2540-FM-BWM0041 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
10/14/2022
DEP USE ONLY
Date Received

FORM 19

MUNICIPAL WASTE LANDFILL
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Section 273.284
Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

SECTION A. APPLICANT IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Mana

Site Name: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

SECTION B. FACILITY INFORMATION

Monitoring Wells must be designed and constructed in accordance with Department Standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (Do MM' SS.S")

Monitoring Point Number: FFMP015W — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County — Municipality: Manor Township

Sampling Point: Latitude: 39 o 57 ' 36.43 " — Longitude: 76 o 27 ' 10.82 "

Depth to Water Level: 62.71 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 1.90 ft — Elevation of Water Level: 513.69 ft./MSL

Sampling Depth: 135 ft — Volume of Water Column: 126.58 gal

Total Well Depth: 148.9 ft — Sampling Method: X Pumped ___ Bailed ___ Grab

Well Purged: X Yes ___ No — Well Volumes Purged: 0.8

Sample Field Filtered (must be 0.45 micron)?: X Yes ___ No

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 5/2/2022 — Sample Collection Time: 11:22

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

Were any holding times exceeded?: ___ Yes X No If yes, please explain in comments field.

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3240231001 — Final Lab Analysis CompletionDate: 5/12/2022

Name/Affiliation of Person who Filled Out Form: Daniel A. Brown

Comments:

I.D. No	101389
Monitoring Point No.	FFMP015W
Sample Date	5/2/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

ANALYTES

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.647	SM20-4500D
BICARBONATE ALKALINITY	31	SM20-2320B
CALCIUM, TOTAL	37.4	SW846 6010B
CALCIUM, DISSOLVED	37.8	SW846 6010B
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.4
CHLORIDE	44.8	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	56 ND	SW846 6010B
IRON, DISSOLVED (ug/l)	56 ND	SW846 6010B
MAGNESIUM, TOTAL	34.6	SW846 6010B
MAGNESIUM, DISSOLVED	33	SW846 6010B
MANGANESE, TOTAL (ug/l)	13	SW846 6010B
MANGANESE, DISSOLVED (ug/l)	12	SW846 6010B
NITRATE-NITROGEN	45.4 E	EPA 300
pH-FIELD (SU)	5.38	FIELD
pH-LAB (SU)	6.34	SM20-4500B
POTASSIUM, TOTAL	2.3	SW846 6010B
POTASSIUM, DISSOLVED	2.2	SW846 6010B
SODIUM, TOTAL	26.5	SW846 6010B
SODIUM, DISSOLVED	24.6	SW846 6010B
SPEC. COND., FIELD (umhos/cm)	874	FIELD
SPEC. COND., LAB (umhos/cm)	660	EPA 120.1
SULFATE	26.5	EPA 300
ALKALINITY	31	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	408	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	1.4	SM20-5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	0.13	SM20- 2130B

* Indicator Analyte - For comparison with detection zone analytes.
T Please indicate detection limit if analyte is not detected.
** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metals analysis.

I.D. No	101389
Monitoring Point No.	FFMP015W
Sample Date	5/2/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-Q. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BENZENE	1 ND	SW846 8260B
1,2-DIBROMOETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHENE	1 ND	SW846 8260B
1,2-DICHLOROETHANE	1 ND	SW846 8260B
CIS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
TRANS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
ETHYLBENZENE	1 ND	SW846 8260B
METHYLENE CHLORIDE	1 ND	SW846 8260B
TETRACHLOROETHENE	1 ND	SW846 8260B
TOLUENE	1 ND	SW846 8260B
1,1,1-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROETHENE	1 ND	SW846 8260B
VINYL CHLORIDE	1 ND	SW846 8260B
XYLENES (TOTAL)	3 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP015W
Sample Date	5/2/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

1-A. Metals (Enter all data in ug/l) If initial background analyses of four consecutive analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ARSENIC, TOTAL	3.3 ND	SW846 6010B
ARSENIC, DISSOLVED	3 ND	SW846 6010B
BARIUM, TOTAL	75	SW846 6010B
BARIUM, DISSOLVED	75	SW846 6010B
CADMIUM, TOTAL	1.1 ND	SW846 6010B
CADMIUM, DISSOLVED	1.1 ND	SW846 6010B
CHROMIUM, TOTAL	2.2 ND	SW846 6010B
CHROMIUM, DISSOLVED	2.2 ND	SW846 6010B
COPPER, TOTAL	5.6 ND	SW846 6010B
COPPER, DISSOLVED	5.6 ND	SW846 6010B
LEAD-FLAMELESS, TOTAL	2.2 ND	SW846 6010B
LEAD, DISSOLVED	2.2 ND	SW846 6010B
MERCURY, TOTAL	0.5 ND	SW846 7470A
MERCURY, DISSOLVED	0.5 ND	SW846 7470A
SELENIUM, TOTAL	5.6 ND	SW846 6010B
SELENIUM, DISSOLVED	5.6 ND	SW846 6010B
SILVER, TOTAL	2.2 ND	SW846 6010B
SILVER, DISSOLVED	2.2 ND	SW846 6010B
ZINC, TOTAL	26	SW846 6010B
ZINC, DISSOLVED	24	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP015W
Sample Date	5/2/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-A. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BROMOFORM	1 ND	SW846 8260B
BROMOMETHANE	1 ND	SW846 8260B
CARBON TETRACHLORIDE	1 ND	SW846 8260B
CHLOROBENZENE	1 ND	SW846 8260B
CHLOROETHANE	1 ND	SW846 8260B
DIBROMOCHLOROMETHANE	1 ND	SW846 8260B
CHLOROMETHANE	1 ND	SW846 8260B
3-CHLORO-1-PROPENE	1 ND	SW846 8260B
1,2-DICHLOROBENZENE	1 ND	SW846 8260B
1,3-DICHLOROBENZENE	1 ND	SW846 8260B
1,4-DICHLOROBENZENE	1 ND	SW846 8260B
DICHLORODIFLUOROMETHANE	1 ND	SW846 8260B
1,2-DICHLOROPROPANE	1 ND	SW846 8260B
CIS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
TRANS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
2-BUTANONE (MEK)	10 ND	SW846 8260B
4-METHYL-2-PENTANONE	5 ND	SW846 8260B
1,1,1,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROFLUOROMETHANE	1 ND	SW846 8260B
1,2,3-TRICHLOROPROPANE	2 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP015W
Sample Date	5/2/2022

FORM 19

ANNUAL WATER QUALITY ANALYSES

SUBTITLE D - Detection Zone Add-On LIst - When the MCL of any VOC is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the groundwater monitoring wells.

ORGANICS AND METALS (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ACETONE	10 ND	SW846 8260B
ACRYLONITRILE	5 ND	SW846 8260B
BROMOCHLOROMETHANE (CHLOROBROMOMETHAN	1 ND	SW846 8260B
BROMODICHLOROMETHANE	1 ND	SW846 8260B
CARBON DISULFIDE	1 ND	SW846 8260B
CHLOROFORM	1 ND	SW846 8260B
1,2-DIBROMO-3-CHLOROPROPANE	7 ND	SW846 8260B
TRANS 1,4-DICHLORO-2-BUTENE	3 ND	SW846 8260B
2-HEXANONE	5 ND	SW846 8260B
DIBROMOMETHANE	1 ND	SW846 8260B
IODOMETHANE	1 ND	SW846 8260B
STYRENE	1 ND	SW846 8260B
VINYL ACETATE	5 ND	SW846 8260B
ANTIMONY	2.2 ND	SW846 6010B
BERYLLIUM	1.1 ND	SW846 6010B
COBALT	5.6 ND	SW846 6010B
NICKEL	5.6 ND	SW846 6010B
THALLIUM	1.1 ND	SW846 6010B
VANADIUM	2.2 ND	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP015W
Sample Date	5/2/2022

FORM 19

ANNUAL WATER QUALITY ANALYSES

Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

Constituent	CAS Number

2540-FM-BWM0041 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

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MUNICIPAL WASTE LANDFILL
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Section 273.284
Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

SECTION A. APPLICANT IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Mana

Site Name: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

SECTION B. FACILITY INFORMATION

Monitoring Wells must be designed and constructed in accordance with Department Standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D° MM' SS.S")

Monitoring Point Number: FFMP03AW — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County — Municipality: Manor Township

Sampling Point: Latitude: 39 ° 57 ' 24.05 " — Longitude: 76 ° 27 ' 30.58 "

Depth to Water Level: 51.15 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 1.20 ft — Elevation of Water Level: 539.75 ft./MSL

Sampling Depth: 130 ft — Volume of Water Column: 141.06 gal

Total Well Depth: 147.2 ft — Sampling Method: X Pumped ___ Bailed ___ Grab

Well Purged: X Yes ___ No — Well Volumes Purged: 0.8

Sample Field Filtered (must be 0.45 micron)?: X Yes ___ No

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 5/2/2022 — Sample Collection Time: 12:47

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

Were any holding times exceeded?: ___ Yes X No If yes, please explain in comments field.

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3240231002 — Final Lab Analysis CompletionDate: 5/12/2022

Name/Affiliation of Person who Filled Out Form: Daniel A. Brown

Comments:

I.D. No 101389
Monitoring Point No. FFMP03AW
Sample Date 5/2/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

ANALYTES

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.62	SM20-4500D
BICARBONATE ALKALINITY	17	SM20-2320B
CALCIUM, TOTAL	20	SW846 6010B
CALCIUM, DISSOLVED	19.8	SW846 6010B
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.4
CHLORIDE	34.8	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	56 ND	SW846 6010B
IRON, DISSOLVED (ug/l)	56 ND	SW846 6010B
MAGNESIUM, TOTAL	15.2	SW846 6010B
MAGNESIUM, DISSOLVED	15.5	SW846 6010B
MANGANESE, TOTAL (ug/l)	400	SW846 6010B
MANGANESE, DISSOLVED (ug/l)	380	SW846 6010B
NITRATE-NITROGEN	22 E	EPA 300
pH-FIELD (SU)	4.97	FIELD
pH-LAB (SU)	5.81	SM20-4500B
POTASSIUM, TOTAL	1.4	SW846 6010B
POTASSIUM, DISSOLVED	1.5	SW846 6010B
SODIUM, TOTAL	14.7	SW846 6010B
SODIUM, DISSOLVED	14.5	SW846 6010B
SPEC. COND., FIELD (umhos/cm)	473	FIELD
SPEC. COND., LAB (umhos/cm)	550	EPA 120.1
SULFATE	3	EPA 300
ALKALINITY	17	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	68	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	0.2	SM20- 2130B

* Indicator Analyte - For comparison with detection zone analytes.
T Please indicate detection limit if analyte is not detected.
** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metals analysis.

I.D. No	101389
Monitoring Point No.	FFMP03AW
Sample Date	5/2/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-Q. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BENZENE	1 ND	SW846 8260B
1,2-DIBROMOETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHENE	1 ND	SW846 8260B
1,2-DICHLOROETHANE	1 ND	SW846 8260B
CIS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
TRANS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
ETHYLBENZENE	1 ND	SW846 8260B
METHYLENE CHLORIDE	1 ND	SW846 8260B
TETRACHLOROETHENE	1 ND	SW846 8260B
TOLUENE	1 ND	SW846 8260B
1,1,1-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROETHENE	1 ND	SW846 8260B
VINYL CHLORIDE	1 ND	SW846 8260B
XYLENES (TOTAL)	3 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP03AW
Sample Date	5/2/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

1-A. Metals (Enter all data in ug/l) If initial background analyses of four consecutive analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ARSENIC, TOTAL	3.3 ND	SW846 6010B
ARSENIC, DISSOLVED	3 ND	SW846 6010B
BARIUM, TOTAL	56	SW846 6010B
BARIUM, DISSOLVED	54	SW846 6010B
CADMIUM, TOTAL	1.1 ND	SW846 6010B
CADMIUM, DISSOLVED	1.1 ND	SW846 6010B
CHROMIUM, TOTAL	2.2 ND	SW846 6010B
CHROMIUM, DISSOLVED	2.2 ND	SW846 6010B
COPPER, TOTAL	8	SW846 6010B
COPPER, DISSOLVED	7.5	SW846 6010B
LEAD-FLAMELESS, TOTAL	2.2 ND	SW846 6010B
LEAD, DISSOLVED	3.9	SW846 6010B
MERCURY, TOTAL	0.5 ND	SW846 7470A
MERCURY, DISSOLVED	0.5 ND	SW846 7470A
SELENIUM, TOTAL	5.6 ND	SW846 6010B
SELENIUM, DISSOLVED	5.6 ND	SW846 6010B
SILVER, TOTAL	2.2 ND	SW846 6010B
SILVER, DISSOLVED	2.2 ND	SW846 6010B
ZINC, TOTAL	25	SW846 6010B
ZINC, DISSOLVED	22	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP03AW
Sample Date	5/2/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-A. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BROMOFORM	1 ND	SW846 8260B
BROMOMETHANE	1 ND	SW846 8260B
CARBON TETRACHLORIDE	1 ND	SW846 8260B
CHLOROBENZENE	1 ND	SW846 8260B
CHLOROETHANE	1 ND	SW846 8260B
DIBROMOCHLOROMETHANE	1 ND	SW846 8260B
CHLOROMETHANE	1 ND	SW846 8260B
3-CHLORO-1-PROPENE	1 ND	SW846 8260B
1,2-DICHLOROBENZENE	1 ND	SW846 8260B
1,3-DICHLOROBENZENE	1 ND	SW846 8260B
1,4-DICHLOROBENZENE	1 ND	SW846 8260B
DICHLORODIFLUOROMETHANE	1 ND	SW846 8260B
1,2-DICHLOROPROPANE	1 ND	SW846 8260B
CIS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
TRANS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
2-BUTANONE (MEK)	10 ND	SW846 8260B
4-METHYL-2-PENTANONE	5 ND	SW846 8260B
1,1,1,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROFLUOROMETHANE	1 ND	SW846 8260B
1,2,3-TRICHLOROPROPANE	2 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP03AW
Sample Date	5/2/2022

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ANNUAL WATER QUALITY ANALYSES

SUBTITLE D - Detection Zone Add-On LIst - When the MCL of any VOC is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the groundwater monitoring wells.

ORGANICS AND METALS (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ACETONE	10 ND	SW846 8260B
ACRYLONITRILE	5 ND	SW846 8260B
BROMOCHLOROMETHANE (CHLOROBROMOMETHAN	1 ND	SW846 8260B
BROMODICHLOROMETHANE	1 ND	SW846 8260B
CARBON DISULFIDE	1 ND	SW846 8260B
CHLOROFORM	1 ND	SW846 8260B
1,2-DIBROMO-3-CHLOROPROPANE	7 ND	SW846 8260B
TRANS 1,4-DICHLORO-2-BUTENE	3 ND	SW846 8260B
2-HEXANONE	5 ND	SW846 8260B
DIBROMOMETHANE	1 ND	SW846 8260B
IODOMETHANE	1 ND	SW846 8260B
STYRENE	1 ND	SW846 8260B
VINYL ACETATE	5 ND	SW846 8260B
ANTIMONY	2.2 ND	SW846 6010B
BERYLLIUM	1.1 ND	SW846 6010B
COBALT	5.6 ND	SW846 6010B
NICKEL	12	SW846 6010B
THALLIUM	1.1 ND	SW846 6010B
VANADIUM	2.2 ND	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP03AW
Sample Date	5/2/2022

FORM 19

ANNUAL WATER QUALITY ANALYSES

Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

Constituent	CAS Number

2540-FM-BWM0041 Rev. 6/2005

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DEPARTMENT OF ENVIRONMENTAL PROTECTION
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Applicant/permittee: Lancaster County Solid Waste Mana

Site Name: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

SECTION B. FACILITY INFORMATION

Monitoring Wells must be designed and constructed in accordance with Department Standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D° MM' SS.S")

Monitoring Point Number: FFMP005W — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County — Municipality: Manor Township

Sampling Point: Latitude: 39 ° 57 ' 10.67 " — Longitude: 76 ° 27 ' 21.3 "

Depth to Water Level: 59.77 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 1.70 ft — Elevation of Water Level: 477.63 ft./MSL

Sampling Depth: 135 ft — Volume of Water Column: 132.52 gal

Total Well Depth: 150 ft — Sampling Method: X Pumped ___ Bailed ___ Grab

Well Purged: X Yes ___ No — Well Volumes Purged: 0.9

Sample Field Filtered (must be 0.45 micron)?: X Yes ___ No

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 5/2/2022 — Sample Collection Time: 14:06

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

Were any holding times exceeded?: ___ Yes X No If yes, please explain in comments field.

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3240231003 — Final Lab Analysis CompletionDate: 5/12/2022

Name/Affiliation of Person who Filled Out Form: Daniel A. Brown

Comments:

I.D. No 101389

Monitoring Point No. FFMP005W

Sample Date 5/2/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

ANALYTES

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.58	SM20-4500D
BICARBONATE ALKALINITY	59	SM20-2320B
CALCIUM, TOTAL	78	SW846 6010B
CALCIUM, DISSOLVED	78	SW846 6010B
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.4
CHLORIDE	192	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	85	SW846 6010B
IRON, DISSOLVED (ug/l)	56 ND	SW846 6010B
MAGNESIUM, TOTAL	21.3	SW846 6010B
MAGNESIUM, DISSOLVED	20.8	SW846 6010B
MANGANESE, TOTAL (ug/l)	210	SW846 6010B
MANGANESE, DISSOLVED (ug/l)	200	SW846 6010B
NITRATE-NITROGEN	1.2	EPA 300
pH-FIELD (SU)	5.29	FIELD
pH-LAB (SU)	6.38	SM20-4500B
POTASSIUM, TOTAL	3.4	SW846 6010B
POTASSIUM, DISSOLVED	3.4	SW846 6010B
SODIUM, TOTAL	59.9	SW846 6010B
SODIUM, DISSOLVED	56.6	SW846 6010B
SPEC. COND., FIELD (umhos/cm)	1289	FIELD
SPEC. COND., LAB (umhos/cm)	950	EPA 120.1
SULFATE	73.4	EPA 300
ALKALINITY	59	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	580	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	1.6	SM20-5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	0.21	SM20- 2130B

* Indicator Analyte - For comparison with detection zone analytes.
T Please indicate detection limit if analyte is not detected.
** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metals analysis.

I.D. No	101389
Monitoring Point No.	FFMP005W
Sample Date	5/2/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-Q. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BENZENE	1 ND	SW846 8260B
1,2-DIBROMOETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHENE	1 ND	SW846 8260B
1,2-DICHLOROETHANE	1 ND	SW846 8260B
CIS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
TRANS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
ETHYLBENZENE	1 ND	SW846 8260B
METHYLENE CHLORIDE	1 ND	SW846 8260B
TETRACHLOROETHENE	1 ND	SW846 8260B
TOLUENE	1 ND	SW846 8260B
1,1,1-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROETHENE	1 ND	SW846 8260B
VINYL CHLORIDE	1 ND	SW846 8260B
XYLENES (TOTAL)	3 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP005W
Sample Date	5/2/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

1-A. Metals (Enter all data in ug/l) If initial background analyses of four consecutive analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ARSENIC, TOTAL	3.3 ND	SW846 6010B
ARSENIC, DISSOLVED	3 ND	SW846 6010B
BARIUM, TOTAL	57	SW846 6010B
BARIUM, DISSOLVED	54	SW846 6010B
CADMIUM, TOTAL	1.1 ND	SW846 6010B
CADMIUM, DISSOLVED	1.1 ND	SW846 6010B
CHROMIUM, TOTAL	2.2 ND	SW846 6010B
CHROMIUM, DISSOLVED	2.2 ND	SW846 6010B
COPPER, TOTAL	5.6 ND	SW846 6010B
COPPER, DISSOLVED	5.6 ND	SW846 6010B
LEAD-FLAMELESS, TOTAL	2.2 ND	SW846 6010B
LEAD, DISSOLVED	2.2 ND	SW846 6010B
MERCURY, TOTAL	0.5 ND	SW846 7470A
MERCURY, DISSOLVED	0.5 ND	SW846 7470A
SELENIUM, TOTAL	5.6 ND	SW846 6010B
SELENIUM, DISSOLVED	5.6 ND	SW846 6010B
SILVER, TOTAL	2.2 ND	SW846 6010B
SILVER, DISSOLVED	2.2 ND	SW846 6010B
ZINC, TOTAL	6.7	SW846 6010B
ZINC, DISSOLVED	5.6 ND	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP005W
Sample Date	5/2/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-A. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BROMOFORM	1 ND	SW846 8260B
BROMOMETHANE	1 ND	SW846 8260B
CARBON TETRACHLORIDE	1 ND	SW846 8260B
CHLOROBENZENE	1 ND	SW846 8260B
CHLOROETHANE	1 ND	SW846 8260B
DIBROMOCHLOROMETHANE	1 ND	SW846 8260B
CHLOROMETHANE	1 ND	SW846 8260B
3-CHLORO-1-PROPENE	1 ND	SW846 8260B
1,2-DICHLOROBENZENE	1 ND	SW846 8260B
1,3-DICHLOROBENZENE	1 ND	SW846 8260B
1,4-DICHLOROBENZENE	1 ND	SW846 8260B
DICHLORODIFLUOROMETHANE	1 ND	SW846 8260B
1,2-DICHLOROPROPANE	1 ND	SW846 8260B
CIS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
TRANS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
2-BUTANONE (MEK)	10 ND	SW846 8260B
4-METHYL-2-PENTANONE	5 ND	SW846 8260B
1,1,1,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROFLUOROMETHANE	1 ND	SW846 8260B
1,2,3-TRICHLOROPROPANE	2 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP005W
Sample Date	5/2/2022

FORM 19

ANNUAL WATER QUALITY ANALYSES

SUBTITLE D - Detection Zone Add-On LIst - When the MCL of any VOC is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the groundwater monitoring wells.

ORGANICS AND METALS (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ACETONE	10 ND	SW846 8260B
ACRYLONITRILE	5 ND	SW846 8260B
BROMOCHLOROMETHANE (CHLOROBROMOMETHAN	1 ND	SW846 8260B
BROMODICHLOROMETHANE	1 ND	SW846 8260B
CARBON DISULFIDE	1 ND	SW846 8260B
CHLOROFORM	1 ND	SW846 8260B
1,2-DIBROMO-3-CHLOROPROPANE	7 ND	SW846 8260B
TRANS 1,4-DICHLORO-2-BUTENE	3 ND	SW846 8260B
2-HEXANONE	5 ND	SW846 8260B
DIBROMOMETHANE	1 ND	SW846 8260B
IODOMETHANE	1 ND	SW846 8260B
STYRENE	1 ND	SW846 8260B
VINYL ACETATE	5 ND	SW846 8260B
ANTIMONY	2.2 ND	SW846 6010B
BERYLLIUM	1.1 ND	SW846 6010B
COBALT	6.1	SW846 6010B
NICKEL	5.6 ND	SW846 6010B
THALLIUM	1.1 ND	SW846 6010B
VANADIUM	2.2 ND	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP005W
Sample Date	5/2/2022

FORM 19

ANNUAL WATER QUALITY ANALYSES

Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

Constituent	CAS Number

2540-FM-BWM0041 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
10/14/2022
DEP USE ONLY
Date Received

FORM 19

MUNICIPAL WASTE LANDFILL
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Section 273.284
Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

SECTION A. APPLICANT IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Mana

Site Name: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

SECTION B. FACILITY INFORMATION

Monitoring Wells must be designed and constructed in accordance with Department Standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D° MM' SS.S")

Monitoring Point Number: FFMP30RW — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County — Municipality: Manor Township

Sampling Point: Latitude: 39 ° 57 ' 15.52 " — Longitude: 76 ° 27 ' 26.8 "

Depth to Water Level: 33.83 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 2.20 ft — Elevation of Water Level: 528.47 ft./MSL

Sampling Depth: 85 ft — Volume of Water Column: 82.49 gal

Total Well Depth: 90 ft — Sampling Method: X Pumped ___ Bailed ___ Grab

Well Purged: X Yes ___ No — Well Volumes Purged: 1.4

Sample Field Filtered (must be 0.45 micron)?: X Yes ___ No

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 5/3/2022 — Sample Collection Time: 10:52

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

Were any holding times exceeded?: ___ Yes X No If yes, please explain in comments field.

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3240410001 — Final Lab Analysis CompletionDate: 5/12/2022

Name/Affiliation of Person who Filled Out Form: Daniel A. Brown

Comments:

I.D. No	101389
Monitoring Point No.	FFMP30RW
Sample Date	5/3/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

ANALYTES

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.316	SM20-4500D
BICARBONATE ALKALINITY	29	SM20-2320B
CALCIUM, TOTAL	24.9	SW846 6010B
CALCIUM, DISSOLVED	25.3	SW846 6010B
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.4
CHLORIDE	142	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	71	SW846 6010B
IRON, DISSOLVED (ug/l)	56 ND	SW846 6010B
MAGNESIUM, TOTAL	13.9	SW846 6010B
MAGNESIUM, DISSOLVED	13.3	SW846 6010B
MANGANESE, TOTAL (ug/l)	1300	SW846 6010B
MANGANESE, DISSOLVED (ug/l)	1300	SW846 6010B
NITRATE-NITROGEN	4.5	EPA 300
pH-FIELD (SU)	5.16	FIELD
pH-LAB (SU)	6.6	SM20-4500B
POTASSIUM, TOTAL	3.7	SW846 6010B
POTASSIUM, DISSOLVED	3.5	SW846 6010B
SODIUM, TOTAL	69.9	SW846 6010B
SODIUM, DISSOLVED	69.3	SW846 6010B
SPEC. COND., FIELD (umhos/cm)	981	FIELD
SPEC. COND., LAB (umhos/cm)	650	EPA 120.1
SULFATE	15.9	EPA 300
ALKALINITY	29	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	330	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	1.1	SM20-5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	2.7	SM20- 2130B

* Indicator Analyte - For comparison with detection zone analytes.
T Please indicate detection limit if analyte is not detected.
** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metals analysis.

I.D. No	101389
Monitoring Point No.	FFMP30RW
Sample Date	5/3/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-Q. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BENZENE	1 ND	SW846 8260B
1,2-DIBROMOETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHENE	1 ND	SW846 8260B
1,2-DICHLOROETHANE	1 ND	SW846 8260B
CIS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
TRANS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
ETHYLBENZENE	1 ND	SW846 8260B
METHYLENE CHLORIDE	1 ND	SW846 8260B
TETRACHLOROETHENE	1 ND	SW846 8260B
TOLUENE	1 ND	SW846 8260B
1,1,1-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROETHENE	1 ND	SW846 8260B
VINYL CHLORIDE	1 ND	SW846 8260B
XYLENES (TOTAL)	3 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP30RW
Sample Date	5/3/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

1-A. Metals (Enter all data in ug/l) If initial background analyses of four consecutive analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ARSENIC, TOTAL	3.3 ND	SW846 6010B
ARSENIC, DISSOLVED	3 ND	SW846 6010B
BARIUM, TOTAL	67	SW846 6010B
BARIUM, DISSOLVED	60	SW846 6010B
CADMIUM, TOTAL	1.1 ND	SW846 6010B
CADMIUM, DISSOLVED	1.1 ND	SW846 6010B
CHROMIUM, TOTAL	2.8	SW846 6010B
CHROMIUM, DISSOLVED	2.2 ND	SW846 6010B
COPPER, TOTAL	5.6 ND	SW846 6010B
COPPER, DISSOLVED	5.6 ND	SW846 6010B
LEAD-FLAMELESS, TOTAL	2.2 ND	SW846 6010B
LEAD, DISSOLVED	2.2 ND	SW846 6010B
MERCURY, TOTAL	0.53	SW846 7470A
MERCURY, DISSOLVED	0.5 ND	SW846 7470A
SELENIUM, TOTAL	5.6 ND	SW846 6010B
SELENIUM, DISSOLVED	5.6 ND	SW846 6010B
SILVER, TOTAL	2.2 ND	SW846 6010B
SILVER, DISSOLVED	2.2 ND	SW846 6010B
ZINC, TOTAL	13	SW846 6010B
ZINC, DISSOLVED	10	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP30RW
Sample Date	5/3/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-A. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BROMOFORM	1 ND	SW846 8260B
BROMOMETHANE	1 ND	SW846 8260B
CARBON TETRACHLORIDE	1 ND	SW846 8260B
CHLOROBENZENE	1 ND	SW846 8260B
CHLOROETHANE	1 ND	SW846 8260B
DIBROMOCHLOROMETHANE	1 ND	SW846 8260B
CHLOROMETHANE	1 ND	SW846 8260B
3-CHLORO-1-PROPENE	1 ND	SW846 8260B
1,2-DICHLOROBENZENE	1 ND	SW846 8260B
1,3-DICHLOROBENZENE	1 ND	SW846 8260B
1,4-DICHLOROBENZENE	1 ND	SW846 8260B
DICHLORODIFLUOROMETHANE	1 ND	SW846 8260B
1,2-DICHLOROPROPANE	1 ND	SW846 8260B
CIS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
TRANS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
2-BUTANONE (MEK)	10 ND	SW846 8260B
4-METHYL-2-PENTANONE	5 ND	SW846 8260B
1,1,1,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROFLUOROMETHANE	1 ND	SW846 8260B
1,2,3-TRICHLOROPROPANE	2 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP30RW
Sample Date	5/3/2022

FORM 19

ANNUAL WATER QUALITY ANALYSES

SUBTITLE D - Detection Zone Add-On LIst - When the MCL of any VOC is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the groundwater monitoring wells.

ORGANICS AND METALS (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ACETONE	10 ND	SW846 8260B
ACRYLONITRILE	5 ND	SW846 8260B
BROMOCHLOROMETHANE (CHLOROBROMOMETHAN	1 ND	SW846 8260B
BROMODICHLOROMETHANE	1 ND	SW846 8260B
CARBON DISULFIDE	1 ND	SW846 8260B
CHLOROFORM	1 ND	SW846 8260B
1,2-DIBROMO-3-CHLOROPROPANE	7 ND	SW846 8260B
TRANS 1,4-DICHLORO-2-BUTENE	3 ND	SW846 8260B
2-HEXANONE	5 ND	SW846 8260B
DIBROMOMETHANE	1 ND	SW846 8260B
IODOMETHANE	1 ND	SW846 8260B
STYRENE	1 ND	SW846 8260B
VINYL ACETATE	5 ND	SW846 8260B
ANTIMONY	2.2 ND	SW846 6010B
BERYLLIUM	1.1 ND	SW846 6010B
COBALT	12	SW846 6010B
NICKEL	17	SW846 6010B
THALLIUM	1.1 ND	SW846 6010B
VANADIUM	2.2 ND	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP30RW
Sample Date	5/3/2022

FORM 19

ANNUAL WATER QUALITY ANALYSES

Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

Constituent	CAS Number

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
10/14/2022
DEP USE ONLY
Date Received

FORM 19

MUNICIPAL WASTE LANDFILL
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Section 273.284
Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

SECTION A. APPLICANT IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Mana

Site Name: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

SECTION B. FACILITY INFORMATION

Monitoring Wells must be designed and constructed in accordance with Department Standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D° MM' SS.S")

Monitoring Point Number: FFMP04AW — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County — Municipality: Manor Township

Sampling Point: Latitude: 39 ° 57 ' 15.4 " — Longitude: 76 ° 27 ' 26.58 "

Depth to Water Level: 33.41 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 2.52 ft — Elevation of Water Level: 527.31 ft./MSL

Sampling Depth: 146 ft — Volume of Water Column: 393.76 gal

Total Well Depth: 301.52 ft — Sampling Method: X Pumped ___ Bailed ___ Grab

Well Purged: X Yes ___ No — Well Volumes Purged: 0.7

Sample Field Filtered (must be 0.45 micron)?: X Yes ___ No

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 5/3/2022 — Sample Collection Time: 12:04

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

Were any holding times exceeded?: ___ Yes X No If yes, please explain in comments field.

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3240410002 — Final Lab Analysis CompletionDate: 5/12/2022

Name/Affiliation of Person who Filled Out Form: Daniel A. Brown

Comments:

I.D. No 101389
Monitoring Point No. FFMP04AW
Sample Date 5/3/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

ANALYTES

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.242	SM20-4500D
BICARBONATE ALKALINITY	196	SM20-2320B
CALCIUM, TOTAL	145	SW846 6010B
CALCIUM, DISSOLVED	146	SW846 6010B
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.4
CHLORIDE	328	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	56 ND	SW846 6010B
IRON, DISSOLVED (ug/l)	56 ND	SW846 6010B
MAGNESIUM, TOTAL	27.3	SW846 6010B
MAGNESIUM, DISSOLVED	26.2	SW846 6010B
MANGANESE, TOTAL (ug/l)	350	SW846 6010B
MANGANESE, DISSOLVED (ug/l)	350	SW846 6010B
NITRATE-NITROGEN	1 ND	EPA 300
pH-FIELD (SU)	6.9	FIELD
pH-LAB (SU)	7.97	SM20-4500B
POTASSIUM, TOTAL	2.3	SW846 6010B
POTASSIUM, DISSOLVED	2.2	SW846 6010B
SODIUM, TOTAL	87.5	SW846 6010B
SODIUM, DISSOLVED	89	SW846 6010B
SPEC. COND., FIELD (umhos/cm)	2118	FIELD
SPEC. COND., LAB (umhos/cm)	1440	EPA 120.1
SULFATE	47.5	EPA 300
ALKALINITY	196	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	876	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	1.1	SM20-5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	0.5	SM20- 2130B

* Indicator Analyte - For comparison with detection zone analytes.
T Please indicate detection limit if analyte is not detected.
** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metals analysis.

I.D. No	101389
Monitoring Point No.	FFMP04AW
Sample Date	5/3/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-Q. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BENZENE	1 ND	SW846 8260B
1,2-DIBROMOETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHENE	1 ND	SW846 8260B
1,2-DICHLOROETHANE	1 ND	SW846 8260B
CIS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
TRANS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
ETHYLBENZENE	1 ND	SW846 8260B
METHYLENE CHLORIDE	1 ND	SW846 8260B
TETRACHLOROETHENE	1 ND	SW846 8260B
TOLUENE	1 ND	SW846 8260B
1,1,1-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROETHENE	1 ND	SW846 8260B
VINYL CHLORIDE	1 ND	SW846 8260B
XYLENES (TOTAL)	3 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP04AW
Sample Date	5/3/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

1-A. Metals (Enter all data in ug/l) If initial background analyses of four consecutive analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ARSENIC, TOTAL	3.3 ND	SW846 6010B
ARSENIC, DISSOLVED	3 ND	SW846 6010B
BARIUM, TOTAL	190	SW846 6010B
BARIUM, DISSOLVED	190	SW846 6010B
CADMIUM, TOTAL	1.1 ND	SW846 6010B
CADMIUM, DISSOLVED	1.1 ND	SW846 6010B
CHROMIUM, TOTAL	2.2 ND	SW846 6010B
CHROMIUM, DISSOLVED	2.2 ND	SW846 6010B
COPPER, TOTAL	5.6 ND	SW846 6010B
COPPER, DISSOLVED	5.6 ND	SW846 6010B
LEAD-FLAMELESS, TOTAL	2.2 ND	SW846 6010B
LEAD, DISSOLVED	2.2 ND	SW846 6010B
MERCURY, TOTAL	0.5 ND	SW846 7470A
MERCURY, DISSOLVED	0.5 ND	SW846 7470A
SELENIUM, TOTAL	5.6 ND	SW846 6010B
SELENIUM, DISSOLVED	5.6 ND	SW846 6010B
SILVER, TOTAL	2.2 ND	SW846 6010B
SILVER, DISSOLVED	2.2 ND	SW846 6010B
ZINC, TOTAL	5.6 ND	SW846 6010B
ZINC, DISSOLVED	5.6 ND	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP04AW
Sample Date	5/3/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-A. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BROMOFORM	1 ND	SW846 8260B
BROMOMETHANE	1 ND	SW846 8260B
CARBON TETRACHLORIDE	1 ND	SW846 8260B
CHLOROBENZENE	1 ND	SW846 8260B
CHLOROETHANE	1 ND	SW846 8260B
DIBROMOCHLOROMETHANE	1 ND	SW846 8260B
CHLOROMETHANE	1 ND	SW846 8260B
3-CHLORO-1-PROPENE	1 ND	SW846 8260B
1,2-DICHLOROBENZENE	1 ND	SW846 8260B
1,3-DICHLOROBENZENE	1 ND	SW846 8260B
1,4-DICHLOROBENZENE	1 ND	SW846 8260B
DICHLORODIFLUOROMETHANE	1 ND	SW846 8260B
1,2-DICHLOROPROPANE	1 ND	SW846 8260B
CIS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
TRANS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
2-BUTANONE (MEK)	10 ND	SW846 8260B
4-METHYL-2-PENTANONE	5 ND	SW846 8260B
1,1,1,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROFLUOROMETHANE	1 ND	SW846 8260B
1,2,3-TRICHLOROPROPANE	2 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP04AW
Sample Date	5/3/2022

FORM 19

ANNUAL WATER QUALITY ANALYSES

SUBTITLE D - Detection Zone Add-On LIst - When the MCL of any VOC is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the groundwater monitoring wells.

ORGANICS AND METALS (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ACETONE	10 ND	SW846 8260B
ACRYLONITRILE	5 ND	SW846 8260B
BROMOCHLOROMETHANE (CHLOROBROMOMETHAN	1 ND	SW846 8260B
BROMODICHLOROMETHANE	1 ND	SW846 8260B
CARBON DISULFIDE	1 ND	SW846 8260B
CHLOROFORM	1 ND	SW846 8260B
1,2-DIBROMO-3-CHLOROPROPANE	7 ND	SW846 8260B
TRANS 1,4-DICHLORO-2-BUTENE	3 ND	SW846 8260B
2-HEXANONE	5 ND	SW846 8260B
DIBROMOMETHANE	1 ND	SW846 8260B
IODOMETHANE	1 ND	SW846 8260B
STYRENE	1 ND	SW846 8260B
VINYL ACETATE	5 ND	SW846 8260B
ANTIMONY	2.2 ND	SW846 6010B
BERYLLIUM	1.1 ND	SW846 6010B
COBALT	5.6 ND	SW846 6010B
NICKEL	16	SW846 6010B
THALLIUM	1.1 ND	SW846 6010B
VANADIUM	2.2 ND	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP04AW
Sample Date	5/3/2022

FORM 19

ANNUAL WATER QUALITY ANALYSES

Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

Constituent	CAS Number

2540-FM-BWM0041 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
10/14/2022
DEP USE ONLY
Date Received

FORM 19

MUNICIPAL WASTE LANDFILL
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Section 273.284
Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

SECTION A. APPLICANT IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Mana

Site Name: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

SECTION B. FACILITY INFORMATION

Monitoring Wells must be designed and constructed in accordance with Department Standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D° MM' SS.S")

Monitoring Point Number: FFMP26RW — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County — Municipality: Manor Township

Sampling Point: Latitude: 39 ° 57 ' 11.03 " — Longitude: 76 ° 27 ' 20.3 "

Depth to Water Level: 69.96 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 3.30 ft — Elevation of Water Level: 477.44 ft./MSL

Sampling Depth: 105 ft — Volume of Water Column: 64.68 gal

Total Well Depth: 114 ft — Sampling Method: X Pumped ___ Bailed ___ Grab

Well Purged: X Yes ___ No — Well Volumes Purged: 1.3

Sample Field Filtered (must be 0.45 micron)?: X Yes ___ No

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 5/3/2022 — Sample Collection Time: 13:02

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

Were any holding times exceeded?: ___ Yes X No If yes, please explain in comments field.

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3240410003 — Final Lab Analysis CompletionDate: 5/12/2022

Name/Affiliation of Person who Filled Out Form: Daniel A. Brown

Comments:

I.D. No	101389
Monitoring Point No.	FFMP26RW
Sample Date	5/3/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

ANALYTES

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.166	SM20-4500D
BICARBONATE ALKALINITY	66	SM20-2320B
CALCIUM, TOTAL	72.8	SW846 6010B
CALCIUM, DISSOLVED	72.4	SW846 6010B
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.4
CHLORIDE	156	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	56 ND	SW846 6010B
IRON, DISSOLVED (ug/l)	56 ND	SW846 6010B
MAGNESIUM, TOTAL	18.3	SW846 6010B
MAGNESIUM, DISSOLVED	18.5	SW846 6010B
MANGANESE, TOTAL (ug/l)	930	SW846 6010B
MANGANESE, DISSOLVED (ug/l)	920	SW846 6010B
NITRATE-NITROGEN	1 ND	EPA 300
pH-FIELD (SU)	5.3	FIELD
pH-LAB (SU)	6.9	SM20-4500B
POTASSIUM, TOTAL	8.9	SW846 6010B
POTASSIUM, DISSOLVED	9.2	SW846 6010B
SODIUM, TOTAL	59.2	SW846 6010B
SODIUM, DISSOLVED	62.3	SW846 6010B
SPEC. COND., FIELD (umhos/cm)	1277	FIELD
SPEC. COND., LAB (umhos/cm)	885	EPA 120.1
SULFATE	95.1	EPA 300
ALKALINITY	66	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	510	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	1.9	SM20-5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	0.43	SM20- 2130B

* Indicator Analyte - For comparison with detection zone analytes.
T Please indicate detection limit if analyte is not detected.
** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metals analysis.

I.D. No	101389
Monitoring Point No.	FFMP26RW
Sample Date	5/3/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-Q. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BENZENE	1 ND	SW846 8260B
1,2-DIBROMOETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHENE	1 ND	SW846 8260B
1,2-DICHLOROETHANE	1 ND	SW846 8260B
CIS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
TRANS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
ETHYLBENZENE	1 ND	SW846 8260B
METHYLENE CHLORIDE	1 ND	SW846 8260B
TETRACHLOROETHENE	1 ND	SW846 8260B
TOLUENE	1 ND	SW846 8260B
1,1,1-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROETHENE	1 ND	SW846 8260B
VINYL CHLORIDE	1 ND	SW846 8260B
XYLENES (TOTAL)	3 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP26RW
Sample Date	5/3/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

1-A. Metals (Enter all data in ug/l) If initial background analyses of four consecutive analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ARSENIC, TOTAL	3.3 ND	SW846 6010B
ARSENIC, DISSOLVED	3 ND	SW846 6010B
BARIUM, TOTAL	89	SW846 6010B
BARIUM, DISSOLVED	87	SW846 6010B
CADMIUM, TOTAL	1.1 ND	SW846 6010B
CADMIUM, DISSOLVED	1.1 ND	SW846 6010B
CHROMIUM, TOTAL	2.2 ND	SW846 6010B
CHROMIUM, DISSOLVED	2.2 ND	SW846 6010B
COPPER, TOTAL	5.6 ND	SW846 6010B
COPPER, DISSOLVED	5.6 ND	SW846 6010B
LEAD-FLAMELESS, TOTAL	2.2 ND	SW846 6010B
LEAD, DISSOLVED	2.2 ND	SW846 6010B
MERCURY, TOTAL	0.5 ND	SW846 7470A
MERCURY, DISSOLVED	0.5 ND	SW846 7470A
SELENIUM, TOTAL	5.6 ND	SW846 6010B
SELENIUM, DISSOLVED	5.6 ND	SW846 6010B
SILVER, TOTAL	2.2 ND	SW846 6010B
SILVER, DISSOLVED	2.2 ND	SW846 6010B
ZINC, TOTAL	9.9	SW846 6010B
ZINC, DISSOLVED	9.2	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP26RW
Sample Date	5/3/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-A. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BROMOFORM	1 ND	SW846 8260B
BROMOMETHANE	1 ND	SW846 8260B
CARBON TETRACHLORIDE	1 ND	SW846 8260B
CHLOROBENZENE	1 ND	SW846 8260B
CHLOROETHANE	1 ND	SW846 8260B
DIBROMOCHLOROMETHANE	1 ND	SW846 8260B
CHLOROMETHANE	1 ND	SW846 8260B
3-CHLORO-1-PROPENE	1 ND	SW846 8260B
1,2-DICHLOROBENZENE	1 ND	SW846 8260B
1,3-DICHLOROBENZENE	1 ND	SW846 8260B
1,4-DICHLOROBENZENE	1 ND	SW846 8260B
DICHLORODIFLUOROMETHANE	1 ND	SW846 8260B
1,2-DICHLOROPROPANE	1 ND	SW846 8260B
CIS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
TRANS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
2-BUTANONE (MEK)	10 ND	SW846 8260B
4-METHYL-2-PENTANONE	5 ND	SW846 8260B
1,1,1,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROFLUOROMETHANE	1 ND	SW846 8260B
1,2,3-TRICHLOROPROPANE	2 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP26RW
Sample Date	5/3/2022

FORM 19

ANNUAL WATER QUALITY ANALYSES

SUBTITLE D - Detection Zone Add-On LIst - When the MCL of any VOC is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the groundwater monitoring wells.

ORGANICS AND METALS (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ACETONE	10 ND	SW846 8260B
ACRYLONITRILE	5 ND	SW846 8260B
BROMOCHLOROMETHANE (CHLOROBROMOMETHAN	1 ND	SW846 8260B
BROMODICHLOROMETHANE	1 ND	SW846 8260B
CARBON DISULFIDE	1 ND	SW846 8260B
CHLOROFORM	1 ND	SW846 8260B
1,2-DIBROMO-3-CHLOROPROPANE	7 ND	SW846 8260B
TRANS 1,4-DICHLORO-2-BUTENE	3 ND	SW846 8260B
2-HEXANONE	5 ND	SW846 8260B
DIBROMOMETHANE	1 ND	SW846 8260B
IODOMETHANE	1 ND	SW846 8260B
STYRENE	1 ND	SW846 8260B
VINYL ACETATE	5 ND	SW846 8260B
ANTIMONY	2.2 ND	SW846 6010B
BERYLLIUM	1.1 ND	SW846 6010B
COBALT	23	SW846 6010B
NICKEL	5.6 ND	SW846 6010B
THALLIUM	1.1 ND	SW846 6010B
VANADIUM	2.2 ND	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP26RW
Sample Date	5/3/2022

FORM 19

ANNUAL WATER QUALITY ANALYSES

Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

Constituent	CAS Number

2540-FM-BWM0041 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
10/14/2022
DEP USE ONLY
Date Received

FORM 19

MUNICIPAL WASTE LANDFILL
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Section 273.284
Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

SECTION A. APPLICANT IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Mana

Site Name: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

SECTION B. FACILITY INFORMATION

Monitoring Wells must be designed and constructed in accordance with Department Standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D° MM' SS.S")

Monitoring Point Number: FFMP029W — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County — Municipality: Manor Township

Sampling Point: Latitude: 39 ° 57 ' 12.93 " — Longitude: 76 ° 27 ' 0.67 "

Depth to Water Level: 38.14 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 2.00 ft — Elevation of Water Level: 439.16 ft./MSL

Sampling Depth: 55 ft — Volume of Water Column: 29.90 gal

Total Well Depth: 58.5 ft — Sampling Method: X Pumped ___ Bailed ___ Grab

Well Purged: X Yes ___ No — Well Volumes Purged: 3.8

Sample Field Filtered (must be 0.45 micron)?: X Yes ___ No

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 5/3/2022 — Sample Collection Time: 14:19

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

Were any holding times exceeded?: ___ Yes X No If yes, please explain in comments field.

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3240410004 — Final Lab Analysis CompletionDate: 5/17/2022

Name/Affiliation of Person who Filled Out Form: Daniel A. Brown

Comments:

I.D. No	101389
Monitoring Point No.	FFMP029W
Sample Date	5/3/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

ANALYTES

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.263	SM20-4500D
BICARBONATE ALKALINITY	12	SM20-2320B
CALCIUM, TOTAL	13.7	SW846 6010B
CALCIUM, DISSOLVED	14.3	SW846 6010B
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.4
CHLORIDE	64.4	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	56 ND	SW846 6010B
IRON, DISSOLVED (ug/l)	56 ND	SW846 6010B
MAGNESIUM, TOTAL	9.8	SW846 6010B
MAGNESIUM, DISSOLVED	10.2	SW846 6010B
MANGANESE, TOTAL (ug/l)	33	SW846 6010B
MANGANESE, DISSOLVED (ug/l)	34	SW846 6010B
NITRATE-NITROGEN	3.4	EPA 300
pH-FIELD (SU)	4.85	FIELD
pH-LAB (SU)	6.74	SM20-4500B
POTASSIUM, TOTAL	2.1	SW846 6010B
POTASSIUM, DISSOLVED	2.2	SW846 6010B
SODIUM, TOTAL	25	SW846 6010B
SODIUM, DISSOLVED	24.8	SW846 6010B
SPEC. COND., FIELD (umhos/cm)	446	FIELD
SPEC. COND., LAB (umhos/cm)	296	EPA 120.1
SULFATE	5.4	EPA 300
ALKALINITY	12	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	175	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	0.43	SM20- 2130B

* Indicator Analyte - For comparison with detection zone analytes.
T Please indicate detection limit if analyte is not detected.
** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metals analysis.

I.D. No	101389
Monitoring Point No.	FFMP029W
Sample Date	5/3/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-Q. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BENZENE	1 ND	SW846 8260B
1,2-DIBROMOETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHENE	1 ND	SW846 8260B
1,2-DICHLOROETHANE	1 ND	SW846 8260B
CIS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
TRANS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
ETHYLBENZENE	1 ND	SW846 8260B
METHYLENE CHLORIDE	1 ND	SW846 8260B
TETRACHLOROETHENE	1 ND	SW846 8260B
TOLUENE	1 ND	SW846 8260B
1,1,1-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROETHENE	1 ND	SW846 8260B
VINYL CHLORIDE	1 ND	SW846 8260B
XYLENES (TOTAL)	3 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP029W
Sample Date	5/3/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

1-A. Metals (Enter all data in ug/l) If initial background analyses of four consecutive analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ARSENIC, TOTAL	3.3 ND	SW846 6010B
ARSENIC, DISSOLVED	3 ND	SW846 6010B
BARIUM, TOTAL	66	SW846 6010B
BARIUM, DISSOLVED	67	SW846 6010B
CADMIUM, TOTAL	1.1 ND	SW846 6010B
CADMIUM, DISSOLVED	1.1 ND	SW846 6010B
CHROMIUM, TOTAL	2.2 ND	SW846 6010B
CHROMIUM, DISSOLVED	2.2 ND	SW846 6010B
COPPER, TOTAL	5.6 ND	SW846 6010B
COPPER, DISSOLVED	5.6 ND	SW846 6010B
LEAD-FLAMELESS, TOTAL	2.2 ND	SW846 6010B
LEAD, DISSOLVED	2.2 ND	SW846 6010B
MERCURY, TOTAL	0.5 ND	SW846 7470A
MERCURY, DISSOLVED	0.5 ND	SW846 7470A
SELENIUM, TOTAL	5.6 ND	SW846 6010B
SELENIUM, DISSOLVED	5.6 ND	SW846 6010B
SILVER, TOTAL	2.2 ND	SW846 6010B
SILVER, DISSOLVED	2.2 ND	SW846 6010B
ZINC, TOTAL	6.7	SW846 6010B
ZINC, DISSOLVED	6.1	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP029W
Sample Date	5/3/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-A. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BROMOFORM	1 ND	SW846 8260B
BROMOMETHANE	1 ND	SW846 8260B
CARBON TETRACHLORIDE	1 ND	SW846 8260B
CHLOROBENZENE	1 ND	SW846 8260B
CHLOROETHANE	1 ND	SW846 8260B
DIBROMOCHLOROMETHANE	1 ND	SW846 8260B
CHLOROMETHANE	1 ND	SW846 8260B
3-CHLORO-1-PROPENE	1 ND	SW846 8260B
1,2-DICHLOROBENZENE	1 ND	SW846 8260B
1,3-DICHLOROBENZENE	1 ND	SW846 8260B
1,4-DICHLOROBENZENE	1 ND	SW846 8260B
DICHLORODIFLUOROMETHANE	1 ND	SW846 8260B
1,2-DICHLOROPROPANE	1 ND	SW846 8260B
CIS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
TRANS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
2-BUTANONE (MEK)	10 ND	SW846 8260B
4-METHYL-2-PENTANONE	5 ND	SW846 8260B
1,1,1,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROFLUOROMETHANE	1 ND	SW846 8260B
1,2,3-TRICHLOROPROPANE	2 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP029W
Sample Date	5/3/2022

FORM 19

ANNUAL WATER QUALITY ANALYSES

SUBTITLE D - Detection Zone Add-On LIst - When the MCL of any VOC is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the groundwater monitoring wells.

ORGANICS AND METALS (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ACETONE	10 ND	SW846 8260B
ACRYLONITRILE	5 ND	SW846 8260B
BROMOCHLOROMETHANE (CHLOROBROMOMETHAN	1 ND	SW846 8260B
BROMODICHLOROMETHANE	1 ND	SW846 8260B
CARBON DISULFIDE	1 ND	SW846 8260B
CHLOROFORM	1 ND	SW846 8260B
1,2-DIBROMO-3-CHLOROPROPANE	7 ND	SW846 8260B
TRANS 1,4-DICHLORO-2-BUTENE	3 ND	SW846 8260B
2-HEXANONE	5 ND	SW846 8260B
DIBROMOMETHANE	1 ND	SW846 8260B
IODOMETHANE	1 ND	SW846 8260B
STYRENE	1 ND	SW846 8260B
VINYL ACETATE	5 ND	SW846 8260B
ANTIMONY	2.2 ND	SW846 6010B
BERYLLIUM	1.1 ND	SW846 6010B
COBALT	5.6 ND	SW846 6010B
NICKEL	5.6 ND	SW846 6010B
THALLIUM	1.1 ND	SW846 6010B
VANADIUM	2.2 ND	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP029W
Sample Date	5/3/2022

FORM 19

ANNUAL WATER QUALITY ANALYSES

Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

Constituent	CAS Number

2540-FM-BWM0041 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
10/14/2022
DEP USE ONLY
Date Received

FORM 19

MUNICIPAL WASTE LANDFILL
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Section 273.284
Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

SECTION A. APPLICANT IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Mana

Site Name: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

SECTION B. FACILITY INFORMATION

Monitoring Wells must be designed and constructed in accordance with Department Standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D° MM' SS.S")

Monitoring Point Number: FFMP017W — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County — Municipality: Manor Township

Sampling Point: Latitude: 39 ° 57 ' 8.5 " — Longitude: 76 ° 27 ' 6.17 "

Depth to Water Level: 40.37 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 2.00 ft — Elevation of Water Level: 440.33 ft./MSL

Sampling Depth: 135 ft — Volume of Water Column: 161.74 gal

Total Well Depth: 150.5 ft — Sampling Method: X Pumped ___ Bailed ___ Grab

Well Purged: X Yes ___ No — Well Volumes Purged: 0.7

Sample Field Filtered (must be 0.45 micron)?: X Yes ___ No

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 5/4/2022 — Sample Collection Time: 10:57

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

Were any holding times exceeded?: ___ Yes X No If yes, please explain in comments field.

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3240808001 — Final Lab Analysis CompletionDate: 5/17/2022

Name/Affiliation of Person who Filled Out Form: Daniel A. Brown

Comments:

I.D. No	101389
Monitoring Point No.	FFMP017W
Sample Date	5/4/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

ANALYTES

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.315	SM20-4500D
BICARBONATE ALKALINITY	123	SM20-2320B
CALCIUM, TOTAL	85.3	SW846 6010B
CALCIUM, DISSOLVED	87.2	SW846 6010B
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.4
CHLORIDE	303	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	56 ND	SW846 6010B
IRON, DISSOLVED (ug/l)	56 ND	SW846 6010B
MAGNESIUM, TOTAL	40	SW846 6010B
MAGNESIUM, DISSOLVED	40.3	SW846 6010B
MANGANESE, TOTAL (ug/l)	1200	SW846 6010B
MANGANESE, DISSOLVED (ug/l)	1200	SW846 6010B
NITRATE-NITROGEN	3	EPA 300
pH-FIELD (SU)	5.95	FIELD
pH-LAB (SU)	7.45	SM20-4500B
POTASSIUM, TOTAL	7.1	SW846 6010B
POTASSIUM, DISSOLVED	7.1	SW846 6010B
SODIUM, TOTAL	91.7	SW846 6010B
SODIUM, DISSOLVED	95	SW846 6010B
SPEC. COND., FIELD (umhos/cm)	2108	FIELD
SPEC. COND., LAB (umhos/cm)	1310	EPA 120.1
SULFATE	85.6	EPA 300
ALKALINITY	123	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	702	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	2.8	SM20-5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	0.24	SM20- 2130B

* Indicator Analyte - For comparison with detection zone analytes.
T Please indicate detection limit if analyte is not detected.
** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metals analysis.

I.D. No	101389
Monitoring Point No.	FFMP017W
Sample Date	5/4/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-Q. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BENZENE	1 ND	SW846 8260B
1,2-DIBROMOETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHENE	1 ND	SW846 8260B
1,2-DICHLOROETHANE	1 ND	SW846 8260B
CIS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
TRANS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
ETHYLBENZENE	1 ND	SW846 8260B
METHYLENE CHLORIDE	1 ND	SW846 8260B
TETRACHLOROETHENE	1 ND	SW846 8260B
TOLUENE	1 ND	SW846 8260B
1,1,1-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROETHENE	1 ND	SW846 8260B
VINYL CHLORIDE	1 ND	SW846 8260B
XYLENES (TOTAL)	3 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP017W
Sample Date	5/4/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

1-A. Metals (Enter all data in ug/l) If initial background analyses of four consecutive analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ARSENIC, TOTAL	3.3 ND	SW846 6010B
ARSENIC, DISSOLVED	3 ND	SW846 6010B
BARIUM, TOTAL	120	SW846 6010B
BARIUM, DISSOLVED	120	SW846 6010B
CADMIUM, TOTAL	1.1 ND	SW846 6010B
CADMIUM, DISSOLVED	1.1 ND	SW846 6010B
CHROMIUM, TOTAL	2.2 ND	SW846 6010B
CHROMIUM, DISSOLVED	2.2 ND	SW846 6010B
COPPER, TOTAL	5.6 ND	SW846 6010B
COPPER, DISSOLVED	5.6 ND	SW846 6010B
LEAD-FLAMELESS, TOTAL	2.2 ND	SW846 6010B
LEAD, DISSOLVED	2.2 ND	SW846 6010B
MERCURY, TOTAL	0.5 ND	SW846 7470A
MERCURY, DISSOLVED	0.5 ND	SW846 7470A
SELENIUM, TOTAL	5.6 ND	SW846 6010B
SELENIUM, DISSOLVED	5.6 ND	SW846 6010B
SILVER, TOTAL	2.2 ND	SW846 6010B
SILVER, DISSOLVED	2.2 ND	SW846 6010B
ZINC, TOTAL	8.9	SW846 6010B
ZINC, DISSOLVED	8.8	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP017W
Sample Date	5/4/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-A. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BROMOFORM	1 ND	SW846 8260B
BROMOMETHANE	1 ND	SW846 8260B
CARBON TETRACHLORIDE	1 ND	SW846 8260B
CHLOROBENZENE	1 ND	SW846 8260B
CHLOROETHANE	1 ND	SW846 8260B
DIBROMOCHLOROMETHANE	1 ND	SW846 8260B
CHLOROMETHANE	1 ND	SW846 8260B
3-CHLORO-1-PROPENE	1 ND	SW846 8260B
1,2-DICHLOROBENZENE	1 ND	SW846 8260B
1,3-DICHLOROBENZENE	1 ND	SW846 8260B
1,4-DICHLOROBENZENE	1 ND	SW846 8260B
DICHLORODIFLUOROMETHANE	1 ND	SW846 8260B
1,2-DICHLOROPROPANE	1 ND	SW846 8260B
CIS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
TRANS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
2-BUTANONE (MEK)	10 ND	SW846 8260B
4-METHYL-2-PENTANONE	5 ND	SW846 8260B
1,1,1,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROFLUOROMETHANE	1 ND	SW846 8260B
1,2,3-TRICHLOROPROPANE	2 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP017W
Sample Date	5/4/2022

FORM 19

ANNUAL WATER QUALITY ANALYSES

SUBTITLE D - Detection Zone Add-On LIst - When the MCL of any VOC is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the groundwater monitoring wells.

ORGANICS AND METALS (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ACETONE	10 ND	SW846 8260B
ACRYLONITRILE	5 ND	SW846 8260B
BROMOCHLOROMETHANE (CHLOROBROMOMETHAN	1 ND	SW846 8260B
BROMODICHLOROMETHANE	1 ND	SW846 8260B
CARBON DISULFIDE	1 ND	SW846 8260B
CHLOROFORM	1 ND	SW846 8260B
1,2-DIBROMO-3-CHLOROPROPANE	7 ND	SW846 8260B
TRANS 1,4-DICHLORO-2-BUTENE	3 ND	SW846 8260B
2-HEXANONE	5 ND	SW846 8260B
DIBROMOMETHANE	1 ND	SW846 8260B
IODOMETHANE	1 ND	SW846 8260B
STYRENE	1 ND	SW846 8260B
VINYL ACETATE	5 ND	SW846 8260B
ANTIMONY	2.2 ND	SW846 6010B
BERYLLIUM	1.1 ND	SW846 6010B
COBALT	12	SW846 6010B
NICKEL	7	SW846 6010B
THALLIUM	1.1 ND	SW846 6010B
VANADIUM	2.2 ND	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP017W
Sample Date	5/4/2022

FORM 19

ANNUAL WATER QUALITY ANALYSES

Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

Constituent	CAS Number

2540-FM-BWM0041 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
10/14/2022
DEP USE ONLY
Date Received

FORM 19

MUNICIPAL WASTE LANDFILL
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Section 273.284
Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

SECTION A. APPLICANT IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Mana

Site Name: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

SECTION B. FACILITY INFORMATION

Monitoring Wells must be designed and constructed in accordance with Department Standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D° MM' SS.S")

Monitoring Point Number: FFMP034W — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County — Municipality: ___

Sampling Point: Latitude: ___ ° ___ ' ___ " — Longitude: ___ ° ___ ' ___ "

Depth to Water Level: 10.51 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: ___ ft — Elevation of Water Level: 462.37 ft./MSL

Sampling Depth: 25.85 ft — Volume of Water Column: ___ gal

Total Well Depth: 121 ft — Sampling Method: X Pumped ___ Bailed ___ Grab

Well Purged: X Yes ___ No — Well Volumes Purged: 0.7

Sample Field Filtered (must be 0.45 micron)?: X Yes ___ No

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 5/4/2022 — Sample Collection Time: 12:29

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

Were any holding times exceeded?: ___ Yes X No If yes, please explain in comments field.

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3240808002 — Final Lab Analysis CompletionDate: 5/17/2022

Name/Affiliation of Person who Filled Out Form: Daniel A. Brown

Comments: ___

I.D. No 101389

Monitoring Point No. FFMP034W

Sample Date 5/4/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

ANALYTES

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.193	SM20-4500D
BICARBONATE ALKALINITY	41	SM20-2320B
CALCIUM, TOTAL	67.2	SW846 6010B
CALCIUM, DISSOLVED	67.8	SW846 6010B
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.4
CHLORIDE	226	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	1700	SW846 6010B
IRON, DISSOLVED (ug/l)	490	SW846 6010B
MAGNESIUM, TOTAL	25.7	SW846 6010B
MAGNESIUM, DISSOLVED	26.8	SW846 6010B
MANGANESE, TOTAL (ug/l)	110	SW846 6010B
MANGANESE, DISSOLVED (ug/l)	110	SW846 6010B
NITRATE-NITROGEN	8.9	EPA 300
pH-FIELD (SU)	5.78	FIELD
pH-LAB (SU)	7.32	SM20-4500B
POTASSIUM, TOTAL	2.9	SW846 6010B
POTASSIUM, DISSOLVED	3.1	SW846 6010B
SODIUM, TOTAL	52.8	SW846 6010B
SODIUM, DISSOLVED	55.9	SW846 6010B
SPEC. COND., FIELD (umhos/cm)	1468	FIELD
SPEC. COND., LAB (umhos/cm)	903	EPA 120.1
SULFATE	32.5	EPA 300
ALKALINITY	41	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	506	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.9	SM20-5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	31.7	SM20- 2130B

* Indicator Analyte - For comparison with detection zone analytes.
T Please indicate detection limit if analyte is not detected.
** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metals analysis.

I.D. No	101389
Monitoring Point No.	FFMP034W
Sample Date	5/4/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-Q. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BENZENE	1 ND	SW846 8260B
1,2-DIBROMOETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHENE	1 ND	SW846 8260B
1,2-DICHLOROETHANE	1 ND	SW846 8260B
CIS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
TRANS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
ETHYLBENZENE	1 ND	SW846 8260B
METHYLENE CHLORIDE	1 ND	SW846 8260B
TETRACHLOROETHENE	1 ND	SW846 8260B
TOLUENE	1 ND	SW846 8260B
1,1,1-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROETHENE	1 ND	SW846 8260B
VINYL CHLORIDE	1 ND	SW846 8260B
XYLENES (TOTAL)	3 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP034W
Sample Date	5/4/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

1-A. Metals (Enter all data in ug/l) If initial background analyses of four consecutive analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ARSENIC, TOTAL	3.3 ND	SW846 6010B
ARSENIC, DISSOLVED	3 ND	SW846 6010B
BARIUM, TOTAL	62	SW846 6010B
BARIUM, DISSOLVED	64	SW846 6010B
CADMIUM, TOTAL	1.1 ND	SW846 6010B
CADMIUM, DISSOLVED	1.1 ND	SW846 6010B
CHROMIUM, TOTAL	2.2 ND	SW846 6010B
CHROMIUM, DISSOLVED	2.2 ND	SW846 6010B
COPPER, TOTAL	5.6 ND	SW846 6010B
COPPER, DISSOLVED	5.6 ND	SW846 6010B
LEAD-FLAMELESS, TOTAL	2.2 ND	SW846 6010B
LEAD, DISSOLVED	2.2 ND	SW846 6010B
MERCURY, TOTAL	0.5 ND	SW846 7470A
MERCURY, DISSOLVED	0.5 ND	SW846 7470A
SELENIUM, TOTAL	5.6 ND	SW846 6010B
SELENIUM, DISSOLVED	5.6 ND	SW846 6010B
SILVER, TOTAL	2.2 ND	SW846 6010B
SILVER, DISSOLVED	2.2 ND	SW846 6010B
ZINC, TOTAL	5.6 ND	SW846 6010B
ZINC, DISSOLVED	5.6 ND	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP034W
Sample Date	5/4/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-A. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BROMOFORM	1 ND	SW846 8260B
BROMOMETHANE	1 ND	SW846 8260B
CARBON TETRACHLORIDE	1 ND	SW846 8260B
CHLOROBENZENE	1 ND	SW846 8260B
CHLOROETHANE	1 ND	SW846 8260B
DIBROMOCHLOROMETHANE	1 ND	SW846 8260B
CHLOROMETHANE	1 ND	SW846 8260B
3-CHLORO-1-PROPENE	1 ND	SW846 8260B
1,2-DICHLOROBENZENE	1 ND	SW846 8260B
1,3-DICHLOROBENZENE	1 ND	SW846 8260B
1,4-DICHLOROBENZENE	1 ND	SW846 8260B
DICHLORODIFLUOROMETHANE	1 ND	SW846 8260B
1,2-DICHLOROPROPANE	1 ND	SW846 8260B
CIS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
TRANS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
2-BUTANONE (MEK)	10 ND	SW846 8260B
4-METHYL-2-PENTANONE	5 ND	SW846 8260B
1,1,1,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROFLUOROMETHANE	1 ND	SW846 8260B
1,2,3-TRICHLOROPROPANE	2 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP034W
Sample Date	5/4/2022

FORM 19

ANNUAL WATER QUALITY ANALYSES

SUBTITLE D - Detection Zone Add-On LIst - When the MCL of any VOC is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the groundwater monitoring wells.

ORGANICS AND METALS (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ACETONE	10 ND	SW846 8260B
ACRYLONITRILE	5 ND	SW846 8260B
BROMOCHLOROMETHANE (CHLOROBROMOMETHAN	1 ND	SW846 8260B
BROMODICHLOROMETHANE	1 ND	SW846 8260B
CARBON DISULFIDE	1 ND	SW846 8260B
CHLOROFORM	1 ND	SW846 8260B
1,2-DIBROMO-3-CHLOROPROPANE	7 ND	SW846 8260B
TRANS 1,4-DICHLORO-2-BUTENE	3 ND	SW846 8260B
2-HEXANONE	5 ND	SW846 8260B
DIBROMOMETHANE	1 ND	SW846 8260B
IODOMETHANE	1 ND	SW846 8260B
STYRENE	1 ND	SW846 8260B
VINYL ACETATE	5 ND	SW846 8260B
ANTIMONY	2.2 ND	SW846 6010B
BERYLLIUM	1.1 ND	SW846 6010B
COBALT	5.6 ND	SW846 6010B
NICKEL	5.6 ND	SW846 6010B
THALLIUM	1.1 ND	SW846 6010B
VANADIUM	2.2 ND	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP034W
Sample Date	5/4/2022

FORM 19

ANNUAL WATER QUALITY ANALYSES

Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

Constituent	CAS Number

2540-FM-BWM0041 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
10/14/2022
DEP USE ONLY
Date Received

FORM 19

MUNICIPAL WASTE LANDFILL
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Section 273.284
Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

SECTION A. APPLICANT IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Mana

Site Name: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

SECTION B. FACILITY INFORMATION

Monitoring Wells must be designed and constructed in accordance with Department Standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (Do MM' SS.S")

Monitoring Point Number: FFMP033W — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County — Municipality: MANOR TOWNSHIP

Sampling Point: Latitude: 39 o 57 ' 31.09 " — Longitude: 76 o 27 ' 4.98 "

Depth to Water Level: 19.76 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 0.49 ft — Elevation of Water Level: 496.76 ft./MSL

Sampling Depth: 79 ft — Volume of Water Column: 111.97 gal

Total Well Depth: 96 ft — Sampling Method: X Pumped ___ Bailed ___ Grab

Well Purged: X Yes ___ No — Well Volumes Purged: 0.9

Sample Field Filtered (must be 0.45 micron)?: X Yes ___ No

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 5/4/2022 — Sample Collection Time: 13:59

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

Were any holding times exceeded?: ___ Yes X No If yes, please explain in comments field.

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3240808003 — Final Lab Analysis CompletionDate: 5/17/2022

Name/Affiliation of Person who Filled Out Form: Daniel A. Brown

Comments:

I.D. No 101389
Monitoring Point No. FFMP033W
Sample Date 5/4/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

ANALYTES

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.514	SM20-4500D
BICARBONATE ALKALINITY	42	SM20-2320B
CALCIUM, TOTAL	30	SW846 6010B
CALCIUM, DISSOLVED	30.5	SW846 6010B
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.4
CHLORIDE	61.1	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	6300	SW846 6010B
IRON, DISSOLVED (ug/l)	5400	SW846 6010B
MAGNESIUM, TOTAL	10.7	SW846 6010B
MAGNESIUM, DISSOLVED	11	SW846 6010B
MANGANESE, TOTAL (ug/l)	480	SW846 6010B
MANGANESE, DISSOLVED (ug/l)	480	SW846 6010B
NITRATE-NITROGEN	10.9	EPA 300
pH-FIELD (SU)	5.5	FIELD
pH-LAB (SU)	7.28	SM20-4500B
POTASSIUM, TOTAL	1.7	SW846 6010B
POTASSIUM, DISSOLVED	1.6	SW846 6010B
SODIUM, TOTAL	15	SW846 6010B
SODIUM, DISSOLVED	16	SW846 6010B
SPEC. COND., FIELD (umhos/cm)	629	FIELD
SPEC. COND., LAB (umhos/cm)	391	EPA 120.1
SULFATE	5.9	EPA 300
ALKALINITY	42	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	154	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.77	SM20-5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	19	SM20- 2130B

* Indicator Analyte - For comparison with detection zone analytes.
T Please indicate detection limit if analyte is not detected.
** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metals analysis.

I.D. No	101389
Monitoring Point No.	FFMP033W
Sample Date	5/4/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-Q. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BENZENE	1 ND	SW846 8260B
1,2-DIBROMOETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHENE	1 ND	SW846 8260B
1,2-DICHLOROETHANE	1 ND	SW846 8260B
CIS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
TRANS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
ETHYLBENZENE	1 ND	SW846 8260B
METHYLENE CHLORIDE	1 ND	SW846 8260B
TETRACHLOROETHENE	1 ND	SW846 8260B
TOLUENE	1 ND	SW846 8260B
1,1,1-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROETHENE	1 ND	SW846 8260B
VINYL CHLORIDE	1 ND	SW846 8260B
XYLENES (TOTAL)	3 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP033W
Sample Date	5/4/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

1-A. Metals (Enter all data in ug/l) If initial background analyses of four consecutive analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ARSENIC, TOTAL	3.3 ND	SW846 6010B
ARSENIC, DISSOLVED	3 ND	SW846 6010B
BARIUM, TOTAL	53	SW846 6010B
BARIUM, DISSOLVED	56	SW846 6010B
CADMIUM, TOTAL	1.1 ND	SW846 6010B
CADMIUM, DISSOLVED	1.1 ND	SW846 6010B
CHROMIUM, TOTAL	2.2 ND	SW846 6010B
CHROMIUM, DISSOLVED	2.2 ND	SW846 6010B
COPPER, TOTAL	5.6 ND	SW846 6010B
COPPER, DISSOLVED	5.6 ND	SW846 6010B
LEAD-FLAMELESS, TOTAL	2.2 ND	SW846 6010B
LEAD, DISSOLVED	2.2 ND	SW846 6010B
MERCURY, TOTAL	0.5 ND	SW846 7470A
MERCURY, DISSOLVED	0.5 ND	SW846 7470A
SELENIUM, TOTAL	5.6 ND	SW846 6010B
SELENIUM, DISSOLVED	5.6 ND	SW846 6010B
SILVER, TOTAL	2.2 ND	SW846 6010B
SILVER, DISSOLVED	2.2 ND	SW846 6010B
ZINC, TOTAL	6.3	SW846 6010B
ZINC, DISSOLVED	5.6 ND	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP033W
Sample Date	5/4/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-A. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BROMOFORM	1 ND	SW846 8260B
BROMOMETHANE	1 ND	SW846 8260B
CARBON TETRACHLORIDE	1 ND	SW846 8260B
CHLOROBENZENE	1 ND	SW846 8260B
CHLOROETHANE	1 ND	SW846 8260B
DIBROMOCHLOROMETHANE	1 ND	SW846 8260B
CHLOROMETHANE	1 ND	SW846 8260B
3-CHLORO-1-PROPENE	1 ND	SW846 8260B
1,2-DICHLOROBENZENE	1 ND	SW846 8260B
1,3-DICHLOROBENZENE	1 ND	SW846 8260B
1,4-DICHLOROBENZENE	1 ND	SW846 8260B
DICHLORODIFLUOROMETHANE	1 ND	SW846 8260B
1,2-DICHLOROPROPANE	1 ND	SW846 8260B
CIS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
TRANS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
2-BUTANONE (MEK)	10 ND	SW846 8260B
4-METHYL-2-PENTANONE	5 ND	SW846 8260B
1,1,1,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROFLUOROMETHANE	1 ND	SW846 8260B
1,2,3-TRICHLOROPROPANE	2 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP033W
Sample Date	5/4/2022

FORM 19

ANNUAL WATER QUALITY ANALYSES

SUBTITLE D - Detection Zone Add-On LIst - When the MCL of any VOC is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the groundwater monitoring wells.

ORGANICS AND METALS (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ACETONE	10 ND	SW846 8260B
ACRYLONITRILE	5 ND	SW846 8260B
BROMOCHLOROMETHANE (CHLOROBROMOMETHAN	1 ND	SW846 8260B
BROMODICHLOROMETHANE	1 ND	SW846 8260B
CARBON DISULFIDE	1 ND	SW846 8260B
CHLOROFORM	1 ND	SW846 8260B
1,2-DIBROMO-3-CHLOROPROPANE	7 ND	SW846 8260B
TRANS 1,4-DICHLORO-2-BUTENE	3 ND	SW846 8260B
2-HEXANONE	5 ND	SW846 8260B
DIBROMOMETHANE	1 ND	SW846 8260B
IODOMETHANE	1 ND	SW846 8260B
STYRENE	1 ND	SW846 8260B
VINYL ACETATE	5 ND	SW846 8260B
ANTIMONY	2.2 ND	SW846 6010B
BERYLLIUM	1.1 ND	SW846 6010B
COBALT	5.6 ND	SW846 6010B
NICKEL	5.6 ND	SW846 6010B
THALLIUM	1.1 ND	SW846 6010B
VANADIUM	2.2 ND	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP033W
Sample Date	5/4/2022

FORM 19

ANNUAL WATER QUALITY ANALYSES

Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

Constituent	CAS Number

2540-FM-BWM0041 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
10/14/2022
DEP USE ONLY
Date Received

FORM 19

MUNICIPAL WASTE LANDFILL
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Section 273.284
Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

SECTION A. APPLICANT IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Mana

Site Name: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

SECTION B. FACILITY INFORMATION

Monitoring Wells must be designed and constructed in accordance with Department Standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D° MM' SS.S")

Monitoring Point Number: FFMP02DW — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County — Municipality: MANOR TOWNSHIP

Sampling Point: Latitude: 39 ° 57 ' 27.74 " — Longitude: 76 ° 27 ' 1.49 "

Depth to Water Level: 20.33 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: ___ ft — Elevation of Water Level: 489.27 ft./MSL

Sampling Depth: 120 ft — Volume of Water Column: ___ gal

Total Well Depth: 152 ft — Sampling Method: X Pumped ___ Bailed ___ Grab

Well Purged: X Yes ___ No — Well Volumes Purged: 0.6

Sample Field Filtered (must be 0.45 micron)?: X Yes ___ No

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 5/4/2022 — Sample Collection Time: 15:22

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

Were any holding times exceeded?: ___ Yes X No If yes, please explain in comments field.

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3240808004 — Final Lab Analysis CompletionDate: 5/17/2022

Name/Affiliation of Person who Filled Out Form: Daniel A. Brown

Comments:

I.D. No 101389
Monitoring Point No. FFMP02DW
Sample Date 5/4/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

ANALYTES

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.267	SM20-4500D
BICARBONATE ALKALINITY	109	SM20-2320B
CALCIUM, TOTAL	131	SW846 6010B
CALCIUM, DISSOLVED	133	SW846 6010B
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.4
CHLORIDE	555	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	4400	SW846 6010B
IRON, DISSOLVED (ug/l)	340	SW846 6010B
MAGNESIUM, TOTAL	25.3	SW846 6010B
MAGNESIUM, DISSOLVED	24.3	SW846 6010B
MANGANESE, TOTAL (ug/l)	570	SW846 6010B
MANGANESE, DISSOLVED (ug/l)	560	SW846 6010B
NITRATE-NITROGEN	4.5	EPA 300
pH-FIELD (SU)	7.28	FIELD
pH-LAB (SU)	8.11	SM20-4500B
POTASSIUM, TOTAL	2	SW846 6010B
POTASSIUM, DISSOLVED	2	SW846 6010B
SODIUM, TOTAL	165	SW846 6010B
SODIUM, DISSOLVED	171	SW846 6010B
SPEC. COND., FIELD (umhos/cm)	2878	FIELD
SPEC. COND., LAB (umhos/cm)	1780	EPA 120.1
SULFATE	35	EPA 300
ALKALINITY	109	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	1040	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.93	SM20-5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	61.9	SM20- 2130B

* Indicator Analyte - For comparison with detection zone analytes.
T Please indicate detection limit if analyte is not detected.
** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metals analysis.

I.D. No	101389
Monitoring Point No.	FFMP02DW
Sample Date	5/4/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-Q. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BENZENE	1 ND	SW846 8260B
1,2-DIBROMOETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHENE	1 ND	SW846 8260B
1,2-DICHLOROETHANE	1 ND	SW846 8260B
CIS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
TRANS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
ETHYLBENZENE	1 ND	SW846 8260B
METHYLENE CHLORIDE	1 ND	SW846 8260B
TETRACHLOROETHENE	1 ND	SW846 8260B
TOLUENE	1 ND	SW846 8260B
1,1,1-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROETHENE	1 ND	SW846 8260B
VINYL CHLORIDE	1 ND	SW846 8260B
XYLENES (TOTAL)	3 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP02DW
Sample Date	5/4/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

1-A. Metals (Enter all data in ug/l) If initial background analyses of four consecutive analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ARSENIC, TOTAL	3.3 ND	SW846 6010B
ARSENIC, DISSOLVED	3 ND	SW846 6010B
BARIUM, TOTAL	190	SW846 6010B
BARIUM, DISSOLVED	180	SW846 6010B
CADMIUM, TOTAL	1.1 ND	SW846 6010B
CADMIUM, DISSOLVED	1.1 ND	SW846 6010B
CHROMIUM, TOTAL	2.2 ND	SW846 6010B
CHROMIUM, DISSOLVED	2.2 ND	SW846 6010B
COPPER, TOTAL	5.6 ND	SW846 6010B
COPPER, DISSOLVED	5.6 ND	SW846 6010B
LEAD-FLAMELESS, TOTAL	2.2 ND	SW846 6010B
LEAD, DISSOLVED	2.2 ND	SW846 6010B
MERCURY, TOTAL	0.5 ND	SW846 7470A
MERCURY, DISSOLVED	0.5 ND	SW846 7470A
SELENIUM, TOTAL	5.6 ND	SW846 6010B
SELENIUM, DISSOLVED	5.6 ND	SW846 6010B
SILVER, TOTAL	2.2 ND	SW846 6010B
SILVER, DISSOLVED	2.2 ND	SW846 6010B
ZINC, TOTAL	5.6 ND	SW846 6010B
ZINC, DISSOLVED	5.6 ND	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP02DW
Sample Date	5/4/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-A. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BROMOFORM	1 ND	SW846 8260B
BROMOMETHANE	1 ND	SW846 8260B
CARBON TETRACHLORIDE	1 ND	SW846 8260B
CHLOROBENZENE	1 ND	SW846 8260B
CHLOROETHANE	1 ND	SW846 8260B
DIBROMOCHLOROMETHANE	1 ND	SW846 8260B
CHLOROMETHANE	1 ND	SW846 8260B
3-CHLORO-1-PROPENE	1 ND	SW846 8260B
1,2-DICHLOROBENZENE	1 ND	SW846 8260B
1,3-DICHLOROBENZENE	1 ND	SW846 8260B
1,4-DICHLOROBENZENE	1 ND	SW846 8260B
DICHLORODIFLUOROMETHANE	1 ND	SW846 8260B
1,2-DICHLOROPROPANE	1 ND	SW846 8260B
CIS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
TRANS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
2-BUTANONE (MEK)	10 ND	SW846 8260B
4-METHYL-2-PENTANONE	5 ND	SW846 8260B
1,1,1,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROFLUOROMETHANE	1 ND	SW846 8260B
1,2,3-TRICHLOROPROPANE	2 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP02DW
Sample Date	5/4/2022

FORM 19

ANNUAL WATER QUALITY ANALYSES

SUBTITLE D - Detection Zone Add-On LIst - When the MCL of any VOC is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the groundwater monitoring wells.

ORGANICS AND METALS (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ACETONE	10 ND	SW846 8260B
ACRYLONITRILE	5 ND	SW846 8260B
BROMOCHLOROMETHANE (CHLOROBROMOMETHAN	1 ND	SW846 8260B
BROMODICHLOROMETHANE	1 ND	SW846 8260B
CARBON DISULFIDE	1 ND	SW846 8260B
CHLOROFORM	1 ND	SW846 8260B
1,2-DIBROMO-3-CHLOROPROPANE	7 ND	SW846 8260B
TRANS 1,4-DICHLORO-2-BUTENE	3 ND	SW846 8260B
2-HEXANONE	5 ND	SW846 8260B
DIBROMOMETHANE	1 ND	SW846 8260B
IODOMETHANE	1 ND	SW846 8260B
STYRENE	1 ND	SW846 8260B
VINYL ACETATE	5 ND	SW846 8260B
ANTIMONY	2.2 ND	SW846 6010B
BERYLLIUM	1.1 ND	SW846 6010B
COBALT	5.6 ND	SW846 6010B
NICKEL	5.6 ND	SW846 6010B
THALLIUM	1.1 ND	SW846 6010B
VANADIUM	2.2 ND	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP02DW
Sample Date	5/4/2022

FORM 19

ANNUAL WATER QUALITY ANALYSES

Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

Constituent	CAS Number

2540-FM-BWM0041 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
10/14/2022
DEP USE ONLY
Date Received

FORM 19

MUNICIPAL WASTE LANDFILL
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Section 273.284
Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

SECTION A. APPLICANT IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Mana

Site Name: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

SECTION B. FACILITY INFORMATION

Monitoring Wells must be designed and constructed in accordance with Department Standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D° MM' SS.S")

Monitoring Point Number: FFMP02SW — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County — Municipality: MANOR TOWNSHIP

Sampling Point: Latitude: 39 ° 57 ' 27.9 " — Longitude: 76 ° 27 ' 1.58 "

Depth to Water Level: 15.04 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: ___ ft — Elevation of Water Level: 494.86 ft./MSL

Sampling Depth: 18 ft — Volume of Water Column: ___ gal

Total Well Depth: 25 ft — Sampling Method: X Pumped ___ Bailed ___ Grab

Well Purged: X Yes ___ No — Well Volumes Purged: 2.0

Sample Field Filtered (must be 0.45 micron)?: X Yes ___ No

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 5/4/2022 — Sample Collection Time: 16:06

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

Were any holding times exceeded?: ___ Yes X No If yes, please explain in comments field.

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3240808005 — Final Lab Analysis CompletionDate: 5/17/2022

Name/Affiliation of Person who Filled Out Form: Daniel A. Brown

Comments:

I.D. No 101389
Monitoring Point No. FFMP02SW
Sample Date 5/4/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

ANALYTES

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.143	SM20-4500D
BICARBONATE ALKALINITY	15	SM20-2320B
CALCIUM, TOTAL	18	SW846 6010B
CALCIUM, DISSOLVED	17.8	SW846 6010B
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.4
CHLORIDE	96.8	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	150	SW846 6010B
IRON, DISSOLVED (ug/l)	56 ND	SW846 6010B
MAGNESIUM, TOTAL	7.7	SW846 6010B
MAGNESIUM, DISSOLVED	7.6	SW846 6010B
MANGANESE, TOTAL (ug/l)	18	SW846 6010B
MANGANESE, DISSOLVED (ug/l)	14	SW846 6010B
NITRATE-NITROGEN	13.6	EPA 300
pH-FIELD (SU)	5.57	FIELD
pH-LAB (SU)	6.96	SM20-4500B
POTASSIUM, TOTAL	4	SW846 6010B
POTASSIUM, DISSOLVED	4.3	SW846 6010B
SODIUM, TOTAL	64.3	SW846 6010B
SODIUM, DISSOLVED	64.4	SW846 6010B
SPEC. COND., FIELD (umhos/cm)	791	FIELD
SPEC. COND., LAB (umhos/cm)	541	EPA 120.1
SULFATE	31.5	EPA 300
ALKALINITY	15	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	288	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	1.9	SM20-5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	15.8	SM20- 2130B

* Indicator Analyte - For comparison with detection zone analytes.
T Please indicate detection limit if analyte is not detected.
** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metals analysis.

I.D. No	101389
Monitoring Point No.	FFMP02SW
Sample Date	5/4/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-Q. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BENZENE	1 ND	SW846 8260B
1,2-DIBROMOETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHENE	1 ND	SW846 8260B
1,2-DICHLOROETHANE	1 ND	SW846 8260B
CIS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
TRANS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
ETHYLBENZENE	1 ND	SW846 8260B
METHYLENE CHLORIDE	1 ND	SW846 8260B
TETRACHLOROETHENE	1 ND	SW846 8260B
TOLUENE	1 ND	SW846 8260B
1,1,1-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROETHENE	1 ND	SW846 8260B
VINYL CHLORIDE	1 ND	SW846 8260B
XYLENES (TOTAL)	3 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP02SW
Sample Date	5/4/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

1-A. Metals (Enter all data in ug/l) If initial background analyses of four consecutive analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ARSENIC, TOTAL	3.3 ND	SW846 6010B
ARSENIC, DISSOLVED	3 ND	SW846 6010B
BARIUM, TOTAL	87	SW846 6010B
BARIUM, DISSOLVED	81	SW846 6010B
CADMIUM, TOTAL	1.1 ND	SW846 6010B
CADMIUM, DISSOLVED	1.1 ND	SW846 6010B
CHROMIUM, TOTAL	2.8	SW846 6010B
CHROMIUM, DISSOLVED	2.2 ND	SW846 6010B
COPPER, TOTAL	10	SW846 6010B
COPPER, DISSOLVED	7	SW846 6010B
LEAD-FLAMELESS, TOTAL	2.2 ND	SW846 6010B
LEAD, DISSOLVED	2.2 ND	SW846 6010B
MERCURY, TOTAL	0.5 ND	SW846 7470A
MERCURY, DISSOLVED	0.5 ND	SW846 7470A
SELENIUM, TOTAL	5.6 ND	SW846 6010B
SELENIUM, DISSOLVED	5.6 ND	SW846 6010B
SILVER, TOTAL	2.2 ND	SW846 6010B
SILVER, DISSOLVED	2.2 ND	SW846 6010B
ZINC, TOTAL	11	SW846 6010B
ZINC, DISSOLVED	11	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP02SW
Sample Date	5/4/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-A. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BROMOFORM	1 ND	SW846 8260B
BROMOMETHANE	1 ND	SW846 8260B
CARBON TETRACHLORIDE	1 ND	SW846 8260B
CHLOROBENZENE	1 ND	SW846 8260B
CHLOROETHANE	1 ND	SW846 8260B
DIBROMOCHLOROMETHANE	1 ND	SW846 8260B
CHLOROMETHANE	1 ND	SW846 8260B
3-CHLORO-1-PROPENE	1 ND	SW846 8260B
1,2-DICHLOROBENZENE	1 ND	SW846 8260B
1,3-DICHLOROBENZENE	1 ND	SW846 8260B
1,4-DICHLOROBENZENE	1 ND	SW846 8260B
DICHLORODIFLUOROMETHANE	1 ND	SW846 8260B
1,2-DICHLOROPROPANE	1 ND	SW846 8260B
CIS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
TRANS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
2-BUTANONE (MEK)	10 ND	SW846 8260B
4-METHYL-2-PENTANONE	5 ND	SW846 8260B
1,1,1,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROFLUOROMETHANE	1 ND	SW846 8260B
1,2,3-TRICHLOROPROPANE	2 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP02SW
Sample Date	5/4/2022

FORM 19

ANNUAL WATER QUALITY ANALYSES

SUBTITLE D - Detection Zone Add-On LIst - When the MCL of any VOC is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the groundwater monitoring wells.

ORGANICS AND METALS (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ACETONE	10 ND	SW846 8260B
ACRYLONITRILE	5 ND	SW846 8260B
BROMOCHLOROMETHANE (CHLOROBROMOMETHAN	1 ND	SW846 8260B
BROMODICHLOROMETHANE	1 ND	SW846 8260B
CARBON DISULFIDE	1 ND	SW846 8260B
CHLOROFORM	1 ND	SW846 8260B
1,2-DIBROMO-3-CHLOROPROPANE	7 ND	SW846 8260B
TRANS 1,4-DICHLORO-2-BUTENE	3 ND	SW846 8260B
2-HEXANONE	5 ND	SW846 8260B
DIBROMOMETHANE	1 ND	SW846 8260B
IODOMETHANE	1 ND	SW846 8260B
STYRENE	1 ND	SW846 8260B
VINYL ACETATE	5 ND	SW846 8260B
ANTIMONY	2.2 ND	SW846 6010B
BERYLLIUM	1.1 ND	SW846 6010B
COBALT	5.6 ND	SW846 6010B
NICKEL	5.6 ND	SW846 6010B
THALLIUM	1.1 ND	SW846 6010B
VANADIUM	2.2 ND	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP02SW
Sample Date	5/4/2022

FORM 19

ANNUAL WATER QUALITY ANALYSES

Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

Constituent	CAS Number

2540-FM-BWM0041 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
10/14/2022
DEP USE ONLY
Date Received

FORM 19

MUNICIPAL WASTE LANDFILL
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Section 273.284
Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

SECTION A. APPLICANT IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Mana

Site Name: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

SECTION B. FACILITY INFORMATION

Monitoring Wells must be designed and constructed in accordance with Department Standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D° MM' SS.S")

Monitoring Point Number: FFMP018W — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County — Municipality: Manor Township

Sampling Point: Latitude: 39 ° 57 ' 11.62 " — Longitude: 76 ° 27 ' 5.68 "

Depth to Water Level: 26.15 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 2.46 ft — Elevation of Water Level: 446.05 ft./MSL

Sampling Depth: 40 ft — Volume of Water Column: 16.50 gal

Total Well Depth: 51.43 ft — Sampling Method: X Pumped ___ Bailed ___ Grab

Well Purged: X Yes ___ No — Well Volumes Purged: 3.6

Sample Field Filtered (must be 0.45 micron)?: X Yes ___ No

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 5/5/2022 — Sample Collection Time: 10:28

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

Were any holding times exceeded?: ___ Yes X No If yes, please explain in comments field.

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3241106001 — Final Lab Analysis CompletionDate: 5/17/2022

Name/Affiliation of Person who Filled Out Form: Daniel A. Brown

Comments:

I.D. No	101389
Monitoring Point No.	FFMP018W
Sample Date	5/5/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

ANALYTES

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.247	SM20-4500D
BICARBONATE ALKALINITY	21	SM20-2320B
CALCIUM, TOTAL	28.1	SW846 6010B
CALCIUM, DISSOLVED	27.7	SW846 6010B
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.4
CHLORIDE	110	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	56 ND	SW846 6010B
IRON, DISSOLVED (ug/l)	56 ND	SW846 6010B
MAGNESIUM, TOTAL	18.2	SW846 6010B
MAGNESIUM, DISSOLVED	17.8	SW846 6010B
MANGANESE, TOTAL (ug/l)	200	SW846 6010B
MANGANESE, DISSOLVED (ug/l)	180	SW846 6010B
NITRATE-NITROGEN	4.1	EPA 300
pH-FIELD (SU)	5.11	FIELD
pH-LAB (SU)	6.56	SM20-4500B
POTASSIUM, TOTAL	3.6	SW846 6010B
POTASSIUM, DISSOLVED	3.6	SW846 6010B
SODIUM, TOTAL	38.4	SW846 6010B
SODIUM, DISSOLVED	37.2	SW846 6010B
SPEC. COND., FIELD (umhos/cm)	778	FIELD
SPEC. COND., LAB (umhos/cm)	558	EPA 120.1
SULFATE	35.8	EPA 300
ALKALINITY	21	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	348	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.97	SM20-5310B
TOTAL PHENOLICS (ug/l)	6	SW846 9066
TURBIDITY (N.T.U.)	0.11	SM20- 2130B

* Indicator Analyte - For comparison with detection zone analytes.
T Please indicate detection limit if analyte is not detected.
** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metals analysis.

I.D. No	101389
Monitoring Point No.	FFMP018W
Sample Date	5/5/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-Q. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BENZENE	1 ND	SW846 8260B
1,2-DIBROMOETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHENE	1 ND	SW846 8260B
1,2-DICHLOROETHANE	1 ND	SW846 8260B
CIS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
TRANS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
ETHYLBENZENE	1 ND	SW846 8260B
METHYLENE CHLORIDE	1 ND	SW846 8260B
TETRACHLOROETHENE	1 ND	SW846 8260B
TOLUENE	1 ND	SW846 8260B
1,1,1-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROETHENE	1 ND	SW846 8260B
VINYL CHLORIDE	1 ND	SW846 8260B
XYLENES (TOTAL)	3 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP018W
Sample Date	5/5/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

1-A. Metals (Enter all data in ug/l) If initial background analyses of four consecutive analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ARSENIC, TOTAL	3.3 ND	SW846 6010B
ARSENIC, DISSOLVED	3 ND	SW846 6010B
BARIUM, TOTAL	78	SW846 6010B
BARIUM, DISSOLVED	77	SW846 6010B
CADMIUM, TOTAL	1.1 ND	SW846 6010B
CADMIUM, DISSOLVED	1.1 ND	SW846 6010B
CHROMIUM, TOTAL	2.7	SW846 6010B
CHROMIUM, DISSOLVED	2.2 ND	SW846 6010B
COPPER, TOTAL	5.6 ND	SW846 6010B
COPPER, DISSOLVED	5.6 ND	SW846 6010B
LEAD-FLAMELESS, TOTAL	2.2 ND	SW846 6010B
LEAD, DISSOLVED	2.2 ND	SW846 6010B
MERCURY, TOTAL	0.5 ND	SW846 7470A
MERCURY, DISSOLVED	0.5 ND	SW846 7470A
SELENIUM, TOTAL	5.6 ND	SW846 6010B
SELENIUM, DISSOLVED	5.6 ND	SW846 6010B
SILVER, TOTAL	2.2 ND	SW846 6010B
SILVER, DISSOLVED	2.2 ND	SW846 6010B
ZINC, TOTAL	13	SW846 6010B
ZINC, DISSOLVED	13	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP018W
Sample Date	5/5/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-A. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BROMOFORM	1 ND	SW846 8260B
BROMOMETHANE	1 ND	SW846 8260B
CARBON TETRACHLORIDE	1 ND	SW846 8260B
CHLOROBENZENE	1 ND	SW846 8260B
CHLOROETHANE	1 ND	SW846 8260B
DIBROMOCHLOROMETHANE	1 ND	SW846 8260B
CHLOROMETHANE	1 ND	SW846 8260B
3-CHLORO-1-PROPENE	1 ND	SW846 8260B
1,2-DICHLOROBENZENE	1 ND	SW846 8260B
1,3-DICHLOROBENZENE	1 ND	SW846 8260B
1,4-DICHLOROBENZENE	1 ND	SW846 8260B
DICHLORODIFLUOROMETHANE	1 ND	SW846 8260B
1,2-DICHLOROPROPANE	1 ND	SW846 8260B
CIS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
TRANS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
2-BUTANONE (MEK)	10 ND	SW846 8260B
4-METHYL-2-PENTANONE	5 ND	SW846 8260B
1,1,1,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROFLUOROMETHANE	1 ND	SW846 8260B
1,2,3-TRICHLOROPROPANE	2 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP018W
Sample Date	5/5/2022

FORM 19

ANNUAL WATER QUALITY ANALYSES

SUBTITLE D - Detection Zone Add-On LIst - When the MCL of any VOC is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the groundwater monitoring wells.

ORGANICS AND METALS (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ACETONE	10 ND	SW846 8260B
ACRYLONITRILE	5 ND	SW846 8260B
BROMOCHLOROMETHANE (CHLOROBROMOMETHAN	1 ND	SW846 8260B
BROMODICHLOROMETHANE	1 ND	SW846 8260B
CARBON DISULFIDE	1 ND	SW846 8260B
CHLOROFORM	1 ND	SW846 8260B
1,2-DIBROMO-3-CHLOROPROPANE	7 ND	SW846 8260B
TRANS 1,4-DICHLORO-2-BUTENE	3 ND	SW846 8260B
2-HEXANONE	5 ND	SW846 8260B
DIBROMOMETHANE	1 ND	SW846 8260B
IODOMETHANE	1 ND	SW846 8260B
STYRENE	1 ND	SW846 8260B
VINYL ACETATE	5 ND	SW846 8260B
ANTIMONY	2.2 ND	SW846 6010B
BERYLLIUM	1.1 ND	SW846 6010B
COBALT	5.6 ND	SW846 6010B
NICKEL	7.5	SW846 6010B
THALLIUM	1.1 ND	SW846 6010B
VANADIUM	2.2 ND	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP018W
Sample Date	5/5/2022

FORM 19

ANNUAL WATER QUALITY ANALYSES

Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

Constituent	CAS Number

2540-FM-BWM0041 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
10/14/2022
DEP USE ONLY
Date Received

FORM 19

MUNICIPAL WASTE LANDFILL
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Section 273.284
Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

SECTION A. APPLICANT IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Mana

Site Name: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

SECTION B. FACILITY INFORMATION

Monitoring Wells must be designed and constructed in accordance with Department Standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D° MM' SS.S")

Monitoring Point Number: FFMP019W — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County — Municipality: Manor Township

Sampling Point: Latitude: 39 ° 57 ' 11.58 " — Longitude: 76 ° 27 ' 5.75 "

Depth to Water Level: 26.96 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 1.79 ft — Elevation of Water Level: 444.99 ft./MSL

Sampling Depth: 49 ft — Volume of Water Column: 69.08 gal

Total Well Depth: 132.79 ft — Sampling Method: X Pumped ___ Bailed ___ Grab

Well Purged: X Yes ___ No — Well Volumes Purged: 2.1

Sample Field Filtered (must be 0.45 micron)?: X Yes ___ No

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 5/5/2022 — Sample Collection Time: 11:17

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

Were any holding times exceeded?: ___ Yes X No If yes, please explain in comments field.

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3241106002 — Final Lab Analysis CompletionDate: 5/17/2022

Name/Affiliation of Person who Filled Out Form: Daniel A. Brown

Comments:

I.D. No 101389
Monitoring Point No. FFMP019W
Sample Date 5/5/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

ANALYTES

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.275	SM20-4500D
BICARBONATE ALKALINITY	65	SM20-2320B
CALCIUM, TOTAL	56.5	SW846 6010B
CALCIUM, DISSOLVED	56.5	SW846 6010B
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.4
CHLORIDE	86.5	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	56 ND	SW846 6010B
IRON, DISSOLVED (ug/l)	56 ND	SW846 6010B
MAGNESIUM, TOTAL	6.2	SW846 6010B
MAGNESIUM, DISSOLVED	6	SW846 6010B
MANGANESE, TOTAL (ug/l)	5.6 ND	SW846 6010B
MANGANESE, DISSOLVED (ug/l)	5.9	SW846 6010B
NITRATE-NITROGEN	1 ND	EPA 300
pH-FIELD (SU)	6.39	FIELD
pH-LAB (SU)	7.69	SM20-4500B
POTASSIUM, TOTAL	0.9	SW846 6010B
POTASSIUM, DISSOLVED	0.92	SW846 6010B
SODIUM, TOTAL	11	SW846 6010B
SODIUM, DISSOLVED	11.1	SW846 6010B
SPEC. COND., FIELD (umhos/cm)	662	FIELD
SPEC. COND., LAB (umhos/cm)	476	EPA 120.1
SULFATE	13.8	EPA 300
ALKALINITY	65	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	370	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	1.3	SM20-5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	0.1	SM20- 2130B

* Indicator Analyte - For comparison with detection zone analytes.
T Please indicate detection limit if analyte is not detected.
** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metals analysis.

I.D. No	101389
Monitoring Point No.	FFMP019W
Sample Date	5/5/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-Q. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BENZENE	1 ND	SW846 8260B
1,2-DIBROMOETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHENE	1 ND	SW846 8260B
1,2-DICHLOROETHANE	1 ND	SW846 8260B
CIS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
TRANS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
ETHYLBENZENE	1 ND	SW846 8260B
METHYLENE CHLORIDE	1 ND	SW846 8260B
TETRACHLOROETHENE	1 ND	SW846 8260B
TOLUENE	1 ND	SW846 8260B
1,1,1-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROETHENE	1 ND	SW846 8260B
VINYL CHLORIDE	1 ND	SW846 8260B
XYLENES (TOTAL)	3 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP019W
Sample Date	5/5/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

1-A. Metals (Enter all data in ug/l) If initial background analyses of four consecutive analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ARSENIC, TOTAL	3.3 ND	SW846 6010B
ARSENIC, DISSOLVED	3 ND	SW846 6010B
BARIUM, TOTAL	80	SW846 6010B
BARIUM, DISSOLVED	79	SW846 6010B
CADMIUM, TOTAL	1.1 ND	SW846 6010B
CADMIUM, DISSOLVED	1.1 ND	SW846 6010B
CHROMIUM, TOTAL	2.2 ND	SW846 6010B
CHROMIUM, DISSOLVED	2.2 ND	SW846 6010B
COPPER, TOTAL	5.6 ND	SW846 6010B
COPPER, DISSOLVED	5.6 ND	SW846 6010B
LEAD-FLAMELESS, TOTAL	2.2 ND	SW846 6010B
LEAD, DISSOLVED	2.2 ND	SW846 6010B
MERCURY, TOTAL	0.5 ND	SW846 7470A
MERCURY, DISSOLVED	0.5 ND	SW846 7470A
SELENIUM, TOTAL	5.6 ND	SW846 6010B
SELENIUM, DISSOLVED	5.6 ND	SW846 6010B
SILVER, TOTAL	2.2 ND	SW846 6010B
SILVER, DISSOLVED	2.2 ND	SW846 6010B
ZINC, TOTAL	5.6 ND	SW846 6010B
ZINC, DISSOLVED	5.6 ND	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP019W
Sample Date	5/5/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-A. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BROMOFORM	1 ND	SW846 8260B
BROMOMETHANE	1 ND	SW846 8260B
CARBON TETRACHLORIDE	1 ND	SW846 8260B
CHLOROBENZENE	1 ND	SW846 8260B
CHLOROETHANE	1 ND	SW846 8260B
DIBROMOCHLOROMETHANE	1 ND	SW846 8260B
CHLOROMETHANE	1 ND	SW846 8260B
3-CHLORO-1-PROPENE	1 ND	SW846 8260B
1,2-DICHLOROBENZENE	1 ND	SW846 8260B
1,3-DICHLOROBENZENE	1 ND	SW846 8260B
1,4-DICHLOROBENZENE	1 ND	SW846 8260B
DICHLORODIFLUOROMETHANE	1 ND	SW846 8260B
1,2-DICHLOROPROPANE	1 ND	SW846 8260B
CIS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
TRANS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
2-BUTANONE (MEK)	10 ND	SW846 8260B
4-METHYL-2-PENTANONE	5 ND	SW846 8260B
1,1,1,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROFLUOROMETHANE	1 ND	SW846 8260B
1,2,3-TRICHLOROPROPANE	2 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP019W
Sample Date	5/5/2022

FORM 19

ANNUAL WATER QUALITY ANALYSES

SUBTITLE D - Detection Zone Add-On LIst - When the MCL of any VOC is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the groundwater monitoring wells.

ORGANICS AND METALS (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ACETONE	10 ND	SW846 8260B
ACRYLONITRILE	5 ND	SW846 8260B
BROMOCHLOROMETHANE (CHLOROBROMOMETHAN	1 ND	SW846 8260B
BROMODICHLOROMETHANE	1 ND	SW846 8260B
CARBON DISULFIDE	1 ND	SW846 8260B
CHLOROFORM	1 ND	SW846 8260B
1,2-DIBROMO-3-CHLOROPROPANE	7 ND	SW846 8260B
TRANS 1,4-DICHLORO-2-BUTENE	3 ND	SW846 8260B
2-HEXANONE	5 ND	SW846 8260B
DIBROMOMETHANE	1 ND	SW846 8260B
IODOMETHANE	1 ND	SW846 8260B
STYRENE	1 ND	SW846 8260B
VINYL ACETATE	5 ND	SW846 8260B
ANTIMONY	2.2 ND	SW846 6010B
BERYLLIUM	1.1 ND	SW846 6010B
COBALT	5.6 ND	SW846 6010B
NICKEL	5.6 ND	SW846 6010B
THALLIUM	1.1 ND	SW846 6010B
VANADIUM	2.2 ND	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP019W
Sample Date	5/5/2022

FORM 19

ANNUAL WATER QUALITY ANALYSES

Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

Constituent	CAS Number

2540-FM-BWM0041 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
10/14/2022
DEP USE ONLY
Date Received

FORM 19

MUNICIPAL WASTE LANDFILL
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Section 273.284
Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

SECTION A. APPLICANT IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Mana

Site Name: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

SECTION B. FACILITY INFORMATION

Monitoring Wells must be designed and constructed in accordance with Department Standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D° MM' SS.S")

Monitoring Point Number: FFMP036W — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County — Municipality: MANOR TOWNSHIP

Sampling Point: Latitude: 39 ° 57 ' 16.03 " — Longitude: 76 ° 26 ' 57.28 "

Depth to Water Level: 45.31 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 1.91 ft — Elevation of Water Level: 432.92 ft./MSL

Sampling Depth: 135 ft — Volume of Water Column: 139.07 gal

Total Well Depth: 140 ft — Sampling Method: X Pumped ___ Bailed ___ Grab

Well Purged: X Yes ___ No — Well Volumes Purged: 0.7

Sample Field Filtered (must be 0.45 micron)?: X Yes ___ No

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 5/5/2022 — Sample Collection Time: 12:45

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

Were any holding times exceeded?: ___ Yes X No If yes, please explain in comments field.

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3241106003 — Final Lab Analysis CompletionDate: 5/17/2022

Name/Affiliation of Person who Filled Out Form: Daniel A. Brown

Comments:

I.D. No 101389
Monitoring Point No. FFMP036W
Sample Date 5/5/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

ANALYTES

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.26	SM20-4500D
BICARBONATE ALKALINITY	87	SM20-2320B
CALCIUM, TOTAL	38.6	SW846 6010B
CALCIUM, DISSOLVED	38.1	SW846 6010B
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.4
CHLORIDE	30.5	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	2100	SW846 6010B
IRON, DISSOLVED (ug/l)	1500	SW846 6010B
MAGNESIUM, TOTAL	4.3	SW846 6010B
MAGNESIUM, DISSOLVED	4.6	SW846 6010B
MANGANESE, TOTAL (ug/l)	140	SW846 6010B
MANGANESE, DISSOLVED (ug/l)	120	SW846 6010B
NITRATE-NITROGEN	1 ND	EPA 300
pH-FIELD (SU)	8.16	FIELD
pH-LAB (SU)	8.08	SM20-4500B
POTASSIUM, TOTAL	1	SW846 6010B
POTASSIUM, DISSOLVED	1.1	SW846 6010B
SODIUM, TOTAL	14.4	SW846 6010B
SODIUM, DISSOLVED	15.6	SW846 6010B
SPEC. COND., FIELD (umhos/cm)	406	FIELD
SPEC. COND., LAB (umhos/cm)	323	EPA 120.1
SULFATE	25.3	EPA 300
ALKALINITY	87	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	192	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.68	SM20-5310B
TOTAL PHENOLICS (ug/l)	10	SW846 9066
TURBIDITY (N.T.U.)	16.9	SM20- 2130B

* Indicator Analyte - For comparison with detection zone analytes.
T Please indicate detection limit if analyte is not detected.
** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metals analysis.

I.D. No	101389
Monitoring Point No.	FFMP036W
Sample Date	5/5/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-Q. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BENZENE	1 ND	SW846 8260B
1,2-DIBROMOETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHENE	1 ND	SW846 8260B
1,2-DICHLOROETHANE	1 ND	SW846 8260B
CIS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
TRANS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
ETHYLBENZENE	1 ND	SW846 8260B
METHYLENE CHLORIDE	1 ND	SW846 8260B
TETRACHLOROETHENE	1 ND	SW846 8260B
TOLUENE	1 ND	SW846 8260B
1,1,1-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROETHENE	1 ND	SW846 8260B
VINYL CHLORIDE	1 ND	SW846 8260B
XYLENES (TOTAL)	3 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP036W
Sample Date	5/5/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

1-A. Metals (Enter all data in ug/l) If initial background analyses of four consecutive analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ARSENIC, TOTAL	3.3 ND	SW846 6010B
ARSENIC, DISSOLVED	3 ND	SW846 6010B
BARIUM, TOTAL	99	SW846 6010B
BARIUM, DISSOLVED	97	SW846 6010B
CADMIUM, TOTAL	1.1 ND	SW846 6010B
CADMIUM, DISSOLVED	1.1 ND	SW846 6010B
CHROMIUM, TOTAL	2.2 ND	SW846 6010B
CHROMIUM, DISSOLVED	2.2 ND	SW846 6010B
COPPER, TOTAL	5.6 ND	SW846 6010B
COPPER, DISSOLVED	5.6 ND	SW846 6010B
LEAD-FLAMELESS, TOTAL	2.2 ND	SW846 6010B
LEAD, DISSOLVED	2.2 ND	SW846 6010B
MERCURY, TOTAL	0.5 ND	SW846 7470A
MERCURY, DISSOLVED	0.5 ND	SW846 7470A
SELENIUM, TOTAL	5.6 ND	SW846 6010B
SELENIUM, DISSOLVED	5.6 ND	SW846 6010B
SILVER, TOTAL	2.2 ND	SW846 6010B
SILVER, DISSOLVED	2.2 ND	SW846 6010B
ZINC, TOTAL	5.6 ND	SW846 6010B
ZINC, DISSOLVED	5.6 ND	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP036W
Sample Date	5/5/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-A. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BROMOFORM	1 ND	SW846 8260B
BROMOMETHANE	1 ND	SW846 8260B
CARBON TETRACHLORIDE	1 ND	SW846 8260B
CHLOROBENZENE	1 ND	SW846 8260B
CHLOROETHANE	1 ND	SW846 8260B
DIBROMOCHLOROMETHANE	1 ND	SW846 8260B
CHLOROMETHANE	1 ND	SW846 8260B
3-CHLORO-1-PROPENE	1 ND	SW846 8260B
1,2-DICHLOROBENZENE	1 ND	SW846 8260B
1,3-DICHLOROBENZENE	1 ND	SW846 8260B
1,4-DICHLOROBENZENE	1 ND	SW846 8260B
DICHLORODIFLUOROMETHANE	1 ND	SW846 8260B
1,2-DICHLOROPROPANE	1 ND	SW846 8260B
CIS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
TRANS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
2-BUTANONE (MEK)	10 ND	SW846 8260B
4-METHYL-2-PENTANONE	5 ND	SW846 8260B
1,1,1,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROFLUOROMETHANE	1 ND	SW846 8260B
1,2,3-TRICHLOROPROPANE	2 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP036W
Sample Date	5/5/2022

FORM 19

ANNUAL WATER QUALITY ANALYSES

SUBTITLE D - Detection Zone Add-On LIst - When the MCL of any VOC is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the groundwater monitoring wells.

ORGANICS AND METALS (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ACETONE	10 ND	SW846 8260B
ACRYLONITRILE	5 ND	SW846 8260B
BROMOCHLOROMETHANE (CHLOROBROMOMETHAN	1 ND	SW846 8260B
BROMODICHLOROMETHANE	1 ND	SW846 8260B
CARBON DISULFIDE	1 ND	SW846 8260B
CHLOROFORM	1 ND	SW846 8260B
1,2-DIBROMO-3-CHLOROPROPANE	7 ND	SW846 8260B
TRANS 1,4-DICHLORO-2-BUTENE	3 ND	SW846 8260B
2-HEXANONE	5 ND	SW846 8260B
DIBROMOMETHANE	1 ND	SW846 8260B
IODOMETHANE	1 ND	SW846 8260B
STYRENE	1 ND	SW846 8260B
VINYL ACETATE	5 ND	SW846 8260B
ANTIMONY	2.2 ND	SW846 6010B
BERYLLIUM	1.1 ND	SW846 6010B
COBALT	5.6 ND	SW846 6010B
NICKEL	5.6 ND	SW846 6010B
THALLIUM	1.1 ND	SW846 6010B
VANADIUM	2.2 ND	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP036W
Sample Date	5/5/2022

FORM 19

ANNUAL WATER QUALITY ANALYSES

Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

Constituent	CAS Number

2540-FM-BWM0041 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
10/14/2022
DEP USE ONLY
Date Received

FORM 19

MUNICIPAL WASTE LANDFILL
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Section 273.284
Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

SECTION A. APPLICANT IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Mana

Site Name: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

SECTION B. FACILITY INFORMATION

Monitoring Wells must be designed and constructed in accordance with Department Standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D° MM' SS.S")

Monitoring Point Number: FFMP035W — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County — Municipality: MANOR TOWNSHIP

Sampling Point: Latitude: 39 ° 57 ' 15.95 " — Longitude: 76 ° 26 ' 57.26 "

Depth to Water Level: 42.49 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 1.45 ft — Elevation of Water Level: 435.07 ft./MSL

Sampling Depth: 65 ft — Volume of Water Column: 40.40 gal

Total Well Depth: 70 ft — Sampling Method: X Pumped ___ Bailed ___ Grab

Well Purged: X Yes ___ No — Well Volumes Purged: 0.8

Sample Field Filtered (must be 0.45 micron)?: X Yes ___ No

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 5/5/2022 — Sample Collection Time: 14:11

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

Were any holding times exceeded?: ___ Yes X No If yes, please explain in comments field.

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3241106004 — Final Lab Analysis CompletionDate: 5/17/2022

Name/Affiliation of Person who Filled Out Form: Daniel A. Brown

Comments:

I.D. No 101389
Monitoring Point No. FFMP035W
Sample Date 5/5/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

ANALYTES

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.224	SM20-4500D
BICARBONATE ALKALINITY	77	SM20-2320B
CALCIUM, TOTAL	67	SW846 6010B
CALCIUM, DISSOLVED	67.8	SW846 6010B
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.4
CHLORIDE	165	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	98	SW846 6010B
IRON, DISSOLVED (ug/l)	180	SW846 6010B
MAGNESIUM, TOTAL	18.7	SW846 6010B
MAGNESIUM, DISSOLVED	19.1	SW846 6010B
MANGANESE, TOTAL (ug/l)	45	SW846 6010B
MANGANESE, DISSOLVED (ug/l)	32	SW846 6010B
NITRATE-NITROGEN	6.2	EPA 300
pH-FIELD (SU)	6.41	FIELD
pH-LAB (SU)	7.61	SM20-4500B
POTASSIUM, TOTAL	4.1	SW846 6010B
POTASSIUM, DISSOLVED	4.3	SW846 6010B
SODIUM, TOTAL	50.5	SW846 6010B
SODIUM, DISSOLVED	52.6	SW846 6010B
SPEC. COND., FIELD (umhos/cm)	1097	FIELD
SPEC. COND., LAB (umhos/cm)	848	EPA 120.1
SULFATE	34.9	EPA 300
ALKALINITY	77	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	492	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	1.1	SM20-5310B
TOTAL PHENOLICS (ug/l)	6	SW846 9066
TURBIDITY (N.T.U.)	0.94	SM20- 2130B

* Indicator Analyte - For comparison with detection zone analytes.
T Please indicate detection limit if analyte is not detected.
** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metals analysis.

I.D. No	101389
Monitoring Point No.	FFMP035W
Sample Date	5/5/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-Q. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BENZENE	1 ND	SW846 8260B
1,2-DIBROMOETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHENE	1 ND	SW846 8260B
1,2-DICHLOROETHANE	1 ND	SW846 8260B
CIS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
TRANS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
ETHYLBENZENE	1 ND	SW846 8260B
METHYLENE CHLORIDE	1 ND	SW846 8260B
TETRACHLOROETHENE	1 ND	SW846 8260B
TOLUENE	1 ND	SW846 8260B
1,1,1-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROETHENE	1 ND	SW846 8260B
VINYL CHLORIDE	1 ND	SW846 8260B
XYLENES (TOTAL)	3 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP035W
Sample Date	5/5/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

1-A. Metals (Enter all data in ug/l) If initial background analyses of four consecutive analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ARSENIC, TOTAL	3.3 ND	SW846 6010B
ARSENIC, DISSOLVED	3 ND	SW846 6010B
BARIUM, TOTAL	91	SW846 6010B
BARIUM, DISSOLVED	90	SW846 6010B
CADMIUM, TOTAL	1.1 ND	SW846 6010B
CADMIUM, DISSOLVED	1.1 ND	SW846 6010B
CHROMIUM, TOTAL	5.6	SW846 6010B
CHROMIUM, DISSOLVED	19	SW846 6010B
COPPER, TOTAL	5.6 ND	SW846 6010B
COPPER, DISSOLVED	5.6 ND	SW846 6010B
LEAD-FLAMELESS, TOTAL	2.2 ND	SW846 6010B
LEAD, DISSOLVED	2.2 ND	SW846 6010B
MERCURY, TOTAL	0.5 ND	SW846 7470A
MERCURY, DISSOLVED	0.5 ND	SW846 7470A
SELENIUM, TOTAL	5.6 ND	SW846 6010B
SELENIUM, DISSOLVED	5.6 ND	SW846 6010B
SILVER, TOTAL	2.2 ND	SW846 6010B
SILVER, DISSOLVED	2.2 ND	SW846 6010B
ZINC, TOTAL	27	SW846 6010B
ZINC, DISSOLVED	26	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP035W
Sample Date	5/5/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-A. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BROMOFORM	1 ND	SW846 8260B
BROMOMETHANE	1 ND	SW846 8260B
CARBON TETRACHLORIDE	1 ND	SW846 8260B
CHLOROBENZENE	1 ND	SW846 8260B
CHLOROETHANE	1 ND	SW846 8260B
DIBROMOCHLOROMETHANE	1 ND	SW846 8260B
CHLOROMETHANE	1 ND	SW846 8260B
3-CHLORO-1-PROPENE	1 ND	SW846 8260B
1,2-DICHLOROBENZENE	1 ND	SW846 8260B
1,3-DICHLOROBENZENE	1 ND	SW846 8260B
1,4-DICHLOROBENZENE	1 ND	SW846 8260B
DICHLORODIFLUOROMETHANE	1 ND	SW846 8260B
1,2-DICHLOROPROPANE	1 ND	SW846 8260B
CIS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
TRANS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
2-BUTANONE (MEK)	10 ND	SW846 8260B
4-METHYL-2-PENTANONE	5 ND	SW846 8260B
1,1,1,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROFLUOROMETHANE	1 ND	SW846 8260B
1,2,3-TRICHLOROPROPANE	2 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP035W
Sample Date	5/5/2022

FORM 19

ANNUAL WATER QUALITY ANALYSES

SUBTITLE D - Detection Zone Add-On LIst - When the MCL of any VOC is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the groundwater monitoring wells.

ORGANICS AND METALS (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ACETONE	10 ND	SW846 8260B
ACRYLONITRILE	5 ND	SW846 8260B
BROMOCHLOROMETHANE (CHLOROBROMOMETHAN	1 ND	SW846 8260B
BROMODICHLOROMETHANE	1 ND	SW846 8260B
CARBON DISULFIDE	1 ND	SW846 8260B
CHLOROFORM	1 ND	SW846 8260B
1,2-DIBROMO-3-CHLOROPROPANE	7 ND	SW846 8260B
TRANS 1,4-DICHLORO-2-BUTENE	3 ND	SW846 8260B
2-HEXANONE	5 ND	SW846 8260B
DIBROMOMETHANE	1 ND	SW846 8260B
IODOMETHANE	1 ND	SW846 8260B
STYRENE	1 ND	SW846 8260B
VINYL ACETATE	5 ND	SW846 8260B
ANTIMONY	2.2 ND	SW846 6010B
BERYLLIUM	1.1 ND	SW846 6010B
COBALT	5.6 ND	SW846 6010B
NICKEL	13	SW846 6010B
THALLIUM	1.1 ND	SW846 6010B
VANADIUM	2.2 ND	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP035W
Sample Date	5/5/2022

FORM 19

ANNUAL WATER QUALITY ANALYSES

Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

Constituent	CAS Number

2540-FM-BWM0041 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
10/14/2022
DEP USE ONLY
Date Received

FORM 19

MUNICIPAL WASTE LANDFILL
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Section 273.284
Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

SECTION A. APPLICANT IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Mana

Site Name: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

SECTION B. FACILITY INFORMATION

Monitoring Wells must be designed and constructed in accordance with Department Standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D° MM' SS.S")

Monitoring Point Number: FFMP031W — X Well ___ Spring ___ Stream ___ Other

X Upgradient/Upstream ___ Downgradient/Downstream

Location (County): Lancaster County — Municipality: MANOR TOWNSHIP

Sampling Point: Latitude: 39 ° 57 ' 31.2 " — Longitude: 76 ° 27 ' 23.53 "

Depth to Water Level: 65.17 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 2.38 ft — Elevation of Water Level: 547.49 ft./MSL

Sampling Depth: 130 ft — Volume of Water Column: 109.90 gal

Total Well Depth: 140 ft — Sampling Method: X Pumped ___ Bailed ___ Grab

Well Purged: X Yes ___ No — Well Volumes Purged: 1.1

Sample Field Filtered (must be 0.45 micron)?: X Yes ___ No

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 5/6/2022 — Sample Collection Time: 13:27

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

Were any holding times exceeded?: ___ Yes X No If yes, please explain in comments field.

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3241425001 — Final Lab Analysis CompletionDate: 5/19/2022

Name/Affiliation of Person who Filled Out Form: Daniel A. Brown

Comments:

I.D. No	101389
Monitoring Point No.	FFMP031W
Sample Date	5/6/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

ANALYTES

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.239	SM20-4500D
BICARBONATE ALKALINITY	63	SM20-2320B
CALCIUM, TOTAL	35.4	SW846 6010B
CALCIUM, DISSOLVED	35.2	SW846 6010B
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.4
CHLORIDE	19.6	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	4700	SW846 6010B
IRON, DISSOLVED (ug/l)	2300	SW846 6010B
MAGNESIUM, TOTAL	4.1	SW846 6010B
MAGNESIUM, DISSOLVED	4.1	SW846 6010B
MANGANESE, TOTAL (ug/l)	290	SW846 6010B
MANGANESE, DISSOLVED (ug/l)	270	SW846 6010B
NITRATE-NITROGEN	1 ND	EPA 300
pH-FIELD (SU)	7.97	FIELD
pH-LAB (SU)	8.04	SM20-4500B
POTASSIUM, TOTAL	1.2	SW846 6010B
POTASSIUM, DISSOLVED	1.2	SW846 6010B
SODIUM, TOTAL	10.1	SW846 6010B
SODIUM, DISSOLVED	10.3	SW846 6010B
SPEC. COND., FIELD (umhos/cm)	451	FIELD
SPEC. COND., LAB (umhos/cm)	288	EPA 120.1
SULFATE	43.5	EPA 300
ALKALINITY	63	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	158	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	1.6	SM20-5310B
TOTAL PHENOLICS (ug/l)	8	SW846 9066
TURBIDITY (N.T.U.)	47.8	SM20- 2130B

* Indicator Analyte - For comparison with detection zone analytes.
T Please indicate detection limit if analyte is not detected.
** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metals analysis.

I.D. No	101389
Monitoring Point No.	FFMP031W
Sample Date	5/6/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-Q. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BENZENE	1 ND	SW846 8260B
1,2-DIBROMOETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHENE	1 ND	SW846 8260B
1,2-DICHLOROETHANE	1 ND	SW846 8260B
CIS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
TRANS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
ETHYLBENZENE	1 ND	SW846 8260B
METHYLENE CHLORIDE	1 ND	SW846 8260B
TETRACHLOROETHENE	1 ND	SW846 8260B
TOLUENE	1 ND	SW846 8260B
1,1,1-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROETHENE	1 ND	SW846 8260B
VINYL CHLORIDE	1 ND	SW846 8260B
XYLENES (TOTAL)	3 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP031W
Sample Date	5/6/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

1-A. Metals (Enter all data in ug/l) If initial background analyses of four consecutive analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ARSENIC, TOTAL	3.3 ND	SW846 6010B
ARSENIC, DISSOLVED	3 ND	SW846 6010B
BARIUM, TOTAL	30	SW846 6010B
BARIUM, DISSOLVED	28	SW846 6010B
CADMIUM, TOTAL	1.1 ND	SW846 6010B
CADMIUM, DISSOLVED	1.1 ND	SW846 6010B
CHROMIUM, TOTAL	2.2 ND	SW846 6010B
CHROMIUM, DISSOLVED	2.2 ND	SW846 6010B
COPPER, TOTAL	5.6 ND	SW846 6010B
COPPER, DISSOLVED	5.6 ND	SW846 6010B
LEAD-FLAMELESS, TOTAL	2.2 ND	SW846 6010B
LEAD, DISSOLVED	2.2 ND	SW846 6010B
MERCURY, TOTAL	0.5 ND	SW846 7470A
MERCURY, DISSOLVED	0.5 ND	SW846 7470A
SELENIUM, TOTAL	5.6 ND	SW846 6010B
SELENIUM, DISSOLVED	5.6 ND	SW846 6010B
SILVER, TOTAL	2.2 ND	SW846 6010B
SILVER, DISSOLVED	2.2 ND	SW846 6010B
ZINC, TOTAL	5.6 ND	SW846 6010B
ZINC, DISSOLVED	5.6 ND	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP031W
Sample Date	5/6/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-A. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BROMOFORM	1 ND	SW846 8260B
BROMOMETHANE	1 ND	SW846 8260B
CARBON TETRACHLORIDE	1 ND	SW846 8260B
CHLOROBENZENE	1 ND	SW846 8260B
CHLOROETHANE	1 ND	SW846 8260B
DIBROMOCHLOROMETHANE	1 ND	SW846 8260B
CHLOROMETHANE	1 ND	SW846 8260B
3-CHLORO-1-PROPENE	1 ND	SW846 8260B
1,2-DICHLOROBENZENE	1 ND	SW846 8260B
1,3-DICHLOROBENZENE	1 ND	SW846 8260B
1,4-DICHLOROBENZENE	1 ND	SW846 8260B
DICHLORODIFLUOROMETHANE	1 ND	SW846 8260B
1,2-DICHLOROPROPANE	1 ND	SW846 8260B
CIS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
TRANS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
2-BUTANONE (MEK)	10 ND	SW846 8260B
4-METHYL-2-PENTANONE	5 ND	SW846 8260B
1,1,1,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROFLUOROMETHANE	1 ND	SW846 8260B
1,2,3-TRICHLOROPROPANE	2 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP031W
Sample Date	5/6/2022

FORM 19

ANNUAL WATER QUALITY ANALYSES

SUBTITLE D - Detection Zone Add-On LIst - When the MCL of any VOC is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the groundwater monitoring wells.

ORGANICS AND METALS (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ACETONE	10 ND	SW846 8260B
ACRYLONITRILE	5 ND	SW846 8260B
BROMOCHLOROMETHANE (CHLOROBROMOMETHAN	1 ND	SW846 8260B
BROMODICHLOROMETHANE	1 ND	SW846 8260B
CARBON DISULFIDE	1 ND	SW846 8260B
CHLOROFORM	1 ND	SW846 8260B
1,2-DIBROMO-3-CHLOROPROPANE	7 ND	SW846 8260B
TRANS 1,4-DICHLORO-2-BUTENE	3 ND	SW846 8260B
2-HEXANONE	5 ND	SW846 8260B
DIBROMOMETHANE	1 ND	SW846 8260B
IODOMETHANE	1 ND	SW846 8260B
STYRENE	1 ND	SW846 8260B
VINYL ACETATE	5 ND	SW846 8260B
ANTIMONY	2.2 ND	SW846 6010B
BERYLLIUM	1.1 ND	SW846 6010B
COBALT	5.6 ND	SW846 6010B
NICKEL	5.6 ND	SW846 6010B
THALLIUM	1.1 ND	SW846 6010B
VANADIUM	2.2 ND	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP031W
Sample Date	5/6/2022

FORM 19

ANNUAL WATER QUALITY ANALYSES

Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

Constituent	CAS Number

2540-FM-BWM0041 Rev. 6/2005

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DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

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MUNICIPAL WASTE LANDFILL
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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General Reference: Section 273.284
Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

SECTION A. APPLICANT IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Mana

Site Name: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

SECTION B. FACILITY INFORMATION

Monitoring Wells must be designed and constructed in accordance with Department Standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D° MM' SS.S")

Monitoring Point Number: FFMP002W — X Well ___ Spring ___ Stream ___ Other

X Upgradient/Upstream ___ Downgradient/Downstream

Location (County): Lancaster County — Municipality: Manor Township

Sampling Point: Latitude: 39 ° 57 ' 32.25 " — Longitude: 76 ° 27 ' 24.03 "

Depth to Water Level: 59.28 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 1.60 ft — Elevation of Water Level: 553.92 ft./MSL

Sampling Depth: 85 ft — Volume of Water Column: 162.02 gal

Total Well Depth: 169.6 ft — Sampling Method: X Pumped ___ Bailed ___ Grab

Well Purged: X Yes ___ No — Well Volumes Purged: 0.5

Sample Field Filtered (must be 0.45 micron)?: X Yes ___ No

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 5/6/2022 — Sample Collection Time: 14:04

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

Were any holding times exceeded?: ___ Yes X No If yes, please explain in comments field.

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3241425002 — Final Lab Analysis CompletionDate: 5/19/2022

Name/Affiliation of Person who Filled Out Form: Daniel A. Brown

Comments:

I.D. No 101389
Monitoring Point No. FFMP002W
Sample Date 5/6/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

ANALYTES

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.203	SM20-4500D
BICARBONATE ALKALINITY	5 ND	SM20-2320B
CALCIUM, TOTAL	16.8	SW846 6010B
CALCIUM, DISSOLVED	16.5	SW846 6010B
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.4
CHLORIDE	14.8	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	56 ND	SW846 6010B
IRON, DISSOLVED (ug/l)	56 ND	SW846 6010B
MAGNESIUM, TOTAL	7.3	SW846 6010B
MAGNESIUM, DISSOLVED	7.1	SW846 6010B
MANGANESE, TOTAL (ug/l)	200	SW846 6010B
MANGANESE, DISSOLVED (ug/l)	200	SW846 6010B
NITRATE-NITROGEN	19.4	EPA 300
pH-FIELD (SU)	4.43	FIELD
pH-LAB (SU)	5.5	SM20-4500B
POTASSIUM, TOTAL	1.1	SW846 6010B
POTASSIUM, DISSOLVED	1	SW846 6010B
SODIUM, TOTAL	13.8	SW846 6010B
SODIUM, DISSOLVED	13.4	SW846 6010B
SPEC. COND., FIELD (umhos/cm)	393	FIELD
SPEC. COND., LAB (umhos/cm)	264	EPA 120.1
SULFATE	9.9	EPA 300
ALKALINITY	5 ND	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	189	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.72	SM20-5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	0.27	SM20- 2130B

* Indicator Analyte - For comparison with detection zone analytes.
T Please indicate detection limit if analyte is not detected.
** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metals analysis.

I.D. No	101389
Monitoring Point No.	FFMP002W
Sample Date	5/6/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-Q. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BENZENE	1 ND	SW846 8260B
1,2-DIBROMOETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHENE	1 ND	SW846 8260B
1,2-DICHLOROETHANE	1 ND	SW846 8260B
CIS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
TRANS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
ETHYLBENZENE	1 ND	SW846 8260B
METHYLENE CHLORIDE	1 ND	SW846 8260B
TETRACHLOROETHENE	1 ND	SW846 8260B
TOLUENE	1 ND	SW846 8260B
1,1,1-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROETHENE	1 ND	SW846 8260B
VINYL CHLORIDE	1 ND	SW846 8260B
XYLENES (TOTAL)	3 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP002W
Sample Date	5/6/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

1-A. Metals (Enter all data in ug/l) If initial background analyses of four consecutive analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ARSENIC, TOTAL	3.3 ND	SW846 6010B
ARSENIC, DISSOLVED	3 ND	SW846 6010B
BARIUM, TOTAL	58	SW846 6010B
BARIUM, DISSOLVED	58	SW846 6010B
CADMIUM, TOTAL	1.1 ND	SW846 6010B
CADMIUM, DISSOLVED	1.1 ND	SW846 6010B
CHROMIUM, TOTAL	2.2 ND	SW846 6010B
CHROMIUM, DISSOLVED	2.2 ND	SW846 6010B
COPPER, TOTAL	11	SW846 6010B
COPPER, DISSOLVED	11	SW846 6010B
LEAD-FLAMELESS, TOTAL	5.7	SW846 6010B
LEAD, DISSOLVED	5.5	SW846 6010B
MERCURY, TOTAL	0.5 ND	SW846 7470A
MERCURY, DISSOLVED	0.5 ND	SW846 7470A
SELENIUM, TOTAL	5.6 ND	SW846 6010B
SELENIUM, DISSOLVED	5.6 ND	SW846 6010B
SILVER, TOTAL	2.2 ND	SW846 6010B
SILVER, DISSOLVED	2.2 ND	SW846 6010B
ZINC, TOTAL	21	SW846 6010B
ZINC, DISSOLVED	22	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP002W
Sample Date	5/6/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-A. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BROMOFORM	1 ND	SW846 8260B
BROMOMETHANE	1 ND	SW846 8260B
CARBON TETRACHLORIDE	1 ND	SW846 8260B
CHLOROBENZENE	1 ND	SW846 8260B
CHLOROETHANE	1 ND	SW846 8260B
DIBROMOCHLOROMETHANE	1 ND	SW846 8260B
CHLOROMETHANE	1 ND	SW846 8260B
3-CHLORO-1-PROPENE	1 ND	SW846 8260B
1,2-DICHLOROBENZENE	1 ND	SW846 8260B
1,3-DICHLOROBENZENE	1 ND	SW846 8260B
1,4-DICHLOROBENZENE	1 ND	SW846 8260B
DICHLORODIFLUOROMETHANE	1 ND	SW846 8260B
1,2-DICHLOROPROPANE	1 ND	SW846 8260B
CIS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
TRANS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
2-BUTANONE (MEK)	10 ND	SW846 8260B
4-METHYL-2-PENTANONE	5 ND	SW846 8260B
1,1,1,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROFLUOROMETHANE	1 ND	SW846 8260B
1,2,3-TRICHLOROPROPANE	2 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP002W
Sample Date	5/6/2022

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ANNUAL WATER QUALITY ANALYSES

SUBTITLE D - Detection Zone Add-On LIst - When the MCL of any VOC is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the groundwater monitoring wells.

ORGANICS AND METALS (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ACETONE	10 ND	SW846 8260B
ACRYLONITRILE	5 ND	SW846 8260B
BROMOCHLOROMETHANE (CHLOROBROMOMETHAN	1 ND	SW846 8260B
BROMODICHLOROMETHANE	1 ND	SW846 8260B
CARBON DISULFIDE	1 ND	SW846 8260B
CHLOROFORM	1 ND	SW846 8260B
1,2-DIBROMO-3-CHLOROPROPANE	7 ND	SW846 8260B
TRANS 1,4-DICHLORO-2-BUTENE	3 ND	SW846 8260B
2-HEXANONE	5 ND	SW846 8260B
DIBROMOMETHANE	1 ND	SW846 8260B
IODOMETHANE	1 ND	SW846 8260B
STYRENE	1 ND	SW846 8260B
VINYL ACETATE	5 ND	SW846 8260B
ANTIMONY	2.2 ND	SW846 6010B
BERYLLIUM	1.1 ND	SW846 6010B
COBALT	12	SW846 6010B
NICKEL	20	SW846 6010B
THALLIUM	1.1 ND	SW846 6010B
VANADIUM	2.2 ND	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP002W
Sample Date	5/6/2022

FORM 19

ANNUAL WATER QUALITY ANALYSES

Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

Constituent	CAS Number

2540-FM-BWM0041 Rev. 6/2005

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DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

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Applicant/permittee: Lancaster County Solid Waste Mana

Site Name: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

SECTION B. FACILITY INFORMATION

Monitoring Wells must be designed and constructed in accordance with Department Standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D° MM' SS.S")

Monitoring Point Number: FFMP032W — X Well ___ Spring ___ Stream ___ Other

X Upgradient/Upstream ___ Downgradient/Downstream

Location (County): Lancaster County — Municipality: MANOR TOWNSHIP

Sampling Point: Latitude: 39 ° 57 ' 33.45 " — Longitude: 76 ° 27 ' 17.71 "

Depth to Water Level: 50.24 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 2.06 ft — Elevation of Water Level: 543.85 ft./MSL

Sampling Depth: 62 ft — Volume of Water Column: 36.36 gal

Total Well Depth: 75 ft — Sampling Method: X Pumped ___ Bailed ___ Grab

Well Purged: X Yes ___ No — Well Volumes Purged: 0.2

Sample Field Filtered (must be 0.45 micron)?: X Yes ___ No

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 5/6/2022 — Sample Collection Time: 14:24

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

Were any holding times exceeded?: ___ Yes X No If yes, please explain in comments field.

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3241425003 — Final Lab Analysis CompletionDate: 5/19/2022

Name/Affiliation of Person who Filled Out Form: Daniel A. Brown

Comments:

I.D. No 101389
Monitoring Point No. FFMP032W
Sample Date 5/6/2022

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ANALYTES

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.8	SM20-4500D
BICARBONATE ALKALINITY	68	SM20-2320B
CALCIUM, TOTAL	14.8	SW846 6010B
CALCIUM, DISSOLVED	14.3	SW846 6010B
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.4
CHLORIDE	17.9	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	5200	SW846 6010B
IRON, DISSOLVED (ug/l)	3900	SW846 6010B
MAGNESIUM, TOTAL	5.8	SW846 6010B
MAGNESIUM, DISSOLVED	5.7	SW846 6010B
MANGANESE, TOTAL (ug/l)	540	SW846 6010B
MANGANESE, DISSOLVED (ug/l)	530	SW846 6010B
NITRATE-NITROGEN	1 ND	EPA 300
pH-FIELD (SU)	7.01	FIELD
pH-LAB (SU)	7.85	SM20-4500B
POTASSIUM, TOTAL	1.3	SW846 6010B
POTASSIUM, DISSOLVED	1.2	SW846 6010B
SODIUM, TOTAL	13.3	SW846 6010B
SODIUM, DISSOLVED	13	SW846 6010B
SPEC. COND., FIELD (umhos/cm)	306	FIELD
SPEC. COND., LAB (umhos/cm)	198	EPA 120.1
SULFATE	2 ND	EPA 300
ALKALINITY	68	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	66	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.56	SM20-5310B
TOTAL PHENOLICS (ug/l)	8	SW846 9066
TURBIDITY (N.T.U.)	111	SM20- 2130B

* Indicator Analyte - For comparison with detection zone analytes.
T Please indicate detection limit if analyte is not detected.
** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metals analysis.

I.D. No	101389
Monitoring Point No.	FFMP032W
Sample Date	5/6/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-Q. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BENZENE	1 ND	SW846 8260B
1,2-DIBROMOETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHENE	1 ND	SW846 8260B
1,2-DICHLOROETHANE	1 ND	SW846 8260B
CIS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
TRANS 1,2-DICHLOROETHENE	1 ND	SW846 8260B
ETHYLBENZENE	1 ND	SW846 8260B
METHYLENE CHLORIDE	1 ND	SW846 8260B
TETRACHLOROETHENE	1 ND	SW846 8260B
TOLUENE	1 ND	SW846 8260B
1,1,1-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROETHENE	1 ND	SW846 8260B
VINYL CHLORIDE	1 ND	SW846 8260B
XYLENES (TOTAL)	3 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP032W
Sample Date	5/6/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

1-A. Metals (Enter all data in ug/l) If initial background analyses of four consecutive analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ARSENIC, TOTAL	3.3 ND	SW846 6010B
ARSENIC, DISSOLVED	3 ND	SW846 6010B
BARIUM, TOTAL	5.6 ND	SW846 6010B
BARIUM, DISSOLVED	5.6 ND	SW846 6010B
CADMIUM, TOTAL	1.1 ND	SW846 6010B
CADMIUM, DISSOLVED	1.1 ND	SW846 6010B
CHROMIUM, TOTAL	2.2 ND	SW846 6010B
CHROMIUM, DISSOLVED	2.2 ND	SW846 6010B
COPPER, TOTAL	5.6 ND	SW846 6010B
COPPER, DISSOLVED	5.6 ND	SW846 6010B
LEAD-FLAMELESS, TOTAL	2.2 ND	SW846 6010B
LEAD, DISSOLVED	2.2 ND	SW846 6010B
MERCURY, TOTAL	0.5 ND	SW846 7470A
MERCURY, DISSOLVED	0.5 ND	SW846 7470A
SELENIUM, TOTAL	5.6 ND	SW846 6010B
SELENIUM, DISSOLVED	5.6 ND	SW846 6010B
SILVER, TOTAL	2.2 ND	SW846 6010B
SILVER, DISSOLVED	2.2 ND	SW846 6010B
ZINC, TOTAL	5.6 ND	SW846 6010B
ZINC, DISSOLVED	5.6 ND	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP032W
Sample Date	5/6/2022

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

2-A. Organics (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BROMOFORM	1 ND	SW846 8260B
BROMOMETHANE	1 ND	SW846 8260B
CARBON TETRACHLORIDE	1 ND	SW846 8260B
CHLOROBENZENE	1 ND	SW846 8260B
CHLOROETHANE	1 ND	SW846 8260B
DIBROMOCHLOROMETHANE	1 ND	SW846 8260B
CHLOROMETHANE	1 ND	SW846 8260B
3-CHLORO-1-PROPENE	1 ND	SW846 8260B
1,2-DICHLOROBENZENE	1 ND	SW846 8260B
1,3-DICHLOROBENZENE	1 ND	SW846 8260B
1,4-DICHLOROBENZENE	1 ND	SW846 8260B
DICHLORODIFLUOROMETHANE	1 ND	SW846 8260B
1,2-DICHLOROPROPANE	1 ND	SW846 8260B
CIS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
TRANS 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
2-BUTANONE (MEK)	10 ND	SW846 8260B
4-METHYL-2-PENTANONE	5 ND	SW846 8260B
1,1,1,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROFLUOROMETHANE	1 ND	SW846 8260B
1,2,3-TRICHLOROPROPANE	2 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP032W
Sample Date	5/6/2022

FORM 19

ANNUAL WATER QUALITY ANALYSES

SUBTITLE D - Detection Zone Add-On LIst - When the MCL of any VOC is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the groundwater monitoring wells.

ORGANICS AND METALS (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ACETONE	10 ND	SW846 8260B
ACRYLONITRILE	5 ND	SW846 8260B
BROMOCHLOROMETHANE (CHLOROBROMOMETHAN	1 ND	SW846 8260B
BROMODICHLOROMETHANE	1 ND	SW846 8260B
CARBON DISULFIDE	1 ND	SW846 8260B
CHLOROFORM	1 ND	SW846 8260B
1,2-DIBROMO-3-CHLOROPROPANE	7 ND	SW846 8260B
TRANS 1,4-DICHLORO-2-BUTENE	3 ND	SW846 8260B
2-HEXANONE	5 ND	SW846 8260B
DIBROMOMETHANE	1 ND	SW846 8260B
IODOMETHANE	1 ND	SW846 8260B
STYRENE	1 ND	SW846 8260B
VINYL ACETATE	5 ND	SW846 8260B
ANTIMONY	2.2 ND	SW846 6010B
BERYLLIUM	1.1 ND	SW846 6010B
COBALT	5.6 ND	SW846 6010B
NICKEL	5.6 ND	SW846 6010B
THALLIUM	1.1 ND	SW846 6010B
VANADIUM	2.2 ND	SW846 6010B

T Please indicate detection limit if analyte is not detected.

I.D. No	101389
Monitoring Point No.	FFMP032W
Sample Date	5/6/2022

FORM 19

ANNUAL WATER QUALITY ANALYSES

Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

Constituent	CAS Number

301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

Analytical Results Report For **Lancaster County Solid Waste Authority**

Project 2ND QTR 2022 FFMP-FORM 19A
Workorder 3240231
Report ID 170253 on 5/20/2022

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on May 02, 2022.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):
Ashley Gichuki - Lancaster County Solid Waste Authority
Daniel Brown - Lancaster County Solid Waste Authority
Jordan Gallagher - Lancaster County Solid Waste Authority
Jeff Musser - Lancaster County Solid Waste Authority

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Susan Scherer

Susan Scherer *(ALS Digital Signature)*
Project Coordinator

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3240231001	FFMP015W	Ground Water	05/02/2022 11:22	05/02/2022 15:45		
3240231002	FFMP03AW	Ground Water	05/02/2022 12:47	05/02/2022 15:45		
3240231003	FFMP005W	Ground Water	05/02/2022 14:06	05/02/2022 15:45		

Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136.
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits
#	Please reference the result in the Results Section for analyte-level flags.

Project Notations

Sample Notations

Lab ID	Sample ID

Result Notations

Notation Ref.	
E	Result reported exceeds instrument calibration
1	The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L.
2	The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory.

Detected Results Summary

Client Sample ID	FFMP015W	Collected	05/02/2022 11:22
Lab Sample ID	3240231001	Lab Receipt	05/02/2022 15:45

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Depth to Water Level	62.71	Feet		Field	#
Dissolved Oxygen	7.86	mg/L	0.01	Field	#
Elev Top MW Casing above MSL	576.40	Feet		Field	#
Flow Rate	1.70	gal/min		Field	#
Ground Water Elevation	513.69	ft/MSL		Field	#
Oxidation-Reduction Potential	284	mV		Field	#
pH, Field (SM4500B)	5.38	pH_Units		Field	#
Sample Depth	135.00	Feet		Field	#
Specific Conductance, Field	874	umhos/cm	1	Field	#
Temperature	15.13	Deg. C		Field	#
Total Well Depth	149.90	Feet		Field	#
Volume in Water Column	128.17	Gallons		Field	#
Water Level After Purge	103.74	Feet		Field	#
Well Volumes Purged	0.80	Vol		Field	#
LIBRARY SEARCH - VOLATILES					
No TIC's Detected	.			Lib Search VOC	#
METALS					
Barium, Dissolved	0.075	mg/L	0.0056	SW846 6020A	#
Barium, Total	0.075	mg/L	0.0056	SW846 6020A	#
Calcium, Dissolved	37.8	mg/L	0.11	SW846 6020A	#
Calcium, Total	37.4	mg/L	0.11	SW846 6020A	#
Magnesium, Dissolved	33.0	mg/L	0.11	SW846 6020A	#
Magnesium, Total	34.6	mg/L	0.11	SW846 6020A	#
Manganese, Dissolved	0.012	mg/L	0.0056	SW846 6020A	#
Manganese, Total	0.013	mg/L	0.0056	SW846 6020A	#
Potassium, Dissolved	2.2	mg/L	0.11	SW846 6020A	#
Potassium, Total	2.3	mg/L	0.11	SW846 6020A	#
Sodium, Dissolved	24.6	mg/L	0.11	SW846 6020A	#
Sodium, Total	26.5	mg/L	0.11	SW846 6020A	#
Zinc, Dissolved	0.024	mg/L	0.0056	SW846 6020A	#
Zinc, Total	0.026	mg/L	0.0056	SW846 6020A	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	31	mg/L	5	SM2320B-2011	#
Alkalinity, Total	31	mg/L	5	SM2320B-2011	#
Ammonia-N	0.647	mg/L	0.100	ASTM D6919-09	#
Chloride	44.8	mg/L	2.0	EPA 300.0	#
Nitrate-N	45.4	mg/L	1.0	EPA 300.0	#
pH	6.34	pH_Units		S4500HB-11	#
Specific Conductance	660	umhos/cm	1	SM2510B-2011	#
Sulfate	26.5	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	408	mg/L	25	S2540C-11	#
Total Organic Carbon (TOC)	1.4	mg/L	0.50	SM5310B-2011	#
Turbidity	0.13	NTU	0.10	SM2130B-2011	#

Detected Results Summary

Client Sample ID	FFMP03AW	Collected	05/02/2022 12:47
Lab Sample ID	3240231002	Lab Receipt	05/02/2022 15:45

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Depth to Water Level	51.15	Feet		Field	#
Dissolved Oxygen	0.94	mg/L	0.01	Field	#
Elev Top MW Casing above MSL	590.90	Feet		Field	#
Flow Rate	1.80	gal/min		Field	#
Ground Water Elevation	539.75	ft/MSL		Field	#
Oxidation-Reduction Potential	334	mV		Field	#
pH, Field (SM4500B)	4.97	pH_Units		Field	#
Sample Depth	130.00	Feet		Field	#
Specific Conductance, Field	473	umhos/cm	1	Field	#
Temperature	14.28	Deg. C		Field	#
Total Well Depth	148.40	Feet		Field	#
Volume in Water Column	142.96	Gallons		Field	#
Water Level After Purge	82.66	Feet		Field	#
Well Volumes Purged	0.76	Vol		Field	#
LIBRARY SEARCH - VOLATILES					
No TIC's Detected	.			Lib Search VOC	#
METALS					
Barium, Dissolved	0.054	mg/L	0.0056	SW846 6020A	#
Barium, Total	0.056	mg/L	0.0056	SW846 6020A	#
Calcium, Dissolved	19.8	mg/L	0.11	SW846 6020A	#
Calcium, Total	20.0	mg/L	0.11	SW846 6020A	#
Copper, Dissolved	0.0075	mg/L	0.0056	SW846 6020A	#
Copper, Total	0.0080	mg/L	0.0056	SW846 6020A	#
Lead, Dissolved	0.0039	mg/L	0.0022	SW846 6020A	#
Magnesium, Dissolved	15.5	mg/L	0.11	SW846 6020A	#
Magnesium, Total	15.2	mg/L	0.11	SW846 6020A	#
Manganese, Dissolved	0.38	mg/L	0.0056	SW846 6020A	#
Manganese, Total	0.40	mg/L	0.0056	SW846 6020A	#
Nickel, Total	0.012	mg/L	0.0056	SW846 6020A	#
Potassium, Dissolved	1.5	mg/L	0.11	SW846 6020A	#
Potassium, Total	1.4	mg/L	0.11	SW846 6020A	#
Sodium, Dissolved	14.5	mg/L	0.11	SW846 6020A	#
Sodium, Total	14.7	mg/L	0.11	SW846 6020A	#
Zinc, Dissolved	0.022	mg/L	0.0056	SW846 6020A	#
Zinc, Total	0.025	mg/L	0.0056	SW846 6020A	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	17	mg/L	5	SM2320B-2011	#
Alkalinity, Total	17	mg/L	5	SM2320B-2011	#
Ammonia-N	0.620	mg/L	0.100	ASTM D6919-09	#
Chloride	34.8	mg/L	2.0	EPA 300.0	#
Nitrate-N	22.0	mg/L	1.0	EPA 300.0	#
pH	5.81	pH_Units		S4500HB-11	#
Specific Conductance	550	umhos/cm	1	SM2510B-2011	#
Sulfate	3.0	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	68	mg/L	25	S2540C-11	#

Detected Results Summary

Sample - FFMP03AW (cont.)

Compound	Result	Units	RDL	Method	Flag
WET CHEMISTRY (cont.)					
Turbidity	0.20	NTU	0.10	SM2130B-2011	#

Detected Results Summary

Client Sample ID	FFMP005W	Collected	05/02/2022 14:06
Lab Sample ID	3240231003	Lab Receipt	05/02/2022 15:45

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Depth to Water Level	59.77	Feet		Field	#
Elev Top MW Casing above MSL	537.40	Feet		Field	#
Flow Rate	1.89	gal/min		Field	#
Ground Water Elevation	477.63	ft/MSL		Field	#
Oxidation-Reduction Potential	568	mV		Field	#
pH, Field (SM4500B)	5.29	pH_Units		Field	#
Sample Depth	135.00	Feet		Field	#
Specific Conductance, Field	1289	umhos/cm	1	Field	#
Temperature	13.76	Deg. C		Field	#
Total Well Depth	149.70	Feet		Field	#
Volume in Water Column	132.20	Gallons		Field	#
Water Level After Purge	79.11	Feet		Field	#
Well Volumes Purged	0.86	Vol		Field	#
LIBRARY SEARCH - VOLATILES					
No TIC's Detected	.			Lib Search VOC	#
METALS					
Barium, Dissolved	0.054	mg/L	0.0056	SW846 6020A	#
Barium, Total	0.057	mg/L	0.0056	SW846 6020A	#
Calcium, Dissolved	78.0	mg/L	0.11	SW846 6020A	#
Calcium, Total	78.0	mg/L	0.11	SW846 6020A	#
Cobalt, Total	0.0061	mg/L	0.0056	SW846 6020A	#
Iron, Total	0.085	mg/L	0.056	SW846 6020A	#
Magnesium, Dissolved	20.8	mg/L	0.11	SW846 6020A	#
Magnesium, Total	21.3	mg/L	0.11	SW846 6020A	#
Manganese, Dissolved	0.20	mg/L	0.0056	SW846 6020A	#
Manganese, Total	0.21	mg/L	0.0056	SW846 6020A	#
Potassium, Dissolved	3.4	mg/L	0.11	SW846 6020A	#
Potassium, Total	3.4	mg/L	0.11	SW846 6020A	#
Sodium, Dissolved	56.6	mg/L	0.11	SW846 6020A	#
Sodium, Total	59.9	mg/L	0.11	SW846 6020A	#
Zinc, Total	0.0067	mg/L	0.0056	SW846 6020A	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	59	mg/L	5	SM2320B-2011	#
Alkalinity, Total	59	mg/L	5	SM2320B-2011	#
Ammonia-N	0.580	mg/L	0.100	ASTM D6919-09	#
Chloride	192	mg/L	2.0	EPA 300.0	#
Nitrate-N	1.2	mg/L	1.0	EPA 300.0	#
pH	6.38	pH_Units		S4500HB-11	#
Specific Conductance	950	umhos/cm	1	SM2510B-2011	#
Sulfate	73.4	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	580	mg/L	25	S2540C-11	#
Total Organic Carbon (TOC)	1.6	mg/L	0.50	SM5310B-2011	#
Turbidity	0.21	NTU	0.10	SM2130B-2011	#

Results

Client Sample ID	FFMP015W	Collected	05/02/2022 11:22
Lab Sample ID	3240231001	Lab Receipt	05/02/2022 15:45

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Depth to Water Level	62.71		Feet		Field	1	05/02/2022 11:21	BGS	F
Dissolved Oxygen	7.86		mg/L	0.01	Field	1	05/02/2022 11:21	BGS	F
Elev Top MW Casing above MSL	576.40		Feet		Field	1	05/02/2022 11:21	BGS	F
Flow Rate	1.70		gal/min		Field	1	05/02/2022 11:21	BGS	F
Ground Water Elevation	513.69		ft/MSL		Field	1	05/02/2022 11:21	BGS	F
Oxidation-Reduction Potential	284		mV		Field	1	05/02/2022 11:21	BGS	F
pH, Field (SM4500B)	5.38		pH_Units		Field	1	05/02/2022 11:21	BGS	F
Sample Depth	135.00		Feet		Field	1	05/02/2022 11:21	BGS	F
Specific Conductance, Field	874		umhos/cm	1	Field	1	05/02/2022 11:21	BGS	F
Temperature	15.13		Deg. C		Field	1	05/02/2022 11:21	BGS	F
Total Well Depth	149.90		Feet		Field	1	05/02/2022 11:21	BGS	F
Turbidity, Field	ND	ND	NTU	1	Field	1	05/02/2022 11:21	BGS	F
Volume in Water Column	128.17		Gallons		Field	1	05/02/2022 11:21	BGS	F
Water Level After Purge	103.74		Feet		Field	1	05/02/2022 11:21	BGS	F
Well Volumes Purged	0.80		Vol		Field	1	05/02/2022 11:21	BGS	F

LIBRARY SEARCH - VOLATILES

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
No TIC's Detected	.				Lib Search VOC	1	05/05/2022 15:50	CHS	J

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Antimony, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/04/2022 14:49	MO	E1
Arsenic, Dissolved	ND	ND	mg/L	0.0030	SW846 6020A	1	05/05/2022 14:38	MO	D1
Arsenic, Total	ND	ND	mg/L	0.0033	SW846 6020A	1	05/04/2022 14:49	MO	E1
Barium, Dissolved	0.075		mg/L	0.0056	SW846 6020A	1	05/05/2022 14:38	MO	D1
Barium, Total	0.075		mg/L	0.0056	SW846 6020A	1	05/04/2022 14:49	MO	E1
Beryllium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/04/2022 14:49	MO	E1
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	05/05/2022 14:38	MO	D1
Cadmium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/04/2022 14:49	MO	E1
Calcium, Dissolved	37.8		mg/L	0.11	SW846 6020A	1	05/05/2022 14:38	MO	D1
Calcium, Total	37.4		mg/L	0.11	SW846 6020A	1	05/04/2022 14:49	MO	E1
Chromium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/06/2022 12:09	MO	D1
Chromium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/04/2022 14:49	MO	E1
Cobalt, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/04/2022 14:49	MO	E1
Copper, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/05/2022 14:38	MO	D1
Copper, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/04/2022 14:49	MO	E1
Iron, Dissolved	ND	ND	mg/L	0.056	SW846 6020A	1	05/05/2022 14:38	MO	D1
Iron, Total	ND	ND	mg/L	0.056	SW846 6020A	1	05/04/2022 14:49	MO	E1
Lead, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/05/2022 14:38	MO	D1
Lead, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/04/2022 14:49	MO	E1
Magnesium, Dissolved	33.0		mg/L	0.11	SW846 6020A	1	05/05/2022 14:38	MO	D1
Magnesium, Total	34.6		mg/L	0.11	SW846 6020A	1	05/04/2022 14:49	MO	E1
Manganese, Dissolved	0.012		mg/L	0.0056	SW846 6020A	1	05/05/2022 14:38	MO	D1

Results

Client Sample ID	FFMP015W	Collected	05/02/2022 11:22
Lab Sample ID	3240231001	Lab Receipt	05/02/2022 15:45

METALS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Manganese, Total	0.013		mg/L	0.0056	SW846 6020A	1	05/04/2022 14:49	MO	E1
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	05/12/2022 15:26	A1S	D
Mercury, Total	ND	ND	mg/L	0.00050	SW846 7470A	1	05/08/2022 16:44	AHI	E
Nickel, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/04/2022 14:49	MO	E1
Potassium, Dissolved	2.2		mg/L	0.11	SW846 6020A	1	05/05/2022 14:38	MO	D1
Potassium, Total	2.3		mg/L	0.11	SW846 6020A	1	05/04/2022 14:49	MO	E1
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/05/2022 14:38	MO	D1
Selenium, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/04/2022 14:49	MO	E1
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/06/2022 12:09	MO	D1
Silver, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/04/2022 14:49	MO	E1
Sodium, Dissolved	24.6		mg/L	0.11	SW846 6020A	1	05/05/2022 14:38	MO	D1
Sodium, Total	26.5		mg/L	0.11	SW846 6020A	1	05/04/2022 14:49	MO	E1
Thallium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/04/2022 14:49	MO	E1
Vanadium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/04/2022 14:49	MO	E1
Zinc, Dissolved	0.024		mg/L	0.0056	SW846 6020A	1	05/05/2022 14:38	MO	D1
Zinc, Total	0.026		mg/L	0.0056	SW846 6020A	1	05/04/2022 14:49	MO	E1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
1,2,3-Trichloropropane	ND	ND	ug/L	2.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
2-Butanone	ND	ND	ug/L	10.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
3-Chloro-1-propene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
Acetone	ND	ND	ug/L	10.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
Acrylonitrile	ND	ND	ug/L	5.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
Bromoform	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
Bromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J

Results

Client Sample ID	FFMP015W	Collected	05/02/2022 11:22
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VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
Chloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
Chloroform	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
Chloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
Dibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
Iodomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
Styrene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
trans-1,4-Dichloro-2-butene	ND	ND	ug/L	3.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
Vinyl Acetate	ND	ND	ug/L	5.0	SW846 8260B	1	05/05/2022 15:50	DPC	J
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 15:50	DPC	J

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	78%	62 – 133	05/05/2022 15:50	
4-Bromofluorobenzene	460-00-4	99.9%	79 – 114	05/05/2022 15:50	
Dibromofluoromethane	1868-53-7	78.2%	78 – 116	05/05/2022 15:50	
Toluene-d8	2037-26-5	96.6%	76 – 127	05/05/2022 15:50	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	31		mg/L	5	SM2320B-2011	1	05/03/2022 12:27	BXD	A
Alkalinity, Total	31	1	mg/L	5	SM2320B-2011	1	05/03/2022 12:27	BXD	A
Ammonia-N	0.647		mg/L	0.100	ASTM D6919-09	10	05/10/2022 13:51	ALK	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	05/05/2022 09:12	ALK	C
Chloride	44.8		mg/L	2.0	EPA 300.0	2	05/03/2022 14:07	GJB	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	05/03/2022 14:07	GJB	A
Nitrate-N	45.4	E	mg/L	1.0	EPA 300.0	2	05/03/2022 14:07	GJB	A
pH	6.34	2	pH_Units		S4500HB-11	1	05/03/2022 12:27	BXD	A
Phenolics	ND	ND	mg/L	0.004	SW846 9066	1	05/05/2022 12:38	AKH	I
Specific Conductance	660		umhos/cm	1	SM2510B-2011	1	05/09/2022 15:43	BXD	A
Sulfate	26.5		mg/L	2.0	EPA 300.0	2	05/03/2022 14:07	GJB	A

Results

Client Sample ID	**FFMP015W**	Collected	**05/02/2022 11:22**
Lab Sample ID	**3240231001**	Lab Receipt	**05/02/2022 15:45**

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Total Dissolved Solids	408		mg/L	25	S2540C-11	1	05/04/2022 07:36	SMS	A
Total Organic Carbon (TOC)	1.4		mg/L	0.50	SM5310B-2011	1	05/04/2022 00:39	PAG	G
Turbidity	0.13		NTU	0.10	SM2130B-2011	1	05/03/2022 11:53	BXD	A

Results

Client Sample ID **FFMP03AW** Collected **05/02/2022 12:47**
Lab Sample ID **3240231002** Lab Receipt **05/02/2022 15:45**

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Depth to Water Level	51.15		Feet		Field	1	05/02/2022 12:47	BGS	F
Dissolved Oxygen	0.94		mg/L	0.01	Field	1	05/02/2022 12:47	BGS	F
Elev Top MW Casing above MSL	590.90		Feet		Field	1	05/02/2022 12:47	BGS	F
Flow Rate	1.80		gal/min		Field	1	05/02/2022 12:47	BGS	F
Ground Water Elevation	539.75		ft/MSL		Field	1	05/02/2022 12:47	BGS	F
Oxidation-Reduction Potential	334		mV		Field	1	05/02/2022 12:47	BGS	F
pH, Field (SM4500B)	4.97		pH_Units		Field	1	05/02/2022 12:47	BGS	F
Sample Depth	130.00		Feet		Field	1	05/02/2022 12:47	BGS	F
Specific Conductance, Field	473		umhos/cm	1	Field	1	05/02/2022 12:47	BGS	F
Temperature	14.28		Deg. C		Field	1	05/02/2022 12:47	BGS	F
Total Well Depth	148.40		Feet		Field	1	05/02/2022 12:47	BGS	F
Turbidity, Field	ND	ND	NTU	1	Field	1	05/02/2022 12:47	BGS	F
Volume in Water Column	142.96		Gallons		Field	1	05/02/2022 12:47	BGS	F
Water Level After Purge	82.66		Feet		Field	1	05/02/2022 12:47	BGS	F
Well Volumes Purged	0.76		Vol		Field	1	05/02/2022 12:47	BGS	F

LIBRARY SEARCH - VOLATILES

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
No TIC's Detected	.				Lib Search VOC	1	05/05/2022 16:13	CHS	J

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Antimony, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/04/2022 14:51	MO	E1
Arsenic, Dissolved	ND	ND	mg/L	0.0030	SW846 6020A	1	05/05/2022 14:40	MO	D1
Arsenic, Total	ND	ND	mg/L	0.0033	SW846 6020A	1	05/04/2022 14:51	MO	E1
Barium, Dissolved	0.054		mg/L	0.0056	SW846 6020A	1	05/05/2022 14:40	MO	D1
Barium, Total	0.056		mg/L	0.0056	SW846 6020A	1	05/04/2022 14:51	MO	E1
Beryllium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/04/2022 14:51	MO	E1
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	05/05/2022 14:40	MO	D1
Cadmium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/04/2022 14:51	MO	E1
Calcium, Dissolved	19.8		mg/L	0.11	SW846 6020A	1	05/05/2022 14:40	MO	D1
Calcium, Total	20.0		mg/L	0.11	SW846 6020A	1	05/04/2022 14:51	MO	E1
Chromium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/06/2022 12:11	MO	D1
Chromium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/04/2022 14:51	MO	E1
Cobalt, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/04/2022 14:51	MO	E1
Copper, Dissolved	0.0075		mg/L	0.0056	SW846 6020A	1	05/05/2022 14:40	MO	D1
Copper, Total	0.0080		mg/L	0.0056	SW846 6020A	1	05/04/2022 14:51	MO	E1
Iron, Dissolved	ND	ND	mg/L	0.056	SW846 6020A	1	05/05/2022 14:40	MO	D1
Iron, Total	ND	ND	mg/L	0.056	SW846 6020A	1	05/04/2022 14:51	MO	E1
Lead, Dissolved	0.0039		mg/L	0.0022	SW846 6020A	1	05/05/2022 14:40	MO	D1
Lead, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/04/2022 14:51	MO	E1
Magnesium, Dissolved	15.5		mg/L	0.11	SW846 6020A	1	05/05/2022 14:40	MO	D1
Magnesium, Total	15.2		mg/L	0.11	SW846 6020A	1	05/04/2022 14:51	MO	E1
Manganese, Dissolved	0.38		mg/L	0.0056	SW846 6020A	1	05/05/2022 14:40	MO	D1

Results

Client Sample ID	FFMP03AW	Collected	05/02/2022 12:47
Lab Sample ID	3240231002	Lab Receipt	05/02/2022 15:45

METALS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Manganese, Total	0.40		mg/L	0.0056	SW846 6020A	1	05/04/2022 14:51	MO	E1
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	05/12/2022 15:28	A1S	D
Mercury, Total	ND	ND	mg/L	0.00050	SW846 7470A	1	05/08/2022 16:46	AHI	E
Nickel, Total	0.012		mg/L	0.0056	SW846 6020A	1	05/04/2022 14:51	MO	E1
Potassium, Dissolved	1.5		mg/L	0.11	SW846 6020A	1	05/05/2022 14:40	MO	D1
Potassium, Total	1.4		mg/L	0.11	SW846 6020A	1	05/04/2022 14:51	MO	E1
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/05/2022 14:40	MO	D1
Selenium, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/04/2022 14:51	MO	E1
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/06/2022 12:11	MO	D1
Silver, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/04/2022 14:51	MO	E1
Sodium, Dissolved	14.5		mg/L	0.11	SW846 6020A	1	05/05/2022 14:40	MO	D1
Sodium, Total	14.7		mg/L	0.11	SW846 6020A	1	05/04/2022 14:51	MO	E1
Thallium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/04/2022 14:51	MO	E1
Vanadium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/04/2022 14:51	MO	E1
Zinc, Dissolved	0.022		mg/L	0.0056	SW846 6020A	1	05/05/2022 14:40	MO	D1
Zinc, Total	0.025		mg/L	0.0056	SW846 6020A	1	05/04/2022 14:51	MO	E1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
1,2,3-Trichloropropane	ND	ND	ug/L	2.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
2-Butanone	ND	ND	ug/L	10.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
3-Chloro-1-propene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
Acetone	ND	ND	ug/L	10.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
Acrylonitrile	ND	ND	ug/L	5.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
Bromoform	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
Bromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J

Results

Client Sample ID	FFMP03AW	Collected	05/02/2022 12:47
Lab Sample ID	3240231002	Lab Receipt	05/02/2022 15:45

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
Chloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
Chloroform	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
Chloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
Dibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
Iodomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
Styrene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
trans-1,4-Dichloro-2-butene	ND	ND	ug/L	3.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
Vinyl Acetate	ND	ND	ug/L	5.0	SW846 8260B	1	05/05/2022 16:13	DPC	J
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:13	DPC	J

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	77.9%	62 – 133	05/05/2022 16:13	
4-Bromofluorobenzene	460-00-4	99.5%	79 – 114	05/05/2022 16:13	
Dibromofluoromethane	1868-53-7	80.1%	78 – 116	05/05/2022 16:13	
Toluene-d8	2037-26-5	97.5%	76 – 127	05/05/2022 16:13	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	17		mg/L	5	SM2320B-2011	1	05/03/2022 13:09	BXD	A
Alkalinity, Total	17	1	mg/L	5	SM2320B-2011	1	05/03/2022 13:09	BXD	A
Ammonia-N	0.620		mg/L	0.100	ASTM D6919-09	10	05/10/2022 06:59	ALK	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	05/05/2022 09:15	ALK	C
Chloride	34.8		mg/L	2.0	EPA 300.0	2	05/03/2022 14:17	GJB	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	05/03/2022 14:17	GJB	A
Nitrate-N	22.0	E	mg/L	1.0	EPA 300.0	2	05/03/2022 14:17	GJB	A
pH	5.81	2	pH_Units		S4500HB-11	1	05/03/2022 13:09	BXD	A
Phenolics	ND	ND	mg/L	0.004	SW846 9066	1	05/05/2022 12:40	AKH	I
Specific Conductance	550		umhos/cm	1	SM2510B-2011	1	05/09/2022 15:43	BXD	A
Sulfate	3.0		mg/L	2.0	EPA 300.0	2	05/03/2022 14:17	GJB	A

Results

Client Sample ID	**FFMP03AW**	Collected	**05/02/2022 12:47**
Lab Sample ID	**3240231002**	Lab Receipt	**05/02/2022 15:45**

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Total Dissolved Solids	68		mg/L	25	S2540C-11	1	05/04/2022 07:36	SMS	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-2011	1	05/04/2022 00:39	PAG	G
Turbidity	0.20		NTU	0.10	SM2130B-2011	1	05/03/2022 11:53	BXD	A

Results

Client Sample ID	FFMP005W	Collected	05/02/2022 14:06
Lab Sample ID	3240231003	Lab Receipt	05/02/2022 15:45

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Depth to Water Level	59.77		Feet		Field	1	05/02/2022 14:06	BGS	F
Dissolved Oxygen	ND	ND	mg/L	0.01	Field	1	05/02/2022 14:06	BGS	F
Elev Top MW Casing above MSL	537.40		Feet		Field	1	05/02/2022 14:06	BGS	F
Flow Rate	1.89		gal/min		Field	1	05/02/2022 14:06	BGS	F
Ground Water Elevation	477.63		ft/MSL		Field	1	05/02/2022 14:06	BGS	F
Oxidation-Reduction Potential	568		mV		Field	1	05/02/2022 14:06	BGS	F
pH, Field (SM4500B)	5.29		pH_Units		Field	1	05/02/2022 14:06	BGS	F
Sample Depth	135.00		Feet		Field	1	05/02/2022 14:06	BGS	F
Specific Conductance, Field	1289		umhos/cm	1	Field	1	05/02/2022 14:06	BGS	F
Temperature	13.76		Deg. C		Field	1	05/02/2022 14:06	BGS	F
Total Well Depth	149.70		Feet		Field	1	05/02/2022 14:06	BGS	F
Turbidity, Field	ND	ND	NTU	1	Field	1	05/02/2022 14:06	BGS	F
Volume in Water Column	132.20		Gallons		Field	1	05/02/2022 14:06	BGS	F
Water Level After Purge	79.11		Feet		Field	1	05/02/2022 14:06	BGS	F
Well Volumes Purged	0.86		Vol		Field	1	05/02/2022 14:06	BGS	F

LIBRARY SEARCH - VOLATILES

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
No TIC's Detected	.				Lib Search VOC	1	05/05/2022 16:35	CHS	J

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Antimony, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/04/2022 14:53	MO	E1
Arsenic, Dissolved	ND	ND	mg/L	0.0030	SW846 6020A	1	05/05/2022 14:42	MO	D1
Arsenic, Total	ND	ND	mg/L	0.0033	SW846 6020A	1	05/04/2022 14:53	MO	E1
Barium, Dissolved	0.054		mg/L	0.0056	SW846 6020A	1	05/05/2022 14:42	MO	D1
Barium, Total	0.057		mg/L	0.0056	SW846 6020A	1	05/04/2022 14:53	MO	E1
Beryllium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/04/2022 14:53	MO	E1
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	05/05/2022 14:42	MO	D1
Cadmium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/04/2022 14:53	MO	E1
Calcium, Dissolved	78.0		mg/L	0.11	SW846 6020A	1	05/05/2022 14:42	MO	D1
Calcium, Total	78.0		mg/L	0.11	SW846 6020A	1	05/04/2022 14:53	MO	E1
Chromium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/06/2022 12:13	MO	D1
Chromium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/04/2022 14:53	MO	E1
Cobalt, Total	0.0061		mg/L	0.0056	SW846 6020A	1	05/04/2022 14:53	MO	E1
Copper, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/05/2022 14:42	MO	D1
Copper, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/04/2022 14:53	MO	E1
Iron, Dissolved	ND	ND	mg/L	0.056	SW846 6020A	1	05/05/2022 14:42	MO	D1
Iron, Total	0.085		mg/L	0.056	SW846 6020A	1	05/04/2022 14:53	MO	E1
Lead, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/05/2022 14:42	MO	D1
Lead, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/04/2022 14:53	MO	E1
Magnesium, Dissolved	20.8		mg/L	0.11	SW846 6020A	1	05/05/2022 14:42	MO	D1
Magnesium, Total	21.3		mg/L	0.11	SW846 6020A	1	05/04/2022 14:53	MO	E1
Manganese, Dissolved	0.20		mg/L	0.0056	SW846 6020A	1	05/05/2022 14:42	MO	D1

Results

Client Sample ID	FFMP005W	Collected	05/02/2022 14:06
Lab Sample ID	3240231003	Lab Receipt	05/02/2022 15:45

METALS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Manganese, Total	0.21		mg/L	0.0056	SW846 6020A	1	05/04/2022 14:53	MO	E1
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	05/12/2022 15:31	A1S	D
Mercury, Total	ND	ND	mg/L	0.00050	SW846 7470A	1	05/08/2022 16:49	AHI	E
Nickel, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/04/2022 14:53	MO	E1
Potassium, Dissolved	3.4		mg/L	0.11	SW846 6020A	1	05/05/2022 14:42	MO	D1
Potassium, Total	3.4		mg/L	0.11	SW846 6020A	1	05/04/2022 14:53	MO	E1
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/05/2022 14:42	MO	D1
Selenium, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/04/2022 14:53	MO	E1
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/06/2022 12:13	MO	D1
Silver, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/04/2022 14:53	MO	E1
Sodium, Dissolved	56.6		mg/L	0.11	SW846 6020A	1	05/05/2022 14:42	MO	D1
Sodium, Total	59.9		mg/L	0.11	SW846 6020A	1	05/04/2022 14:53	MO	E1
Thallium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/04/2022 14:53	MO	E1
Vanadium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/04/2022 14:53	MO	E1
Zinc, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/05/2022 14:42	MO	D1
Zinc, Total	0.0067		mg/L	0.0056	SW846 6020A	1	05/04/2022 14:53	MO	E1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
1,2,3-Trichloropropane	ND	ND	ug/L	2.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
2-Butanone	ND	ND	ug/L	10.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
3-Chloro-1-propene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
Acetone	ND	ND	ug/L	10.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
Acrylonitrile	ND	ND	ug/L	5.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
Bromoform	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
Bromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J

Results

Client Sample ID	FFMP005W	Collected	05/02/2022 14:06
Lab Sample ID	3240231003	Lab Receipt	05/02/2022 15:45

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
Chloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
Chloroform	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
Chloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
Dibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
Iodomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
Styrene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
trans-1,4-Dichloro-2-butene	ND	ND	ug/L	3.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
Vinyl Acetate	ND	ND	ug/L	5.0	SW846 8260B	1	05/05/2022 16:35	DPC	J
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/05/2022 16:35	DPC	J

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	79.9%	62 – 133	05/05/2022 16:35	
4-Bromofluorobenzene	460-00-4	101%	79 – 114	05/05/2022 16:35	
Dibromofluoromethane	1868-53-7	79.8%	78 – 116	05/05/2022 16:35	
Toluene-d8	2037-26-5	98.4%	76 – 127	05/05/2022 16:35	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	59		mg/L	5	SM2320B-2011	1	05/03/2022 13:20	BXD	A
Alkalinity, Total	59	1	mg/L	5	SM2320B-2011	1	05/03/2022 13:20	BXD	A
Ammonia-N	0.580		mg/L	0.100	ASTM D6919-09	10	05/10/2022 08:49	ALK	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	05/05/2022 09:12	ALK	C
Chloride	192		mg/L	2.0	EPA 300.0	2	05/03/2022 14:28	GJB	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	05/03/2022 14:28	GJB	A
Nitrate-N	1.2		mg/L	1.0	EPA 300.0	2	05/03/2022 14:28	GJB	A
pH	6.38	2	pH_Units		S4500HB-11	1	05/03/2022 13:20	BXD	A
Phenolics	ND	ND	mg/L	0.004	SW846 9066	1	05/05/2022 12:44	AKH	I
Specific Conductance	950		umhos/cm	1	SM2510B-2011	1	05/09/2022 15:43	BXD	A
Sulfate	73.4		mg/L	2.0	EPA 300.0	2	05/03/2022 14:28	GJB	A

Results

Client Sample ID	**FFMP005W**	Collected	**05/02/2022 14:06**
Lab Sample ID	**3240231003**	Lab Receipt	**05/02/2022 15:45**

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Total Dissolved Solids	580		mg/L	25	S2540C-11	1	05/04/2022 07:36	SMS	A
Total Organic Carbon (TOC)	1.6		mg/L	0.50	SM5310B-2011	1	05/04/2022 00:39	PAG	G
Turbidity	0.21		NTU	0.10	SM2130B-2011	1	05/03/2022 11:53	BXD	A

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3240231001	FFMP015W	Field	N/A	
		SW846 6020A	SW846 3015	
		SW846 6020A	SW846 3015	
		SW846 7470A	SW846 7470A	
		SW846 7470A	SW846 7470A	
		Lib Search VOC	N/A	
		SW846 8260B	N/A	
		ASTM D6919-09	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		S2540C-11	N/A	
		S4500HB-11	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM5310B-2011	N/A	
		SW846 9066	420.4/9066	
3240231002	FFMP03AW	Field	N/A	
		SW846 6020A	SW846 3015	
		SW846 6020A	SW846 3015	
		SW846 7470A	SW846 7470A	
		SW846 7470A	SW846 7470A	
		Lib Search VOC	N/A	
		SW846 8260B	N/A	
		ASTM D6919-09	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		S2540C-11	N/A	
		S4500HB-11	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM5310B-2011	N/A	
		SW846 9066	420.4/9066	
3240231003	FFMP005W	Field	N/A	
		SW846 6020A	SW846 3015	
		SW846 6020A	SW846 3015	
		SW846 7470A	SW846 7470A	
		SW846 7470A	SW846 7470A	
		Lib Search VOC	N/A	
		SW846 8260B	N/A	
		ASTM D6919-09	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		S2540C-11	N/A	
		S4500HB-11	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM5310B-2011	N/A	
		SW846 9066	420.4/9066	

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3240231001	FFMP015W	N/A	N/A	N/A		Field	847943
		SW846 3015	844575	05/03/2022 18:12	ANN	SW846 6020A	845372
		SW846 3015	844575	05/03/2022 18:12	ANN	SW846 6020A	845641
		SW846 3015	844220	05/02/2022 19:18	ANN	SW846 6020A	845051
		SW846 7470A	845419	05/08/2022 11:35	AHI	SW846 7470A	845990
		SW846 7470A	846425	05/11/2022 14:30	A1S	SW846 7470A	847446
		N/A	N/A	N/A		Lib Search VOC	845011
		N/A	N/A	N/A		SW846 8260B	845173
		N/A	N/A	N/A		ASTM D6919-09	844597
		N/A	N/A	N/A		EPA 300.0	844442
		N/A	N/A	N/A		EPA 410.4	845059
		N/A	N/A	N/A		S2540C-11	844298
		N/A	N/A	N/A		S4500HB-11	844423
		N/A	N/A	N/A		SM2130B-2011	844392
		N/A	N/A	N/A		SM2320B-2011	844423
		N/A	N/A	N/A		SM2510B-2011	846096
		N/A	N/A	N/A		SM5310B-2011	844483
		420.4/9066	845056	05/05/2022 08:22	AKH	SW846 9066	845283
3240231002	FFMP03AW	N/A	N/A	N/A		Field	847943
		SW846 3015	844575	05/03/2022 18:12	ANN	SW846 6020A	845372
		SW846 3015	844575	05/03/2022 18:12	ANN	SW846 6020A	845641
		SW846 3015	844220	05/02/2022 19:18	ANN	SW846 6020A	845051
		SW846 7470A	845419	05/08/2022 11:35	AHI	SW846 7470A	845990
		SW846 7470A	846425	05/11/2022 14:30	A1S	SW846 7470A	847446
		N/A	N/A	N/A		Lib Search VOC	845011
		N/A	N/A	N/A		SW846 8260B	845173
		N/A	N/A	N/A		ASTM D6919-09	844596
		N/A	N/A	N/A		EPA 300.0	844442
		N/A	N/A	N/A		EPA 410.4	844601
		N/A	N/A	N/A		S2540C-11	844298
		N/A	N/A	N/A		S4500HB-11	844423
		N/A	N/A	N/A		SM2130B-2011	844392
		N/A	N/A	N/A		SM2320B-2011	844423
		N/A	N/A	N/A		SM2510B-2011	846096
		N/A	N/A	N/A		SM5310B-2011	844483
		420.4/9066	845056	05/05/2022 08:22	AKH	SW846 9066	845283
3240231003	FFMP005W	N/A	N/A	N/A		Field	847943
		SW846 3015	844575	05/03/2022 18:12	ANN	SW846 6020A	845372
		SW846 3015	844575	05/03/2022 18:12	ANN	SW846 6020A	845641
		SW846 3015	844220	05/02/2022 19:18	ANN	SW846 6020A	845051
		SW846 7470A	846425	05/11/2022 14:30	A1S	SW846 7470A	847446
		SW846 7470A	845419	05/08/2022 11:35	AHI	SW846 7470A	845990
		N/A	N/A	N/A		Lib Search VOC	845011
		N/A	N/A	N/A		SW846 8260B	845173
		N/A	N/A	N/A		ASTM D6919-09	844596
		N/A	N/A	N/A		EPA 300.0	844442
		N/A	N/A	N/A		EPA 410.4	845059
		N/A	N/A	N/A		S2540C-11	844298
		N/A	N/A	N/A		S4500HB-11	844423
		N/A	N/A	N/A		SM2130B-2011	844392
		N/A	N/A	N/A		SM2320B-2011	844423
		N/A	N/A	N/A		SM2510B-2011	846096
		N/A	N/A	N/A		SM5310B-2011	844483
		420.4/9066	845056	05/05/2022 08:22	AKH	SW846 9066	845283

ALS Environmental
34 Dogwood Lane • Middletown, PA 17057 • Phone: 717-944-5541 • Fax: 717-944-1430 • www.alsglobal.com
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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

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COC ALS

3240231
Logged By: KSB
PM: SJB

1 of 1

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Client Name: Lancaster County Solid Waste MA
Address: 1299 Harrisburg Pike, P.O. Box 4424
Lancaster, PA 17604
Contact: Dan Brown
Phone#: (717) 735-0193
Project Name/#: Frey Farm Annual
Bill To: Lancaster County Solid Waste MA

TAT [X] Normal-Standard TAT is 10-12 business days.
[ ] Rush-Subject to ALS approval and surcharges.
Date Required: ______ **Approved By:** ______
Email? [ ] -Y
Fax? [X] -Y No.: (717) 397-9973

ANALYSES/METHOD REQUESTED

Container Type					AG	AW	CG	---	---	PL	PL	PL	PL	PL
Container Size					40 ml	125 ml	40 ml	---	---	250 ml	125 ml	125 ml	1 L	500 ml
Preservative					HCl	H2SO4	HCl	---	---	H2SO4	HNO3	HNO3	None	None
Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	TOC	O-OH	8260 - FORM 19A & Subtitle D	Field Measurements	Sample Depth for AUX Data	NH3-N, COD	Dissolved: Fe, Mn, Na, Ba, Cr, Cu, Pb, Mg, K, Zn, As, Cd, Se, Ag, Hg, Ca	Metals: Fe, Mn, Na, Ba, Cr, Cu, Pb, Mg, K, Zn, As, Cd, Se, Ag, Hg, Ca	pH, Cl, SpC, F, SO4, TDS, NO3, Turb.	Alkalinity, HCO3
					Enter Number of Containers Per Sample or Field Results Below.									
1. FFMP015W	05/02/22	1122	G	GW	2	1	2	x	x	1	1	1	1	1
2. FFMP03AW	05/02/22	1247	G	GW	2	1	2	x	x	1	1	1	1	1
3. FFMP005W	05/02/22	1406	G	GW	2	1	2	x	x	1	1	1	1	1
4														
5														
6														
7														
8														
9														
10														

Receipt Information (completed by Receiving Lab)

Cooler Temp: 2 **Therm ID:** 570
No. of Coolers: ______ Y N Initial

Co

Temp Taken By: KSB
WO Temp (°C) 2
Therm ID: 570
Receipt Info Completed By: AMRF
Cooler Custody Seal Intact Y N (NA)
Sample Custody Seal Intact Y N (NA)
Received on Ice (Y) N NA
Cooler & Samples Intact (Y) N
Correct Containers Provided (Y) N
Sample Label/COC Agree (Y) N
Adequate Sample Volumes (Y) N
VOA Headspace Present Y (N) NA
Voa Trip Blank Y (N) NA
NJ≤ 4 Days? ~~Y N~~
Rad Screen (uCi) ______
Courier/Tracking #: ______
SDWA Compliance Y (N)
PWSID

ALS Field Services: [ ] Pickup [ ] Labor [ ] Composite_Sampling [ ] Rental_Equipment [ ] Other: ______

Project Comments:

LOGGED BY(signature): ______ DATE: ______ TIME: ______
REVIEWED BY(signature): ______ DATE: ______ TIME: ______

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	BG Shade / ALS	5-2-22	1545	2	[signature]	5.2.22	1645
3				4			
5				6			
7				8			
9				10			

Data Deliverables: [ ] Standard [ ] CLP-like [ ] USACE [ ]

Special Processing: USACE [ ] Navy [ ] [ ]

State Samples Collected In: [ ] NY [ ] NJ [X] PA [ ] NC [ ]

Reportable to PADEP? Yes [ ]
PWSID # ______

Sample Disposal: Lab [X] Special [ ]

EDDS: Format Type- ______

* G=Grab; C=Composite **Matrix - AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

ALS ENVIRONMENTAL SHIPPING ADDRESS: 34 DOGWOOD LANE, MIDDLETOWN, PA 17057

Rev 8/04

301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

Analytical Results Report For **Lancaster County Solid Waste Authority**

Project 2ND QTR 2022 FFMP-FORM 19A
Workorder 3241106
Report ID 170254 on 5/20/2022

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on May 05, 2022.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):
Ashley Gichuki - Lancaster County Solid Waste Authority
Daniel Brown - Lancaster County Solid Waste Authority
Jordan Gallagher - Lancaster County Solid Waste Authority
Jeff Musser - Lancaster County Solid Waste Authority

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Susan Scherer

Susan Scherer *(ALS Digital Signature)*
Project Coordinator

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3241106001	FFMP018W	Ground Water	05/05/2022 10:28	05/05/2022 15:35	BGS	Analytical Laboratory Service
3241106002	FFMP019W	Ground Water	05/05/2022 11:17	05/05/2022 15:35	BGS	Analytical Laboratory Service
3241106003	FFMP036W	Ground Water	05/05/2022 12:45	05/05/2022 15:35	BGS	Analytical Laboratory Service
3241106004	FFMP035W	Ground Water	05/05/2022 14:11	05/05/2022 15:35	BGS	Analytical Laboratory Service

Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136.
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits
#	Please reference the result in the Results Section for analyte-level flags.

Project Notations

Sample Notations

Lab ID	Sample ID

Result Notations

Notation Ref.	
1	The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L.
2	The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory.
3	The recovery of the Matrix Spike (MS) associated to the analyte Nitrate-N was outside of the established control limits. The % Recovery was reported as 78.5 and the control limits were 80 to 120.

Detected Results Summary

Client Sample ID	FFMP018W	Collected	05/05/2022 10:28
Lab Sample ID	3241106001	Lab Receipt	05/05/2022 15:35

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Depth to Water Level	26.15	Feet		Field	#
Dissolved Oxygen	4.21	mg/L	0.01	Field	#
Elev Top MW Casing above MSL	472.20	Feet		Field	#
Flow Rate	2.48	gal/min		Field	#
Ground Water Elevation	446.05	ft/MSL		Field	#
Oxidation-Reduction Potential	288	mV		Field	#
pH, Field (SM4500B)	5.11	pH_Units		Field	#
Sample Depth	40.00	Feet		Field	#
Specific Conductance, Field	778	umhos/cm	1	Field	#
Temperature	15.21	Deg. C		Field	#
Total Well Depth	51.46	Feet		Field	#
Volume in Water Column	16.45	Gallons		Field	#
Water Level After Purge	27.80	Feet		Field	#
Well Volumes Purged	3.62	Vol		Field	#
LIBRARY SEARCH - VOLATILES					
No TIC's Detected	.			Lib Search VOC	#
METALS					
Barium, Dissolved	0.077	mg/L	0.0056	SW846 6020A	#
Barium, Total	0.078	mg/L	0.0056	SW846 6020A	#
Calcium, Dissolved	27.7	mg/L	0.11	SW846 6020A	#
Calcium, Total	28.1	mg/L	0.11	SW846 6020A	#
Chromium, Total	0.0027	mg/L	0.0022	SW846 6020A	#
Magnesium, Dissolved	17.8	mg/L	0.11	SW846 6020A	#
Magnesium, Total	18.2	mg/L	0.11	SW846 6020A	#
Manganese, Dissolved	0.18	mg/L	0.0056	SW846 6020A	#
Manganese, Total	0.20	mg/L	0.0056	SW846 6020A	#
Nickel, Total	0.0075	mg/L	0.0056	SW846 6020A	#
Potassium, Dissolved	3.6	mg/L	0.11	SW846 6020A	#
Potassium, Total	3.6	mg/L	0.11	SW846 6020A	#
Sodium, Dissolved	37.2	mg/L	0.11	SW846 6020A	#
Sodium, Total	38.4	mg/L	0.11	SW846 6020A	#
Zinc, Dissolved	0.013	mg/L	0.0056	SW846 6020A	#
Zinc, Total	0.013	mg/L	0.0056	SW846 6020A	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	21	mg/L	5	SM2320B-2011	#
Alkalinity, Total	21	mg/L	5	SM2320B-2011	#
Ammonia-N	0.247	mg/L	0.100	ASTM D6919-09	#
Chloride	110	mg/L	2.0	EPA 300.0	#
Nitrate-N	4.1	mg/L	1.0	EPA 300.0	#
pH	6.56	pH_Units		S4500HB-11	#
Phenolics	0.006	mg/L	0.004	SW846 9066	#
Specific Conductance	558	umhos/cm	1	SM2510B-2011	#
Sulfate	35.8	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	348	mg/L	25	S2540C-11	#
Total Organic Carbon (TOC)	0.97	mg/L	0.50	SM5310B-2011	#

Detected Results Summary

Sample - FFMP018W (cont.)

Compound	Result	Units	RDL	Method	Flag
WET CHEMISTRY (cont.)					
Turbidity	0.11	NTU	0.10	SM2130B-2011	#

Detected Results Summary

Client Sample ID	FFMP019W	Collected	05/05/2022 11:17
Lab Sample ID	3241106002	Lab Receipt	05/05/2022 15:35

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Depth to Water Level	26.96	Feet		Field	#
Dissolved Oxygen	0.10	mg/L	0.01	Field	#
Elev Top MW Casing above MSL	471.95	Feet		Field	#
Flow Rate	3.56	gal/min		Field	#
Ground Water Elevation	444.99	ft/MSL		Field	#
Oxidation-Reduction Potential	136	mV		Field	#
pH, Field (SM4500B)	6.39	pH_Units		Field	#
Sample Depth	49.00	Feet		Field	#
Specific Conductance, Field	662	umhos/cm	1	Field	#
Temperature	14.14	Deg. C		Field	#
Total Well Depth	132.79	Feet		Field	#
Volume in Water Column	68.79	Gallons		Field	#
Water Level After Purge	36.41	Feet		Field	#
Well Volumes Purged	2.07	Vol		Field	#
LIBRARY SEARCH - VOLATILES					
No TIC's Detected	.			Lib Search VOC	#
METALS					
Barium, Dissolved	0.079	mg/L	0.0056	SW846 6020A	#
Barium, Total	0.080	mg/L	0.0056	SW846 6020A	#
Calcium, Dissolved	56.5	mg/L	0.11	SW846 6020A	#
Calcium, Total	56.5	mg/L	0.11	SW846 6020A	#
Magnesium, Dissolved	6.0	mg/L	0.11	SW846 6020A	#
Magnesium, Total	6.2	mg/L	0.11	SW846 6020A	#
Manganese, Dissolved	0.0059	mg/L	0.0056	SW846 6020A	#
Potassium, Dissolved	0.92	mg/L	0.11	SW846 6020A	#
Potassium, Total	0.90	mg/L	0.11	SW846 6020A	#
Sodium, Dissolved	11.1	mg/L	0.11	SW846 6020A	#
Sodium, Total	11.0	mg/L	0.11	SW846 6020A	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	65	mg/L	5	SM2320B-2011	#
Alkalinity, Total	65	mg/L	5	SM2320B-2011	#
Ammonia-N	0.275	mg/L	0.100	ASTM D6919-09	#
Chloride	86.5	mg/L	2.0	EPA 300.0	#
pH	7.69	pH_Units		S4500HB-11	#
Specific Conductance	476	umhos/cm	1	SM2510B-2011	#
Sulfate	13.8	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	370	mg/L	25	S2540C-11	#
Total Organic Carbon (TOC)	1.3	mg/L	0.50	SM5310B-2011	#
Turbidity	0.10	NTU	0.10	SM2130B-2011	#

Detected Results Summary

Client Sample ID	FFMP036W	Collected	05/05/2022 12:45
Lab Sample ID	3241106003	Lab Receipt	05/05/2022 15:35

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Depth to Water Level	45.31	Feet		Field	#
Elev Top MW Casing above MSL	478.23	Feet		Field	#
Flow Rate	1.43	gal/min		Field	#
Ground Water Elevation	432.92	ft/MSL		Field	#
Oxidation-Reduction Potential	-257	mV		Field	#
pH, Field (SM4500B)	8.16	pH_Units		Field	#
Sample Depth	135.00	Feet		Field	#
Specific Conductance, Field	406	umhos/cm	1	Field	#
Temperature	15.69	Deg. C		Field	#
Total Well Depth	142.60	Feet		Field	#
Turbidity, Field	2	NTU	1	Field	#
Volume in Water Column	143.02	Gallons		Field	#
Water Level After Purge	77.94	Feet		Field	#
Well Volumes Purged	0.70	Vol		Field	#
LIBRARY SEARCH - VOLATILES					
No TIC's Detected	.			Lib Search VOC	#
METALS					
Barium, Dissolved	0.097	mg/L	0.0056	SW846 6020A	#
Barium, Total	0.099	mg/L	0.0056	SW846 6020A	#
Calcium, Dissolved	38.1	mg/L	0.11	SW846 6020A	#
Calcium, Total	38.6	mg/L	0.11	SW846 6020A	#
Iron, Dissolved	1.5	mg/L	0.056	SW846 6020A	#
Iron, Total	2.1	mg/L	0.056	SW846 6020A	#
Magnesium, Dissolved	4.6	mg/L	0.11	SW846 6020A	#
Magnesium, Total	4.3	mg/L	0.11	SW846 6020A	#
Manganese, Dissolved	0.12	mg/L	0.0056	SW846 6020A	#
Manganese, Total	0.14	mg/L	0.0056	SW846 6020A	#
Potassium, Dissolved	1.1	mg/L	0.11	SW846 6020A	#
Potassium, Total	1.0	mg/L	0.11	SW846 6020A	#
Sodium, Dissolved	15.6	mg/L	0.11	SW846 6020A	#
Sodium, Total	14.4	mg/L	0.11	SW846 6020A	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	87	mg/L	5	SM2320B-2011	#
Alkalinity, Total	87	mg/L	5	SM2320B-2011	#
Ammonia-N	0.260	mg/L	0.100	ASTM D6919-09	#
Chloride	30.5	mg/L	2.0	EPA 300.0	#
pH	8.08	pH_Units		S4500HB-11	#
Phenolics	0.01	mg/L	0.004	SW846 9066	#
Specific Conductance	323	umhos/cm	1	SM2510B-2011	#
Sulfate	25.3	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	192	mg/L	25	S2540C-11	#
Total Organic Carbon (TOC)	0.68	mg/L	0.50	SM5310B-2011	#
Turbidity	16.9	NTU	0.10	SM2130B-2011	#

Detected Results Summary

Client Sample ID **FFMP035W** Collected **05/05/2022 14:11**
Lab Sample ID **3241106004** Lab Receipt **05/05/2022 15:35**

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Depth to Water Level	42.49	Feet		Field	#
Dissolved Oxygen	4.34	mg/L	0.01	Field	#
Elev Top MW Casing above MSL	477.56	Feet		Field	#
Flow Rate	0.52	gal/min		Field	#
Ground Water Elevation	435.07	ft/MSL		Field	#
Oxidation-Reduction Potential	121	mV		Field	#
pH, Field (SM4500B)	6.41	pH_Units		Field	#
Sample Depth	65.00	Feet		Field	#
Specific Conductance, Field	1097	umhos/cm	1	Field	#
Temperature	16.99	Deg. C		Field	#
Total Well Depth	71.80	Feet		Field	#
Volume in Water Column	43.09	Gallons		Field	#
Water Level After Purge	51.41	Feet		Field	#
Well Volumes Purged	0.84	Vol		Field	#
LIBRARY SEARCH - VOLATILES					
No TIC's Detected	.			Lib Search VOC	#
METALS					
Barium, Dissolved	0.090	mg/L	0.0056	SW846 6020A	#
Barium, Total	0.091	mg/L	0.0056	SW846 6020A	#
Calcium, Dissolved	67.8	mg/L	0.11	SW846 6020A	#
Calcium, Total	67.0	mg/L	0.11	SW846 6020A	#
Chromium, Dissolved	0.019	mg/L	0.0022	SW846 6020A	#
Chromium, Total	0.0056	mg/L	0.0022	SW846 6020A	#
Iron, Dissolved	0.18	mg/L	0.056	SW846 6020A	#
Iron, Total	0.098	mg/L	0.056	SW846 6020A	#
Magnesium, Dissolved	19.1	mg/L	0.11	SW846 6020A	#
Magnesium, Total	18.7	mg/L	0.11	SW846 6020A	#
Manganese, Dissolved	0.032	mg/L	0.0056	SW846 6020A	#
Manganese, Total	0.045	mg/L	0.0056	SW846 6020A	#
Nickel, Total	0.013	mg/L	0.0056	SW846 6020A	#
Potassium, Dissolved	4.3	mg/L	0.11	SW846 6020A	#
Potassium, Total	4.1	mg/L	0.11	SW846 6020A	#
Sodium, Dissolved	52.6	mg/L	0.11	SW846 6020A	#
Sodium, Total	50.5	mg/L	0.11	SW846 6020A	#
Zinc, Dissolved	0.026	mg/L	0.0056	SW846 6020A	#
Zinc, Total	0.027	mg/L	0.0056	SW846 6020A	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	77	mg/L	5	SM2320B-2011	#
Alkalinity, Total	77	mg/L	5	SM2320B-2011	#
Ammonia-N	0.224	mg/L	0.100	ASTM D6919-09	#
Chloride	165	mg/L	2.0	EPA 300.0	#
Nitrate-N	6.2	mg/L	1.0	EPA 300.0	#
pH	7.61	pH_Units		S4500HB-11	#
Phenolics	0.006	mg/L	0.004	SW846 9066	#
Specific Conductance	848	umhos/cm	1	SM2510B-2011	#

Detected Results Summary

Sample - FFMP035W (cont.)

Compound	Result	Units	RDL	Method	Flag
WET CHEMISTRY (cont.)					
Sulfate	34.9	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	492	mg/L	25	S2540C-11	#
Total Organic Carbon (TOC)	1.1	mg/L	0.50	SM5310B-2011	#
Turbidity	0.94	NTU	0.10	SM2130B-2011	#

Results

Client Sample ID	FFMP018W	Collected	05/05/2022 10:28
Lab Sample ID	3241106001	Lab Receipt	05/05/2022 15:35

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Depth to Water Level	26.15		Feet		Field	1	05/05/2022 10:28	BGS	F
Dissolved Oxygen	4.21		mg/L	0.01	Field	1	05/05/2022 10:28	BGS	F
Elev Top MW Casing above MSL	472.20		Feet		Field	1	05/05/2022 10:28	BGS	F
Flow Rate	2.48		gal/min		Field	1	05/05/2022 10:28	BGS	F
Ground Water Elevation	446.05		ft/MSL		Field	1	05/05/2022 10:28	BGS	F
Oxidation-Reduction Potential	288		mV		Field	1	05/05/2022 10:28	BGS	F
pH, Field (SM4500B)	5.11		pH_Units		Field	1	05/05/2022 10:28	BGS	F
Sample Depth	40.00		Feet		Field	1	05/05/2022 10:28	BGS	F
Specific Conductance, Field	778		umhos/cm	1	Field	1	05/05/2022 10:28	BGS	F
Temperature	15.21		Deg. C		Field	1	05/05/2022 10:28	BGS	F
Total Well Depth	51.46		Feet		Field	1	05/05/2022 10:28	BGS	F
Turbidity, Field	ND	ND	NTU	1	Field	1	05/05/2022 10:28	BGS	F
Volume in Water Column	16.45		Gallons		Field	1	05/05/2022 10:28	BGS	F
Water Level After Purge	27.80		Feet		Field	1	05/05/2022 10:28	BGS	F
Well Volumes Purged	3.62		Vol		Field	1	05/05/2022 10:28	BGS	F

LIBRARY SEARCH - VOLATILES

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
No TIC's Detected	.				Lib Search VOC	1	05/10/2022 14:02	CHS	J

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Antimony, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 14:56	MO	E2
Arsenic, Dissolved	ND	ND	mg/L	0.0030	SW846 6020A	1	05/13/2022 14:14	MO	D1
Arsenic, Total	ND	ND	mg/L	0.0033	SW846 6020A	1	05/13/2022 14:56	MO	E2
Barium, Dissolved	0.077		mg/L	0.0056	SW846 6020A	1	05/13/2022 14:14	MO	D1
Barium, Total	0.078		mg/L	0.0056	SW846 6020A	1	05/13/2022 14:56	MO	E2
Beryllium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/13/2022 14:56	MO	E2
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	05/13/2022 14:14	MO	D1
Cadmium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/13/2022 14:56	MO	E2
Calcium, Dissolved	27.7		mg/L	0.11	SW846 6020A	1	05/13/2022 14:14	MO	D1
Calcium, Total	28.1		mg/L	0.11	SW846 6020A	1	05/13/2022 14:56	MO	E2
Chromium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 14:14	MO	D1
Chromium, Total	0.0027		mg/L	0.0022	SW846 6020A	1	05/13/2022 14:56	MO	E2
Cobalt, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 14:56	MO	E2
Copper, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 14:14	MO	D1
Copper, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 14:56	MO	E2
Iron, Dissolved	ND	ND	mg/L	0.056	SW846 6020A	1	05/13/2022 14:14	MO	D1
Iron, Total	ND	ND	mg/L	0.056	SW846 6020A	1	05/13/2022 14:56	MO	E2
Lead, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 14:14	MO	D1
Lead, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 14:56	MO	E2
Magnesium, Dissolved	17.8		mg/L	0.11	SW846 6020A	1	05/13/2022 14:14	MO	D1
Magnesium, Total	18.2		mg/L	0.11	SW846 6020A	1	05/13/2022 14:56	MO	E2
Manganese, Dissolved	0.18		mg/L	0.0056	SW846 6020A	1	05/13/2022 14:14	MO	D1

Results

Client Sample ID	FFMP018W	Collected	05/05/2022 10:28
Lab Sample ID	3241106001	Lab Receipt	05/05/2022 15:35

METALS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Manganese, Total	0.20		mg/L	0.0056	SW846 6020A	1	05/13/2022 14:56	MO	E2
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	05/16/2022 12:14	A1S	D
Mercury, Total	ND	ND	mg/L	0.00050	SW846 7470A	1	05/11/2022 16:07	A1S	E
Nickel, Total	0.0075		mg/L	0.0056	SW846 6020A	1	05/13/2022 14:56	MO	E2
Potassium, Dissolved	3.6		mg/L	0.11	SW846 6020A	1	05/13/2022 14:14	MO	D1
Potassium, Total	3.6		mg/L	0.11	SW846 6020A	1	05/13/2022 14:56	MO	E2
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 14:14	MO	D1
Selenium, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 14:56	MO	E2
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 14:14	MO	D1
Silver, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 14:56	MO	E2
Sodium, Dissolved	37.2		mg/L	0.11	SW846 6020A	1	05/13/2022 14:14	MO	D1
Sodium, Total	38.4		mg/L	0.11	SW846 6020A	1	05/13/2022 14:56	MO	E2
Thallium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/13/2022 14:56	MO	E2
Vanadium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 14:56	MO	E2
Zinc, Dissolved	0.013		mg/L	0.0056	SW846 6020A	1	05/13/2022 14:14	MO	D1
Zinc, Total	0.013		mg/L	0.0056	SW846 6020A	1	05/13/2022 14:56	MO	E2

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
1,2,3-Trichloropropane	ND	ND	ug/L	2.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
2-Butanone	ND	ND	ug/L	10.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
3-Chloro-1-propene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
Acetone	ND	ND	ug/L	10.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
Acrylonitrile	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
Bromoform	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
Bromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J

Results

Client Sample ID	**FFMP018W**	Collected	**05/05/2022 10:28**
Lab Sample ID	**3241106001**	Lab Receipt	**05/05/2022 15:35**

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
Chloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
Chloroform	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
Chloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
Dibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
Iodomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
Styrene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
trans-1,4-Dichloro-2-butene	ND	ND	ug/L	3.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
Vinyl Acetate	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 14:02	DPC	J
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:02	DPC	J

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	97.8%	62 – 133	05/10/2022 14:02	
4-Bromofluorobenzene	460-00-4	104%	79 – 114	05/10/2022 14:02	
Dibromofluoromethane	1868-53-7	95.5%	78 – 116	05/10/2022 14:02	
Toluene-d8	2037-26-5	101%	76 – 127	05/10/2022 14:02	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	21		mg/L	5	SM2320B-2011	1	05/12/2022 14:40	BXD	A
Alkalinity, Total	21	1	mg/L	5	SM2320B-2011	1	05/12/2022 14:40	BXD	A
Ammonia-N	0.247		mg/L	0.100	ASTM D6919-09	10	05/13/2022 21:01	ALK	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	05/11/2022 17:48	ALK	C
Chloride	110		mg/L	2.0	EPA 300.0	2	05/06/2022 05:26	MSA	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	05/06/2022 05:26	MSA	A
Nitrate-N	4.1		mg/L	1.0	EPA 300.0	2	05/06/2022 05:26	MSA	A
pH	6.56	2	pH_Units		S4500HB-11	1	05/12/2022 14:40	BXD	A
Phenolics	0.006		mg/L	0.004	SW846 9066	1	05/17/2022 18:12	AKH	I
Specific Conductance	558		umhos/cm	1	SM2510B-2011	1	05/09/2022 15:43	BXD	A
Sulfate	35.8		mg/L	2.0	EPA 300.0	2	05/06/2022 05:26	MSA	A

Results

Client Sample ID	**FFMP018W**	Collected	**05/05/2022 10:28**
Lab Sample ID	**3241106001**	Lab Receipt	**05/05/2022 15:35**

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Total Dissolved Solids	348		mg/L	25	S2540C-11	1	05/09/2022 07:44	SMS	A
Total Organic Carbon (TOC)	0.97		mg/L	0.50	SM5310B-2011	1	05/09/2022 17:21	PAG	G
Turbidity	0.11		NTU	0.10	SM2130B-2011	1	05/06/2022 02:16	LXZ	A

Results

Client Sample ID	FFMP019W	Collected	05/05/2022 11:17
Lab Sample ID	3241106002	Lab Receipt	05/05/2022 15:35

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Depth to Water Level	26.96		Feet		Field	1	05/05/2022 11:17	BGS	F
Dissolved Oxygen	0.10		mg/L	0.01	Field	1	05/05/2022 11:17	BGS	F
Elev Top MW Casing above MSL	471.95		Feet		Field	1	05/05/2022 11:17	BGS	F
Flow Rate	3.56		gal/min		Field	1	05/05/2022 11:17	BGS	F
Ground Water Elevation	444.99		ft/MSL		Field	1	05/05/2022 11:17	BGS	F
Oxidation-Reduction Potential	136		mV		Field	1	05/05/2022 11:17	BGS	F
pH, Field (SM4500B)	6.39		pH_Units		Field	1	05/05/2022 11:17	BGS	F
Sample Depth	49.00		Feet		Field	1	05/05/2022 11:17	BGS	F
Specific Conductance, Field	662		umhos/cm	1	Field	1	05/05/2022 11:17	BGS	F
Temperature	14.14		Deg. C		Field	1	05/05/2022 11:17	BGS	F
Total Well Depth	132.79		Feet		Field	1	05/05/2022 11:17	BGS	F
Turbidity, Field	ND	ND	NTU	1	Field	1	05/05/2022 11:17	BGS	F
Volume in Water Column	68.79		Gallons		Field	1	05/05/2022 11:17	BGS	F
Water Level After Purge	36.41		Feet		Field	1	05/05/2022 11:17	BGS	F
Well Volumes Purged	2.07		Vol		Field	1	05/05/2022 11:17	BGS	F

LIBRARY SEARCH - VOLATILES

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
No TIC's Detected	.				Lib Search VOC	1	05/10/2022 14:24	CHS	J

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Antimony, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 14:58	MO	E2
Arsenic, Dissolved	ND	ND	mg/L	0.0030	SW846 6020A	1	05/13/2022 14:16	MO	D1
Arsenic, Total	ND	ND	mg/L	0.0033	SW846 6020A	1	05/13/2022 14:58	MO	E2
Barium, Dissolved	0.079		mg/L	0.0056	SW846 6020A	1	05/13/2022 14:16	MO	D1
Barium, Total	0.080		mg/L	0.0056	SW846 6020A	1	05/13/2022 14:58	MO	E2
Beryllium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/13/2022 14:58	MO	E2
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	05/13/2022 14:16	MO	D1
Cadmium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/13/2022 14:58	MO	E2
Calcium, Dissolved	56.5		mg/L	0.11	SW846 6020A	1	05/13/2022 14:16	MO	D1
Calcium, Total	56.5		mg/L	0.11	SW846 6020A	1	05/13/2022 14:58	MO	E2
Chromium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 14:16	MO	D1
Chromium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 14:58	MO	E2
Cobalt, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 14:58	MO	E2
Copper, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 14:16	MO	D1
Copper, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 14:58	MO	E2
Iron, Dissolved	ND	ND	mg/L	0.056	SW846 6020A	1	05/13/2022 14:16	MO	D1
Iron, Total	ND	ND	mg/L	0.056	SW846 6020A	1	05/13/2022 14:58	MO	E2
Lead, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 14:16	MO	D1
Lead, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 14:58	MO	E2
Magnesium, Dissolved	6.0		mg/L	0.11	SW846 6020A	1	05/13/2022 14:16	MO	D1
Magnesium, Total	6.2		mg/L	0.11	SW846 6020A	1	05/13/2022 14:58	MO	E2
Manganese, Dissolved	0.0059		mg/L	0.0056	SW846 6020A	1	05/13/2022 14:16	MO	D1

Results

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METALS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Manganese, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 14:58	MO	E2
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	05/16/2022 12:15	A1S	D
Mercury, Total	ND	ND	mg/L	0.00050	SW846 7470A	1	05/11/2022 16:10	A1S	E
Nickel, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 14:58	MO	E2
Potassium, Dissolved	0.92		mg/L	0.11	SW846 6020A	1	05/13/2022 14:16	MO	D1
Potassium, Total	0.90		mg/L	0.11	SW846 6020A	1	05/13/2022 14:58	MO	E2
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 14:16	MO	D1
Selenium, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 14:58	MO	E2
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 14:16	MO	D1
Silver, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 14:58	MO	E2
Sodium, Dissolved	11.1		mg/L	0.11	SW846 6020A	1	05/13/2022 14:16	MO	D1
Sodium, Total	11.0		mg/L	0.11	SW846 6020A	1	05/13/2022 14:58	MO	E2
Thallium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/13/2022 14:58	MO	E2
Vanadium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 14:58	MO	E2
Zinc, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 14:16	MO	D1
Zinc, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 14:58	MO	E2

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
1,2,3-Trichloropropane	ND	ND	ug/L	2.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
2-Butanone	ND	ND	ug/L	10.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
3-Chloro-1-propene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
Acetone	ND	ND	ug/L	10.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
Acrylonitrile	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
Bromoform	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
Bromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J

Results

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VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
Chloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
Chloroform	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
Chloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
Dibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
Iodomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
Styrene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
trans-1,4-Dichloro-2-butene	ND	ND	ug/L	3.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
Vinyl Acetate	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 14:24	DPC	J
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:24	DPC	J

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	98.5%	62 – 133	05/10/2022 14:24	
4-Bromofluorobenzene	460-00-4	105%	79 – 114	05/10/2022 14:24	
Dibromofluoromethane	1868-53-7	95.3%	78 – 116	05/10/2022 14:24	
Toluene-d8	2037-26-5	101%	76 – 127	05/10/2022 14:24	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	65		mg/L	5	SM2320B-2011	1	05/12/2022 14:50	BXD	A
Alkalinity, Total	65	1	mg/L	5	SM2320B-2011	1	05/12/2022 14:50	BXD	A
Ammonia-N	0.275		mg/L	0.100	ASTM D6919-09	10	05/13/2022 18:57	ALK	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	05/11/2022 17:39	ALK	C
Chloride	86.5		mg/L	2.0	EPA 300.0	2	05/06/2022 05:36	MSA	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	05/06/2022 05:36	MSA	A
Nitrate-N	ND	ND,3	mg/L	1.0	EPA 300.0	2	05/06/2022 05:36	MSA	A
pH	7.69	2	pH_Units		S4500HB-11	1	05/12/2022 14:50	BXD	A
Phenolics	ND	ND	mg/L	0.004	SW846 9066	1	05/17/2022 18:15	AKH	I
Specific Conductance	476		umhos/cm	1	SM2510B-2011	1	05/09/2022 15:43	BXD	A
Sulfate	13.8		mg/L	2.0	EPA 300.0	2	05/06/2022 05:36	MSA	A

Results

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WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Total Dissolved Solids	370		mg/L	25	S2540C-11	1	05/09/2022 07:44	SMS	A
Total Organic Carbon (TOC)	1.3		mg/L	0.50	SM5310B-2011	1	05/09/2022 17:21	PAG	G
Turbidity	0.10		NTU	0.10	SM2130B-2011	1	05/06/2022 02:16	LXZ	A

Results

Client Sample ID	FFMP036W	Collected	05/05/2022 12:45
Lab Sample ID	3241106003	Lab Receipt	05/05/2022 15:35

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Depth to Water Level	45.31		Feet		Field	1	05/05/2022 12:45	BGS	F
Dissolved Oxygen	ND	ND	mg/L	0.01	Field	1	05/05/2022 12:45	BGS	F
Elev Top MW Casing above MSL	478.23		Feet		Field	1	05/05/2022 12:45	BGS	F
Flow Rate	1.43		gal/min		Field	1	05/05/2022 12:45	BGS	F
Ground Water Elevation	432.92		ft/MSL		Field	1	05/05/2022 12:45	BGS	F
Oxidation-Reduction Potential	-257		mV		Field	1	05/05/2022 12:45	BGS	F
pH, Field (SM4500B)	8.16		pH_Units		Field	1	05/05/2022 12:45	BGS	F
Sample Depth	135.00		Feet		Field	1	05/05/2022 12:45	BGS	F
Specific Conductance, Field	406		umhos/cm	1	Field	1	05/05/2022 12:45	BGS	F
Temperature	15.69		Deg. C		Field	1	05/05/2022 12:45	BGS	F
Total Well Depth	142.60		Feet		Field	1	05/05/2022 12:45	BGS	F
Turbidity, Field	2		NTU	1	Field	1	05/05/2022 12:45	BGS	F
Volume in Water Column	143.02		Gallons		Field	1	05/05/2022 12:45	BGS	F
Water Level After Purge	77.94		Feet		Field	1	05/05/2022 12:45	BGS	F
Well Volumes Purged	0.70		Vol		Field	1	05/05/2022 12:45	BGS	F

LIBRARY SEARCH - VOLATILES

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
No TIC's Detected	.				Lib Search VOC	1	05/10/2022 14:46	CHS	J

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Antimony, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 15:00	MO	E2
Arsenic, Dissolved	ND	ND	mg/L	0.0030	SW846 6020A	1	05/13/2022 14:18	MO	D1
Arsenic, Total	ND	ND	mg/L	0.0033	SW846 6020A	1	05/13/2022 15:00	MO	E2
Barium, Dissolved	0.097		mg/L	0.0056	SW846 6020A	1	05/13/2022 14:18	MO	D1
Barium, Total	0.099		mg/L	0.0056	SW846 6020A	1	05/13/2022 15:00	MO	E2
Beryllium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/13/2022 15:00	MO	E2
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	05/13/2022 14:18	MO	D1
Cadmium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/13/2022 15:00	MO	E2
Calcium, Dissolved	38.1		mg/L	0.11	SW846 6020A	1	05/13/2022 14:18	MO	D1
Calcium, Total	38.6		mg/L	0.11	SW846 6020A	1	05/13/2022 15:00	MO	E2
Chromium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 14:18	MO	D1
Chromium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 15:00	MO	E2
Cobalt, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 15:00	MO	E2
Copper, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 14:18	MO	D1
Copper, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 15:00	MO	E2
Iron, Dissolved	1.5		mg/L	0.056	SW846 6020A	1	05/13/2022 14:18	MO	D1
Iron, Total	2.1		mg/L	0.056	SW846 6020A	1	05/13/2022 15:00	MO	E2
Lead, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 14:18	MO	D1
Lead, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 15:00	MO	E2
Magnesium, Dissolved	4.6		mg/L	0.11	SW846 6020A	1	05/13/2022 14:18	MO	D1
Magnesium, Total	4.3		mg/L	0.11	SW846 6020A	1	05/13/2022 15:00	MO	E2
Manganese, Dissolved	0.12		mg/L	0.0056	SW846 6020A	1	05/13/2022 14:18	MO	D1

Results

Client Sample ID	FFMP036W	Collected	05/05/2022 12:45
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METALS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Manganese, Total	0.14		mg/L	0.0056	SW846 6020A	1	05/13/2022 15:00	MO	E2
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	05/16/2022 12:16	A1S	D
Mercury, Total	ND	ND	mg/L	0.00050	SW846 7470A	1	05/11/2022 16:11	A1S	E
Nickel, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 15:00	MO	E2
Potassium, Dissolved	1.1		mg/L	0.11	SW846 6020A	1	05/13/2022 14:18	MO	D1
Potassium, Total	1.0		mg/L	0.11	SW846 6020A	1	05/13/2022 15:00	MO	E2
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 14:18	MO	D1
Selenium, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 15:00	MO	E2
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 14:18	MO	D1
Silver, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 15:00	MO	E2
Sodium, Dissolved	15.6		mg/L	0.11	SW846 6020A	1	05/13/2022 14:18	MO	D1
Sodium, Total	14.4		mg/L	0.11	SW846 6020A	1	05/13/2022 15:00	MO	E2
Thallium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/13/2022 15:00	MO	E2
Vanadium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 15:00	MO	E2
Zinc, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 14:18	MO	D1
Zinc, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 15:00	MO	E2

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
1,2,3-Trichloropropane	ND	ND	ug/L	2.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
2-Butanone	ND	ND	ug/L	10.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
3-Chloro-1-propene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
Acetone	ND	ND	ug/L	10.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
Acrylonitrile	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
Bromoform	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
Bromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J

Results

Client Sample ID	FFMP036W	Collected	05/05/2022 12:45
Lab Sample ID	3241106003	Lab Receipt	05/05/2022 15:35

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
Chloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
Chloroform	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
Chloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
Dibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
Iodomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
Styrene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
trans-1,4-Dichloro-2-butene	ND	ND	ug/L	3.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
Vinyl Acetate	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 14:46	DPC	J
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 14:46	DPC	J

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	96.6%	62 – 133	05/10/2022 14:46	
4-Bromofluorobenzene	460-00-4	106%	79 – 114	05/10/2022 14:46	
Dibromofluoromethane	1868-53-7	93.4%	78 – 116	05/10/2022 14:46	
Toluene-d8	2037-26-5	99.6%	76 – 127	05/10/2022 14:46	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	87		mg/L	5	SM2320B-2011	1	05/12/2022 14:59	BXD	A
Alkalinity, Total	87	1	mg/L	5	SM2320B-2011	1	05/12/2022 14:59	BXD	A
Ammonia-N	0.260		mg/L	0.100	ASTM D6919-09	10	05/13/2022 16:54	ALK	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	05/11/2022 17:39	ALK	C
Chloride	30.5		mg/L	2.0	EPA 300.0	2	05/06/2022 06:28	MSA	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	05/06/2022 06:28	MSA	A
Nitrate-N	ND	ND	mg/L	1.0	EPA 300.0	2	05/06/2022 06:28	MSA	A
pH	8.08	2	pH_Units		S4500HB-11	1	05/12/2022 14:59	BXD	A
Phenolics	0.01		mg/L	0.004	SW846 9066	1	05/17/2022 16:59	AKH	I
Specific Conductance	323		umhos/cm	1	SM2510B-2011	1	05/09/2022 15:43	BXD	A
Sulfate	25.3		mg/L	2.0	EPA 300.0	2	05/06/2022 06:28	MSA	A

Results

Client Sample ID	**FFMP036W**	Collected	**05/05/2022 12:45**
Lab Sample ID	**3241106003**	Lab Receipt	**05/05/2022 15:35**

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Total Dissolved Solids	192		mg/L	25	S2540C-11	1	05/09/2022 07:44	SMS	A
Total Organic Carbon (TOC)	0.68		mg/L	0.50	SM5310B-2011	1	05/09/2022 17:21	PAG	G
Turbidity	16.9		NTU	0.10	SM2130B-2011	1	05/06/2022 02:16	LXZ	A

Results

Client Sample ID	FFMP035W	Collected	05/05/2022 14:11
Lab Sample ID	3241106004	Lab Receipt	05/05/2022 15:35

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Depth to Water Level	42.49		Feet		Field	1	05/05/2022 14:11	BGS	F
Dissolved Oxygen	4.34		mg/L	0.01	Field	1	05/05/2022 14:11	BGS	F
Elev Top MW Casing above MSL	477.56		Feet		Field	1	05/05/2022 14:11	BGS	F
Flow Rate	0.52		gal/min		Field	1	05/05/2022 14:11	BGS	F
Ground Water Elevation	435.07		ft/MSL		Field	1	05/05/2022 14:11	BGS	F
Oxidation-Reduction Potential	121		mV		Field	1	05/05/2022 14:11	BGS	F
pH, Field (SM4500B)	6.41		pH_Units		Field	1	05/05/2022 14:11	BGS	F
Sample Depth	65.00		Feet		Field	1	05/05/2022 14:11	BGS	F
Specific Conductance, Field	1097		umhos/cm	1	Field	1	05/05/2022 14:11	BGS	F
Temperature	16.99		Deg. C		Field	1	05/05/2022 14:11	BGS	F
Total Well Depth	71.80		Feet		Field	1	05/05/2022 14:11	BGS	F
Turbidity, Field	ND	ND	NTU	1	Field	1	05/05/2022 14:11	BGS	F
Volume in Water Column	43.09		Gallons		Field	1	05/05/2022 14:11	BGS	F
Water Level After Purge	51.41		Feet		Field	1	05/05/2022 14:11	BGS	F
Well Volumes Purged	0.84		Vol		Field	1	05/05/2022 14:11	BGS	F

LIBRARY SEARCH - VOLATILES

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
No TIC's Detected	.				Lib Search VOC	1	05/10/2022 15:09	CHS	J

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Antimony, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 15:02	MO	E2
Arsenic, Dissolved	ND	ND	mg/L	0.0030	SW846 6020A	1	05/13/2022 14:20	MO	D1
Arsenic, Total	ND	ND	mg/L	0.0033	SW846 6020A	1	05/13/2022 15:02	MO	E2
Barium, Dissolved	0.090		mg/L	0.0056	SW846 6020A	1	05/13/2022 14:20	MO	D1
Barium, Total	0.091		mg/L	0.0056	SW846 6020A	1	05/13/2022 15:02	MO	E2
Beryllium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/13/2022 15:02	MO	E2
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	05/13/2022 14:20	MO	D1
Cadmium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/13/2022 15:02	MO	E2
Calcium, Dissolved	67.8		mg/L	0.11	SW846 6020A	1	05/13/2022 14:20	MO	D1
Calcium, Total	67.0		mg/L	0.11	SW846 6020A	1	05/13/2022 15:02	MO	E2
Chromium, Dissolved	0.019		mg/L	0.0022	SW846 6020A	1	05/13/2022 14:20	MO	D1
Chromium, Total	0.0056		mg/L	0.0022	SW846 6020A	1	05/13/2022 15:02	MO	E2
Cobalt, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 15:02	MO	E2
Copper, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 14:20	MO	D1
Copper, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 15:02	MO	E2
Iron, Dissolved	0.18		mg/L	0.056	SW846 6020A	1	05/13/2022 14:20	MO	D1
Iron, Total	0.098		mg/L	0.056	SW846 6020A	1	05/13/2022 15:02	MO	E2
Lead, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 14:20	MO	D1
Lead, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 15:02	MO	E2
Magnesium, Dissolved	19.1		mg/L	0.11	SW846 6020A	1	05/13/2022 14:20	MO	D1
Magnesium, Total	18.7		mg/L	0.11	SW846 6020A	1	05/13/2022 15:02	MO	E2
Manganese, Dissolved	0.032		mg/L	0.0056	SW846 6020A	1	05/13/2022 14:20	MO	D1

Results

Client Sample ID	FFMP035W	Collected	05/05/2022 14:11
Lab Sample ID	3241106004	Lab Receipt	05/05/2022 15:35

METALS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Manganese, Total	0.045		mg/L	0.0056	SW846 6020A	1	05/13/2022 15:02	MO	E2
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	05/16/2022 12:17	A1S	D
Mercury, Total	ND	ND	mg/L	0.00050	SW846 7470A	1	05/11/2022 16:12	A1S	E
Nickel, Total	0.013		mg/L	0.0056	SW846 6020A	1	05/13/2022 15:02	MO	E2
Potassium, Dissolved	4.3		mg/L	0.11	SW846 6020A	1	05/13/2022 14:20	MO	D1
Potassium, Total	4.1		mg/L	0.11	SW846 6020A	1	05/13/2022 15:02	MO	E2
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 14:20	MO	D1
Selenium, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 15:02	MO	E2
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 14:20	MO	D1
Silver, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 15:02	MO	E2
Sodium, Dissolved	52.6		mg/L	0.11	SW846 6020A	1	05/13/2022 14:20	MO	D1
Sodium, Total	50.5		mg/L	0.11	SW846 6020A	1	05/13/2022 15:02	MO	E2
Thallium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/13/2022 15:02	MO	E2
Vanadium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 15:02	MO	E2
Zinc, Dissolved	0.026		mg/L	0.0056	SW846 6020A	1	05/13/2022 14:20	MO	D1
Zinc, Total	0.027		mg/L	0.0056	SW846 6020A	1	05/13/2022 15:02	MO	E2

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
1,2,3-Trichloropropane	ND	ND	ug/L	2.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
2-Butanone	ND	ND	ug/L	10.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
3-Chloro-1-propene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
Acetone	ND	ND	ug/L	10.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
Acrylonitrile	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
Bromoform	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
Bromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J

Results

Client Sample ID	FFMP035W	Collected	05/05/2022 14:11
Lab Sample ID	3241106004	Lab Receipt	05/05/2022 15:35

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
Chloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
Chloroform	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
Chloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
Dibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
Iodomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
Styrene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
trans-1,4-Dichloro-2-butene	ND	ND	ug/L	3.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
Vinyl Acetate	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 15:09	DPC	J
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:09	DPC	J

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	97.5%	62 – 133	05/10/2022 15:09	
4-Bromofluorobenzene	460-00-4	104%	79 – 114	05/10/2022 15:09	
Dibromofluoromethane	1868-53-7	96.5%	78 – 116	05/10/2022 15:09	
Toluene-d8	2037-26-5	99.9%	76 – 127	05/10/2022 15:09	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	77		mg/L	5	SM2320B-2011	1	05/12/2022 15:09	BXD	A
Alkalinity, Total	77	1	mg/L	5	SM2320B-2011	1	05/12/2022 15:09	BXD	A
Ammonia-N	0.224		mg/L	0.100	ASTM D6919-09	10	05/13/2022 20:20	ALK	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	05/11/2022 17:48	ALK	C
Chloride	165		mg/L	2.0	EPA 300.0	2	05/06/2022 06:39	MSA	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	05/06/2022 06:39	MSA	A
Nitrate-N	6.2		mg/L	1.0	EPA 300.0	2	05/06/2022 06:39	MSA	A
pH	7.61	2	pH_Units		S4500HB-11	1	05/12/2022 15:09	BXD	A
Phenolics	0.006		mg/L	0.004	SW846 9066	1	05/17/2022 17:02	AKH	I
Specific Conductance	848		umhos/cm	1	SM2510B-2011	1	05/09/2022 15:43	BXD	A
Sulfate	34.9		mg/L	2.0	EPA 300.0	2	05/06/2022 06:39	MSA	A

Results

Client Sample ID	**FFMP035W**	Collected	**05/05/2022 14:11**
Lab Sample ID	**3241106004**	Lab Receipt	**05/05/2022 15:35**

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Total Dissolved Solids	492		mg/L	25	S2540C-11	1	05/09/2022 07:44	SMS	A
Total Organic Carbon (TOC)	1.1		mg/L	0.50	SM5310B-2011	1	05/09/2022 17:21	PAG	G
Turbidity	0.94		NTU	0.10	SM2130B-2011	1	05/06/2022 02:16	LXZ	A

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3241106001	FFMP018W	Field	N/A	
		SW846 6020A	SW846 3015	
		SW846 6020A	SW846 3015	
		SW846 7470A	SW846 7470A	
		SW846 7470A	SW846 7470A	
		Lib Search VOC	N/A	
		SW846 8260B	N/A	
		ASTM D6919-09	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		S2540C-11	N/A	
		S4500HB-11	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM5310B-2011	N/A	
		SW846 9066	420.4/9066	
3241106002	FFMP019W	Field	N/A	
		SW846 6020A	SW846 3015	
		SW846 6020A	SW846 3015	
		SW846 7470A	SW846 7470A	
		SW846 7470A	SW846 7470A	
		Lib Search VOC	N/A	
		SW846 8260B	N/A	
		ASTM D6919-09	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		S2540C-11	N/A	
		S4500HB-11	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM5310B-2011	N/A	
		SW846 9066	420.4/9066	
3241106003	FFMP036W	Field	N/A	
		SW846 6020A	SW846 3015	
		SW846 6020A	SW846 3015	
		SW846 7470A	SW846 7470A	
		SW846 7470A	SW846 7470A	
		Lib Search VOC	N/A	
		SW846 8260B	N/A	
		ASTM D6919-09	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		S2540C-11	N/A	
		S4500HB-11	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM5310B-2011	N/A	
		SW846 9066	420.4/9066	

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3241106004	FFMP035W	Field	N/A	
		SW846 6020A	SW846 3015	
		SW846 6020A	SW846 3015	
		SW846 7470A	SW846 7470A	
		SW846 7470A	SW846 7470A	
		Lib Search VOC	N/A	
		SW846 8260B	N/A	
		ASTM D6919-09	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		S2540C-11	N/A	
		S4500HB-11	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM5310B-2011	N/A	
		SW846 9066	420.4/9066	

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3241106001	FFMP018W	N/A	N/A	N/A		Field	847943
		SW846 3015	846016	05/09/2022 00:41	ANN	SW846 6020A	847581
		SW846 3015	846000	05/08/2022 21:33	ANN	SW846 6020A	847582
		SW846 7470A	847688	05/14/2022 12:35	AHI	SW846 7470A	847911
		SW846 7470A	845995	05/10/2022 12:15	A1S	SW846 7470A	847236
		N/A	N/A	N/A		Lib Search VOC	846673
		N/A	N/A	N/A		SW846 8260B	846305
		N/A	N/A	N/A		ASTM D6919-09	846565
		N/A	N/A	N/A		EPA 300.0	845420
		N/A	N/A	N/A		EPA 410.4	846551
		N/A	N/A	N/A		S2540C-11	845514
		N/A	N/A	N/A		S4500HB-11	847214
		N/A	N/A	N/A		SM2130B-2011	845503
		N/A	N/A	N/A		SM2320B-2011	847214
		N/A	N/A	N/A		SM2510B-2011	846096
		N/A	N/A	N/A		SM5310B-2011	846125
		420.4/9066	847930	05/17/2022 08:09	AKH	SW846 9066	848039
3241106002	FFMP019W	N/A	N/A	N/A		Field	847943
		SW846 3015	846016	05/09/2022 00:41	ANN	SW846 6020A	847581
		SW846 3015	846000	05/08/2022 21:33	ANN	SW846 6020A	847582
		SW846 7470A	845995	05/10/2022 12:15	A1S	SW846 7470A	847236
		SW846 7470A	847688	05/14/2022 12:35	AHI	SW846 7470A	847911
		N/A	N/A	N/A		Lib Search VOC	846673
		N/A	N/A	N/A		SW846 8260B	846305
		N/A	N/A	N/A		ASTM D6919-09	846565
		N/A	N/A	N/A		EPA 300.0	845420
		N/A	N/A	N/A		EPA 410.4	846548
		N/A	N/A	N/A		S2540C-11	845514
		N/A	N/A	N/A		S4500HB-11	847214
		N/A	N/A	N/A		SM2130B-2011	845503
		N/A	N/A	N/A		SM2320B-2011	847214
		N/A	N/A	N/A		SM2510B-2011	846096
		N/A	N/A	N/A		SM5310B-2011	846125
		420.4/9066	847930	05/17/2022 08:09	AKH	SW846 9066	848039
3241106003	FFMP036W	N/A	N/A	N/A		Field	847943
		SW846 3015	846016	05/09/2022 00:41	ANN	SW846 6020A	847581
		SW846 3015	846000	05/08/2022 21:33	ANN	SW846 6020A	847582
		SW846 7470A	845995	05/10/2022 12:15	A1S	SW846 7470A	847236
		SW846 7470A	847688	05/14/2022 12:35	AHI	SW846 7470A	847911
		N/A	N/A	N/A		Lib Search VOC	846673
		N/A	N/A	N/A		SW846 8260B	846305
		N/A	N/A	N/A		ASTM D6919-09	846563
		N/A	N/A	N/A		EPA 300.0	845420
		N/A	N/A	N/A		EPA 410.4	846548
		N/A	N/A	N/A		S2540C-11	845514
		N/A	N/A	N/A		S4500HB-11	847214
		N/A	N/A	N/A		SM2130B-2011	845503
		N/A	N/A	N/A		SM2320B-2011	847214
		N/A	N/A	N/A		SM2510B-2011	846096
		N/A	N/A	N/A		SM5310B-2011	846125
		420.4/9066	847928	05/17/2022 08:08	AKH	SW846 9066	848039

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3241106004	FFMP035W	N/A	N/A	N/A		Field	847943
		SW846 3015	846016	05/09/2022 00:41	ANN	SW846 6020A	847581
		SW846 3015	846000	05/08/2022 21:33	ANN	SW846 6020A	847582
		SW846 7470A	845995	05/10/2022 12:15	A1S	SW846 7470A	847236
		SW846 7470A	847688	05/14/2022 12:35	AHI	SW846 7470A	847911
		N/A	N/A	N/A		Lib Search VOC	846673
		N/A	N/A	N/A		SW846 8260B	846305
		N/A	N/A	N/A		ASTM D6919-09	846565
		N/A	N/A	N/A		EPA 300.0	845420
		N/A	N/A	N/A		EPA 410.4	846551
		N/A	N/A	N/A		S2540C-11	845514
		N/A	N/A	N/A		S4500HB-11	847214
		N/A	N/A	N/A		SM2130B-2011	845503
		N/A	N/A	N/A		SM2320B-2011	847214
		N/A	N/A	N/A		SM2510B-2011	846096
		N/A	N/A	N/A		SM5310B-2011	846125
		420.4/9066	847928	05/17/2022 08:08	AKH	SW846 9066	848039

ALS Environmental
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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

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ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

5/20/2022 9:13 PM

Client Name: Lancaster County Solid Waste MA
Address: 1299 Harrisburg Pike, P.O. Box 4424
Lancaster, PA 17604
Contact: Dan Brown
Phone#: (717) 735-0193
Project Name/#: Frey Farm Annual
Bill To: Lancaster County Solid Waste MA

TAT [X] Normal-Standard TAT is 10-12 business days.
[ ] Rush-Subject to ALS approval and surcharges.
Date Required: _____ **Approved By:** _____
Email? [ ] -Y _____
Fax? [X] -Y No.: (717) 397-9973

Container Type	AG	AW	CG	---	---	PL	PL	PL	PL	PL
Container Size	40 ml	125 ml	40 ml	---	---	250 ml	125 ml	125 ml	1 L	500 ml
Preservative	HCl	H2SO4	HCl	---	---	H2SO4	HNO3	HNO3	None	None

ANALYSES/METHOD REQUESTED

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	TOC	O-OH	8260 - FORM 19A & Subtitle D	Field Measurements	Sample Depth for AUX Data	NH3-N, COD	Dissolved: Fe, Mn, Na, Ba, Cr, Cu, Pb, Mg, K, Zn, As, Cd, Se, Ag, Hg, Ca	Metals: Fe, Mn, Na, Ba, Cr, Cu, Pb, Mg, K, Zn, As, Cd, Se, Ag, Hg, Ca	pH, Cl, SpC, F, SO4, TDS, NO3, Turb.	Alkalinity, HCO3	Co
					Enter Number of Containers Per Sample or Field Results Below.										
1. FFMP0018W	05/05/22	1028	G	GW	2	1	2	X	X	1	1	1	1	1	
2. FFMP019W	05/05/22	1117	G	GW	2	1	2	X	X	1	1	1	1	1	
3. FFMP036W	05/05/22	1245	G	GW	2	1	2	X	X	1	1	1	1	1	
4. FFMP035W	05/05/22	1411	G	GW	2	1	2	X	X	1	1	1	1	1	
5															
6															
7															
8															
9															
10															

Receipt Information (completed by Receiving Lab)

Cooler Temp: 2 Therm ID: 870
No. of Coolers: _____

	Y	N	Initial
Custody Seals Present?			
(if present) Seals Intact?			
Received on Ice?			
COC/Labels Complete/Accurate?			
Cont. in Good Cond.?			

Temp Taken By: KB
WO Temp (°C) 2°
Therm ID: 870
Receipt Info Completed By: SHC

	Y	N	NA
Cooler Custody Seal Intact	Y	N	NA
Sample Custody Seal Intact	Y	N	NA
Received on Ice	Y	N	
Cooler & Samples Intact	Y	N	
Correct Containers Provided	Y	N	
Sample Label/COC Agree	Y	N	
Adequate Sample Volumes	Y	N	NA
VOA Headspace Present	Y	N	NA
Voa Trip Blank	Y	N	
NJ≤ 4 Days?	Y	N	

Rad Screen (uCi) _____
Courier/Tracking #: _____

SDWA Compliance N
PWSID

ALS Field Services: ☐Pickup ☐Labor ☐Composite_Sampling ☐Rental_Equipment ☐Other: _____

Project Comments:

LOGGED BY(signature): DATE: TIME:
REVIEWED BY(signature): DATE: TIME:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [signature] RELINQUISHED BY PLS	5-5-22	1535	2 [signature]	5.5.22	1535
3			4		
5			6		
7			8		
9			10		

Data Deliverables: ☐Standard ☐CLP-like ☐USACE ☐

Special Processing: USACE ☐ Navy ☐

State Samples Collected In: ☐NY ☐NJ ☒PA ☐NC

Reportable to PADEP? Yes ☐

Sample Disposal: Lab ☒ Special ☐

PWSID # _____

EDDS: Format Type-

* G=Grab; C=Composite **Matrix - AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

ALS ENVIRONMENTAL SHIPPING ADDRESS: 34 DOGWOOD LANE, MIDDLETOWN, PA 17057

Rev 8/04

34 of 34

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

Analytical Results Report For **Lancaster County Solid Waste Authority**

Project 2ND QTR 2022 FFMP-FORM 19A
Workorder 3240808
Report ID 170256 on 5/20/2022

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on May 04, 2022.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):
Ashley Gichuki - Lancaster County Solid Waste Authority
Daniel Brown - Lancaster County Solid Waste Authority
Jordan Gallagher - Lancaster County Solid Waste Authority
Jeff Musser - Lancaster County Solid Waste Authority

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Susan Scherer

Susan Scherer *(ALS Digital Signature)*
Project Coordinator

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3240808001	FFMP017W	Ground Water	05/04/2022 10:57	05/04/2022 17:14	BGS	Analytical Laboratory Service
3240808002	FFMP034W	Ground Water	05/04/2022 12:29	05/04/2022 17:14	BGS	Analytical Laboratory Service
3240808003	FFMP033W	Ground Water	05/04/2022 13:59	05/04/2022 17:14	BGS	Analytical Laboratory Service
3240808004	FFMP02DW	Ground Water	05/04/2022 15:22	05/04/2022 17:14	BGS	Analytical Laboratory Service
3240808005	FFMP02SW	Ground Water	05/04/2022 16:06	05/04/2022 17:14	BGS	Analytical Laboratory Service

Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136.
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits
#	Please reference the result in the Results Section for analyte-level flags.

Project Notations

Sample Notations

Lab ID	Sample ID

Result Notations

Notation Ref.	
1	The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L.
2	The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory.

Detected Results Summary

Client Sample ID	FFMP017W	Collected	05/04/2022 10:57
Lab Sample ID	3240808001	Lab Receipt	05/04/2022 17:14

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Depth to Water Level	40.37	Feet		Field	#
Dissolved Oxygen	0.08	mg/L	0.01	Field	#
Elev Top MW Casing above MSL	480.70	Feet		Field	#
Flow Rate	1.89	gal/min		Field	#
Ground Water Elevation	440.33	ft/MSL		Field	#
Oxidation-Reduction Potential	219	mV		Field	#
pH, Field (SM4500B)	5.95	pH_Units		Field	#
Sample Depth	135.00	Feet		Field	#
Specific Conductance, Field	2108	umhos/cm	1	Field	#
Temperature	12.83	Deg. C		Field	#
Total Well Depth	150.50	Feet		Field	#
Volume in Water Column	161.89	Gallons		Field	#
Water Level After Purge	46.43	Feet		Field	#
Well Volumes Purged	0.70	Vol		Field	#
LIBRARY SEARCH - VOLATILES					
No TIC's Detected	.			Lib Search VOC	#
METALS					
Barium, Dissolved	0.12	mg/L	0.0056	SW846 6020A	#
Barium, Total	0.12	mg/L	0.0056	SW846 6020A	#
Calcium, Dissolved	87.2	mg/L	0.11	SW846 6020A	#
Calcium, Total	85.3	mg/L	0.11	SW846 6020A	#
Cobalt, Total	0.012	mg/L	0.0056	SW846 6020A	#
Magnesium, Dissolved	40.3	mg/L	0.11	SW846 6020A	#
Magnesium, Total	40.0	mg/L	0.11	SW846 6020A	#
Manganese, Dissolved	1.2	mg/L	0.0056	SW846 6020A	#
Manganese, Total	1.2	mg/L	0.0056	SW846 6020A	#
Nickel, Total	0.0070	mg/L	0.0056	SW846 6020A	#
Potassium, Dissolved	7.1	mg/L	0.11	SW846 6020A	#
Potassium, Total	7.1	mg/L	0.11	SW846 6020A	#
Sodium, Dissolved	95.0	mg/L	0.11	SW846 6020A	#
Sodium, Total	91.7	mg/L	0.11	SW846 6020A	#
Zinc, Dissolved	0.0088	mg/L	0.0056	SW846 6020A	#
Zinc, Total	0.0089	mg/L	0.0056	SW846 6020A	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	123	mg/L	5	SM2320B-2011	#
Alkalinity, Total	123	mg/L	5	SM2320B-2011	#
Ammonia-N	0.315	mg/L	0.100	ASTM D6919-09	#
Chloride	303	mg/L	10.0	EPA 300.0	#
Nitrate-N	3.0	mg/L	1.0	EPA 300.0	#
pH	7.45	pH_Units		S4500HB-11	#
Specific Conductance	1310	umhos/cm	1	SM2510B-2011	#
Sulfate	85.6	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	702	mg/L	25	S2540C-11	#
Total Organic Carbon (TOC)	2.8	mg/L	0.50	SM5310B-2011	#
Turbidity	0.24	NTU	0.10	SM2130B-2011	#

Detected Results Summary

Sample - FFMP017W (cont.)

Compound	Result	Units	RDL	Method	Flag

Detected Results Summary

Client Sample ID	FFMP034W	Collected	05/04/2022 12:29
Lab Sample ID	3240808002	Lab Receipt	05/04/2022 17:14

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Depth to Water Level	10.51	Feet		Field	#
Dissolved Oxygen	2.71	mg/L	0.01	Field	#
Elev Top MW Casing above MSL	472.88	Feet		Field	#
Flow Rate	1.70	gal/min		Field	#
Ground Water Elevation	462.37	ft/MSL		Field	#
Oxidation-Reduction Potential	148	mV		Field	#
pH, Field (SM4500B)	5.78	pH_Units		Field	#
Sample Depth	25.85	Feet		Field	#
Specific Conductance, Field	1468	umhos/cm	1	Field	#
Temperature	13.42	Deg. C		Field	#
Total Well Depth	121.00	Feet		Field	#
Turbidity, Field	4	NTU	1	Field	#
Volume in Water Column	162.42	Gallons		Field	#
Water Level After Purge	18.51	Feet		Field	#
Well Volumes Purged	0.73	Vol		Field	#
LIBRARY SEARCH - VOLATILES					
No TIC's Detected	.			Lib Search VOC	#
METALS					
Barium, Dissolved	0.064	mg/L	0.0056	SW846 6020A	#
Barium, Total	0.062	mg/L	0.0056	SW846 6020A	#
Calcium, Dissolved	67.8	mg/L	0.11	SW846 6020A	#
Calcium, Total	67.2	mg/L	0.11	SW846 6020A	#
Iron, Dissolved	0.49	mg/L	0.056	SW846 6020A	#
Iron, Total	1.7	mg/L	0.056	SW846 6020A	#
Magnesium, Dissolved	26.8	mg/L	0.11	SW846 6020A	#
Magnesium, Total	25.7	mg/L	0.11	SW846 6020A	#
Manganese, Dissolved	0.11	mg/L	0.0056	SW846 6020A	#
Manganese, Total	0.11	mg/L	0.0056	SW846 6020A	#
Potassium, Dissolved	3.1	mg/L	0.11	SW846 6020A	#
Potassium, Total	2.9	mg/L	0.11	SW846 6020A	#
Sodium, Dissolved	55.9	mg/L	0.11	SW846 6020A	#
Sodium, Total	52.8	mg/L	0.11	SW846 6020A	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	41	mg/L	5	SM2320B-2011	#
Alkalinity, Total	41	mg/L	5	SM2320B-2011	#
Ammonia-N	0.193	mg/L	0.100	ASTM D6919-09	#
Chloride	226	mg/L	5.0	EPA 300.0	#
Nitrate-N	8.9	mg/L	1.0	EPA 300.0	#
pH	7.32	pH_Units		S4500HB-11	#
Specific Conductance	903	umhos/cm	1	SM2510B-2011	#
Sulfate	32.5	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	506	mg/L	25	S2540C-11	#
Total Organic Carbon (TOC)	0.90	mg/L	0.50	SM5310B-2011	#
Turbidity	31.7	NTU	0.10	SM2130B-2011	#

Detected Results Summary

Client Sample ID	FFMP033W	Collected	05/04/2022 13:59
Lab Sample ID	3240808003	Lab Receipt	05/04/2022 17:14

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Depth to Water Level	19.76	Feet		Field	#
Dissolved Oxygen	0.84	mg/L	0.01	Field	#
Elev Top MW Casing above MSL	516.52	Feet		Field	#
Flow Rate	1.73	gal/min		Field	#
Ground Water Elevation	496.76	ft/MSL		Field	#
Oxidation-Reduction Potential	66	mV		Field	#
pH, Field (SM4500B)	5.50	pH_Units		Field	#
Sample Depth	79.00	Feet		Field	#
Specific Conductance, Field	629	umhos/cm	1	Field	#
Temperature	15.35	Deg. C		Field	#
Total Well Depth	100.00	Feet		Field	#
Turbidity, Field	15	NTU	1	Field	#
Volume in Water Column	117.95	Gallons		Field	#
Water Level After Purge	33.51	Feet		Field	#
Well Volumes Purged	0.88	Vol		Field	#
LIBRARY SEARCH - VOLATILES					
No TIC's Detected	.			Lib Search VOC	#
METALS					
Barium, Dissolved	0.056	mg/L	0.0056	SW846 6020A	#
Barium, Total	0.053	mg/L	0.0056	SW846 6020A	#
Calcium, Dissolved	30.5	mg/L	0.11	SW846 6020A	#
Calcium, Total	30.0	mg/L	0.11	SW846 6020A	#
Iron, Dissolved	5.4	mg/L	0.056	SW846 6020A	#
Iron, Total	6.3	mg/L	0.056	SW846 6020A	#
Magnesium, Dissolved	11.0	mg/L	0.11	SW846 6020A	#
Magnesium, Total	10.7	mg/L	0.11	SW846 6020A	#
Manganese, Dissolved	0.48	mg/L	0.0056	SW846 6020A	#
Manganese, Total	0.48	mg/L	0.0056	SW846 6020A	#
Potassium, Dissolved	1.6	mg/L	0.11	SW846 6020A	#
Potassium, Total	1.7	mg/L	0.11	SW846 6020A	#
Sodium, Dissolved	16.0	mg/L	0.11	SW846 6020A	#
Sodium, Total	15.0	mg/L	0.11	SW846 6020A	#
Zinc, Total	0.0063	mg/L	0.0056	SW846 6020A	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	42	mg/L	5	SM2320B-2011	#
Alkalinity, Total	42	mg/L	5	SM2320B-2011	#
Ammonia-N	0.514	mg/L	0.100	ASTM D6919-09	#
Chloride	61.1	mg/L	2.0	EPA 300.0	#
Nitrate-N	10.9	mg/L	1.0	EPA 300.0	#
pH	7.28	pH_Units		S4500HB-11	#
Specific Conductance	391	umhos/cm	1	SM2510B-2011	#
Sulfate	5.9	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	154	mg/L	25	S2540C-11	#
Total Organic Carbon (TOC)	0.77	mg/L	0.50	SM5310B-2011	#
Turbidity	19.0	NTU	0.10	SM2130B-2011	#

Detected Results Summary

Sample - FFMP033W (cont.)

Compound	Result	Units	RDL	Method	Flag

Detected Results Summary

Client Sample ID	FFMP02DW	Collected	05/04/2022 15:22
Lab Sample ID	3240808004	Lab Receipt	05/04/2022 17:14

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Depth to Water Level	20.33	Feet		Field	#
Elev Top MW Casing above MSL	509.60	Feet		Field	#
Flow Rate	1.95	gal/min		Field	#
Ground Water Elevation	489.27	ft/MSL		Field	#
Oxidation-Reduction Potential	-38	mV		Field	#
pH, Field (SM4500B)	7.28	pH_Units		Field	#
Sample Depth	120.00	Feet		Field	#
Specific Conductance, Field	2878	umhos/cm	1	Field	#
Temperature	14.92	Deg. C		Field	#
Total Well Depth	153.00	Feet		Field	#
Turbidity, Field	41	NTU	1	Field	#
Volume in Water Column	195.02	Gallons		Field	#
Water Level After Purge	75.32	Feet		Field	#
Well Volumes Purged	0.65	Vol		Field	#
LIBRARY SEARCH - VOLATILES					
No TIC's Detected	.			Lib Search VOC	#
METALS					
Barium, Dissolved	0.18	mg/L	0.0056	SW846 6020A	#
Barium, Total	0.19	mg/L	0.0056	SW846 6020A	#
Calcium, Dissolved	133	mg/L	0.11	SW846 6020A	#
Calcium, Total	131	mg/L	0.11	SW846 6020A	#
Iron, Dissolved	0.34	mg/L	0.056	SW846 6020A	#
Iron, Total	4.4	mg/L	0.056	SW846 6020A	#
Magnesium, Dissolved	24.3	mg/L	0.11	SW846 6020A	#
Magnesium, Total	25.3	mg/L	0.11	SW846 6020A	#
Manganese, Dissolved	0.56	mg/L	0.0056	SW846 6020A	#
Manganese, Total	0.57	mg/L	0.0056	SW846 6020A	#
Potassium, Dissolved	2.0	mg/L	0.11	SW846 6020A	#
Potassium, Total	2.0	mg/L	0.11	SW846 6020A	#
Sodium, Dissolved	171	mg/L	0.11	SW846 6020A	#
Sodium, Total	165	mg/L	0.11	SW846 6020A	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	109	mg/L	5	SM2320B-2011	#
Alkalinity, Total	109	mg/L	5	SM2320B-2011	#
Ammonia-N	0.267	mg/L	0.100	ASTM D6919-09	#
Chloride	555	mg/L	10.0	EPA 300.0	#
Nitrate-N	4.5	mg/L	1.0	EPA 300.0	#
pH	8.11	pH_Units		S4500HB-11	#
Specific Conductance	1780	umhos/cm	1	SM2510B-2011	#
Sulfate	35.0	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	1040	mg/L	25	S2540C-11	#
Total Organic Carbon (TOC)	0.93	mg/L	0.50	SM5310B-2011	#
Turbidity	61.9	NTU	0.10	SM2130B-2011	#

Detected Results Summary

Client Sample ID	FFMP02SW	Collected	05/04/2022 16:06
Lab Sample ID	3240808005	Lab Receipt	05/04/2022 17:14

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Depth to Water Level	15.04	Feet		Field	#
Dissolved Oxygen	26.91	mg/L	0.01	Field	#
Elev Top MW Casing above MSL	509.90	Feet		Field	#
Flow Rate	1.00	gal/min		Field	#
Ground Water Elevation	494.86	ft/MSL		Field	#
Oxidation-Reduction Potential	199	mV		Field	#
pH, Field (SM4500B)	5.57	pH_Units		Field	#
Sample Depth	18.00	Feet		Field	#
Specific Conductance, Field	791	umhos/cm	1	Field	#
Temperature	17.04	Deg. C		Field	#
Total Well Depth	22.70	Feet		Field	#
Turbidity, Field	27	NTU	1	Field	#
Volume in Water Column	4.98	Gallons		Field	#
Water Level After Purge	16.65	Feet		Field	#
Well Volumes Purged	2.01	Vol		Field	#
LIBRARY SEARCH - VOLATILES					
No TIC's Detected	.			Lib Search VOC	#
METALS					
Barium, Dissolved	0.081	mg/L	0.0056	SW846 6020A	#
Barium, Total	0.087	mg/L	0.0056	SW846 6020A	#
Calcium, Dissolved	17.8	mg/L	0.11	SW846 6020A	#
Calcium, Total	18.0	mg/L	0.11	SW846 6020A	#
Chromium, Total	0.0028	mg/L	0.0022	SW846 6020A	#
Copper, Dissolved	0.0070	mg/L	0.0056	SW846 6020A	#
Copper, Total	0.010	mg/L	0.0056	SW846 6020A	#
Iron, Total	0.15	mg/L	0.056	SW846 6020A	#
Magnesium, Dissolved	7.6	mg/L	0.11	SW846 6020A	#
Magnesium, Total	7.7	mg/L	0.11	SW846 6020A	#
Manganese, Dissolved	0.014	mg/L	0.0056	SW846 6020A	#
Manganese, Total	0.018	mg/L	0.0056	SW846 6020A	#
Potassium, Dissolved	4.3	mg/L	0.11	SW846 6020A	#
Potassium, Total	4.0	mg/L	0.11	SW846 6020A	#
Sodium, Dissolved	64.4	mg/L	0.11	SW846 6020A	#
Sodium, Total	64.3	mg/L	0.11	SW846 6020A	#
Zinc, Dissolved	0.011	mg/L	0.0056	SW846 6020A	#
Zinc, Total	0.011	mg/L	0.0056	SW846 6020A	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	15	mg/L	5	SM2320B-2011	#
Alkalinity, Total	15	mg/L	5	SM2320B-2011	#
Ammonia-N	0.143	mg/L	0.100	ASTM D6919-09	#
Chloride	96.8	mg/L	2.0	EPA 300.0	#
Nitrate-N	13.6	mg/L	1.0	EPA 300.0	#
pH	6.96	pH_Units		S4500HB-11	#
Specific Conductance	541	umhos/cm	1	SM2510B-2011	#
Sulfate	31.5	mg/L	2.0	EPA 300.0	#

Detected Results Summary

Sample - FFMP02SW (cont.)

Compound	Result	Units	RDL	Method	Flag
WET CHEMISTRY (cont.)					
Total Dissolved Solids	288	mg/L	25	S2540C-11	#
Total Organic Carbon (TOC)	1.9	mg/L	0.50	SM5310B-2011	#
Turbidity	15.8	NTU	0.10	SM2130B-2011	#

Results

Client Sample ID	FFMP017W	Collected	05/04/2022 10:57
Lab Sample ID	3240808001	Lab Receipt	05/04/2022 17:14

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Depth to Water Level	40.37		Feet		Field	1	05/04/2022 10:57	BGS	F
Dissolved Oxygen	0.08		mg/L	0.01	Field	1	05/04/2022 10:57	BGS	F
Elev Top MW Casing above MSL	480.70		Feet		Field	1	05/04/2022 10:57	BGS	F
Flow Rate	1.89		gal/min		Field	1	05/04/2022 10:57	BGS	F
Ground Water Elevation	440.33		ft/MSL		Field	1	05/04/2022 10:57	BGS	F
Oxidation-Reduction Potential	219		mV		Field	1	05/04/2022 10:57	BGS	F
pH, Field (SM4500B)	5.95		pH_Units		Field	1	05/04/2022 10:57	BGS	F
Sample Depth	135.00		Feet		Field	1	05/04/2022 10:57	BGS	F
Specific Conductance, Field	2108		umhos/cm	1	Field	1	05/04/2022 10:57	BGS	F
Temperature	12.83		Deg. C		Field	1	05/04/2022 10:57	BGS	F
Total Well Depth	150.50		Feet		Field	1	05/04/2022 10:57	BGS	F
Turbidity, Field	ND	ND	NTU	1	Field	1	05/04/2022 10:57	BGS	F
Volume in Water Column	161.89		Gallons		Field	1	05/04/2022 10:57	BGS	F
Water Level After Purge	46.43		Feet		Field	1	05/04/2022 10:57	BGS	F
Well Volumes Purged	0.70		Vol		Field	1	05/04/2022 10:57	BGS	F

LIBRARY SEARCH - VOLATILES

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
No TIC's Detected	.				Lib Search VOC	1	05/10/2022 18:02	DD	J

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Antimony, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/09/2022 16:21	RMD	E1
Arsenic, Dissolved	ND	ND	mg/L	0.0030	SW846 6020A	1	05/11/2022 12:00	MO	D1
Arsenic, Total	ND	ND	mg/L	0.0033	SW846 6020A	1	05/09/2022 16:21	RMD	E1
Barium, Dissolved	0.12		mg/L	0.0056	SW846 6020A	1	05/11/2022 12:00	MO	D1
Barium, Total	0.12		mg/L	0.0056	SW846 6020A	1	05/09/2022 16:21	RMD	E1
Beryllium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/09/2022 16:21	RMD	E1
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	05/11/2022 12:00	MO	D1
Cadmium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/09/2022 16:21	RMD	E1
Calcium, Dissolved	87.2		mg/L	0.11	SW846 6020A	1	05/11/2022 12:00	MO	D1
Calcium, Total	85.3		mg/L	0.11	SW846 6020A	1	05/09/2022 16:21	RMD	E1
Chromium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/11/2022 12:00	MO	D1
Chromium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/09/2022 16:21	RMD	E1
Cobalt, Total	0.012		mg/L	0.0056	SW846 6020A	1	05/09/2022 16:21	RMD	E1
Copper, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/11/2022 12:00	MO	D1
Copper, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/09/2022 16:21	RMD	E1
Iron, Dissolved	ND	ND	mg/L	0.056	SW846 6020A	1	05/11/2022 12:00	MO	D1
Iron, Total	ND	ND	mg/L	0.056	SW846 6020A	1	05/09/2022 16:21	RMD	E1
Lead, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/11/2022 12:00	MO	D1
Lead, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/09/2022 16:21	RMD	E1
Magnesium, Dissolved	40.3		mg/L	0.11	SW846 6020A	1	05/11/2022 12:00	MO	D1
Magnesium, Total	40.0		mg/L	0.11	SW846 6020A	1	05/09/2022 16:21	RMD	E1
Manganese, Dissolved	1.2		mg/L	0.0056	SW846 6020A	1	05/11/2022 12:00	MO	D1

Results

Client Sample ID	FFMP017W	Collected	05/04/2022 10:57
Lab Sample ID	3240808001	Lab Receipt	05/04/2022 17:14

METALS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Manganese, Total	1.2		mg/L	0.0056	SW846 6020A	1	05/09/2022 16:21	RMD	E1
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	05/12/2022 15:39	A1S	D
Mercury, Total	ND	ND	mg/L	0.00050	SW846 7470A	1	05/13/2022 14:00	A1S	E
Nickel, Total	0.0070		mg/L	0.0056	SW846 6020A	1	05/09/2022 16:21	RMD	E1
Potassium, Dissolved	7.1		mg/L	0.11	SW846 6020A	1	05/11/2022 12:00	MO	D1
Potassium, Total	7.1		mg/L	0.11	SW846 6020A	1	05/09/2022 16:21	RMD	E1
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/11/2022 12:00	MO	D1
Selenium, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/09/2022 16:21	RMD	E1
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/11/2022 12:00	MO	D1
Silver, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/09/2022 16:21	RMD	E1
Sodium, Dissolved	95.0		mg/L	0.11	SW846 6020A	1	05/11/2022 12:00	MO	D1
Sodium, Total	91.7		mg/L	0.11	SW846 6020A	1	05/09/2022 16:21	RMD	E1
Thallium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/09/2022 16:21	RMD	E1
Vanadium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/09/2022 16:21	RMD	E1
Zinc, Dissolved	0.0088		mg/L	0.0056	SW846 6020A	1	05/11/2022 12:00	MO	D1
Zinc, Total	0.0089		mg/L	0.0056	SW846 6020A	1	05/09/2022 16:21	RMD	E1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
1,2,3-Trichloropropane	ND	ND	ug/L	2.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
2-Butanone	ND	ND	ug/L	10.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
3-Chloro-1-propene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
Acetone	ND	ND	ug/L	10.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
Acrylonitrile	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
Bromoform	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
Bromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K

Results

Client Sample ID	**FFMP017W**	Collected	**05/04/2022 10:57**
Lab Sample ID	**3240808001**	Lab Receipt	**05/04/2022 17:14**

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
Chloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
Chloroform	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
Chloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
Dibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
Iodomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
Styrene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
trans-1,4-Dichloro-2-butene	ND	ND	ug/L	3.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
Vinyl Acetate	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 18:02	DPC	K
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:02	DPC	K

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	92.9%	62 – 133	05/10/2022 18:02	
4-Bromofluorobenzene	460-00-4	91.9%	79 – 114	05/10/2022 18:02	
Dibromofluoromethane	1868-53-7	91.6%	78 – 116	05/10/2022 18:02	
Toluene-d8	2037-26-5	88.9%	76 – 127	05/10/2022 18:02	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	123		mg/L	5	SM2320B-2011	1	05/12/2022 01:01	BXD	A
Alkalinity, Total	123	1	mg/L	5	SM2320B-2011	1	05/12/2022 01:01	BXD	A
Ammonia-N	0.315		mg/L	0.100	ASTM D6919-09	10	05/11/2022 12:30	ALK	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	05/06/2022 19:17	ALK	C
Chloride	303		mg/L	10.0	EPA 300.0	10	05/09/2022 20:19	M1D	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	05/05/2022 11:40	MSA	A
Nitrate-N	3.0		mg/L	1.0	EPA 300.0	2	05/05/2022 11:40	MSA	A
pH	7.45	2	pH_Units		S4500HB-11	1	05/12/2022 01:01	BXD	A
Phenolics	ND	ND	mg/L	0.004	SW846 9066	1	05/17/2022 11:32	AKH	I
Specific Conductance	1310		umhos/cm	1	SM2510B-2011	1	05/09/2022 15:43	BXD	A
Sulfate	85.6		mg/L	2.0	EPA 300.0	2	05/05/2022 11:40	MSA	A

Results

Client Sample ID	**FFMP017W**	Collected	**05/04/2022 10:57**
Lab Sample ID	**3240808001**	Lab Receipt	**05/04/2022 17:14**

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Total Dissolved Solids	702		mg/L	25	S2540C-11	1	05/06/2022 08:42	SMS	A
Total Organic Carbon (TOC)	2.8		mg/L	0.50	SM5310B-2011	1	05/06/2022 15:25	PAG	G
Turbidity	0.24		NTU	0.10	SM2130B-2011	1	05/05/2022 03:50	LXZ	A

Results

Client Sample ID	FFMP034W	Collected	05/04/2022 12:29
Lab Sample ID	3240808002	Lab Receipt	05/04/2022 17:14

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Depth to Water Level	10.51		Feet		Field	1	05/04/2022 12:28	BGS	F
Dissolved Oxygen	2.71		mg/L	0.01	Field	1	05/04/2022 12:28	BGS	F
Elev Top MW Casing above MSL	472.88		Feet		Field	1	05/04/2022 12:28	BGS	F
Flow Rate	1.70		gal/min		Field	1	05/04/2022 12:28	BGS	F
Ground Water Elevation	462.37		ft/MSL		Field	1	05/04/2022 12:28	BGS	F
Oxidation-Reduction Potential	148		mV		Field	1	05/04/2022 12:28	BGS	F
pH, Field (SM4500B)	5.78		pH_Units		Field	1	05/04/2022 12:28	BGS	F
Sample Depth	25.85		Feet		Field	1	05/04/2022 12:28	BGS	F
Specific Conductance, Field	1468		umhos/cm	1	Field	1	05/04/2022 12:28	BGS	F
Temperature	13.42		Deg. C		Field	1	05/04/2022 12:28	BGS	F
Total Well Depth	121.00		Feet		Field	1	05/04/2022 12:28	BGS	F
Turbidity, Field	4		NTU	1	Field	1	05/04/2022 12:28	BGS	F
Volume in Water Column	162.42		Gallons		Field	1	05/04/2022 12:28	BGS	F
Water Level After Purge	18.51		Feet		Field	1	05/04/2022 12:28	BGS	F
Well Volumes Purged	0.73		Vol		Field	1	05/04/2022 12:28	BGS	F

LIBRARY SEARCH - VOLATILES

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
No TIC's Detected	.				Lib Search VOC	1	05/10/2022 18:25	DD	J

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Antimony, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/09/2022 16:46	RMD	E1
Arsenic, Dissolved	ND	ND	mg/L	0.0030	SW846 6020A	1	05/11/2022 12:02	MO	D1
Arsenic, Total	ND	ND	mg/L	0.0033	SW846 6020A	1	05/09/2022 16:46	RMD	E1
Barium, Dissolved	0.064		mg/L	0.0056	SW846 6020A	1	05/11/2022 12:02	MO	D1
Barium, Total	0.062		mg/L	0.0056	SW846 6020A	1	05/09/2022 16:46	RMD	E1
Beryllium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/09/2022 16:46	RMD	E1
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	05/11/2022 12:02	MO	D1
Cadmium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/09/2022 16:46	RMD	E1
Calcium, Dissolved	67.8		mg/L	0.11	SW846 6020A	1	05/11/2022 12:02	MO	D1
Calcium, Total	67.2		mg/L	0.11	SW846 6020A	1	05/09/2022 16:46	RMD	E1
Chromium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/11/2022 12:02	MO	D1
Chromium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/09/2022 16:46	RMD	E1
Cobalt, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/09/2022 16:46	RMD	E1
Copper, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/11/2022 12:02	MO	D1
Copper, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/09/2022 16:46	RMD	E1
Iron, Dissolved	0.49		mg/L	0.056	SW846 6020A	1	05/11/2022 12:02	MO	D1
Iron, Total	1.7		mg/L	0.056	SW846 6020A	1	05/09/2022 16:46	RMD	E1
Lead, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/11/2022 12:02	MO	D1
Lead, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/09/2022 16:46	RMD	E1
Magnesium, Dissolved	26.8		mg/L	0.11	SW846 6020A	1	05/11/2022 12:02	MO	D1
Magnesium, Total	25.7		mg/L	0.11	SW846 6020A	1	05/09/2022 16:46	RMD	E1
Manganese, Dissolved	0.11		mg/L	0.0056	SW846 6020A	1	05/11/2022 12:02	MO	D1

Results

Client Sample ID	FFMP034W	Collected	05/04/2022 12:29
Lab Sample ID	3240808002	Lab Receipt	05/04/2022 17:14

METALS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Manganese, Total	0.11		mg/L	0.0056	SW846 6020A	1	05/09/2022 16:46	RMD	E1
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	05/12/2022 15:40	A1S	D
Mercury, Total	ND	ND	mg/L	0.00050	SW846 7470A	1	05/13/2022 14:02	A1S	E
Nickel, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/09/2022 16:46	RMD	E1
Potassium, Dissolved	3.1		mg/L	0.11	SW846 6020A	1	05/11/2022 12:02	MO	D1
Potassium, Total	2.9		mg/L	0.11	SW846 6020A	1	05/09/2022 16:46	RMD	E1
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/11/2022 12:02	MO	D1
Selenium, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/09/2022 16:46	RMD	E1
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/11/2022 12:02	MO	D1
Silver, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/09/2022 16:46	RMD	E1
Sodium, Dissolved	55.9		mg/L	0.11	SW846 6020A	1	05/11/2022 12:02	MO	D1
Sodium, Total	52.8		mg/L	0.11	SW846 6020A	1	05/09/2022 16:46	RMD	E1
Thallium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/09/2022 16:46	RMD	E1
Vanadium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/09/2022 16:46	RMD	E1
Zinc, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/11/2022 12:02	MO	D1
Zinc, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/09/2022 16:46	RMD	E1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
1,2,3-Trichloropropane	ND	ND	ug/L	2.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
2-Butanone	ND	ND	ug/L	10.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
3-Chloro-1-propene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
Acetone	ND	ND	ug/L	10.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
Acrylonitrile	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
Bromoform	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
Bromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K

Results

Client Sample ID	FFMP034W	Collected	05/04/2022 12:29
Lab Sample ID	3240808002	Lab Receipt	05/04/2022 17:14

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
Chloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
Chloroform	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
Chloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
Dibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
Iodomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
Styrene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
trans-1,4-Dichloro-2-butene	ND	ND	ug/L	3.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
Vinyl Acetate	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 18:25	DPC	K
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:25	DPC	K

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	90%	62 – 133	05/10/2022 18:25	
4-Bromofluorobenzene	460-00-4	93.4%	79 – 114	05/10/2022 18:25	
Dibromofluoromethane	1868-53-7	91.1%	78 – 116	05/10/2022 18:25	
Toluene-d8	2037-26-5	89.9%	76 – 127	05/10/2022 18:25	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	41		mg/L	5	SM2320B-2011	1	05/12/2022 01:45	BXD	A
Alkalinity, Total	41	1	mg/L	5	SM2320B-2011	1	05/12/2022 01:45	BXD	A
Ammonia-N	0.193		mg/L	0.100	ASTM D6919-09	10	05/11/2022 13:12	ALK	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	05/06/2022 19:17	ALK	C
Chloride	226		mg/L	5.0	EPA 300.0	5	05/09/2022 20:29	M1D	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	05/05/2022 11:51	MSA	A
Nitrate-N	8.9		mg/L	1.0	EPA 300.0	2	05/05/2022 11:51	MSA	A
pH	7.32	2	pH_Units		S4500HB-11	1	05/12/2022 01:45	BXD	A
Phenolics	ND	ND	mg/L	0.004	SW846 9066	1	05/17/2022 11:35	AKH	I
Specific Conductance	903		umhos/cm	1	SM2510B-2011	1	05/09/2022 15:43	BXD	A
Sulfate	32.5		mg/L	2.0	EPA 300.0	2	05/05/2022 11:51	MSA	A

Results

Client Sample ID	**FFMP034W**	Collected	**05/04/2022 12:29**
Lab Sample ID	**3240808002**	Lab Receipt	**05/04/2022 17:14**

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Total Dissolved Solids	506		mg/L	25	S2540C-11	1	05/06/2022 08:42	SMS	A
Total Organic Carbon (TOC)	0.90		mg/L	0.50	SM5310B-2011	1	05/06/2022 15:25	PAG	G
Turbidity	31.7		NTU	0.10	SM2130B-2011	1	05/05/2022 03:50	LXZ	A

Results

Client Sample ID	FFMP033W	Collected	05/04/2022 13:59
Lab Sample ID	3240808003	Lab Receipt	05/04/2022 17:14

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Depth to Water Level	19.76		Feet		Field	1	05/04/2022 13:59	BGS	F
Dissolved Oxygen	0.84		mg/L	0.01	Field	1	05/04/2022 13:59	BGS	F
Elev Top MW Casing above MSL	516.52		Feet		Field	1	05/04/2022 13:59	BGS	F
Flow Rate	1.73		gal/min		Field	1	05/04/2022 13:59	BGS	F
Ground Water Elevation	496.76		ft/MSL		Field	1	05/04/2022 13:59	BGS	F
Oxidation-Reduction Potential	66		mV		Field	1	05/04/2022 13:59	BGS	F
pH, Field (SM4500B)	5.50		pH_Units		Field	1	05/04/2022 13:59	BGS	F
Sample Depth	79.00		Feet		Field	1	05/04/2022 13:59	BGS	F
Specific Conductance, Field	629		umhos/cm	1	Field	1	05/04/2022 13:59	BGS	F
Temperature	15.35		Deg. C		Field	1	05/04/2022 13:59	BGS	F
Total Well Depth	100.00		Feet		Field	1	05/04/2022 13:59	BGS	F
Turbidity, Field	15		NTU	1	Field	1	05/04/2022 13:59	BGS	F
Volume in Water Column	117.95		Gallons		Field	1	05/04/2022 13:59	BGS	F
Water Level After Purge	33.51		Feet		Field	1	05/04/2022 13:59	BGS	F
Well Volumes Purged	0.88		Vol		Field	1	05/04/2022 13:59	BGS	F

LIBRARY SEARCH - VOLATILES

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
No TIC's Detected	.				Lib Search VOC	1	05/10/2022 18:47	DD	J

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Antimony, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/09/2022 16:48	RMD	E1
Arsenic, Dissolved	ND	ND	mg/L	0.0030	SW846 6020A	1	05/11/2022 12:26	MO	D1
Arsenic, Total	ND	ND	mg/L	0.0033	SW846 6020A	1	05/09/2022 16:48	RMD	E1
Barium, Dissolved	0.056		mg/L	0.0056	SW846 6020A	1	05/11/2022 12:26	MO	D1
Barium, Total	0.053		mg/L	0.0056	SW846 6020A	1	05/09/2022 16:48	RMD	E1
Beryllium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/09/2022 16:48	RMD	E1
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	05/11/2022 12:26	MO	D1
Cadmium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/09/2022 16:48	RMD	E1
Calcium, Dissolved	30.5		mg/L	0.11	SW846 6020A	1	05/11/2022 12:26	MO	D1
Calcium, Total	30.0		mg/L	0.11	SW846 6020A	1	05/09/2022 16:48	RMD	E1
Chromium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/11/2022 12:26	MO	D1
Chromium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/09/2022 16:48	RMD	E1
Cobalt, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/09/2022 16:48	RMD	E1
Copper, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/11/2022 12:26	MO	D1
Copper, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/09/2022 16:48	RMD	E1
Iron, Dissolved	5.4		mg/L	0.056	SW846 6020A	1	05/11/2022 12:26	MO	D1
Iron, Total	6.3		mg/L	0.056	SW846 6020A	1	05/09/2022 16:48	RMD	E1
Lead, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/11/2022 12:26	MO	D1
Lead, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/09/2022 16:48	RMD	E1
Magnesium, Dissolved	11.0		mg/L	0.11	SW846 6020A	1	05/11/2022 12:26	MO	D1
Magnesium, Total	10.7		mg/L	0.11	SW846 6020A	1	05/09/2022 16:48	RMD	E1
Manganese, Dissolved	0.48		mg/L	0.0056	SW846 6020A	1	05/11/2022 12:26	MO	D1

Results

Client Sample ID	FFMP033W	Collected	05/04/2022 13:59
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METALS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Manganese, Total	0.48		mg/L	0.0056	SW846 6020A	1	05/09/2022 16:48	RMD	E1
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	05/12/2022 15:42	A1S	D
Mercury, Total	ND	ND	mg/L	0.00050	SW846 7470A	1	05/13/2022 14:03	A1S	E
Nickel, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/09/2022 16:48	RMD	E1
Potassium, Dissolved	1.6		mg/L	0.11	SW846 6020A	1	05/11/2022 12:26	MO	D1
Potassium, Total	1.7		mg/L	0.11	SW846 6020A	1	05/09/2022 16:48	RMD	E1
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/11/2022 12:26	MO	D1
Selenium, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/09/2022 16:48	RMD	E1
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/11/2022 12:26	MO	D1
Silver, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/09/2022 16:48	RMD	E1
Sodium, Dissolved	16.0		mg/L	0.11	SW846 6020A	1	05/11/2022 12:26	MO	D1
Sodium, Total	15.0		mg/L	0.11	SW846 6020A	1	05/09/2022 16:48	RMD	E1
Thallium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/09/2022 16:48	RMD	E1
Vanadium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/09/2022 16:48	RMD	E1
Zinc, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/11/2022 12:26	MO	D1
Zinc, Total	0.0063		mg/L	0.0056	SW846 6020A	1	05/09/2022 16:48	RMD	E1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
1,2,3-Trichloropropane	ND	ND	ug/L	2.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
2-Butanone	ND	ND	ug/L	10.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
3-Chloro-1-propene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
Acetone	ND	ND	ug/L	10.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
Acrylonitrile	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
Bromoform	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
Bromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J

Results

Client Sample ID	FFMP033W	Collected	05/04/2022 13:59
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VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
Chloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
Chloroform	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
Chloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
Dibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
Iodomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
Styrene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
trans-1,4-Dichloro-2-butene	ND	ND	ug/L	3.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
Vinyl Acetate	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 18:47	DPC	J
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 18:47	DPC	J

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	93%	62 – 133	05/10/2022 18:47	
4-Bromofluorobenzene	460-00-4	91.4%	79 – 114	05/10/2022 18:47	
Dibromofluoromethane	1868-53-7	91.6%	78 – 116	05/10/2022 18:47	
Toluene-d8	2037-26-5	89%	76 – 127	05/10/2022 18:47	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	42		mg/L	5	SM2320B-2011	1	05/12/2022 01:55	BXD	A
Alkalinity, Total	42	1	mg/L	5	SM2320B-2011	1	05/12/2022 01:55	BXD	A
Ammonia-N	0.514		mg/L	0.100	ASTM D6919-09	10	05/11/2022 10:13	ALK	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	05/06/2022 19:17	ALK	C
Chloride	61.1		mg/L	2.0	EPA 300.0	2	05/05/2022 12:01	MSA	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	05/05/2022 12:01	MSA	A
Nitrate-N	10.9		mg/L	1.0	EPA 300.0	2	05/05/2022 12:01	MSA	A
pH	7.28	2	pH_Units		S4500HB-11	1	05/12/2022 01:55	BXD	A
Phenolics	ND	ND	mg/L	0.004	SW846 9066	1	05/17/2022 11:39	AKH	I
Specific Conductance	391		umhos/cm	1	SM2510B-2011	1	05/09/2022 15:43	BXD	A
Sulfate	5.9		mg/L	2.0	EPA 300.0	2	05/05/2022 12:01	MSA	A

Results

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WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Total Dissolved Solids	154		mg/L	25	S2540C-11	1	05/06/2022 08:42	SMS	A
Total Organic Carbon (TOC)	0.77		mg/L	0.50	SM5310B-2011	1	05/06/2022 15:25	PAG	G
Turbidity	19.0		NTU	0.10	SM2130B-2011	1	05/05/2022 03:50	LXZ	A

Results

Client Sample ID	FFMP02DW	Collected	05/04/2022 15:22
Lab Sample ID	3240808004	Lab Receipt	05/04/2022 17:14

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Depth to Water Level	20.33		Feet		Field	1	05/04/2022 15:22	BGS	F
Dissolved Oxygen	ND	ND	mg/L	0.01	Field	1	05/04/2022 15:22	BGS	F
Elev Top MW Casing above MSL	509.60		Feet		Field	1	05/04/2022 15:22	BGS	F
Flow Rate	1.95		gal/min		Field	1	05/04/2022 15:22	BGS	F
Ground Water Elevation	489.27		ft/MSL		Field	1	05/04/2022 15:22	BGS	F
Oxidation-Reduction Potential	-38		mV		Field	1	05/04/2022 15:22	BGS	F
pH, Field (SM4500B)	7.28		pH_Units		Field	1	05/04/2022 15:22	BGS	F
Sample Depth	120.00		Feet		Field	1	05/04/2022 15:22	BGS	F
Specific Conductance, Field	2878		umhos/cm	1	Field	1	05/04/2022 15:22	BGS	F
Temperature	14.92		Deg. C		Field	1	05/04/2022 15:22	BGS	F
Total Well Depth	153.00		Feet		Field	1	05/04/2022 15:22	BGS	F
Turbidity, Field	41		NTU	1	Field	1	05/04/2022 15:22	BGS	F
Volume in Water Column	195.02		Gallons		Field	1	05/04/2022 15:22	BGS	F
Water Level After Purge	75.32		Feet		Field	1	05/04/2022 15:22	BGS	F
Well Volumes Purged	0.65		Vol		Field	1	05/04/2022 15:22	BGS	F

LIBRARY SEARCH - VOLATILES

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
No TIC's Detected	.				Lib Search VOC	1	05/10/2022 15:31	CHS	J

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Antimony, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/09/2022 16:50	RMD	E1
Arsenic, Dissolved	ND	ND	mg/L	0.0030	SW846 6020A	1	05/11/2022 12:28	MO	D1
Arsenic, Total	ND	ND	mg/L	0.0033	SW846 6020A	1	05/09/2022 16:50	RMD	E1
Barium, Dissolved	0.18		mg/L	0.0056	SW846 6020A	1	05/11/2022 12:28	MO	D1
Barium, Total	0.19		mg/L	0.0056	SW846 6020A	1	05/09/2022 16:50	RMD	E1
Beryllium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/09/2022 16:50	RMD	E1
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	05/11/2022 12:28	MO	D1
Cadmium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/09/2022 16:50	RMD	E1
Calcium, Dissolved	133		mg/L	0.11	SW846 6020A	1	05/11/2022 12:28	MO	D1
Calcium, Total	131		mg/L	0.11	SW846 6020A	1	05/09/2022 16:50	RMD	E1
Chromium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/11/2022 12:28	MO	D1
Chromium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/09/2022 16:50	RMD	E1
Cobalt, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/09/2022 16:50	RMD	E1
Copper, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/11/2022 12:28	MO	D1
Copper, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/09/2022 16:50	RMD	E1
Iron, Dissolved	0.34		mg/L	0.056	SW846 6020A	1	05/11/2022 12:28	MO	D1
Iron, Total	4.4		mg/L	0.056	SW846 6020A	1	05/09/2022 16:50	RMD	E1
Lead, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/11/2022 12:28	MO	D1
Lead, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/09/2022 16:50	RMD	E1
Magnesium, Dissolved	24.3		mg/L	0.11	SW846 6020A	1	05/11/2022 12:28	MO	D1
Magnesium, Total	25.3		mg/L	0.11	SW846 6020A	1	05/09/2022 16:50	RMD	E1
Manganese, Dissolved	0.56		mg/L	0.0056	SW846 6020A	1	05/11/2022 12:28	MO	D1

Results

Client Sample ID	FFMP02DW	Collected	05/04/2022 15:22
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METALS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Manganese, Total	0.57		mg/L	0.0056	SW846 6020A	1	05/09/2022 16:50	RMD	E1
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	05/12/2022 15:43	A1S	D
Mercury, Total	ND	ND	mg/L	0.00050	SW846 7470A	1	05/13/2022 14:04	A1S	E
Nickel, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/09/2022 16:50	RMD	E1
Potassium, Dissolved	2.0		mg/L	0.11	SW846 6020A	1	05/11/2022 12:28	MO	D1
Potassium, Total	2.0		mg/L	0.11	SW846 6020A	1	05/09/2022 16:50	RMD	E1
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/11/2022 12:28	MO	D1
Selenium, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/09/2022 16:50	RMD	E1
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/11/2022 12:28	MO	D1
Silver, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/09/2022 16:50	RMD	E1
Sodium, Dissolved	171		mg/L	0.11	SW846 6020A	1	05/11/2022 12:28	MO	D1
Sodium, Total	165		mg/L	0.11	SW846 6020A	1	05/09/2022 16:50	RMD	E1
Thallium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/09/2022 16:50	RMD	E1
Vanadium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/09/2022 16:50	RMD	E1
Zinc, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/11/2022 12:28	MO	D1
Zinc, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/09/2022 16:50	RMD	E1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
1,2,3-Trichloropropane	ND	ND	ug/L	2.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
2-Butanone	ND	ND	ug/L	10.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
3-Chloro-1-propene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
Acetone	ND	ND	ug/L	10.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
Acrylonitrile	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
Bromoform	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
Bromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J

Results

Client Sample ID	FFMP02DW	Collected	05/04/2022 15:22
Lab Sample ID	3240808004	Lab Receipt	05/04/2022 17:14

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
Chloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
Chloroform	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
Chloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
Dibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
Iodomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
Styrene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
trans-1,4-Dichloro-2-butene	ND	ND	ug/L	3.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
Vinyl Acetate	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 15:31	DPC	J
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:31	DPC	J

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	97.7%	62 – 133	05/10/2022 15:31	
4-Bromofluorobenzene	460-00-4	105%	79 – 114	05/10/2022 15:31	
Dibromofluoromethane	1868-53-7	95.5%	78 – 116	05/10/2022 15:31	
Toluene-d8	2037-26-5	99.9%	76 – 127	05/10/2022 15:31	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	109		mg/L	5	SM2320B-2011	1	05/12/2022 02:04	BXD	A
Alkalinity, Total	109	1	mg/L	5	SM2320B-2011	1	05/12/2022 02:04	BXD	A
Ammonia-N	0.267		mg/L	0.100	ASTM D6919-09	10	05/13/2022 17:21	ALK	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	05/06/2022 19:17	ALK	C
Chloride	555		mg/L	10.0	EPA 300.0	10	05/09/2022 20:39	M1D	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	05/05/2022 12:11	MSA	A
Nitrate-N	4.5		mg/L	1.0	EPA 300.0	2	05/05/2022 12:11	MSA	A
pH	8.11	2	pH_Units		S4500HB-11	1	05/12/2022 02:04	BXD	A
Phenolics	ND	ND	mg/L	0.004	SW846 9066	1	05/17/2022 11:59	AKH	I
Specific Conductance	1780		umhos/cm	1	SM2510B-2011	1	05/09/2022 15:43	BXD	A
Sulfate	35.0		mg/L	2.0	EPA 300.0	2	05/05/2022 12:11	MSA	A

Results

Client Sample ID	**FFMP02DW**	Collected	**05/04/2022 15:22**
Lab Sample ID	**3240808004**	Lab Receipt	**05/04/2022 17:14**

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Total Dissolved Solids	1040		mg/L	25	S2540C-11	1	05/06/2022 08:42	SMS	A
Total Organic Carbon (TOC)	0.93		mg/L	0.50	SM5310B-2011	1	05/06/2022 15:25	PAG	G
Turbidity	61.9		NTU	0.10	SM2130B-2011	1	05/05/2022 03:50	LXZ	A

Results

Client Sample ID	FFMP02SW	Collected	05/04/2022 16:06
Lab Sample ID	3240808005	Lab Receipt	05/04/2022 17:14

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Depth to Water Level	15.04		Feet		Field	1	05/04/2022 16:06	BGS	F
Dissolved Oxygen	26.91		mg/L	0.01	Field	1	05/04/2022 16:06	BGS	F
Elev Top MW Casing above MSL	509.90		Feet		Field	1	05/04/2022 16:06	BGS	F
Flow Rate	1.00		gal/min		Field	1	05/04/2022 16:06	BGS	F
Ground Water Elevation	494.86		ft/MSL		Field	1	05/04/2022 16:06	BGS	F
Oxidation-Reduction Potential	199		mV		Field	1	05/04/2022 16:06	BGS	F
pH, Field (SM4500B)	5.57		pH_Units		Field	1	05/04/2022 16:06	BGS	F
Sample Depth	18.00		Feet		Field	1	05/04/2022 16:06	BGS	F
Specific Conductance, Field	791		umhos/cm	1	Field	1	05/04/2022 16:06	BGS	F
Temperature	17.04		Deg. C		Field	1	05/04/2022 16:06	BGS	F
Total Well Depth	22.70		Feet		Field	1	05/04/2022 16:06	BGS	F
Turbidity, Field	27		NTU	1	Field	1	05/04/2022 16:06	BGS	F
Volume in Water Column	4.98		Gallons		Field	1	05/04/2022 16:06	BGS	F
Water Level After Purge	16.65		Feet		Field	1	05/04/2022 16:06	BGS	F
Well Volumes Purged	2.01		Vol		Field	1	05/04/2022 16:06	BGS	F

LIBRARY SEARCH - VOLATILES

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
No TIC's Detected	.				Lib Search VOC	1	05/10/2022 15:53	CHS	J

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Antimony, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/09/2022 16:52	RMD	E1
Arsenic, Dissolved	ND	ND	mg/L	0.0030	SW846 6020A	1	05/11/2022 12:30	MO	D1
Arsenic, Total	ND	ND	mg/L	0.0033	SW846 6020A	1	05/09/2022 16:52	RMD	E1
Barium, Dissolved	0.081		mg/L	0.0056	SW846 6020A	1	05/11/2022 12:30	MO	D1
Barium, Total	0.087		mg/L	0.0056	SW846 6020A	1	05/09/2022 16:52	RMD	E1
Beryllium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/09/2022 16:52	RMD	E1
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	05/11/2022 12:30	MO	D1
Cadmium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/09/2022 16:52	RMD	E1
Calcium, Dissolved	17.8		mg/L	0.11	SW846 6020A	1	05/11/2022 12:30	MO	D1
Calcium, Total	18.0		mg/L	0.11	SW846 6020A	1	05/09/2022 16:52	RMD	E1
Chromium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/11/2022 12:30	MO	D1
Chromium, Total	0.0028		mg/L	0.0022	SW846 6020A	1	05/09/2022 16:52	RMD	E1
Cobalt, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/09/2022 16:52	RMD	E1
Copper, Dissolved	0.0070		mg/L	0.0056	SW846 6020A	1	05/11/2022 12:30	MO	D1
Copper, Total	0.010		mg/L	0.0056	SW846 6020A	1	05/09/2022 16:52	RMD	E1
Iron, Dissolved	ND	ND	mg/L	0.056	SW846 6020A	1	05/11/2022 12:30	MO	D1
Iron, Total	0.15		mg/L	0.056	SW846 6020A	1	05/09/2022 16:52	RMD	E1
Lead, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/11/2022 12:30	MO	D1
Lead, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/09/2022 16:52	RMD	E1
Magnesium, Dissolved	7.6		mg/L	0.11	SW846 6020A	1	05/11/2022 12:30	MO	D1
Magnesium, Total	7.7		mg/L	0.11	SW846 6020A	1	05/09/2022 16:52	RMD	E1
Manganese, Dissolved	0.014		mg/L	0.0056	SW846 6020A	1	05/11/2022 12:30	MO	D1

Results

Client Sample ID	FFMP02SW	Collected	05/04/2022 16:06
Lab Sample ID	3240808005	Lab Receipt	05/04/2022 17:14

METALS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Manganese, Total	0.018		mg/L	0.0056	SW846 6020A	1	05/09/2022 16:52	RMD	E1
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	05/12/2022 15:44	A1S	D
Mercury, Total	ND	ND	mg/L	0.00050	SW846 7470A	1	05/13/2022 14:05	A1S	E
Nickel, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/09/2022 16:52	RMD	E1
Potassium, Dissolved	4.3		mg/L	0.11	SW846 6020A	1	05/11/2022 12:30	MO	D1
Potassium, Total	4.0		mg/L	0.11	SW846 6020A	1	05/09/2022 16:52	RMD	E1
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/11/2022 12:30	MO	D1
Selenium, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/09/2022 16:52	RMD	E1
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/11/2022 12:30	MO	D1
Silver, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/09/2022 16:52	RMD	E1
Sodium, Dissolved	64.4		mg/L	0.11	SW846 6020A	1	05/11/2022 12:30	MO	D1
Sodium, Total	64.3		mg/L	0.11	SW846 6020A	1	05/09/2022 16:52	RMD	E1
Thallium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/09/2022 16:52	RMD	E1
Vanadium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/09/2022 16:52	RMD	E1
Zinc, Dissolved	0.011		mg/L	0.0056	SW846 6020A	1	05/11/2022 12:30	MO	D1
Zinc, Total	0.011		mg/L	0.0056	SW846 6020A	1	05/09/2022 16:52	RMD	E1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
1,2,3-Trichloropropane	ND	ND	ug/L	2.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
2-Butanone	ND	ND	ug/L	10.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
3-Chloro-1-propene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
Acetone	ND	ND	ug/L	10.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
Acrylonitrile	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
Bromoform	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
Bromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J

Results

Client Sample ID	FFMP02SW	Collected	05/04/2022 16:06
Lab Sample ID	3240808005	Lab Receipt	05/04/2022 17:14

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
Chloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
Chloroform	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
Chloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
Dibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
Iodomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
Styrene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
trans-1,4-Dichloro-2-butene	ND	ND	ug/L	3.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
Vinyl Acetate	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 15:53	DPC	J
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 15:53	DPC	J

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	97.4%	62 – 133	05/10/2022 15:53	
4-Bromofluorobenzene	460-00-4	104%	79 – 114	05/10/2022 15:53	
Dibromofluoromethane	1868-53-7	95.8%	78 – 116	05/10/2022 15:53	
Toluene-d8	2037-26-5	102%	76 – 127	05/10/2022 15:53	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	15		mg/L	5	SM2320B-2011	1	05/12/2022 02:15	BXD	A
Alkalinity, Total	15	1	mg/L	5	SM2320B-2011	1	05/12/2022 02:15	BXD	A
Ammonia-N	0.143		mg/L	0.100	ASTM D6919-09	10	05/11/2022 04:56	ALK	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	05/06/2022 19:17	ALK	C
Chloride	96.8		mg/L	2.0	EPA 300.0	2	05/05/2022 12:22	MSA	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	05/05/2022 12:22	MSA	A
Nitrate-N	13.6		mg/L	1.0	EPA 300.0	2	05/05/2022 12:22	MSA	A
pH	6.96	2	pH_Units		S4500HB-11	1	05/12/2022 02:15	BXD	A
Phenolics	ND	ND	mg/L	0.004	SW846 9066	1	05/17/2022 12:02	AKH	I
Specific Conductance	541		umhos/cm	1	SM2510B-2011	1	05/09/2022 15:43	BXD	A
Sulfate	31.5		mg/L	2.0	EPA 300.0	2	05/05/2022 12:22	MSA	A

Results

Client Sample ID	**FFMP02SW**	Collected	**05/04/2022 16:06**
Lab Sample ID	**3240808005**	Lab Receipt	**05/04/2022 17:14**

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Total Dissolved Solids	288		mg/L	25	S2540C-11	1	05/06/2022 08:42	SMS	A
Total Organic Carbon (TOC)	1.9		mg/L	0.50	SM5310B-2011	1	05/06/2022 15:25	PAG	G
Turbidity	15.8		NTU	0.10	SM2130B-2011	1	05/05/2022 03:50	LXZ	A

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3240808001	FFMP017W	Field	N/A	
		SW846 6020A	SW846 3015	
		SW846 6020A	SW846 3015	
		SW846 7470A	SW846 7470A	
		SW846 7470A	SW846 7470A	
		Lib Search VOC	N/A	
		SW846 8260B	N/A	
		ASTM D6919-09	N/A	
		EPA 300.0	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		S2540C-11	N/A	
		S4500HB-11	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM5310B-2011	N/A	
		SW846 9066	420.4/9066	
3240808002	FFMP034W	Field	N/A	
		SW846 6020A	SW846 3015	
		SW846 6020A	SW846 3015	
		SW846 7470A	SW846 7470A	
		SW846 7470A	SW846 7470A	
		Lib Search VOC	N/A	
		SW846 8260B	N/A	
		ASTM D6919-09	N/A	
		EPA 300.0	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		S2540C-11	N/A	
		S4500HB-11	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM5310B-2011	N/A	
		SW846 9066	420.4/9066	
3240808003	FFMP033W	Field	N/A	
		SW846 6020A	SW846 3015	
		SW846 6020A	SW846 3015	
		SW846 7470A	SW846 7470A	
		SW846 7470A	SW846 7470A	
		Lib Search VOC	N/A	
		SW846 8260B	N/A	
		ASTM D6919-09	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		S2540C-11	N/A	
		S4500HB-11	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM5310B-2011	N/A	
		SW846 9066	420.4/9066	

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3240808004	FFMP02DW	Field	N/A	
		SW846 6020A	SW846 3015	
		SW846 6020A	SW846 3015	
		SW846 7470A	SW846 7470A	
		SW846 7470A	SW846 7470A	
		Lib Search VOC	N/A	
		SW846 8260B	N/A	
		ASTM D6919-09	N/A	
		EPA 300.0	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		S2540C-11	N/A	
		S4500HB-11	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM5310B-2011	N/A	
		SW846 9066	420.4/9066	
3240808005	FFMP02SW	Field	N/A	
		SW846 6020A	SW846 3015	
		SW846 6020A	SW846 3015	
		SW846 7470A	SW846 7470A	
		SW846 7470A	SW846 7470A	
		Lib Search VOC	N/A	
		SW846 8260B	N/A	
		ASTM D6919-09	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		S2540C-11	N/A	
		S4500HB-11	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM5310B-2011	N/A	
		SW846 9066	420.4/9066	

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3240808001	FFMP017W	N/A	N/A	N/A		Field	847943
		SW846 3015	845481	05/05/2022 22:55	ANN	SW846 6020A	846148
		SW846 3015	845499	05/05/2022 23:04	ANN	SW846 6020A	846574
		SW846 7470A	845994	05/10/2022 12:15	A1S	SW846 7470A	847565
		SW846 7470A	846425	05/11/2022 14:30	A1S	SW846 7470A	847446
		N/A	N/A	N/A		Lib Search VOC	846673
		N/A	N/A	N/A		SW846 8260B	846251
		N/A	N/A	N/A		ASTM D6919-09	845712
		N/A	N/A	N/A		EPA 300.0	846164
		N/A	N/A	N/A		EPA 300.0	845115
		N/A	N/A	N/A		EPA 410.4	845700
		N/A	N/A	N/A		S2540C-11	845332
		N/A	N/A	N/A		S4500HB-11	846671
		N/A	N/A	N/A		SM2130B-2011	845139
		N/A	N/A	N/A		SM2320B-2011	846671
		N/A	N/A	N/A		SM2510B-2011	846096
		N/A	N/A	N/A		SM5310B-2011	845638
		420.4/9066	847925	05/17/2022 08:06	AKH	SW846 9066	848039
3240808002	FFMP034W	N/A	N/A	N/A		Field	847943
		SW846 3015	845499	05/05/2022 23:04	ANN	SW846 6020A	846574
		SW846 3015	845481	05/05/2022 22:55	ANN	SW846 6020A	846148
		SW846 7470A	846425	05/11/2022 14:30	A1S	SW846 7470A	847446
		SW846 7470A	845994	05/10/2022 12:15	A1S	SW846 7470A	847565
		N/A	N/A	N/A		Lib Search VOC	846673
		N/A	N/A	N/A		SW846 8260B	846251
		N/A	N/A	N/A		ASTM D6919-09	845712
		N/A	N/A	N/A		EPA 300.0	845115
		N/A	N/A	N/A		EPA 300.0	846164
		N/A	N/A	N/A		EPA 410.4	845700
		N/A	N/A	N/A		S2540C-11	845332
		N/A	N/A	N/A		S4500HB-11	846671
		N/A	N/A	N/A		SM2130B-2011	845139
		N/A	N/A	N/A		SM2320B-2011	846671
		N/A	N/A	N/A		SM2510B-2011	846096
		N/A	N/A	N/A		SM5310B-2011	845638
		420.4/9066	847925	05/17/2022 08:06	AKH	SW846 9066	848039
3240808003	FFMP033W	N/A	N/A	N/A		Field	847943
		SW846 3015	845481	05/05/2022 22:55	ANN	SW846 6020A	846148
		SW846 3015	845499	05/05/2022 23:04	ANN	SW846 6020A	846574
		SW846 7470A	845994	05/10/2022 12:15	A1S	SW846 7470A	847565
		SW846 7470A	846425	05/11/2022 14:30	A1S	SW846 7470A	847446
		N/A	N/A	N/A		Lib Search VOC	846673
		N/A	N/A	N/A		SW846 8260B	846251
		N/A	N/A	N/A		ASTM D6919-09	845712
		N/A	N/A	N/A		EPA 300.0	845115
		N/A	N/A	N/A		EPA 410.4	845700
		N/A	N/A	N/A		S2540C-11	845332
		N/A	N/A	N/A		S4500HB-11	846671
		N/A	N/A	N/A		SM2130B-2011	845139
		N/A	N/A	N/A		SM2320B-2011	846671
		N/A	N/A	N/A		SM2510B-2011	846096
		N/A	N/A	N/A		SM5310B-2011	845638
		420.4/9066	847925	05/17/2022 08:06	AKH	SW846 9066	848039

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3240808004	FFMP02DW	N/A	N/A	N/A		Field	847943
		SW846 3015	845481	05/05/2022 22:55	ANN	SW846 6020A	846148
		SW846 3015	845499	05/05/2022 23:04	ANN	SW846 6020A	846574
		SW846 7470A	845994	05/10/2022 12:15	A1S	SW846 7470A	847565
		SW846 7470A	846425	05/11/2022 14:30	A1S	SW846 7470A	847446
		N/A	N/A	N/A		Lib Search VOC	846673
		N/A	N/A	N/A		SW846 8260B	846305
		N/A	N/A	N/A		ASTM D6919-09	846563
		N/A	N/A	N/A		EPA 300.0	846164
		N/A	N/A	N/A		EPA 300.0	845115
		N/A	N/A	N/A		EPA 410.4	845700
		N/A	N/A	N/A		S2540C-11	845332
		N/A	N/A	N/A		S4500HB-11	846671
		N/A	N/A	N/A		SM2130B-2011	845139
		N/A	N/A	N/A		SM2320B-2011	846671
		N/A	N/A	N/A		SM2510B-2011	846096
		N/A	N/A	N/A		SM5310B-2011	845638
		420.4/9066	847925	05/17/2022 08:06	AKH	SW846 9066	848039
3240808005	FFMP02SW	N/A	N/A	N/A		Field	847943
		SW846 3015	845481	05/05/2022 22:55	ANN	SW846 6020A	846148
		SW846 3015	845499	05/05/2022 23:04	ANN	SW846 6020A	846574
		SW846 7470A	845994	05/10/2022 12:15	A1S	SW846 7470A	847565
		SW846 7470A	846425	05/11/2022 14:30	A1S	SW846 7470A	847446
		N/A	N/A	N/A		Lib Search VOC	846673
		N/A	N/A	N/A		SW846 8260B	846305
		N/A	N/A	N/A		ASTM D6919-09	845710
		N/A	N/A	N/A		EPA 300.0	845115
		N/A	N/A	N/A		EPA 410.4	845700
		N/A	N/A	N/A		S2540C-11	845332
		N/A	N/A	N/A		S4500HB-11	846671
		N/A	N/A	N/A		SM2130B-2011	845139
		N/A	N/A	N/A		SM2320B-2011	846671
		N/A	N/A	N/A		SM2510B-2011	846096
		N/A	N/A	N/A		SM5310B-2011	845638
		420.4/9066	847925	05/17/2022 08:06	AKH	SW846 9066	848039

5/20/2022 5:20 PM

ALS Environmental
34 Dogwood Lane • Middletown, PA 17057 • Phone: 717-944-5541 • Fax: 717-944-1430 • www.alsglobal.com
301 Fulling Mill Road • Middletown, PA 17057 • 717.944.5541 • Fax: 717.944.1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

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COC # 3240808

ALS Q

Logged By: KSB PM: SJB

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ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Client Name: Lancaster County Solid Waste MA
Address: 1299 Harrisburg Pike, P.O. Box 4424
Lancaster, PA 17604
Contact: Dan Brown
Phone#: (717) 735-0193
Project Name/#: Frey Farm Annual
Bill To: Lancaster County Solid Waste MA

TAT [X] Normal-Standard TAT is 10-12 business days.
[ ] Rush-Subject to ALS approval and surcharges.
Date Required: _____ **Approved By:** _____
Email? [ ] -Y
Fax? [X] -Y No.: (717) 397-9973

Container Type	AG	AW	CG	----	----	PL	PL	PL	PL	PL
Container Size	40 ml	125 ml	40 ml	----	----	250 ml	125 ml	125 ml	1 L	500 ml
Preservative	HCl	H2SO4	HCl	----	----	H2SO4	HNO3	HNO3	None	None

ANALYSES/METHOD REQUESTED

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	TOC	O-OH	8260 - FORM 19A & Subtitle D	Field Measurements	Sample Depth for AUX Data	NH3-N, COD	Dissolved: Fe, Mn, Na, Ba, Cr, Cu, Pb, Mg, K, Zn, As, Cd, Se, Ag, Hg, Ca	Metals: Fe, Mn, Na, Ba, Cr, Cu, Pb, Mg, K, Zn, As, Cd, Se, Ag, Hg, Ca	pH, Cl, SpC, F, SO4, TDS, NO3, Turb.	Alkalinity, HCO3
					Enter Number of Containers Per Sample or Field Results Below.									
1. FFMP017W	05/04/22	1057	G	GW	2	1	2	X	X	1	1	1	1	1
2. FFMP034W	05/04/22	1229	G	GW	2	1	2	X	X	1	1	1	1	1
3. FFMP033W KSB 5.4.22	05/04/22	1359	G	GW	2	1	2	X	X	1	1	1	1	1
4. FFMP02DW	05/04/22	1522	G	GW	2	1	2	X	X	1	1	1	1	1
5. FFMP02SW	05/04/22	1606	G	GW	2	1	2	X	X	1	1	1	1	1
6														
7														
8														
9														
10														

Project Comments:

LOGGED BY(signature): DATE: TIME:

REVIEWED BY(signature): DATE: TIME:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [signature] ALS	5-4-22	1714	2 [signature]	5.4.22	1719
3			4		
5			6		
7			8		
9			10		

Receipt Information (completed by Receiving Lab)

Cooler Temp: 2 Therm ID: 876
No. of Coolers: _____ Y N Initial
Custody Seals Present? [ ] [ ]
(if present) Seals Intact? [ ] [ ]

COC

Temp Taken By: KB
WO Temp (°C) 2
Therm ID: 510
Receipt Info Completed By: W
Cooler Custody Seal Intact Y N NA
Sample Custody Seal Intact Y N NA
Received on Ice Y N NA
Cooler & Samples Intact Y N
Correct Containers Provided Y N
Sample Label/COC Agree Y N
Adequate Sample Volumes Y N
VOA Headspace Present Y N NA
Voa Trip Blank Y N NA
NJ≤ 4 Days? Y N
Rad Screen (uCi)
Courier/Tracking #:

Courie

SDWA Compliance Y N
PWSID

ALS Field Services: [ ] Pickup [ ] Labor
[ ] Composite_Sampling [ ] Rental_Equipment
[ ] Other: _____

Data Deliverables: [ ] Standard [ ] CLP-like [ ] USACE [ ]

Special Processing: USACE [ ] Navy [ ] [ ]

State Samples Collected In: [ ] NY [ ] NJ [X] PA [ ] NC [ ]

Reportable to PADEP? Yes [ ]
PWSID #

Sample Disposal: Lab [X] Special [ ]

EDDS: Format Type-

* G=Grab; C=Composite **Matrix - AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

ALS ENVIRONMENTAL SHIPPING ADDRESS: 34 DOGWOOD LANE, MIDDLETOWN, PA 17057

Rev 8/04

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301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

Analytical Results Report For **Lancaster County Solid Waste Authority**

Project 2ND QTR 2022 FFMP-FORM 19A
Workorder 3241425
Report ID 170258 on 5/20/2022

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on May 06, 2022.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):
Ashley Gichuki - Lancaster County Solid Waste Authority
Daniel Brown - Lancaster County Solid Waste Authority
Jordan Gallagher - Lancaster County Solid Waste Authority
Jeff Musser - Lancaster County Solid Waste Authority

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Susan Scherer

Susan Scherer *(ALS Digital Signature)*
Project Coordinator

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3241425001	FFMP031W	Ground Water	05/06/2022 13:27	05/06/2022 17:05	BGS	Analytical Laboratory Service
3241425002	FFMP002W	Ground Water	05/06/2022 14:04	05/06/2022 17:05	BGS	Analytical Laboratory Service
3241425003	FFMP032W	Ground Water	05/06/2022 14:24	05/06/2022 17:05	BGS	Analytical Laboratory Service
3241425004	FIELD BLANK	Water	05/06/2022 14:40	05/06/2022 17:05	BGS	Analytical Laboratory Service
3241425005	TRIP BLANK	Water	05/06/2022 17:05	05/06/2022 17:05	BGS	Analytical Laboratory Service

Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136.
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits
#	Please reference the result in the Results Section for analyte-level flags.

Project Notations

Sample Notations

Lab ID	Sample ID

Result Notations

Notation Ref.	
1	The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L.
2	The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory.

Detected Results Summary

Client Sample ID	FFMP031W	Collected	05/06/2022 13:27
Lab Sample ID	3241425001	Lab Receipt	05/06/2022 17:05

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Depth to Water Level	65.17	Feet		Field	#
Elev Top MW Casing above MSL	612.66	Feet		Field	#
Flow Rate	2.15	gal/min		Field	#
Ground Water Elevation	547.49	ft/MSL		Field	#
Oxidation-Reduction Potential	-334	mV		Field	#
pH, Field (SM4500B)	7.97	pH_Units		Field	#
Sample Depth	130.00	Feet		Field	#
Specific Conductance, Field	451	umhos/cm	1	Field	#
Temperature	14.33	Deg. C		Field	#
Total Well Depth	142.70	Feet		Field	#
Turbidity, Field	3	NTU	1	Field	#
Volume in Water Column	113.97	Gallons		Field	#
Water Level After Purge	120.94	Feet		Field	#
Well Volumes Purged	1.13	Vol		Field	#
LIBRARY SEARCH - VOLATILES					
No TIC's Detected	.			Lib Search VOC	#
METALS					
Barium, Dissolved	0.028	mg/L	0.0056	SW846 6020A	#
Barium, Total	0.030	mg/L	0.0056	SW846 6020A	#
Calcium, Dissolved	35.2	mg/L	0.11	SW846 6020A	#
Calcium, Total	35.4	mg/L	0.11	SW846 6020A	#
Iron, Dissolved	2.3	mg/L	0.056	SW846 6020A	#
Iron, Total	4.7	mg/L	0.056	SW846 6020A	#
Magnesium, Dissolved	4.1	mg/L	0.11	SW846 6020A	#
Magnesium, Total	4.1	mg/L	0.11	SW846 6020A	#
Manganese, Dissolved	0.27	mg/L	0.0056	SW846 6020A	#
Manganese, Total	0.29	mg/L	0.0056	SW846 6020A	#
Potassium, Dissolved	1.2	mg/L	0.11	SW846 6020A	#
Potassium, Total	1.2	mg/L	0.11	SW846 6020A	#
Sodium, Dissolved	10.3	mg/L	0.11	SW846 6020A	#
Sodium, Total	10.1	mg/L	0.11	SW846 6020A	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	63	mg/L	5	SM2320B-2011	#
Alkalinity, Total	63	mg/L	5	SM2320B-2011	#
Ammonia-N	0.239	mg/L	0.100	ASTM D6919-09	#
Chloride	19.6	mg/L	2.0	EPA 300.0	#
pH	8.04	pH_Units		S4500HB-11	#
Phenolics	0.008	mg/L	0.004	SW846 9066	#
Specific Conductance	288	umhos/cm	1	SM2510B-2011	#
Sulfate	43.5	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	158	mg/L	25	S2540C-11	#
Total Organic Carbon (TOC)	1.6	mg/L	0.50	SM5310B-2011	#
Turbidity	47.8	NTU	0.10	SM2130B-2011	#

Detected Results Summary

Client Sample ID	FFMP002W	Collected	05/06/2022 14:04
Lab Sample ID	3241425002	Lab Receipt	05/06/2022 17:05

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Depth to Water Level	59.28	Feet		Field	#
Dissolved Oxygen	6.74	mg/L	0.01	Field	#
Elev Top MW Casing above MSL	613.20	Feet		Field	#
Flow Rate	1.20	gal/min		Field	#
Ground Water Elevation	553.92	ft/MSL		Field	#
Oxidation-Reduction Potential	316	mV		Field	#
pH, Field (SM4500B)	4.43	pH_Units		Field	#
Sample Depth	85.00	Feet		Field	#
Specific Conductance, Field	393	umhos/cm	1	Field	#
Temperature	13.95	Deg. C		Field	#
Total Well Depth	90.02	Feet		Field	#
Volume in Water Column	45.19	Gallons		Field	#
Water Level After Purge	74.33	Feet		Field	#
Well Volumes Purged	0.53	Vol		Field	#
LIBRARY SEARCH - VOLATILES					
No TIC's Detected	.			Lib Search VOC	#
METALS					
Barium, Dissolved	0.058	mg/L	0.0056	SW846 6020A	#
Barium, Total	0.058	mg/L	0.0056	SW846 6020A	#
Calcium, Dissolved	16.5	mg/L	0.11	SW846 6020A	#
Calcium, Total	16.8	mg/L	0.11	SW846 6020A	#
Cobalt, Total	0.012	mg/L	0.0056	SW846 6020A	#
Copper, Dissolved	0.011	mg/L	0.0056	SW846 6020A	#
Copper, Total	0.011	mg/L	0.0056	SW846 6020A	#
Lead, Dissolved	0.0055	mg/L	0.0022	SW846 6020A	#
Lead, Total	0.0057	mg/L	0.0022	SW846 6020A	#
Magnesium, Dissolved	7.1	mg/L	0.11	SW846 6020A	#
Magnesium, Total	7.3	mg/L	0.11	SW846 6020A	#
Manganese, Dissolved	0.20	mg/L	0.0056	SW846 6020A	#
Manganese, Total	0.20	mg/L	0.0056	SW846 6020A	#
Nickel, Total	0.020	mg/L	0.0056	SW846 6020A	#
Potassium, Dissolved	1.0	mg/L	0.11	SW846 6020A	#
Potassium, Total	1.1	mg/L	0.11	SW846 6020A	#
Sodium, Dissolved	13.4	mg/L	0.11	SW846 6020A	#
Sodium, Total	13.8	mg/L	0.11	SW846 6020A	#
Zinc, Dissolved	0.022	mg/L	0.0056	SW846 6020A	#
Zinc, Total	0.021	mg/L	0.0056	SW846 6020A	#
WET CHEMISTRY					
Ammonia-N	0.203	mg/L	0.100	ASTM D6919-09	#
Chloride	14.8	mg/L	2.0	EPA 300.0	#
Nitrate-N	19.4	mg/L	1.0	EPA 300.0	#
pH	5.50	pH_Units		S4500HB-11	#
Specific Conductance	264	umhos/cm	1	SM2510B-2011	#
Sulfate	9.9	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	189	mg/L	25	S2540C-11	#

Detected Results Summary

Sample - FFMP002W (cont.)

Compound	Result	Units	RDL	Method	Flag
WET CHEMISTRY (cont.)					
Total Organic Carbon (TOC)	0.72	mg/L	0.50	SM5310B-2011	#
Turbidity	0.27	NTU	0.10	SM2130B-2011	#

Detected Results Summary

Client Sample ID	FFMP032W	Collected	05/06/2022 14:24
Lab Sample ID	3241425003	Lab Receipt	05/06/2022 17:05

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Depth to Water Level	50.24	Feet		Field	#
Dissolved Oxygen	1.00	mg/L	0.01	Field	#
Elev Top MW Casing above MSL	594.09	Feet		Field	#
Flow Rate	0.75	gal/min		Field	#
Ground Water Elevation	543.85	ft/MSL		Field	#
Oxidation-Reduction Potential	-53	mV		Field	#
pH, Field (SM4500B)	7.01	pH_Units		Field	#
Sample Depth	62.00	Feet		Field	#
Specific Conductance, Field	306	umhos/cm	1	Field	#
Temperature	12.62	Deg. C		Field	#
Total Well Depth	77.60	Feet		Field	#
Turbidity, Field	32	NTU	1	Field	#
Volume in Water Column	40.22	Gallons		Field	#
Water Level After Purge	51.71	Feet		Field	#
Well Volumes Purged	0.19	Vol		Field	#
LIBRARY SEARCH - VOLATILES					
No TIC's Detected	.			Lib Search VOC	#
METALS					
Calcium, Dissolved	14.3	mg/L	0.11	SW846 6020A	#
Calcium, Total	14.8	mg/L	0.11	SW846 6020A	#
Iron, Dissolved	3.9	mg/L	0.056	SW846 6020A	#
Iron, Total	5.2	mg/L	0.056	SW846 6020A	#
Magnesium, Dissolved	5.7	mg/L	0.11	SW846 6020A	#
Magnesium, Total	5.8	mg/L	0.11	SW846 6020A	#
Manganese, Dissolved	0.53	mg/L	0.0056	SW846 6020A	#
Manganese, Total	0.54	mg/L	0.0056	SW846 6020A	#
Potassium, Dissolved	1.2	mg/L	0.11	SW846 6020A	#
Potassium, Total	1.3	mg/L	0.11	SW846 6020A	#
Sodium, Dissolved	13.0	mg/L	0.11	SW846 6020A	#
Sodium, Total	13.3	mg/L	0.11	SW846 6020A	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	68	mg/L	5	SM2320B-2011	#
Alkalinity, Total	68	mg/L	5	SM2320B-2011	#
Ammonia-N	0.800	mg/L	0.100	ASTM D6919-09	#
Chloride	17.9	mg/L	2.0	EPA 300.0	#
pH	7.85	pH_Units		S4500HB-11	#
Phenolics	0.008	mg/L	0.004	SW846 9066	#
Specific Conductance	198	umhos/cm	1	SM2510B-2011	#
Total Dissolved Solids	66	mg/L	25	S2540C-11	#
Total Organic Carbon (TOC)	0.56	mg/L	0.50	SM5310B-2011	#
Turbidity	111	NTU	0.10	SM2130B-2011	#

Detected Results Summary

Client Sample ID	**FIELD BLANK**	Collected	**05/06/2022 14:40**
Lab Sample ID	**3241425004**	Lab Receipt	**05/06/2022 17:05**

Compound	Result	Units	RDL	Method	Flag
LIBRARY SEARCH - VOLATILES					
No TIC's Detected	.			Lib Search VOC	#
METALS					
Iron, Total	0.28	mg/L	0.056	SW846 6020A	#
VOLATILE ORGANICS					
Chloroform	8.3	ug/L	1.0	SW846 8260B	#
Methylene Chloride	1.1	ug/L	1.0	SW846 8260B	#
WET CHEMISTRY					
pH	5.71	pH_Units		S4500HB-11	#
Specific Conductance	1	umhos/cm	1	SM2510B-2011	#
Turbidity	0.12	NTU	0.10	SM2130B-2011	#

Results

Client Sample ID	FFMP031W	Collected	05/06/2022 13:27
Lab Sample ID	3241425001	Lab Receipt	05/06/2022 17:05

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Depth to Water Level	65.17		Feet		Field	1	05/06/2022 13:27	BGS	F
Dissolved Oxygen	ND	ND	mg/L	0.01	Field	1	05/06/2022 13:27	BGS	F
Elev Top MW Casing above MSL	612.66		Feet		Field	1	05/06/2022 13:27	BGS	F
Flow Rate	2.15		gal/min		Field	1	05/06/2022 13:27	BGS	F
Ground Water Elevation	547.49		ft/MSL		Field	1	05/06/2022 13:27	BGS	F
Oxidation-Reduction Potential	-334		mV		Field	1	05/06/2022 13:27	BGS	F
pH, Field (SM4500B)	7.97		pH_Units		Field	1	05/06/2022 13:27	BGS	F
Sample Depth	130.00		Feet		Field	1	05/06/2022 13:27	BGS	F
Specific Conductance, Field	451		umhos/cm	1	Field	1	05/06/2022 13:27	BGS	F
Temperature	14.33		Deg. C		Field	1	05/06/2022 13:27	BGS	F
Total Well Depth	142.70		Feet		Field	1	05/06/2022 13:27	BGS	F
Turbidity, Field	3		NTU	1	Field	1	05/06/2022 13:27	BGS	F
Volume in Water Column	113.97		Gallons		Field	1	05/06/2022 13:27	BGS	F
Water Level After Purge	120.94		Feet		Field	1	05/06/2022 13:27	BGS	F
Well Volumes Purged	1.13		Vol		Field	1	05/06/2022 13:27	BGS	F

LIBRARY SEARCH - VOLATILES

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
No TIC's Detected	.				Lib Search VOC	1	05/11/2022 01:50	CHS	J

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Antimony, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 15:08	MO	E1
Arsenic, Dissolved	ND	ND	mg/L	0.0030	SW846 6020A	1	05/13/2022 14:27	MO	D1
Arsenic, Total	ND	ND	mg/L	0.0033	SW846 6020A	1	05/13/2022 15:08	MO	E1
Barium, Dissolved	0.028		mg/L	0.0056	SW846 6020A	1	05/13/2022 14:27	MO	D1
Barium, Total	0.030		mg/L	0.0056	SW846 6020A	1	05/13/2022 15:08	MO	E1
Beryllium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/13/2022 15:08	MO	E1
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	05/13/2022 14:27	MO	D1
Cadmium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/13/2022 15:08	MO	E1
Calcium, Dissolved	35.2		mg/L	0.11	SW846 6020A	1	05/13/2022 14:27	MO	D1
Calcium, Total	35.4		mg/L	0.11	SW846 6020A	1	05/13/2022 15:08	MO	E1
Chromium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 14:27	MO	D1
Chromium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 15:08	MO	E1
Cobalt, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 15:08	MO	E1
Copper, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 14:27	MO	D1
Copper, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 15:08	MO	E1
Iron, Dissolved	2.3		mg/L	0.056	SW846 6020A	1	05/13/2022 14:27	MO	D1
Iron, Total	4.7		mg/L	0.056	SW846 6020A	1	05/13/2022 15:08	MO	E1
Lead, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 14:27	MO	D1
Lead, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 15:08	MO	E1
Magnesium, Dissolved	4.1		mg/L	0.11	SW846 6020A	1	05/13/2022 14:27	MO	D1
Magnesium, Total	4.1		mg/L	0.11	SW846 6020A	1	05/13/2022 15:08	MO	E1
Manganese, Dissolved	0.27		mg/L	0.0056	SW846 6020A	1	05/13/2022 14:27	MO	D1

Results

Client Sample ID	FFMP031W	Collected	05/06/2022 13:27
Lab Sample ID	3241425001	Lab Receipt	05/06/2022 17:05

METALS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Manganese, Total	0.29		mg/L	0.0056	SW846 6020A	1	05/13/2022 15:08	MO	E1
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	05/19/2022 13:56	A1S	D
Mercury, Total	ND	ND	mg/L	0.00050	SW846 7470A	1	05/11/2022 16:24	A1S	E
Nickel, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 15:08	MO	E1
Potassium, Dissolved	1.2		mg/L	0.11	SW846 6020A	1	05/13/2022 14:27	MO	D1
Potassium, Total	1.2		mg/L	0.11	SW846 6020A	1	05/13/2022 15:08	MO	E1
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 14:27	MO	D1
Selenium, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 15:08	MO	E1
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 14:27	MO	D1
Silver, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 15:08	MO	E1
Sodium, Dissolved	10.3		mg/L	0.11	SW846 6020A	1	05/13/2022 14:27	MO	D1
Sodium, Total	10.1		mg/L	0.11	SW846 6020A	1	05/13/2022 15:08	MO	E1
Thallium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/13/2022 15:08	MO	E1
Vanadium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 15:08	MO	E1
Zinc, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 14:27	MO	D1
Zinc, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 15:08	MO	E1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
1,2,3-Trichloropropane	ND	ND	ug/L	2.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
2-Butanone	ND	ND	ug/L	10.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
3-Chloro-1-propene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
Acetone	ND	ND	ug/L	10.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
Acrylonitrile	ND	ND	ug/L	5.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
Bromoform	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
Bromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J

Results

Client Sample ID	FFMP031W	Collected	05/06/2022 13:27
Lab Sample ID	3241425001	Lab Receipt	05/06/2022 17:05

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
Chloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
Chloroform	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
Chloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
Dibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
Iodomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
Styrene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
trans-1,4-Dichloro-2-butene	ND	ND	ug/L	3.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
Vinyl Acetate	ND	ND	ug/L	5.0	SW846 8260B	1	05/11/2022 01:50	VLM	J
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 01:50	VLM	J

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	102%	62 – 133	05/11/2022 01:50	
4-Bromofluorobenzene	460-00-4	109%	79 – 114	05/11/2022 01:50	
Dibromofluoromethane	1868-53-7	106%	78 – 116	05/11/2022 01:50	
Toluene-d8	2037-26-5	115%	76 – 127	05/11/2022 01:50	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	63		mg/L	5	SM2320B-2011	1	05/13/2022 00:23	BXD	A
Alkalinity, Total	63	1	mg/L	5	SM2320B-2011	1	05/13/2022 00:23	BXD	A
Ammonia-N	0.239		mg/L	0.100	ASTM D6919-09	10	05/13/2022 00:12	ALK	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	05/11/2022 17:48	ALK	C
Chloride	19.6		mg/L	2.0	EPA 300.0	2	05/07/2022 09:17	MSA	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	05/07/2022 09:17	MSA	A
Nitrate-N	ND	ND	mg/L	1.0	EPA 300.0	2	05/07/2022 09:17	MSA	A
pH	8.04	2	pH_Units		S4500HB-11	1	05/13/2022 00:23	BXD	A
Phenolics	0.008		mg/L	0.004	SW846 9066	1	05/17/2022 17:15	AKH	I
Specific Conductance	288		umhos/cm	1	SM2510B-2011	1	05/09/2022 15:43	BXD	A
Sulfate	43.5		mg/L	2.0	EPA 300.0	2	05/07/2022 09:17	MSA	A

Results

Client Sample ID	**FFMP031W**	Collected	**05/06/2022 13:27**
Lab Sample ID	**3241425001**	Lab Receipt	**05/06/2022 17:05**

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Total Dissolved Solids	158		mg/L	25	S2540C-11	1	05/10/2022 08:54	SMS	A
Total Organic Carbon (TOC)	1.6		mg/L	0.50	SM5310B-2011	1	05/09/2022 17:21	PAG	G
Turbidity	47.8		NTU	0.10	SM2130B-2011	1	05/07/2022 07:11	LXZ	A

Results

Client Sample ID	FFMP002W	Collected	05/06/2022 14:04
Lab Sample ID	3241425002	Lab Receipt	05/06/2022 17:05

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Depth to Water Level	59.28		Feet		Field	1	05/06/2022 14:04	BGS	F
Dissolved Oxygen	6.74		mg/L	0.01	Field	1	05/06/2022 14:04	BGS	F
Elev Top MW Casing above MSL	613.20		Feet		Field	1	05/06/2022 14:04	BGS	F
Flow Rate	1.20		gal/min		Field	1	05/06/2022 14:04	BGS	F
Ground Water Elevation	553.92		ft/MSL		Field	1	05/06/2022 14:04	BGS	F
Oxidation-Reduction Potential	316		mV		Field	1	05/06/2022 14:04	BGS	F
pH, Field (SM4500B)	4.43		pH_Units		Field	1	05/06/2022 14:04	BGS	F
Sample Depth	85.00		Feet		Field	1	05/06/2022 14:04	BGS	F
Specific Conductance, Field	393		umhos/cm	1	Field	1	05/06/2022 14:04	BGS	F
Temperature	13.95		Deg. C		Field	1	05/06/2022 14:04	BGS	F
Total Well Depth	90.02		Feet		Field	1	05/06/2022 14:04	BGS	F
Turbidity, Field	ND	ND	NTU	1	Field	1	05/06/2022 14:04	BGS	F
Volume in Water Column	45.19		Gallons		Field	1	05/06/2022 14:04	BGS	F
Water Level After Purge	74.33		Feet		Field	1	05/06/2022 14:04	BGS	F
Well Volumes Purged	0.53		Vol		Field	1	05/06/2022 14:04	BGS	F

LIBRARY SEARCH - VOLATILES

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
No TIC's Detected	.				Lib Search VOC	1	05/11/2022 02:13	CHS	J

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Antimony, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 15:25	MO	E1
Arsenic, Dissolved	ND	ND	mg/L	0.0030	SW846 6020A	1	05/13/2022 14:29	MO	D1
Arsenic, Total	ND	ND	mg/L	0.0033	SW846 6020A	1	05/13/2022 15:25	MO	E1
Barium, Dissolved	0.058		mg/L	0.0056	SW846 6020A	1	05/13/2022 14:29	MO	D1
Barium, Total	0.058		mg/L	0.0056	SW846 6020A	1	05/13/2022 15:25	MO	E1
Beryllium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/13/2022 15:25	MO	E1
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	05/13/2022 14:29	MO	D1
Cadmium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/13/2022 15:25	MO	E1
Calcium, Dissolved	16.5		mg/L	0.11	SW846 6020A	1	05/13/2022 14:29	MO	D1
Calcium, Total	16.8		mg/L	0.11	SW846 6020A	1	05/13/2022 15:25	MO	E1
Chromium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 14:29	MO	D1
Chromium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 15:25	MO	E1
Cobalt, Total	0.012		mg/L	0.0056	SW846 6020A	1	05/13/2022 15:25	MO	E1
Copper, Dissolved	0.011		mg/L	0.0056	SW846 6020A	1	05/13/2022 14:29	MO	D1
Copper, Total	0.011		mg/L	0.0056	SW846 6020A	1	05/13/2022 15:25	MO	E1
Iron, Dissolved	ND	ND	mg/L	0.056	SW846 6020A	1	05/13/2022 14:29	MO	D1
Iron, Total	ND	ND	mg/L	0.056	SW846 6020A	1	05/13/2022 15:25	MO	E1
Lead, Dissolved	0.0055		mg/L	0.0022	SW846 6020A	1	05/13/2022 14:29	MO	D1
Lead, Total	0.0057		mg/L	0.0022	SW846 6020A	1	05/13/2022 15:25	MO	E1
Magnesium, Dissolved	7.1		mg/L	0.11	SW846 6020A	1	05/13/2022 14:29	MO	D1
Magnesium, Total	7.3		mg/L	0.11	SW846 6020A	1	05/13/2022 15:25	MO	E1
Manganese, Dissolved	0.20		mg/L	0.0056	SW846 6020A	1	05/13/2022 14:29	MO	D1

Results

Client Sample ID	FFMP002W	Collected	05/06/2022 14:04
Lab Sample ID	3241425002	Lab Receipt	05/06/2022 17:05

METALS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Manganese, Total	0.20		mg/L	0.0056	SW846 6020A	1	05/13/2022 15:25	MO	E1
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	05/19/2022 13:57	A1S	D
Mercury, Total	ND	ND	mg/L	0.00050	SW846 7470A	1	05/11/2022 16:28	A1S	E
Nickel, Total	0.020		mg/L	0.0056	SW846 6020A	1	05/13/2022 15:25	MO	E1
Potassium, Dissolved	1.0		mg/L	0.11	SW846 6020A	1	05/13/2022 14:29	MO	D1
Potassium, Total	1.1		mg/L	0.11	SW846 6020A	1	05/13/2022 15:25	MO	E1
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 14:29	MO	D1
Selenium, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 15:25	MO	E1
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 14:29	MO	D1
Silver, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 15:25	MO	E1
Sodium, Dissolved	13.4		mg/L	0.11	SW846 6020A	1	05/13/2022 14:29	MO	D1
Sodium, Total	13.8		mg/L	0.11	SW846 6020A	1	05/13/2022 15:25	MO	E1
Thallium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/13/2022 15:25	MO	E1
Vanadium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 15:25	MO	E1
Zinc, Dissolved	0.022		mg/L	0.0056	SW846 6020A	1	05/13/2022 14:29	MO	D1
Zinc, Total	0.021		mg/L	0.0056	SW846 6020A	1	05/13/2022 15:25	MO	E1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
1,2,3-Trichloropropane	ND	ND	ug/L	2.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
2-Butanone	ND	ND	ug/L	10.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
3-Chloro-1-propene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
Acetone	ND	ND	ug/L	10.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
Acrylonitrile	ND	ND	ug/L	5.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
Bromoform	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
Bromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J

Results

Client Sample ID	FFMP002W	Collected	05/06/2022 14:04
Lab Sample ID	3241425002	Lab Receipt	05/06/2022 17:05

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
Chloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
Chloroform	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
Chloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
Dibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
Iodomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
Styrene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
trans-1,4-Dichloro-2-butene	ND	ND	ug/L	3.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
Vinyl Acetate	ND	ND	ug/L	5.0	SW846 8260B	1	05/11/2022 02:13	VLM	J
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:13	VLM	J

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	103%	62 – 133	05/11/2022 02:13	
4-Bromofluorobenzene	460-00-4	111%	79 – 114	05/11/2022 02:13	
Dibromofluoromethane	1868-53-7	106%	78 – 116	05/11/2022 02:13	
Toluene-d8	2037-26-5	112%	76 – 127	05/11/2022 02:13	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	ND	ND	mg/L	5	SM2320B-2011	1	05/13/2022 00:32	BXD	A
Alkalinity, Total	ND	ND,1	mg/L	5	SM2320B-2011	1	05/13/2022 00:32	BXD	A
Ammonia-N	0.203		mg/L	0.100	ASTM D6919-09	10	05/17/2022 14:08	ALK	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	05/11/2022 17:39	ALK	C
Chloride	14.8		mg/L	2.0	EPA 300.0	2	05/07/2022 09:27	MSA	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	05/07/2022 09:27	MSA	A
Nitrate-N	19.4		mg/L	1.0	EPA 300.0	2	05/07/2022 09:27	MSA	A
pH	5.50	2	pH_Units		S4500HB-11	1	05/13/2022 00:32	BXD	A
Phenolics	ND	ND	mg/L	0.004	SW846 9066	1	05/17/2022 17:09	AKH	I
Specific Conductance	264		umhos/cm	1	SM2510B-2011	1	05/09/2022 15:43	BXD	A
Sulfate	9.9		mg/L	2.0	EPA 300.0	2	05/07/2022 09:27	MSA	A

Results

Client Sample ID	**FFMP002W**	Collected	**05/06/2022 14:04**
Lab Sample ID	**3241425002**	Lab Receipt	**05/06/2022 17:05**

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Total Dissolved Solids	189		mg/L	25	S2540C-11	1	05/10/2022 08:54	SMS	A
Total Organic Carbon (TOC)	0.72		mg/L	0.50	SM5310B-2011	1	05/09/2022 17:21	PAG	G
Turbidity	0.27		NTU	0.10	SM2130B-2011	1	05/07/2022 07:11	LXZ	A

Results

Client Sample ID	FFMP032W	Collected	05/06/2022 14:24
Lab Sample ID	3241425003	Lab Receipt	05/06/2022 17:05

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Depth to Water Level	50.24		Feet		Field	1	05/06/2022 14:24	BGS	F
Dissolved Oxygen	1.00		mg/L	0.01	Field	1	05/06/2022 14:24	BGS	F
Elev Top MW Casing above MSL	594.09		Feet		Field	1	05/06/2022 14:24	BGS	F
Flow Rate	0.75		gal/min		Field	1	05/06/2022 14:24	BGS	F
Ground Water Elevation	543.85		ft/MSL		Field	1	05/06/2022 14:24	BGS	F
Oxidation-Reduction Potential	-53		mV		Field	1	05/06/2022 14:24	BGS	F
pH, Field (SM4500B)	7.01		pH_Units		Field	1	05/06/2022 14:24	BGS	F
Sample Depth	62.00		Feet		Field	1	05/06/2022 14:24	BGS	F
Specific Conductance, Field	306		umhos/cm	1	Field	1	05/06/2022 14:24	BGS	F
Temperature	12.62		Deg. C		Field	1	05/06/2022 14:24	BGS	F
Total Well Depth	77.60		Feet		Field	1	05/06/2022 14:24	BGS	F
Turbidity, Field	32		NTU	1	Field	1	05/06/2022 14:24	BGS	F
Volume in Water Column	40.22		Gallons		Field	1	05/06/2022 14:24	BGS	F
Water Level After Purge	51.71		Feet		Field	1	05/06/2022 14:24	BGS	F
Well Volumes Purged	0.19		Vol		Field	1	05/06/2022 14:24	BGS	F

LIBRARY SEARCH - VOLATILES

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
No TIC's Detected	.				Lib Search VOC	1	05/11/2022 02:36	CHS	J

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Antimony, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 15:27	MO	E1
Arsenic, Dissolved	ND	ND	mg/L	0.0030	SW846 6020A	1	05/13/2022 14:31	MO	D1
Arsenic, Total	ND	ND	mg/L	0.0033	SW846 6020A	1	05/13/2022 15:27	MO	E1
Barium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 14:31	MO	D1
Barium, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 15:27	MO	E1
Beryllium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/13/2022 15:27	MO	E1
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	05/13/2022 14:31	MO	D1
Cadmium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/13/2022 15:27	MO	E1
Calcium, Dissolved	14.3		mg/L	0.11	SW846 6020A	1	05/13/2022 14:31	MO	D1
Calcium, Total	14.8		mg/L	0.11	SW846 6020A	1	05/13/2022 15:27	MO	E1
Chromium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 14:31	MO	D1
Chromium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 15:27	MO	E1
Cobalt, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 15:27	MO	E1
Copper, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 14:31	MO	D1
Copper, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 15:27	MO	E1
Iron, Dissolved	3.9		mg/L	0.056	SW846 6020A	1	05/13/2022 14:31	MO	D1
Iron, Total	5.2		mg/L	0.056	SW846 6020A	1	05/13/2022 15:27	MO	E1
Lead, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 14:31	MO	D1
Lead, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 15:27	MO	E1
Magnesium, Dissolved	5.7		mg/L	0.11	SW846 6020A	1	05/13/2022 14:31	MO	D1
Magnesium, Total	5.8		mg/L	0.11	SW846 6020A	1	05/13/2022 15:27	MO	E1
Manganese, Dissolved	0.53		mg/L	0.0056	SW846 6020A	1	05/13/2022 14:31	MO	D1

Results

Client Sample ID	FFMP032W	Collected	05/06/2022 14:24
Lab Sample ID	3241425003	Lab Receipt	05/06/2022 17:05

METALS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Manganese, Total	0.54		mg/L	0.0056	SW846 6020A	1	05/13/2022 15:27	MO	E1
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	05/19/2022 14:01	A1S	D
Mercury, Total	ND	ND	mg/L	0.00050	SW846 7470A	1	05/11/2022 16:29	A1S	E
Nickel, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 15:27	MO	E1
Potassium, Dissolved	1.2		mg/L	0.11	SW846 6020A	1	05/13/2022 14:31	MO	D1
Potassium, Total	1.3		mg/L	0.11	SW846 6020A	1	05/13/2022 15:27	MO	E1
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 14:31	MO	D1
Selenium, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 15:27	MO	E1
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 14:31	MO	D1
Silver, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 15:27	MO	E1
Sodium, Dissolved	13.0		mg/L	0.11	SW846 6020A	1	05/13/2022 14:31	MO	D1
Sodium, Total	13.3		mg/L	0.11	SW846 6020A	1	05/13/2022 15:27	MO	E1
Thallium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/13/2022 15:27	MO	E1
Vanadium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 15:27	MO	E1
Zinc, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 14:31	MO	D1
Zinc, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 15:27	MO	E1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
1,2,3-Trichloropropane	ND	ND	ug/L	2.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
2-Butanone	ND	ND	ug/L	10.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
3-Chloro-1-propene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
Acetone	ND	ND	ug/L	10.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
Acrylonitrile	ND	ND	ug/L	5.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
Bromoform	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
Bromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J

Results

Client Sample ID	FFMP032W	Collected	05/06/2022 14:24
Lab Sample ID	3241425003	Lab Receipt	05/06/2022 17:05

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
Chloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
Chloroform	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
Chloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
Dibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
Iodomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
Styrene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
trans-1,4-Dichloro-2-butene	ND	ND	ug/L	3.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
Vinyl Acetate	ND	ND	ug/L	5.0	SW846 8260B	1	05/11/2022 02:36	VLM	J
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 02:36	VLM	J

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	101%	62 – 133	05/11/2022 02:36	
4-Bromofluorobenzene	460-00-4	109%	79 – 114	05/11/2022 02:36	
Dibromofluoromethane	1868-53-7	105%	78 – 116	05/11/2022 02:36	
Toluene-d8	2037-26-5	113%	76 – 127	05/11/2022 02:36	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	68		mg/L	5	SM2320B-2011	1	05/13/2022 00:42	BXD	A
Alkalinity, Total	68	1	mg/L	5	SM2320B-2011	1	05/13/2022 00:42	BXD	A
Ammonia-N	0.800		mg/L	0.100	ASTM D6919-09	10	05/13/2022 09:21	ALK	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	05/11/2022 17:39	ALK	C
Chloride	17.9		mg/L	2.0	EPA 300.0	2	05/07/2022 09:38	MSA	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	05/07/2022 09:38	MSA	A
Nitrate-N	ND	ND	mg/L	1.0	EPA 300.0	2	05/07/2022 09:38	MSA	A
pH	7.85	2	pH_Units		S4500HB-11	1	05/13/2022 00:42	BXD	A
Phenolics	0.008		mg/L	0.004	SW846 9066	1	05/17/2022 18:09	AKH	I
Specific Conductance	198		umhos/cm	1	SM2510B-2011	1	05/09/2022 15:43	BXD	A
Sulfate	ND	ND	mg/L	2.0	EPA 300.0	2	05/07/2022 09:38	MSA	A

Results

Client Sample ID	**FFMP032W**	Collected	**05/06/2022 14:24**
Lab Sample ID	**3241425003**	Lab Receipt	**05/06/2022 17:05**

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Total Dissolved Solids	66		mg/L	25	S2540C-11	1	05/10/2022 08:54	SMS	A
Total Organic Carbon (TOC)	0.56		mg/L	0.50	SM5310B-2011	1	05/09/2022 20:16	PAG	G
Turbidity	111		NTU	0.10	SM2130B-2011	1	05/07/2022 07:11	LXZ	A

Results

Client Sample ID	FIELD BLANK	Collected	05/06/2022 14:40
Lab Sample ID	3241425004	Lab Receipt	05/06/2022 17:05

LIBRARY SEARCH - VOLATILES

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
No TIC's Detected	.				Lib Search VOC	1	05/11/2022 00:18	CHS	J

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Antimony, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 15:30	MO	E1
Arsenic, Dissolved	ND	ND	mg/L	0.0030	SW846 6020A	1	05/13/2022 14:33	MO	D1
Arsenic, Total	ND	ND	mg/L	0.0033	SW846 6020A	1	05/13/2022 15:30	MO	E1
Barium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 14:33	MO	D1
Barium, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 15:30	MO	E1
Beryllium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/13/2022 15:30	MO	E1
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	05/13/2022 14:33	MO	D1
Cadmium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/13/2022 15:30	MO	E1
Calcium, Dissolved	ND	ND	mg/L	0.11	SW846 6020A	1	05/13/2022 14:33	MO	D1
Calcium, Total	ND	ND	mg/L	0.11	SW846 6020A	1	05/13/2022 15:30	MO	E1
Chromium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 14:33	MO	D1
Chromium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 15:30	MO	E1
Cobalt, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 15:30	MO	E1
Copper, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 14:33	MO	D1
Copper, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 15:30	MO	E1
Iron, Dissolved	ND	ND	mg/L	0.056	SW846 6020A	1	05/13/2022 14:33	MO	D1
Iron, Total	0.28		mg/L	0.056	SW846 6020A	1	05/13/2022 15:30	MO	E1
Lead, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 14:33	MO	D1
Lead, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 15:30	MO	E1
Magnesium, Dissolved	ND	ND	mg/L	0.11	SW846 6020A	1	05/13/2022 14:33	MO	D1
Magnesium, Total	ND	ND	mg/L	0.11	SW846 6020A	1	05/13/2022 15:30	MO	E1
Manganese, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 14:33	MO	D1
Manganese, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 15:30	MO	E1
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	05/19/2022 14:02	A1S	D
Mercury, Total	ND	ND	mg/L	0.00050	SW846 7470A	1	05/11/2022 16:30	A1S	E
Nickel, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 15:30	MO	E1
Potassium, Dissolved	ND	ND	mg/L	0.11	SW846 6020A	1	05/13/2022 14:33	MO	D1
Potassium, Total	ND	ND	mg/L	0.11	SW846 6020A	1	05/13/2022 15:30	MO	E1
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 14:33	MO	D1
Selenium, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 15:30	MO	E1
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 14:33	MO	D1
Silver, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 15:30	MO	E1
Sodium, Dissolved	ND	ND	mg/L	0.11	SW846 6020A	1	05/13/2022 14:33	MO	D1
Sodium, Total	ND	ND	mg/L	0.11	SW846 6020A	1	05/13/2022 15:30	MO	E1
Thallium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/13/2022 15:30	MO	E1
Vanadium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/13/2022 15:30	MO	E1
Zinc, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 14:33	MO	D1
Zinc, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/13/2022 15:30	MO	E1

Results

Client Sample ID	FIELD BLANK	Collected	05/06/2022 14:40
Lab Sample ID	3241425004	Lab Receipt	05/06/2022 17:05

METALS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
1,2,3-Trichloropropane	ND	ND	ug/L	2.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
2-Butanone	ND	ND	ug/L	10.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
3-Chloro-1-propene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
Acetone	ND	ND	ug/L	10.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
Acrylonitrile	ND	ND	ug/L	5.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
Bromoform	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
Bromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
Chloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
Chloroform	8.3		ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
Chloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
Dibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
Iodomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
Methylene Chloride	1.1		ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
Styrene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	05/11/2022 00:18	VLM	J

Results

Client Sample ID	**FIELD BLANK**	Collected	**05/06/2022 14:40**
Lab Sample ID	**3241425004**	Lab Receipt	**05/06/2022 17:05**

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
trans-1,4-Dichloro-2-butene	ND	ND	ug/L	3.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
Vinyl Acetate	ND	ND	ug/L	5.0	SW846 8260B	1	05/11/2022 00:18	VLM	J
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/11/2022 00:18	VLM	J

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	107%	62 – 133	05/11/2022 00:18	
4-Bromofluorobenzene	460-00-4	110%	79 – 114	05/11/2022 00:18	
Dibromofluoromethane	1868-53-7	111%	78 – 116	05/11/2022 00:18	
Toluene-d8	2037-26-5	112%	76 – 127	05/11/2022 00:18	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	ND	ND	mg/L	5	SM2320B-2011	1	05/13/2022 00:50	BXD	A
Alkalinity, Total	ND	ND,1	mg/L	5	SM2320B-2011	1	05/13/2022 00:50	BXD	A
Ammonia-N	ND	ND	mg/L	0.100	ASTM D6919-09	1	05/13/2022 21:42	ALK	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	05/11/2022 17:39	ALK	C
Chloride	ND	ND	mg/L	2.0	EPA 300.0	2	05/07/2022 09:48	MSA	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	05/07/2022 09:48	MSA	A
Nitrate-N	ND	ND	mg/L	1.0	EPA 300.0	2	05/07/2022 09:48	MSA	A
pH	5.71	2	pH_Units		S4500HB-11	1	05/13/2022 00:50	BXD	A
Phenolics	ND	ND	mg/L	0.004	SW846 9066	1	05/17/2022 15:32	AKH	I
Specific Conductance	1		umhos/cm	1	SM2510B-2011	1	05/09/2022 15:43	BXD	A
Sulfate	ND	ND	mg/L	2.0	EPA 300.0	2	05/07/2022 09:48	MSA	A
Total Dissolved Solids	ND	ND	mg/L	25	S2540C-11	1	05/10/2022 08:54	SMS	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-2011	1	05/09/2022 20:16	PAG	G
Turbidity	0.12		NTU	0.10	SM2130B-2011	1	05/07/2022 07:11	LXZ	A

Results

Client Sample ID	TRIP BLANK	Collected	05/06/2022 17:05
Lab Sample ID	3241425005	Lab Receipt	05/06/2022 17:05

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
1,2,3-Trichloropropane	ND	ND	ug/L	2.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
2-Butanone	ND	ND	ug/L	10.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
3-Chloro-1-propene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
Acetone	ND	ND	ug/L	10.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
Acrylonitrile	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
Bromoform	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
Bromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
Chloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
Chloroform	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
Chloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
Dibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
Iodomethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
Styrene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
trans-1,4-Dichloro-2-butene	ND	ND	ug/L	3.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A

Results

Client Sample ID	**TRIP BLANK**	Collected	**05/06/2022 17:05**
Lab Sample ID	**3241425005**	Lab Receipt	**05/06/2022 17:05**

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
Vinyl Acetate	ND	ND	ug/L	5.0	SW846 8260B	1	05/10/2022 23:32	VLM	A
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	05/10/2022 23:32	VLM	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	102%	62 – 133	05/10/2022 23:32	
4-Bromofluorobenzene	460-00-4	110%	79 – 114	05/10/2022 23:32	
Dibromofluoromethane	1868-53-7	98.2%	78 – 116	05/10/2022 23:32	
Toluene-d8	2037-26-5	113%	76 – 127	05/10/2022 23:32	

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3241425001	FFMP031W	Field	N/A	
		SW846 6020A	SW846 3015	
		SW846 6020A	SW846 3015	
		SW846 7470A	SW846 7470A	
		SW846 7470A	SW846 7470A	
		Lib Search VOC	N/A	
		SW846 8260B	N/A	
		ASTM D6919-09	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		S2540C-11	N/A	
		S4500HB-11	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM5310B-2011	N/A	
		SW846 9066	420.4/9066	
3241425002	FFMP002W	Field	N/A	
		SW846 6020A	SW846 3015	
		SW846 6020A	SW846 3015	
		SW846 7470A	SW846 7470A	
		SW846 7470A	SW846 7470A	
		Lib Search VOC	N/A	
		SW846 8260B	N/A	
		ASTM D6919-09	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		S2540C-11	N/A	
		S4500HB-11	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM5310B-2011	N/A	
		SW846 9066	420.4/9066	
3241425003	FFMP032W	Field	N/A	
		SW846 6020A	SW846 3015	
		SW846 6020A	SW846 3015	
		SW846 7470A	SW846 7470A	
		SW846 7470A	SW846 7470A	
		Lib Search VOC	N/A	
		SW846 8260B	N/A	
		ASTM D6919-09	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		S2540C-11	N/A	
		S4500HB-11	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM5310B-2011	N/A	
		SW846 9066	420.4/9066	

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3241425004	FIELD BLANK	SW846 6020A	SW846 3015	
		SW846 6020A	SW846 3015	
		SW846 7470A	SW846 7470A	
		SW846 7470A	SW846 7470A	
		Lib Search VOC	N/A	
		SW846 8260B	N/A	
		ASTM D6919-09	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		S2540C-11	N/A	
		S4500HB-11	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM5310B-2011	N/A	
		SW846 9066	420.4/9066	
3241425005	TRIP BLANK	SW846 8260B	N/A	

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3241425001	FFMP031W	N/A	N/A	N/A		Field	847943
		SW846 3015	846016	05/09/2022 00:41	ANN	SW846 6020A	847581
		SW846 3015	846000	05/08/2022 21:33	ANN	SW846 6020A	847582
		SW846 7470A	845995	05/10/2022 12:15	A1S	SW846 7470A	847236
		SW846 7470A	848545	05/19/2022 10:00	A1S	SW846 7470A	848635
		N/A	N/A	N/A		Lib Search VOC	846673
		N/A	N/A	N/A		SW846 8260B	846444
		N/A	N/A	N/A		ASTM D6919-09	846556
		N/A	N/A	N/A		EPA 300.0	845771
		N/A	N/A	N/A		EPA 410.4	846551
		N/A	N/A	N/A		S2540C-11	846022
		N/A	N/A	N/A		S4500HB-11	847214
		N/A	N/A	N/A		SM2130B-2011	845875
		N/A	N/A	N/A		SM2320B-2011	847214
		N/A	N/A	N/A		SM2510B-2011	846096
		N/A	N/A	N/A		SM5310B-2011	846125
		420.4/9066	847928	05/17/2022 08:08	AKH	SW846 9066	848039
3241425002	FFMP002W	N/A	N/A	N/A		Field	847943
		SW846 3015	846000	05/08/2022 21:33	ANN	SW846 6020A	847582
		SW846 3015	846016	05/09/2022 00:41	ANN	SW846 6020A	847581
		SW846 7470A	845995	05/10/2022 12:15	A1S	SW846 7470A	847236
		SW846 7470A	848545	05/19/2022 10:00	A1S	SW846 7470A	848635
		N/A	N/A	N/A		Lib Search VOC	846673
		N/A	N/A	N/A		SW846 8260B	846444
		N/A	N/A	N/A		ASTM D6919-09	846570
		N/A	N/A	N/A		EPA 300.0	845771
		N/A	N/A	N/A		EPA 410.4	846548
		N/A	N/A	N/A		S2540C-11	846022
		N/A	N/A	N/A		S4500HB-11	847214
		N/A	N/A	N/A		SM2130B-2011	845875
		N/A	N/A	N/A		SM2320B-2011	847214
		N/A	N/A	N/A		SM2510B-2011	846096
		N/A	N/A	N/A		SM5310B-2011	846125
		420.4/9066	847928	05/17/2022 08:08	AKH	SW846 9066	848039
3241425003	FFMP032W	N/A	N/A	N/A		Field	847943
		SW846 3015	846016	05/09/2022 00:41	ANN	SW846 6020A	847581
		SW846 3015	846000	05/08/2022 21:33	ANN	SW846 6020A	847582
		SW846 7470A	845995	05/10/2022 12:15	A1S	SW846 7470A	847236
		SW846 7470A	848545	05/19/2022 10:00	A1S	SW846 7470A	848635
		N/A	N/A	N/A		Lib Search VOC	846673
		N/A	N/A	N/A		SW846 8260B	846444
		N/A	N/A	N/A		ASTM D6919-09	846561
		N/A	N/A	N/A		EPA 300.0	845771
		N/A	N/A	N/A		EPA 410.4	846548
		N/A	N/A	N/A		S2540C-11	846022
		N/A	N/A	N/A		S4500HB-11	847214
		N/A	N/A	N/A		SM2130B-2011	845875
		N/A	N/A	N/A		SM2320B-2011	847214
		N/A	N/A	N/A		SM2510B-2011	846096
		N/A	N/A	N/A		SM5310B-2011	846125
		420.4/9066	847930	05/17/2022 08:09	AKH	SW846 9066	848039

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3241425004	FIELD BLANK	SW846 3015	846016	05/09/2022 00:41	ANN	SW846 6020A	847581
		SW846 3015	846000	05/08/2022 21:33	ANN	SW846 6020A	847582
		SW846 7470A	845995	05/10/2022 12:15	A1S	SW846 7470A	847236
		SW846 7470A	848545	05/19/2022 10:00	A1S	SW846 7470A	848635
		N/A	N/A	N/A		Lib Search VOC	846673
		N/A	N/A	N/A		SW846 8260B	846444
		N/A	N/A	N/A		ASTM D6919-09	846565
		N/A	N/A	N/A		EPA 300.0	845771
		N/A	N/A	N/A		EPA 410.4	846548
		N/A	N/A	N/A		S2540C-11	846022
		N/A	N/A	N/A		S4500HB-11	847214
		N/A	N/A	N/A		SM2130B-2011	845875
		N/A	N/A	N/A		SM2320B-2011	847214
		N/A	N/A	N/A		SM2510B-2011	846096
		N/A	N/A	N/A		SM5310B-2011	846125
		420.4/9066	847926	05/17/2022 08:07	AKH	SW846 9066	848039
3241425005	TRIP BLANK	N/A	N/A	N/A		SW846 8260B	846444

5/20/2022 5:24 PM

ALS Environmental
34 Dogwood Lane • Middletown, PA 17057 • Phone: 717-944-5541 • Fax: 717-944-1430 • www.alsglobal.com
301 Fulling Mill Road • Middletown, PA 17057 • 717.944.5541 • Fax: 717.944.1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALS

COC # 3241425

ALS Q

Logged By: KSB
PM: SJB

1 of 1

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Client Name: Lancaster County Solid Waste MA

Address: 1299 Harrisburg Pike, P.O. Box 4424
Lancaster, PA 17604

Contact: Dan Brown

Phone#: (717) 735-0193

Project Name/#: Frey Farm Annual

Bill To: Lancaster County Solid Waste MA

TAT [X] Normal-Standard TAT is 10-12 business days.
[ ] Rush-Subject to ALS approval and surcharges.

Date Required: _____ **Approved By:** _____

Email? [ ] -Y

Fax? [X] -Y No.: (717) 397-9973

Container Type	AG	AW	CG	---	---	PL	PL	PL	PL	PL
Container Size	40 ml	125 ml	40 ml	---	---	250 ml	125 ml	125 ml	1 L	500 ml
Preservative	HCl	H2SO4	HCl	---	---	H2SO4	HNO3	HNO3	None	None

ANALYSES/METHOD REQUESTED

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	TOC	O-OH	8260 - FORM 19A & Subtitle D	Field Measurements	Sample Depth for AUX Data	NH3-N, COD	Dissolved: Fe, Mn, Na, Ba, Cr, Cu, Pb, Mg, K, Zn, As, Cd, Se, Ag, Hg, Ca	Metals: Fe, Mn, Na, Ba, Cr, Cu, Pb, Mg, K, Zn, As, Cd, Se, Ag, Hg, Ca	pH, Cl, SpC, F, SO4, TDS, NO3, Turb.	Alkalinity, HCO3
					Enter Number of Containers Per Sample or Field Results Below.									
1. FFMP031W	05/06/22	1327	G	GW	2	1	2	x	x	1	1	1	1	1
2. FFMP002W	05/06/22	1404	G	GW	2	1	2	x	x	1	1	1	1	1
3. FFMP032W	05/06/22	1424	G	GW	2	1	2	x	x	1	1	1	1	1
4. Field Blank	05/06/22	1440	G	GW	2	1	2	x	x	1	1	1	1	1
5. Trip Blank	05/06/22	1705	G	GW			2							
6														
7														
8														
9														
10														

Project Comments:

LOGGED BY(signature): DATE: TIME:

REVIEWED BY(signature): DATE: TIME:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [signature] RECEIVED BY ALS	5-6-22	1705	2 [signature]	5.6.22	1705
3			4		
5			6		
7			8		
9			10		

Receipt Information (completed by Receiving Lab)

Cooler Temp: 1 Therm ID: 570

No. of Coolers: _____

	Y	N	Initial
Custody Seals Present?			
(if present) Seals Intact?			
Received on Ice?			
COC/Labels Complete/Accurate?			
Cont. in Good Cond.?			
Correct Containers?			

Courie

Temp Taken By:
WO Temp (°C)
Therm ID:
Receipt Info Completed By: AZ

Cooler Custody Seal Intact	Y	N	NA
Sample Custody Seal Intact	Y	N	NA
Received on Ice	Y	N	NA
Cooler & Samples Intact	Y	N	
Correct Containers Provided	Y	N	
Sample Label/COC Agree	Y	N	
Adequate Sample Volumes	Y	N	
VOA Headspace Present	Y	N	NA
Voa Trip Blank	Y	N	NA
NJ≤ 4 Days?			N
Rad Screen (uCi)	~		
Courier/Tracking #:	—		
SDWA Compliance			N
PWSID			

ALS Field Services: [ ] Pickup [ ] Labor
[ ] Composite_Sampling [ ] Rental_Equipment
[ ] Other: _____

Data Deliverables: [ ] Standard [ ] CLP-like [ ] USACE

Special Processing: USACE [ ] Navy [ ] [ ]

State Samples Collected In: [ ] NY [ ] NJ [X] PA [ ] NC [ ]

Reportable to PADEP? Yes [ ]

PWSID #

Sample Disposal: Lab [X] Special [ ]

EDDS: Format Type-

* G=Grab; C=Composite

**Matrix - AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

ALS ENVIRONMENTAL SHIPPING ADDRESS: 34 DOGWOOD LANE, MIDDLETOWN, PA 17057

Rev 8/04

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