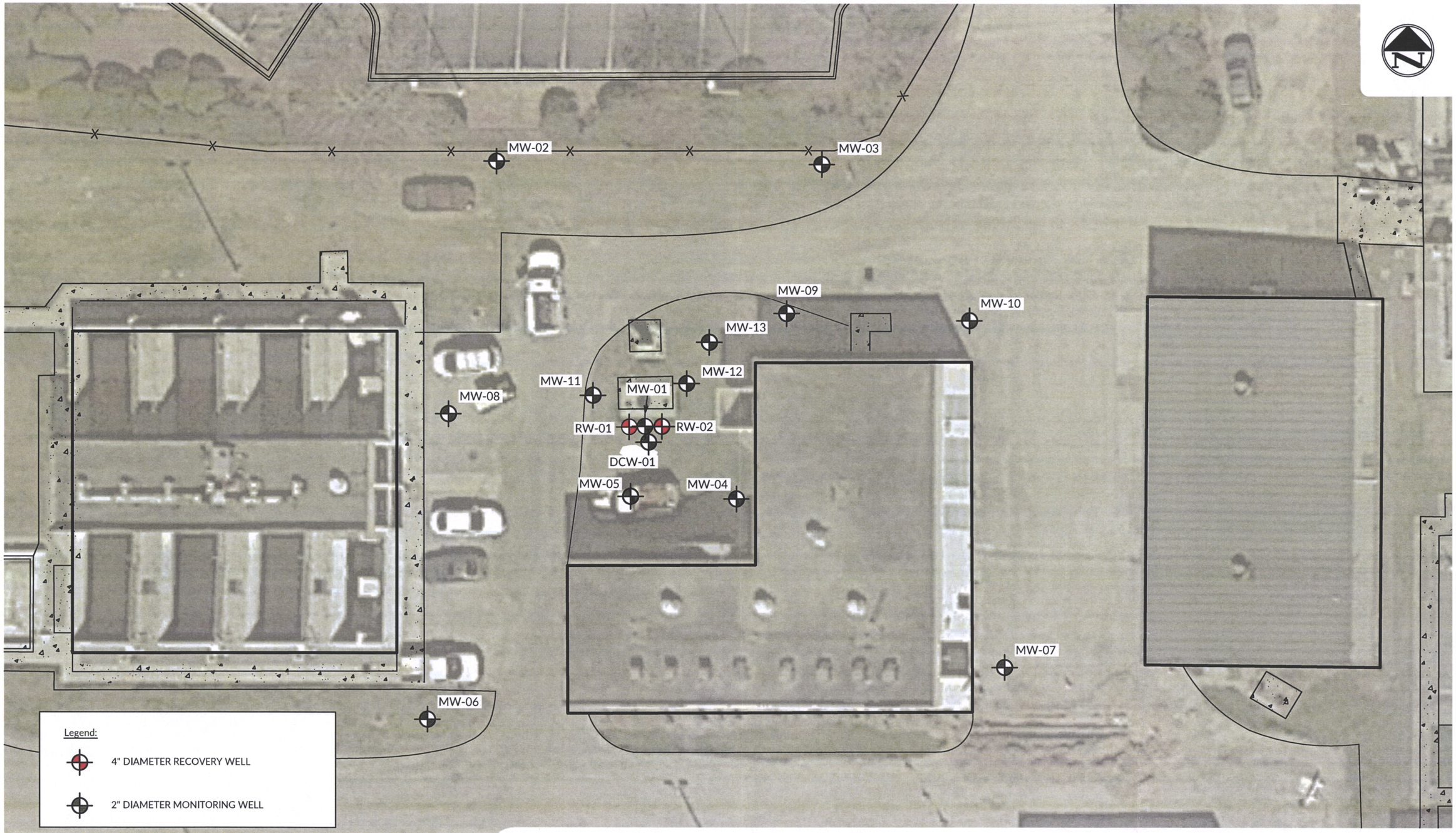
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21 Oak Park Drive
Hilton Head Island, Beaufort County, South Carolina

Appendix B - Site Topo Map

F&ME CONSULTANTS PROJECT NUMBER: E6687.002

FIGURE NUMBER: 2



GRAPHIC SCALE

0 10 20 40

DRAWN BY:	CTC
APPROVED BY:	CAC
NOTES:	

ORIGINAL: July 2, 2024

REVISIONS:
1
2
3

SCALE: 1"=20'

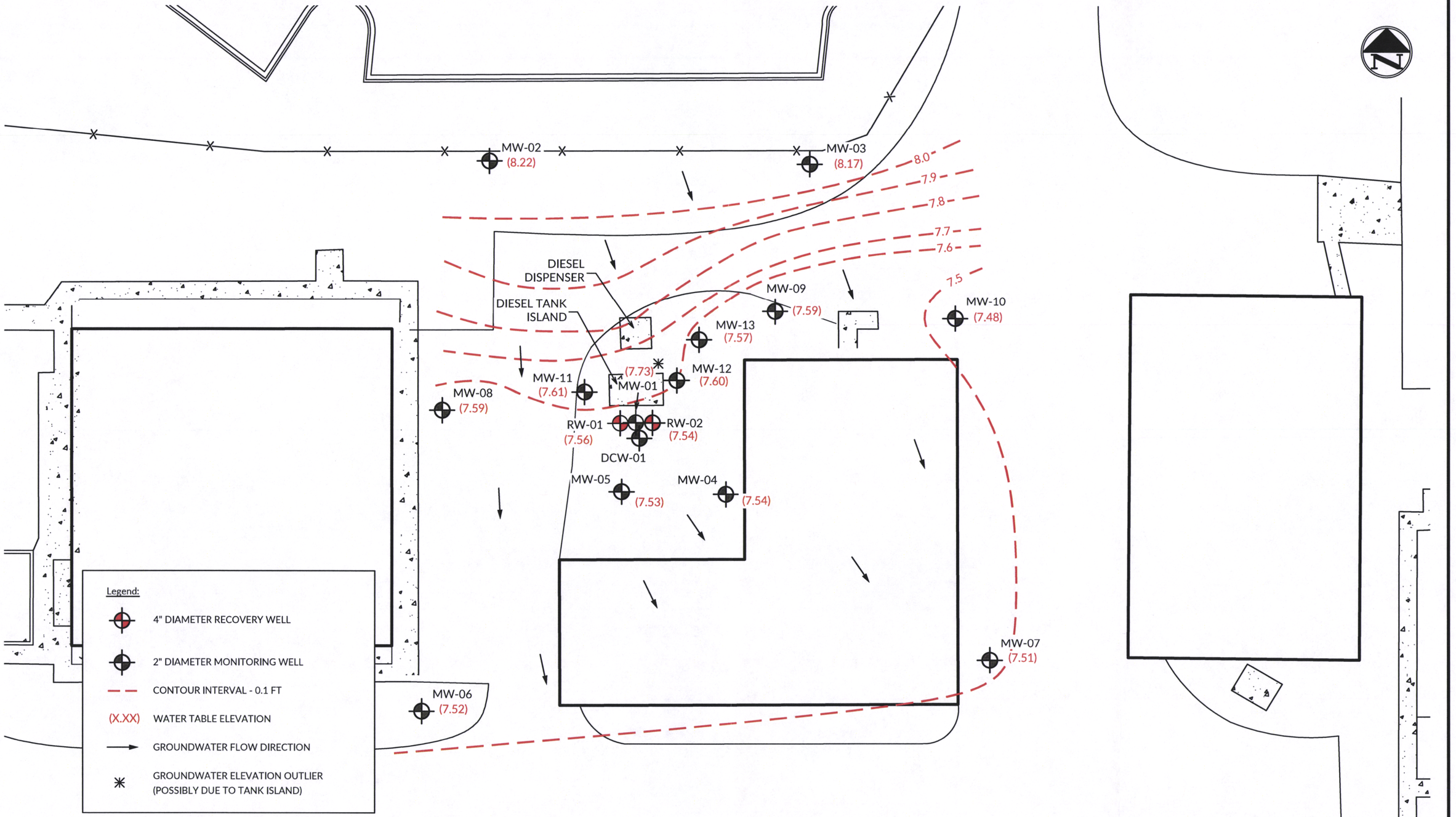
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21 Oak Park Drive
Hilton Head Island, Beaufort County, South Carolina

Appendix C - Well Location Plan

F&ME CONSULTANTS PROJECT NUMBER: E6687.002

FIGURE NUMBER: 3



GRAPHIC SCALE

0 10 20 40

DRAWN BY:	CTC
APPROVED BY:	CAC
NOTES:	
ORIGINAL:	July 2, 2024
REVISIONS:	1 2 3
SCALE:	1"=20'

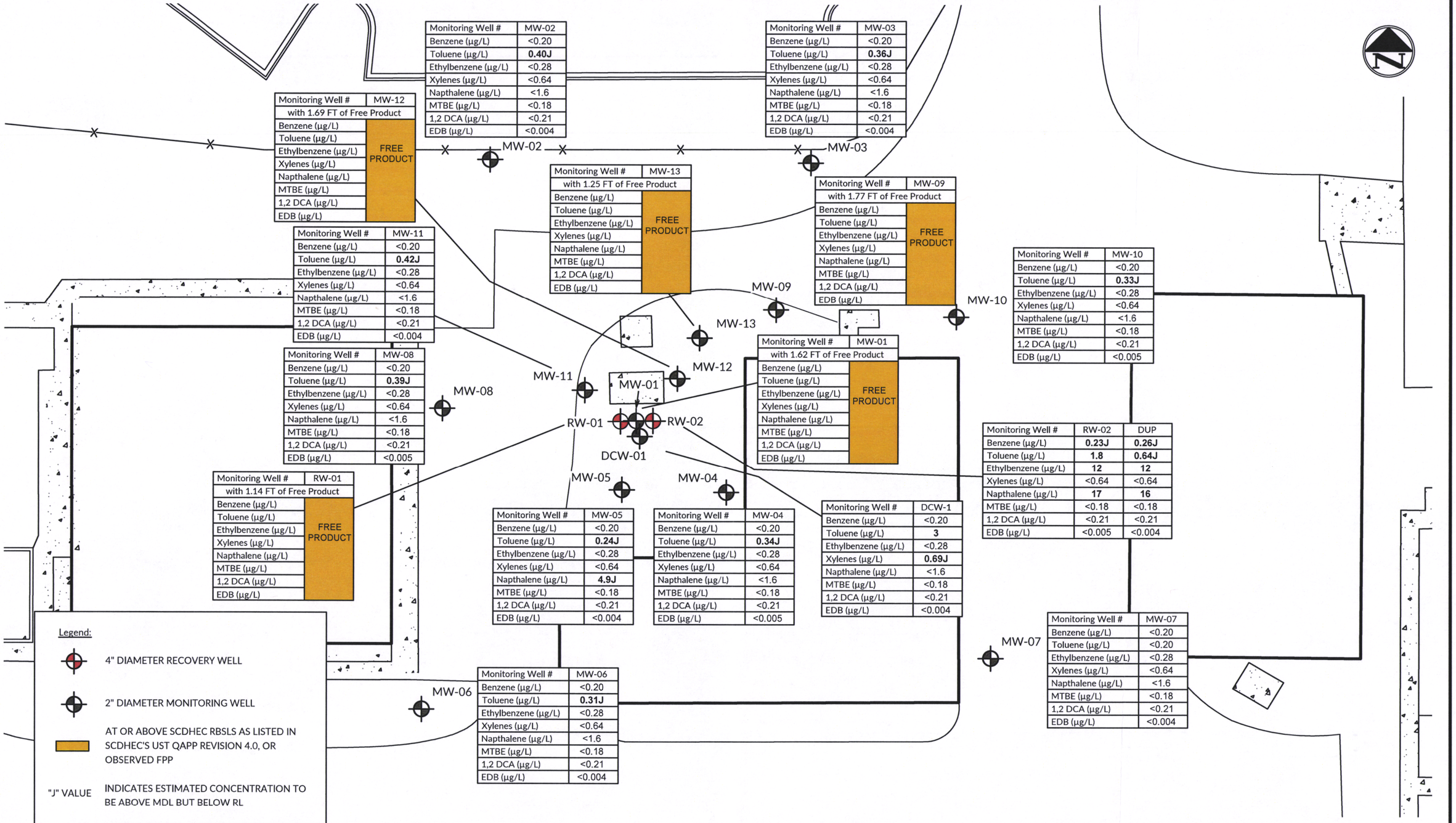
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21 Oak Park Drive
Hilton Head Island, Beaufort County, South Carolina

DATA COLLECTED JUNE 5, 2024
Appendix D - Groundwater Potentiometric Map

F&ME CONSULTANTS PROJECT NUMBER: E6687.002

FIGURE NUMBER: 4



Monitoring Well #	MW-02
Benzene (µg/L)	<0.20
Toluene (µg/L)	**0.40J**
Ethylbenzene (µg/L)	<0.28
Xylenes (µg/L)	<0.64
Napthalene (µg/L)	<1.6
MTBE (µg/L)	<0.18
1,2 DCA (µg/L)	<0.21
EDB (µg/L)	<0.004

Monitoring Well #	MW-03
Benzene (µg/L)	<0.20
Toluene (µg/L)	**0.36J**
Ethylbenzene (µg/L)	<0.28
Xylenes (µg/L)	<0.64
Napthalene (µg/L)	<1.6
MTBE (µg/L)	<0.18
1,2 DCA (µg/L)	<0.21
EDB (µg/L)	<0.004

Monitoring Well #	MW-12
with 1.69 FT of Free Product	
Benzene (µg/L)	FREE PRODUCT
Toluene (µg/L)	
Ethylbenzene (µg/L)	
Xylenes (µg/L)	
Napthalene (µg/L)	
MTBE (µg/L)	
1,2 DCA (µg/L)	
EDB (µg/L)	

Monitoring Well #	MW-13
with 1.25 FT of Free Product	
Benzene (µg/L)	FREE PRODUCT
Toluene (µg/L)	
Ethylbenzene (µg/L)	
Xylenes (µg/L)	
Napthalene (µg/L)	
MTBE (µg/L)	
1,2 DCA (µg/L)	
EDB (µg/L)	

Monitoring Well #	MW-09
with 1.77 FT of Free Product	
Benzene (µg/L)	FREE PRODUCT
Toluene (µg/L)	
Ethylbenzene (µg/L)	
Xylenes (µg/L)	
Napthalene (µg/L)	
MTBE (µg/L)	
1,2 DCA (µg/L)	
EDB (µg/L)	

Monitoring Well #	MW-10
Benzene (µg/L)	<0.20
Toluene (µg/L)	**0.33J**
Ethylbenzene (µg/L)	<0.28
Xylenes (µg/L)	<0.64
Napthalene (µg/L)	<1.6
MTBE (µg/L)	<0.18
1,2 DCA (µg/L)	<0.21
EDB (µg/L)	<0.005

Monitoring Well #	MW-11
Benzene (µg/L)	<0.20
Toluene (µg/L)	**0.42J**
Ethylbenzene (µg/L)	<0.28
Xylenes (µg/L)	<0.64
Napthalene (µg/L)	<1.6
MTBE (µg/L)	<0.18
1,2 DCA (µg/L)	<0.21
EDB (µg/L)	<0.004

Monitoring Well #	MW-08
Benzene (µg/L)	<0.20
Toluene (µg/L)	**0.39J**
Ethylbenzene (µg/L)	<0.28
Xylenes (µg/L)	<0.64
Napthalene (µg/L)	<1.6
MTBE (µg/L)	<0.18
1,2 DCA (µg/L)	<0.21
EDB (µg/L)	<0.005

Monitoring Well #	MW-01
with 1.62 FT of Free Product	
Benzene (µg/L)	FREE PRODUCT
Toluene (µg/L)	
Ethylbenzene (µg/L)	
Xylenes (µg/L)	
Napthalene (µg/L)	
MTBE (µg/L)	
1,2 DCA (µg/L)	
EDB (µg/L)	

Monitoring Well #	RW-02	DUP
Benzene (µg/L)	**0.23J**	**0.26J**
Toluene (µg/L)	**1.8**	**0.64J**
Ethylbenzene (µg/L)	**12**	**12**
Xylenes (µg/L)	<0.64	<0.64
Napthalene (µg/L)	**17**	**16**
MTBE (µg/L)	<0.18	<0.18
1,2 DCA (µg/L)	<0.21	<0.21
EDB (µg/L)	<0.005	<0.004

Monitoring Well #	RW-01
with 1.14 FT of Free Product	
Benzene (µg/L)	FREE PRODUCT
Toluene (µg/L)	
Ethylbenzene (µg/L)	
Xylenes (µg/L)	
Napthalene (µg/L)	
MTBE (µg/L)	
1,2 DCA (µg/L)	
EDB (µg/L)	

Monitoring Well #	MW-05
Benzene (µg/L)	<0.20
Toluene (µg/L)	**0.24J**
Ethylbenzene (µg/L)	<0.28
Xylenes (µg/L)	<0.64
Napthalene (µg/L)	**4.9J**
MTBE (µg/L)	<0.18
1,2 DCA (µg/L)	<0.21
EDB (µg/L)	<0.004

Monitoring Well #	MW-04
Benzene (µg/L)	<0.20
Toluene (µg/L)	**0.34J**
Ethylbenzene (µg/L)	<0.28
Xylenes (µg/L)	<0.64
Napthalene (µg/L)	<1.6
MTBE (µg/L)	<0.18
1,2 DCA (µg/L)	<0.21
EDB (µg/L)	<0.005

Monitoring Well #	DCW-1
Benzene (µg/L)	<0.20
Toluene (µg/L)	**3**
Ethylbenzene (µg/L)	<0.28
Xylenes (µg/L)	**0.69J**
Napthalene (µg/L)	<1.6
MTBE (µg/L)	<0.18
1,2 DCA (µg/L)	<0.21
EDB (µg/L)	<0.004

Monitoring Well #	MW-06
Benzene (µg/L)	<0.20
Toluene (µg/L)	**0.31J**
Ethylbenzene (µg/L)	<0.28
Xylenes (µg/L)	<0.64
Napthalene (µg/L)	<1.6
MTBE (µg/L)	<0.18
1,2 DCA (µg/L)	<0.21
EDB (µg/L)	<0.004

Monitoring Well #	MW-07
Benzene (µg/L)	<0.20
Toluene (µg/L)	<0.20
Ethylbenzene (µg/L)	<0.28
Xylenes (µg/L)	<0.64
Napthalene (µg/L)	<1.6
MTBE (µg/L)	<0.18
1,2 DCA (µg/L)	<0.21
EDB (µg/L)	<0.004

DRAWN BY:	CTC
APPROVED BY:	CAC
NOTES:	
ORIGINAL:	July 2, 2024
REVISIONS:	1 2 3
SCALE:	1"=20'

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COLUMBIA, SC 29203

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21 Oak Park Drive
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DATA COLLECTED JUNE 5, 2024
Appendix E - Groundwater CoC Map

F&ME CONSULTANTS PROJECT NUMBER: E6687.002

FIGURE NUMBER: 5