



Date Prepared/Revised
02/25/2025

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: Creswell Landfill

Facility ID (as issued by DEP): 100008

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: CWMP007W

X	Well	Spring	Stream	Other
---	------	--------	--------	-------

Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County

Municipality: Manor Township

Sampling Point Latitude: 39 ° 57 ' 24.53 "

Longitude: 76 ° 26 ' 33.28 "

Depth to Water Level: 9.35 ft

Measured from: Land Surface X TOC

Casing Stickup: 1.50 ft

Elevation of Water Level: 444.05 ft./MSL

Sampling Depth: 33 ft

Volume of Water Column:	39.87	gal
-------------------------	-------	-----

Total Well Depth: 36.5 ft

Sampling Method: ☒ Pumped ☐ Bailed ☐ Grab

Well Purged: X Yes No

Well Volumes Purged: 1.6

Sample Field Filtered (must be 0.45 micron)?: Yes ☒ No ☐

Spring Flow Rate: _____gpm

Sample Date (mm/dd/yy): 1/13/2025

Sample Collection Time: 10:13

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis:

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

Lab Accreditation Number(s):

Lab Sample Number(s): 3395716001 Final Lab Analysis CompletionDate: 1/27/2025

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

Comments:

I.D. No 100008

Monitoring Point No. CWMP007W

Sample Date 1/13/2025

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	0.1 ND	EPA 350.3
BICARBONATE	15	SM18-2321
CALCIUM, TOTAL	20.3	SW846 6010B
CALCIUM, DISSOLVED		SW 8466010B
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.4
CHLORIDE	77.2	EPA 300.0
FLUORIDE	0.2 ND	EPA 300.0
IRON, TOTAL (ug/l)	67 ND	SW846 6010B
IRON, DISSOLVED (ug/l)		SW846 6010B
MAGNESIUM, TOTAL	9.9	SW846 6010B
MAGNESIUM, DISSOLVED		SW846 6010B
MANGANESE, TOTAL (ug/l)	6.3	SW846 6010B
MANGANESE, DISSOLVED (ug/l)		SW846 6010B
NITRATE-NITROGEN	9.2	EPA 300.0
pH-FIELD (SU)	4.91	FIELD
pH-LAB (SU)	7.06	EPA 150.1
POTASSIUM, TOTAL	2.3	SW846 6010B
POTASSIUM, DISSOLVED		SW846 6010B
SODIUM, TOTAL	36.7	SW846 6010B
SODIUM, DISSOLVED		SW846 6010B
SPEC. COND., FIELD (umhos/cm)	387	FIELD
SPEC. COND., LAB (umhos/cm)	397	EPA 120.1
SULFATE	18.4	EPA 300.0
ALKALINITY	15	SM18-2320B
TDS (TOTAL DISSOLVED SOLIDS)	198	SM18-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM18-5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	0.3 ND	SM 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 100008

Monitoring Point No. CWMP007W

Sample Date 1/13/2025

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 (EDB) (ETHYLENE D	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.

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT**



Date Prepared/Revised
02/25/2025

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: Creswell Landfill

Facility ID (as issued by DEP): 100008

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: CWMP001W

☒ Well ☐ Spring ☐ Stream ☐ Other

☒ Upgradient/Upstream ☐ Downgradient/Downstream

Location (County): Lancaster County

Municipality: Manor Township

Sampling Point Latitude: 39 ° 57 ' 27.43 "

Longitude: 76 ° 26 ' 14.4 "

Depth to Water Level: 30.2 ft

Measured from: ☐ Land Surface ☒ TOC

Casing Stickup: 1.23 ft

Elevation of Water Level: 484.93 ft./MSL

Sampling Depth: 57 ft

Volume of Water Column: 53.02 gal

Total Well Depth: 66.3 ft

Sampling Method: ☒ Pumped ☐ Bailed ☐ Grab

Well Purged: ☒ Yes ☐ No

Well Volumes Purged: 2.7

Sample Field Filtered (must be 0.45 micron)?: ☐ Yes ☒ No

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 1/13/2025

Sample Collection Time: 11:21

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis:

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

Lab Accreditation Number(s):

Lab Sample Number(s): 3395716002 Final Lab Analysis CompletionDate: 1/27/2025

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

Comments:

I.D. No 100008

Monitoring Point No. CWMP001W

Sample Date 1/13/2025

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	0.1 ND	EPA 350.3
BICARBONATE	9	SM18-2321
CALCIUM, TOTAL	16.3	SW846 6010B
CALCIUM, DISSOLVED		SW 8466010B
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.4
CHLORIDE	27.1	EPA 300.0
FLUORIDE	0.2 ND	EPA 300.0
IRON, TOTAL (ug/l)	210	SW846 6010B
IRON, DISSOLVED (ug/l)		SW846 6010B
MAGNESIUM, TOTAL	10.2	SW846 6010B
MAGNESIUM, DISSOLVED		SW846 6010B
MANGANESE, TOTAL (ug/l)	59	SW846 6010B
MANGANESE, DISSOLVED (ug/l)		SW846 6010B
NITRATE-NITROGEN	17.3	EPA 300.0
pH-FIELD (SU)	5.11	FIELD
pH-LAB (SU)	6.74	EPA 150.1
POTASSIUM, TOTAL	2.2	SW846 6010B
POTASSIUM, DISSOLVED		SW846 6010B
SODIUM, TOTAL	13.7	SW846 6010B
SODIUM, DISSOLVED		SW846 6010B
SPEC. COND., FIELD (umhos/cm)	254	FIELD
SPEC. COND., LAB (umhos/cm)	258	EPA 120.1
SULFATE	2.2	EPA 300.0
ALKALINITY	9	SM18-2320B
TDS (TOTAL DISSOLVED SOLIDS)	125	SM18-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM18-5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	95	SM 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 100008

Monitoring Point No. CWMP001W

Sample Date 1/13/2025

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 (EDB) (ETHYLENE D	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.



Date Prepared/Revised
02/25/2025

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: Creswell Landfill

Facility ID (as issued by DEP): 100008

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: CWMP003W

X	Well	Spring	Stream	Other
---	------	--------	--------	-------

Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County

Municipality: Manor Township

Sampling Point Latitude: 39 ° 57 ' 20.17 "

Longitude: 76 ° 26 ' 8.37 "

Depth to Water Level: 54.76 ft

Measured from: Land Surface X TOC

Casing Stickup: -1.29 ft

Elevation of Water Level: 469.45 ft./MSL

Sampling Depth: 100 ft

Volume of Water Column:	29.73	gal
-------------------------	-------	-----

Total Well Depth: 75 ft

Sampling Method: X Pumped Bailed Grab

Well Purged: X Yes No

Well Volumes Purged: 1.0

Sample Field Filtered (must be 0.45 micron)?: Yes ☒ No ☐

Spring Flow Rate: _____ gpm

Sample Date (mm/dd/yy): 1/13/2025

Sample Collection Time: 13:50

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis:

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

Lab Accreditation Number(s):

Lab Sample Number(s): 3395716003 Final Lab Analysis CompletionDate: 1/27/2025

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

Comments:

I.D. No 100008

Monitoring Point No. CWMP003W

Sample Date 1/13/2025

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	0.1 ND	EPA 350.3
BICARBONATE	21	SM18-2321
CALCIUM, TOTAL	18.8	SW846 6010B
CALCIUM, DISSOLVED		SW 8466010B
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.4
CHLORIDE	53.4	EPA 300.0
FLUORIDE	0.2 ND	EPA 300.0
IRON, TOTAL (ug/l)	67 ND	SW846 6010B
IRON, DISSOLVED (ug/l)		SW846 6010B
MAGNESIUM, TOTAL	8.1	SW846 6010B
MAGNESIUM, DISSOLVED		SW846 6010B
MANGANESE, TOTAL (ug/l)	33	SW846 6010B
MANGANESE, DISSOLVED (ug/l)		SW846 6010B
NITRATE-NITROGEN	5.7	EPA 300.0
pH-FIELD (SU)	5.41	FIELD
pH-LAB (SU)	7.13	EPA 150.1
POTASSIUM, TOTAL	2.2	SW846 6010B
POTASSIUM, DISSOLVED		SW846 6010B
SODIUM, TOTAL	20.9	SW846 6010B
SODIUM, DISSOLVED		SW846 6010B
SPEC. COND., FIELD (umhos/cm)	290	FIELD
SPEC. COND., LAB (umhos/cm)	289	EPA 120.1
SULFATE	13.3	EPA 300.0
ALKALINITY	21	SM18-2320B
TDS (TOTAL DISSOLVED SOLIDS)	169	SM18-2540C
TOC (TOTAL ORGANIC CARBON)	0.7	SM18-5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	1	SM 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 100008

Monitoring Point No. CWMP003W

Sample Date 1/13/2025

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 (EDB) (ETHYLENE D	1 ND	SW846 8260B
1,1-DICHLOROETHANE	1	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.

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT**



Date Prepared/Revised
02/25/2025

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: Creswell Landfill

Facility ID (as issued by DEP): 100008

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: CWMP005W

☒ Well ☐ Spring ☐ Stream ☐ Other

☒ Upgradient/Upstream ☐ Downgradient/Downstream

Location (County): Lancaster County

Municipality: Manor Township

Sampling Point Latitude: 39 ° 57 ' 11.17 "

Longitude: 76 ° 26 ' 7.08 "

Depth to Water Level: 46.09 ft

Measured from: ☐ Land Surface ☒ TOC

Casing Stickup: -0.37 ft

Elevation of Water Level: 467.34 ft./MSL

Sampling Depth: 130 ft

Volume of Water Column: 137.92 gal

Total Well Depth: 140 ft

Sampling Method: ☒ Pumped ☐ Bailed ☐ Grab

Well Purged: ☒ Yes ☐ No

Well Volumes Purged: 1.1

Sample Field Filtered (must be 0.45 micron)?: ☐ Yes ☒ No

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 1/14/2025

Sample Collection Time: 11:24

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis:

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

Lab Accreditation Number(s):

Lab Sample Number(s): 3395909001 Final Lab Analysis Completion Date: 1/27/2025

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

Comments:

I.D. No 100008

Monitoring Point No. CWMP005W

Sample Date 1/14/2025

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	0.1 ND	EPA 350.3
BICARBONATE	23	SM18-2321
CALCIUM, TOTAL	16.6	SW846 6010B
CALCIUM, DISSOLVED		SW 8466010B
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.4
CHLORIDE	70.5	EPA 300.0
FLUORIDE	0.2 ND	EPA 300.0
IRON, TOTAL (ug/l)	67 ND	SW846 6010B
IRON, DISSOLVED (ug/l)		SW846 6010B
MAGNESIUM, TOTAL	7.9	SW846 6010B
MAGNESIUM, DISSOLVED		SW846 6010B
MANGANESE, TOTAL (ug/l)	47	SW846 6010B
MANGANESE, DISSOLVED (ug/l)		SW846 6010B
NITRATE-NITROGEN	7.1	EPA 300.0
pH-FIELD (SU)	5.2	FIELD
pH-LAB (SU)	7.31	EPA 150.1
POTASSIUM, TOTAL	2.1	SW846 6010B
POTASSIUM, DISSOLVED		SW846 6010B
SODIUM, TOTAL	34	SW846 6010B
SODIUM, DISSOLVED		SW846 6010B
SPEC. COND., FIELD (umhos/cm)	349	FIELD
SPEC. COND., LAB (umhos/cm)	341	EPA 120.1
SULFATE	7.4	EPA 300.0
ALKALINITY	23	SM18-2320B
TDS (TOTAL DISSOLVED SOLIDS)	188	SM18-2540C
TOC (TOTAL ORGANIC CARBON)	0.56	SM18-5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	1.2	SM 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 100008

Monitoring Point No. CWMP005W

Sample Date 1/14/2025

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 (EDB) (ETHYLENE D	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.



Date Prepared/Revised
02/25/2025

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: Creswell Landfill

Facility ID (as issued by DEP): 100008

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: CWMP004W

X	Well	Spring	Stream	Other
---	------	--------	--------	-------

Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County

Municipality: Manor Township

Sampling Point Latitude: 39 ° 57 ' 17.9 "

Longitude: 76 ° 26 ' 7.05 "

Depth to Water Level: 50.3 ft

Measured from: Land Surface X TOC

Casing Stickup: -1.37 ft

Elevation of Water Level: 479.23 ft./MSL

Sampling Depth: 130 ft

Volume of Water Column:	131.74	gal
-------------------------	--------	-----

Total Well Depth: 140 ft

Sampling Method: X Pumped Bailed Grab

Well Purged: X Yes No

Well Volumes Purged: 1.0

Sample Field Filtered (must be 0.45 micron)?: Yes ☒ No ☐

Spring Flow Rate: _____gpm

Sample Date (mm/dd/yy): 1/14/2025

Sample Collection Time: 13:47

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis:

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

Lab Accreditation Number(s):

Lab Sample Number(s): 3395909002 Final Lab Analysis CompletionDate: 1/27/2025

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

Comments:

I.D. No 100008

Monitoring Point No. CWMP004W

Sample Date 1/14/2025

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	0.1 ND	EPA 350.3
BICARBONATE	23	SM18-2321
CALCIUM, TOTAL	19.4	SW846 6010B
CALCIUM, DISSOLVED		SW 8466010B
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.4
CHLORIDE	53.1	EPA 300.0
FLUORIDE	0.2 ND	EPA 300.0
IRON, TOTAL (ug/l)	120	SW846 6010B
IRON, DISSOLVED (ug/l)		SW846 6010B
MAGNESIUM, TOTAL	6.2	SW846 6010B
MAGNESIUM, DISSOLVED		SW846 6010B
MANGANESE, TOTAL (ug/l)	7.2	SW846 6010B
MANGANESE, DISSOLVED (ug/l)		SW846 6010B
NITRATE-NITROGEN	5.4	EPA 300.0
pH-FIELD (SU)	5.7	FIELD
pH-LAB (SU)	7.3	EPA 150.1
POTASSIUM, TOTAL	1.4	SW846 6010B
POTASSIUM, DISSOLVED		SW846 6010B
SODIUM, TOTAL	21.5	SW846 6010B
SODIUM, DISSOLVED		SW846 6010B
SPEC. COND., FIELD (umhos/cm)	265	FIELD
SPEC. COND., LAB (umhos/cm)	273	EPA 120.1
SULFATE	5.5	EPA 300.0
ALKALINITY	23	SM18-2320B
TDS (TOTAL DISSOLVED SOLIDS)	182	SM18-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM18-5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	2	SM 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 100008

Monitoring Point No. CWMP004W

Sample Date 1/14/2025

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 (EDB) (ETHYLENE D	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.

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT**



Date Prepared/Revised
02/25/2025

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: Creswell Landfill

Facility ID (as issued by DEP): 100008

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: CWMP016W ☒ Well ☐ Spring ☐ Stream ☐ Other
☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location (County): Lancaster County

Municipality: Manor Township

Sampling Point Latitude: 39 ° 56 ' 55.57 " Longitude: 76 ° 26 ' 50.59 "

Depth to Water Level: 12.7 ft Measured from: ☐ Land Surface ☒ TOC

Casing Stickup: 2.53 ft Elevation of Water Level: 299.27 ft./MSL

Sampling Depth: 71 ft Volume of Water Column: _____ gal

Total Well Depth: 78.03 ft Sampling Method: ☒ Pumped ☐ Bailed ☐ Grab

Well Purged: ☒ Yes ☐ No Well Volumes Purged: 1.1

Sample Field Filtered (must be 0.45 micron)?: ☐ Yes ☒ No

Spring Flow Rate: gpm

Sample Date (mm/dd/yy): 1/15/2025 Sample Collection Time: 10:47

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: _____

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

Lab Accreditation Number(s): _____

Lab Sample Number(s): 3396249001 Final Lab Analysis Completion Date: 1/29/2025

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

Comments: _____

I.D. No 100008

Monitoring Point No. CWMP016W

Sample Date 1/15/2025

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	0.1 ND	EPA 350.3
BICARBONATE	12	SM18-2321
CALCIUM, TOTAL	6	SW846 6010B
CALCIUM, DISSOLVED		SW 8466010B
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.4
CHLORIDE	2.3	EPA 300.0
FLUORIDE	0.2 ND	EPA 300.0
IRON, TOTAL (ug/l)	120	SW846 6010B
IRON, DISSOLVED (ug/l)		SW846 6010B
MAGNESIUM, TOTAL	1.3	SW846 6010B
MAGNESIUM, DISSOLVED		SW846 6010B
MANGANESE, TOTAL (ug/l)	5.6 ND	SW846 6010B
MANGANESE, DISSOLVED (ug/l)		SW846 6010B
NITRATE-NITROGEN	1.4	EPA 300.0
pH-FIELD (SU)	5.16	FIELD
pH-LAB (SU)	7.31	EPA 150.1
POTASSIUM, TOTAL	0.57	SW846 6010B
POTASSIUM, DISSOLVED		SW846 6010B
SODIUM, TOTAL	3.9	SW846 6010B
SODIUM, DISSOLVED		SW846 6010B
SPEC. COND., FIELD (umhos/cm)	63	FIELD
SPEC. COND., LAB (umhos/cm)	60	EPA 120.1
SULFATE	9.4	EPA 300.0
ALKALINITY	12	SM18-2320B
TDS (TOTAL DISSOLVED SOLIDS)	81	SM18-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM18-5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	1.4	SM 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 100008

Monitoring Point No. CWMP016W

Sample Date 1/15/2025

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 (EDB) (ETHYLENE D	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.



Date Prepared/Revised
02/25/2025

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: Creswell Landfill

Facility ID (as issued by DEP): 100008

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: CWMP010W X Well ___ Spring ___ Stream ___ Other

 Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County

Municipality: Manor Township

Sampling Point Latitude: 39 ° 57 ' 2.38 " Longitude: 76 ° 26 ' 57.92 "

Depth to Water Level:	8.61	ft	Measured from:	Land Surface	X	TOC
-----------------------	------	----	----------------	--------------	---	-----

Casing Stickup: 2.10 ft Elevation of Water Level: 352.29 ft./MSL

Sampling Depth:	17 ft	Volume of Water Column:	7.17 gal
-----------------	-------	-------------------------	----------

Total Well Depth: 19.6 ft Sampling Method: ☒ Pumped ☐ Bailed ☐ Grab

Well Purged: ☒ Yes ☐ No Well Volumes Purged: 2.7

Sample Field Filtered (must be 0.45 micron)?: Yes ☒ No ☐

Spring Flow Rate: _____ gpm

Sample Date (mm/dd/yy): 1/15/2025 Sample Collection Time: 12:40

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis:

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

Lab Accreditation Number(s):

Lab Sample Number(s): 3396249002 Final Lab Analysis CompletionDate: 1/29/2025

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

Comments:

I.D. No 100008

Monitoring Point No. CWMP010W

Sample Date 1/15/2025

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	0.28	EPA 350.3
BICARBONATE	269	SM18-2321
CALCIUM, TOTAL	69.3	SW846 6010B
CALCIUM, DISSOLVED		SW 8466010B
COD (CHEMICAL OXYGEN DEMAND)	21	EPA 410.4
CHLORIDE	405	EPA 300.0
FLUORIDE	0.5 ND	EPA 300.0
IRON, TOTAL (ug/l)	870	SW846 6010B
IRON, DISSOLVED (ug/l)		SW846 6010B
MAGNESIUM, TOTAL	59.8	SW846 6010B
MAGNESIUM, DISSOLVED		SW846 6010B
MANGANESE, TOTAL (ug/l)	230	SW846 6010B
MANGANESE, DISSOLVED (ug/l)		SW846 6010B
NITRATE-NITROGEN	19.7	EPA 300.0
pH-FIELD (SU)	6.78	FIELD
pH-LAB (SU)	8.26	EPA 150.1
POTASSIUM, TOTAL	13.5	SW846 6010B
POTASSIUM, DISSOLVED		SW846 6010B
SODIUM, TOTAL	213	SW846 6010B
SODIUM, DISSOLVED		SW846 6010B
SPEC. COND., FIELD (umhos/cm)	1908	FIELD
SPEC. COND., LAB (umhos/cm)	1950	EPA 120.1
SULFATE	26.3	EPA 300.0
ALKALINITY	308	SM18-2320B
TDS (TOTAL DISSOLVED SOLIDS)	1070	SM18-2540C
TOC (TOTAL ORGANIC CARBON)	5.8	SM18-5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	9.5	SM 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 100008

Monitoring Point No. CWMP010W

Sample Date 1/15/2025

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 (EDB) (ETHYLENE D	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.



Date Prepared/Revised
02/25/2025

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: Creswell Landfill

Facility ID (as issued by DEP): 100008

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: CWMP009W

X	Well	Spring	Stream	Other
---	------	--------	--------	-------

Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County

Municipality: Manor Township

Sampling Point Latitude: 39 ° 57 ' 10.82 "

Longitude: 76 ° 26 ' 55.8 "

Depth to Water Level: 9.13 ft

Measured from: Land Surface X TOC

Casing Stickup: 2.70 ft

Elevation of Water Level: 395.07 ft./MSL

Sampling Depth: 16 ft

Volume of Water Column:	6.90	gal
-------------------------	------	-----

Total Well Depth: 19.7 ft

Sampling Method: ☒ Pumped ☐ Bailed ☐ Grab

Well Purged: X Yes No

Well Volumes Purged: 3.3

Sample Field Filtered (must be 0.45 micron)?: Yes ☒ No ☐

Spring Flow Rate: _____gpm

Sample Date (mm/dd/yy): 1/15/2025

Sample Collection Time: 13:23

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis:

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

Lab Accreditation Number(s):

Lab Sample Number(s): 3396249003 Final Lab Analysis CompletionDate: 1/29/2025

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

Comments:

I.D. No 100008

Monitoring Point No. CWMP009W

Sample Date 1/15/2025

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	29.2	EPA 350.3
BICARBONATE	559	SM18-2321
CALCIUM, TOTAL	199	SW846 6010B
CALCIUM, DISSOLVED		SW 8466010B
COD (CHEMICAL OXYGEN DEMAND)	114	EPA 410.4
CHLORIDE		EPA 300.0
FLUORIDE	0.2 ND	EPA 300.0
IRON, TOTAL (ug/l)	38500	SW846 6010B
IRON, DISSOLVED (ug/l)		SW846 6010B
MAGNESIUM, TOTAL	91.4	SW846 6010B
MAGNESIUM, DISSOLVED		SW846 6010B
MANGANESE, TOTAL (ug/l)	14100	SW846 6010B
MANGANESE, DISSOLVED (ug/l)		SW846 6010B
NITRATE-NITROGEN	1 ND	EPA 300.0
pH-FIELD (SU)	6.18	FIELD
pH-LAB (SU)	7.71	EPA 150.1
POTASSIUM, TOTAL	34.5	SW846 6010B
POTASSIUM, DISSOLVED		SW846 6010B
SODIUM, TOTAL	210	SW846 6010B
SODIUM, DISSOLVED		SW846 6010B
SPEC. COND., FIELD (umhos/cm)	3054	FIELD
SPEC. COND., LAB (umhos/cm)	2480	EPA 120.1
SULFATE	2.4	EPA 300.0
ALKALINITY	559	SM18-2320B
TDS (TOTAL DISSOLVED SOLIDS)	1770	SM18-2540C
TOC (TOTAL ORGANIC CARBON)	35.4	SM18-5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	55	SM 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 100008

Monitoring Point No. CWMP009W

Sample Date 1/15/2025

FORM 19**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES****2-Q. Organics (Enter all data in ug/l)**

ANALYTE	VALUE^T	ANALYSIS METHOD NUMBER
BENZENE	2.6	SW846 8260B
1,2-DIBROMOETHANE (EDB) (ETHYLENE D	1 ND	SW846 8260B
1,1-DICHLOROETHANE	1.2	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.

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT**



Date Prepared/Revised
02/25/2025

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: Creswell Landfill

Facility ID (as issued by DEP): 100008

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: CWMP018S ☒ Well ☐ Spring ☐ Stream ☐ Other
☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location (County): Lancaster County

Municipality: Manor

Sampling Point Latitude: 39 ° 56 ' 55.11 " Longitude: 76 ° 26 ' 51.66 "

Depth to Water Level: _____ ft Measured from: ☐ Land Surface ☒ TOC

Casing Stickup: _____ ft Elevation of Water Level: #Error ft./MSL

Sampling Depth: 0 ft Volume of Water Column: #Error gal

Total Well Depth: _____ ft Sampling Method: ☒ Pumped ☐ Bailed ☐ Grab

Well Purged: ☒ Yes ☐ No Well Volumes Purged: _____

Sample Field Filtered (must be 0.45 micron)?: ☐ Yes ☒ No

Spring Flow Rate: _____ gpm

Sample Date (mm/dd/yy): 1/16/2025 Sample Collection Time: 10:04

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: _____

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

Lab Accreditation Number(s): _____

Lab Sample Number(s): 3396539001 Final Lab Analysis Completion Date: 1/29/2025

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

Comments: _____

I.D. No 100008

Monitoring Point No. CWMP018S

Sample Date 1/16/2025

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	0.28	EPA 350.3
BICARBONATE	491	SM18-2321
CALCIUM, TOTAL	100	SW846 6010B
CALCIUM, DISSOLVED		SW 8466010B
COD (CHEMICAL OXYGEN DEMAND)	37	EPA 410.4
CHLORIDE	562	EPA 300.0
FLUORIDE	0.5 ND	EPA 300.0
IRON, TOTAL (ug/l)	210	SW846 6010B
IRON, DISSOLVED (ug/l)		SW846 6010B
MAGNESIUM, TOTAL	91.3	SW846 6010B
MAGNESIUM, DISSOLVED		SW846 6010B
MANGANESE, TOTAL (ug/l)	130	SW846 6010B
MANGANESE, DISSOLVED (ug/l)		SW846 6010B
NITRATE-NITROGEN	11.5	EPA 300.0
pH-FIELD (SU)	8.41	FIELD
pH-LAB (SU)	8.61	EPA 150.1
POTASSIUM, TOTAL	23	SW846 6010B
POTASSIUM, DISSOLVED		SW846 6010B
SODIUM, TOTAL	301	SW846 6010B
SODIUM, DISSOLVED		SW846 6010B
SPEC. COND., FIELD (umhos/cm)	2630	FIELD
SPEC. COND., LAB (umhos/cm)	1900	EPA 120.1
SULFATE	119	EPA 300.0
ALKALINITY	491	SM18-2320B
TDS (TOTAL DISSOLVED SOLIDS)	1530	SM18-2540C
TOC (TOTAL ORGANIC CARBON)	12.6	SM18-5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	1.3	SM 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 100008

Monitoring Point No. CWMP018S

Sample Date 1/16/2025

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 (EDB) (ETHYLENE D	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.



Date Prepared/Revised
02/25/2025

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: Creswell Landfill

Facility ID (as issued by DEP): 100008

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: CWMP008W

X	Well	Spring	Stream	Other
---	------	--------	--------	-------

Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County

Municipality: Manor Township

Sampling Point Latitude: 39 ° 57 ' 16.97 "

Longitude: 76 ° 26 ' 47.58 "

Depth to Water Level: 3.4 ft

Measured from: Land Surface X TOC

Casing Stickup: 2.80 ft

Elevation of Water Level: 418.9 ft./MSL

Sampling Depth: 19 ft

Volume of Water Column:	3.17	gal
-------------------------	------	-----

Total Well Depth: 22.8 ft

Sampling Method: X Pumped Bailed Grab

Well Purged: X Yes No

Well Volumes Purged: 7.0

Sample Field Filtered (must be 0.45 micron)?: Yes ☒ No ☐

Spring Flow Rate: _____gpm

Sample Date (mm/dd/yy): 1/16/2025

Sample Collection Time: 10:57

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis:

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

Lab Accreditation Number(s):

Lab Sample Number(s): 3396539002 Final Lab Analysis CompletionDate: 1/29/2025

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

Comments:

I.D. No 100008

Monitoring Point No. CWMP008W

Sample Date 1/16/2025

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	0.5 ND	EPA 350.3
BICARBONATE	369	SM18-2321
CALCIUM, TOTAL	70.9	SW846 6010B
CALCIUM, DISSOLVED		SW 8466010B
COD (CHEMICAL OXYGEN DEMAND)	28	EPA 410.4
CHLORIDE	48.4	EPA 300.0
FLUORIDE	0.2 ND	EPA 300.0
IRON, TOTAL (ug/l)	22000	SW846 6010B
IRON, DISSOLVED (ug/l)		SW846 6010B
MAGNESIUM, TOTAL	31.8	SW846 6010B
MAGNESIUM, DISSOLVED		SW846 6010B
MANGANESE, TOTAL (ug/l)	13900	SW846 6010B
MANGANESE, DISSOLVED (ug/l)		SW846 6010B
NITRATE-NITROGEN	1 ND	EPA 300.0
pH-FIELD (SU)	6.19	FIELD
pH-LAB (SU)	7.99	EPA 150.1
POTASSIUM, TOTAL	8.8	SW846 6010B
POTASSIUM, DISSOLVED		SW846 6010B
SODIUM, TOTAL	47.3	SW846 6010B
SODIUM, DISSOLVED		SW846 6010B
SPEC. COND., FIELD (umhos/cm)	857	FIELD
SPEC. COND., LAB (umhos/cm)	780	EPA 120.1
SULFATE	6.8	EPA 300.0
ALKALINITY	369	SM18-2320B
TDS (TOTAL DISSOLVED SOLIDS)	488	SM18-2540C
TOC (TOTAL ORGANIC CARBON)	8.9	SM18-5310B
TOTAL PHENOLICS (ug/l)	4	SW846 9066
TURBIDITY (N.T.U.)	11	SM 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 100008

Monitoring Point No. CWMP008W

Sample Date 1/16/2025

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	SW846 8260B
1,2-DIBROMOETHANE (EDB) (ETHYLENE D	1 ND	SW846 8260B
1,1-DICHLOROETHANE	1.9	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.

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT**



Date Prepared/Revised
02/25/2025

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: Creswell Landfill

Facility ID (as issued by DEP): 100008

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: CWMP017S ☒ Well ☐ Spring ☐ Stream ☐ Other
☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location (County): Lancaster County

Municipality: Manor Township

Sampling Point Latitude: 39 ° 57 ' 20.41 " Longitude: 76 ° 26 ' 45.1 "

Depth to Water Level: _____ ft Measured from: ☐ Land Surface ☒ TOC

Casing Stickup: _____ ft Elevation of Water Level: #Error ft./MSL

Sampling Depth: 0 ft Volume of Water Column: #Error gal

Total Well Depth: _____ ft Sampling Method: ☒ Pumped ☐ Bailed ☐ Grab

Well Purged: ☒ Yes ☐ No Well Volumes Purged: _____

Sample Field Filtered (must be 0.45 micron)?: ☐ Yes ☒ No

Spring Flow Rate: _____ gpm

Sample Date (mm/dd/yy): 1/16/2025 Sample Collection Time: 11:21

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: _____

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

Lab Accreditation Number(s): _____

Lab Sample Number(s): 3396539003 Final Lab Analysis Completion Date: 1/29/2025

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

Comments: _____

I.D. No 100008

Monitoring Point No. CWMP017S

Sample Date 1/16/2025

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	0.14	EPA 350.3
BICARBONATE	656	SM18-2321
CALCIUM, TOTAL	107	SW846 6010B
CALCIUM, DISSOLVED		SW 8466010B
COD (CHEMICAL OXYGEN DEMAND)	46	EPA 410.4
CHLORIDE	734	EPA 300.0
FLUORIDE	0.38	EPA 300.0
IRON, TOTAL (ug/l)	1400	SW846 6010B
IRON, DISSOLVED (ug/l)		SW846 6010B
MAGNESIUM, TOTAL	114	SW846 6010B
MAGNESIUM, DISSOLVED		SW846 6010B
MANGANESE, TOTAL (ug/l)	200	SW846 6010B
MANGANESE, DISSOLVED (ug/l)		SW846 6010B
NITRATE-NITROGEN	6.9	EPA 300.0
pH-FIELD (SU)	7.81	FIELD
pH-LAB (SU)	8.5	EPA 150.1
POTASSIUM, TOTAL	26.8	SW846 6010B
POTASSIUM, DISSOLVED		SW846 6010B
SODIUM, TOTAL	383	SW846 6010B
SODIUM, DISSOLVED		SW846 6010B
SPEC. COND., FIELD (umhos/cm)	3315	FIELD
SPEC. COND., LAB (umhos/cm)	2860	EPA 120.1
SULFATE	183	EPA 300.0
ALKALINITY	656	SM18-2320B
TDS (TOTAL DISSOLVED SOLIDS)	2000	SM18-2540C
TOC (TOTAL ORGANIC CARBON)	15.7	SM18-5310B
TOTAL PHENOLICS (ug/l)	4	SW846 9066
TURBIDITY (N.T.U.)	5.5	SM 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 100008

Monitoring Point No. CWMP017S

Sample Date 1/16/2025

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 (EDB) (ETHYLENE D	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.



Date Prepared/Revised
02/25/2025

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: Creswell Landfill

Facility ID (as issued by DEP): 100008

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: CWMP002W X Well ___ Spring ___ Stream ___ Other

 Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County

Municipality: Manor Township

Sampling Point Latitude: 39 ° 57 ' 19.97 " Longitude: 76 ° 26 ' 12.3 "

Depth to Water Level: 44.82 ft Measured from: Land Surface X TOC

Casing Stickup: -1.19 ft Elevation of Water Level: 480.99 ft./MSL

Sampling Depth:	85 ft	Volume of Water Column:	81.04 gal
-----------------	-------	-------------------------	-----------

Total Well Depth: 100 ft Sampling Method: ☒ Pumped ☐ Bailed ☐ Grab

Well Purged: X Yes No Well Volumes Purged: 1.0

Sample Field Filtered (must be 0.45 micron)?: Yes ☒ No ☐

Spring Flow Rate: _____ gpm

Sample Date (mm/dd/yy): 1/17/2025 Sample Collection Time: 10:49

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis:

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

Lab Accreditation Number(s):

Lab Sample Number(s): 3396677001 Final Lab Analysis CompletionDate: 1/29/2025

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

Comments:

I.D. No 100008

Monitoring Point No. CWMP002W

Sample Date 1/17/2025

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	0.1 ND	EPA 350.3
BICARBONATE	73	SM18-2321
CALCIUM, TOTAL	44.3	SW846 6010B
CALCIUM, DISSOLVED		SW 8466010B
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.4
CHLORIDE	93	EPA 300.0
FLUORIDE	0.2 ND	EPA 300.0
IRON, TOTAL (ug/l)	67 ND	SW846 6010B
IRON, DISSOLVED (ug/l)		SW846 6010B
MAGNESIUM, TOTAL	16.7	SW846 6010B
MAGNESIUM, DISSOLVED		SW846 6010B
MANGANESE, TOTAL (ug/l)	690	SW846 6010B
MANGANESE, DISSOLVED (ug/l)		SW846 6010B
NITRATE-NITROGEN	5.8	EPA 300.0
pH-FIELD (SU)	5.26	FIELD
pH-LAB (SU)	7.87	EPA 150.1
POTASSIUM, TOTAL	2.8	SW846 6010B
POTASSIUM, DISSOLVED		SW846 6010B
SODIUM, TOTAL	28.6	SW846 6010B
SODIUM, DISSOLVED		SW846 6010B
SPEC. COND., FIELD (umhos/cm)	500	FIELD
SPEC. COND., LAB (umhos/cm)	491	EPA 120.1
SULFATE	18.2	EPA 300.0
ALKALINITY	73	SM18-2320B
TDS (TOTAL DISSOLVED SOLIDS)	292	SM18-2540C
TOC (TOTAL ORGANIC CARBON)	2.2	SM18-5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	1.4	SM 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 100008

Monitoring Point No. CWMP002W

Sample Date 1/17/2025

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 (EDB) (ETHYLENE D	1 ND	SW846 8260B
1,1-DICHLOROETHANE	4.5	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.

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT**



Date Prepared/Revised
02/25/2025

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: Creswell Landfill

Facility ID (as issued by DEP): 100008

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: CWMP012W ☒ Well ☐ Spring ☐ Stream ☐ Other
☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location (County): Lancaster County

Municipality: Manor Township

Sampling Point Latitude: 39 ° 57 ' 1.48 " Longitude: 76 ° 26 ' 36.02 "

Depth to Water Level: 65.71 ft Measured from: ☐ Land Surface ☒ TOC

Casing Stickup: 1.90 ft Elevation of Water Level: 316.99 ft./MSL

Sampling Depth: 0 ft Volume of Water Column: 53.15 gal

Total Well Depth: 101.9 ft Sampling Method: ☒ Pumped ☐ Bailed ☐ Grab

Well Purged: ☒ Yes ☐ No Well Volumes Purged: _____

Sample Field Filtered (must be 0.45 micron)?: ☐ Yes ☒ No

Spring Flow Rate: gpm

Sample Date (mm/dd/yy): 1/17/2025 Sample Collection Time: 11:57

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: _____

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

Lab Accreditation Number(s): _____

Lab Sample Number(s): 3396677002 Final Lab Analysis Completion Date: 1/29/2025

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

Comments: _____

I.D. No 100008

Monitoring Point No. CWMP012W

Sample Date 1/17/2025

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	0.37	EPA 350.3
BICARBONATE	73	SM18-2321
CALCIUM, TOTAL	31.3	SW846 6010B
CALCIUM, DISSOLVED		SW 8466010B
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.4
CHLORIDE	30.5	EPA 300.0
FLUORIDE	0.2 ND	EPA 300.0
IRON, TOTAL (ug/l)	8300	SW846 6010B
IRON, DISSOLVED (ug/l)		SW846 6010B
MAGNESIUM, TOTAL	8.6	SW846 6010B
MAGNESIUM, DISSOLVED		SW846 6010B
MANGANESE, TOTAL (ug/l)	490	SW846 6010B
MANGANESE, DISSOLVED (ug/l)		SW846 6010B
NITRATE-NITROGEN	7.6	EPA 300.0
pH-FIELD (SU)	7.48	FIELD
pH-LAB (SU)	7.55	EPA 150.1
POTASSIUM, TOTAL	1.4	SW846 6010B
POTASSIUM, DISSOLVED		SW846 6010B
SODIUM, TOTAL	14.2	SW846 6010B
SODIUM, DISSOLVED		SW846 6010B
SPEC. COND., FIELD (umhos/cm)	215	FIELD
SPEC. COND., LAB (umhos/cm)	282	EPA 120.1
SULFATE	3.9	EPA 300.0
ALKALINITY	73	SM18-2320B
TDS (TOTAL DISSOLVED SOLIDS)	185	SM18-2540C
TOC (TOTAL ORGANIC CARBON)	1	SM18-5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	10	SM 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 100008

Monitoring Point No. CWMP012W

Sample Date 1/17/2025

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 (EDB) (ETHYLENE D	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.



Main Site: 301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | www.alsglobal.com
Associated Site: 20 Riverside Drive | Spring City, PA 19475 | Phone: 610-948-4903 |

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, NJ PA101

Analytical Results Report For **Lancaster County Solid Waste Authority**
Project 1ST QTR 2025 GWMP-FORM 19Q
Workorder 3395716
Report ID 384582 on 1/30/2025

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Jan 13, 2025.

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.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Global.
ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):

Jordan Bigler - Lancaster County Solid Waste Authority
Ashley Gichuki - Lancaster County Solid Waste Authority
Daniel Brown - Lancaster County Solid Waste Authority
Jeff Musser - Lancaster County Solid Waste Authority

Susan Scherer

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

Susan Scherer
Project Coordinator

(ALS Digital Signature)



Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3395716001	CWMP007W	Ground Water	01/13/2025 10:13	01/13/2025 15:20	BGS	Analytical Laboratory Service
3395716002	CWMP001W	Ground Water	01/13/2025 11:21	01/13/2025 15:20	BGS	Analytical Laboratory Service
3395716003	CWMP003W	Ground Water	01/13/2025 13:50	01/13/2025 15:20	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, including but not limited to the following EPA Method reference revisions:
EPA 300.1 Rev. 1.0-1997
EPA 300.0 Rev. 2.1-1993
EPA 353.2 Rev. 2.0-1993
EPA 410.4 Rev. 1.0-1993
EPA 420.4 Rev. 1.0-1993
EPA 365.1 Rev. 2.0-1993
EPA 200.7 Rev. 4.4-1994
EPA 200.8 Rev. 5.4-1994
EPA 245.1 Rev. 3.0-1994
- 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) above the MDL
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Practical Quantitation Limit for this Project
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	CWMP007W	Collected	01/13/2025 10:13		
Lab Sample ID	3395716001	Lab Receipt	01/13/2025 15:20		
Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Depth to Water Level	9.35	Feet		Field	#
Dissolved Oxygen	5.52	mg/L	0.01	Field	#
Elev Top MW Casing above MSL	453.40	Feet		Field	#
Flow Rate	1.62	gal/min		Field	#
Ground Water Elevation	444.05	ft/MSL		Field	#
Oxidation-Reduction Potential	239	mV		Field	#
pH, Field (SM4500B)	4.91	pH_Units		Field	#
Sample Depth	33.00	Feet		Field	#
Specific Conductance, Field	387	umhos/cm	1	Field	#
Temperature	13.82	Deg. C		Field	#
Total Well Depth	36.50	Feet		Field	#
Volume in Water Column	39.91	Gallons		Field	#
Water Level After Purge	9.35	Feet		Field	#
Well Volumes Purged	1.62	Vol		Field	#
METALS					
Calcium, Total	20.3	mg/L	0.11	SW846 6010C	#
Magnesium, Total	9.9	mg/L	0.11	SW846 6010C	#
Manganese, Total	0.0063	mg/L	0.0056	SW846 6010C	#
Potassium, Total	2.3	mg/L	0.56	SW846 6010C	#
Sodium, Total	36.7	mg/L	0.56	SW846 6010C	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	15	mg/L	5	SM2320B-2011	#
Alkalinity, Total	15	mg/L	5	SM2320B-2011	#
Chloride	77.2	mg/L	2.0	EPA 300.0	#
Nitrate-N	9.2	mg/L	1.0	EPA 300.0	#
pH	7.06	pH_Units		S4500HB-11	#
Specific Conductance	397	umhos/cm	5	SW846 9050A	#
Sulfate	18.4	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	198	mg/L	25	SM2540C-15	#



Detected Results Summary

Client Sample ID	CWMP001W	Collected	01/13/2025 11:21		
Lab Sample ID	3395716002	Lab Receipt	01/13/2025 15:20		
Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Depth to Water Level	30.20	Feet		Field	#
Dissolved Oxygen	8.74	mg/L	0.01	Field	#
Elev Top MW Casing above MSL	515.13	Feet		Field	#
Flow Rate	1.60	gal/min		Field	#
Ground Water Elevation	484.93	ft/MSL		Field	#
Oxidation-Reduction Potential	335	mV		Field	#
pH, Field (SM4500B)	5.11	pH_Units		Field	#
Sample Depth	57.00	Feet		Field	#
Specific Conductance, Field	254	umhos/cm	1	Field	#
Temperature	13.78	Deg. C		Field	#
Total Well Depth	66.30	Feet		Field	#
Turbidity, Field	189	NTU	1	Field	#
Volume in Water Column	53.07	Gallons		Field	#
Water Level After Purge	54.65	Feet		Field	#
Well Volumes Purged	2.71	Vol		Field	#
METALS					
Calcium, Total	16.3	mg/L	0.11	SW846 6010C	#
Iron, Total	0.21	mg/L	0.067	SW846 6010C	#
Magnesium, Total	10.2	mg/L	0.11	SW846 6010C	#
Manganese, Total	0.059	mg/L	0.0056	SW846 6010C	#
Potassium, Total	2.2	mg/L	0.56	SW846 6010C	#
Sodium, Total	13.7	mg/L	0.56	SW846 6010C	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	9	mg/L	5	SM2320B-2011	#
Alkalinity, Total	9	mg/L	5	SM2320B-2011	#
Chloride	27.1	mg/L	2.0	EPA 300.0	#
Nitrate-N	17.3	mg/L	1.0	EPA 300.0	#
pH	6.74	pH_Units		S4500HB-11	#
Specific Conductance	258	umhos/cm	5	SW846 9050A	#
Sulfate	2.2	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	125	mg/L	25	SM2540C-15	#
Turbidity	95	NTU	0.30	SM2130B-2011	#



Detected Results Summary

Client Sample ID	CWMP003W	Collected	01/13/2025 13:50		
Lab Sample ID	3395716003	Lab Receipt	01/13/2025 15:20		
Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Depth to Water Level	54.76	Feet		Field	#
Dissolved Oxygen	4.22	mg/L	0.01	Field	#
Elev Top MW Casing above MSL	524.21	Feet		Field	#
Flow Rate	1.24	gal/min		Field	#
Ground Water Elevation	469.45	ft/MSL		Field	#
Oxidation-Reduction Potential	307	mV		Field	#
pH, Field (SM4500B)	5.41	pH_Units		Field	#
Sample Depth	100.00	Feet		Field	#
Specific Conductance, Field	290	umhos/cm	1	Field	#
Temperature	13.81	Deg. C		Field	#
Total Well Depth	140.00	Feet		Field	#
Volume in Water Column	125.30	Gallons		Field	#
Water Level After Purge	73.50	Feet		Field	#
Well Volumes Purged	1.04	Vol		Field	#
METALS					
Calcium, Total	18.8	mg/L	0.11	SW846 6010C	#
Magnesium, Total	8.1	mg/L	0.11	SW846 6010C	#
Manganese, Total	0.033	mg/L	0.0056	SW846 6010C	#
Potassium, Total	2.2	mg/L	0.56	SW846 6010C	#
Sodium, Total	20.9	mg/L	0.56	SW846 6010C	#
VOLATILE ORGANICS					
1,1-Dichloroethane	1.0	ug/L	1.0	SW846 8260B	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	21	mg/L	5	SM2320B-2011	#
Alkalinity, Total	21	mg/L	5	SM2320B-2011	#
Chloride	53.4	mg/L	2.0	EPA 300.0	#
Nitrate-N	5.7	mg/L	1.0	EPA 300.0	#
pH	7.13	pH_Units		S4500HB-11	#
Specific Conductance	289	umhos/cm	5	SW846 9050A	#
Sulfate	13.3	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	169	mg/L	25	SM2540C-15	#
Total Organic Carbon (TOC)	0.70	mg/L	0.50	SW846 9060A	#
Turbidity	1.0	NTU	0.30	SM2130B-2011	#



Results

Client Sample ID	CWMP007W	Collected	01/13/2025 10:13
Lab Sample ID	3395716001	Lab Receipt	01/13/2025 15:20

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Depth to Water Level	9.35		Feet		Field	1	01/13/2025 10:13	BGS	D
Dissolved Oxygen	5.52		mg/L	0.01	Field	1	01/13/2025 10:13	BGS	D
Elev Top MW Casing above MSL	453.40		Feet		Field	1	01/13/2025 10:13	BGS	D
Flow Rate	1.62		gal/min		Field	1	01/13/2025 10:13	BGS	D
Ground Water Elevation	444.05		ft/MSL		Field	1	01/13/2025 10:13	BGS	D
Oxidation-Reduction Potential	239		mV		Field	1	01/13/2025 10:13	BGS	D
pH, Field (SM4500B)	4.91		pH_Units		Field	1	01/13/2025 10:13	BGS	D
Sample Depth	33.00		Feet		Field	1	01/13/2025 10:13	BGS	D
Specific Conductance, Field	387		umhos/cm	1	Field	1	01/13/2025 10:13	BGS	D
Temperature	13.82		Deg. C		Field	1	01/13/2025 10:13	BGS	D
Total Well Depth	36.50		Feet		Field	1	01/13/2025 10:13	BGS	D
Turbidity, Field	ND	ND	NTU	1	Field	1	01/13/2025 10:13	BGS	D
Volume in Water Column	39.91		Gallons		Field	1	01/13/2025 10:13	BGS	D
Water Level After Purge	9.35		Feet		Field	1	01/13/2025 10:13	BGS	D
Well Volumes Purged	1.62		Vol		Field	1	01/13/2025 10:13	BGS	D

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Total	20.3		mg/L	0.11	SW846 6010C	1	01/21/2025 11:50	MSY	K1
Iron, Total	ND	ND	mg/L	0.067	SW846 6010C	1	01/21/2025 11:50	MSY	K1
Magnesium, Total	9.9		mg/L	0.11	SW846 6010C	1	01/21/2025 11:50	MSY	K1
Manganese, Total	0.0063		mg/L	0.0056	SW846 6010C	1	01/21/2025 11:50	MSY	K1
Potassium, Total	2.3		mg/L	0.56	SW846 6010C	1	01/21/2025 11:50	MSY	K1
Sodium, Total	36.7		mg/L	0.56	SW846 6010C	1	01/21/2025 11:50	MSY	K1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 02:21	PDK	H
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 02:21	PDK	H
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 02:21	PDK	H
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 02:21	PDK	H
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 02:21	PDK	H
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 02:21	PDK	H
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 02:21	PDK	H
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 02:21	PDK	H
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 02:21	PDK	H
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 02:21	PDK	H
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 02:21	PDK	H
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	01/16/2025 02:21	PDK	H
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 02:21	PDK	H
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 02:21	PDK	H
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 02:21	PDK	H



Results

Client Sample ID	CWMP007W	Collected	01/13/2025 10:13
Lab Sample ID	3395716001	Lab Receipt	01/13/2025 15:20

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
SURROGATES									
Compound	CAS No			Recovery	Limits(%)		Analysis Date/Time		Qualifiers
1,2-Dichloroethane-d4	17060-07-0			106%	62 – 133		01/16/2025 02:21		
4-Bromofluorobenzene	460-00-4			97.5%	79 – 114		01/16/2025 02:21		
Dibromofluoromethane	1868-53-7			97.1%	78 – 116		01/16/2025 02:21		
Toluene-d8	2037-26-5			97.2%	76 – 127		01/16/2025 02:21		

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	15		mg/L	5	SM2320B-2011	1	01/17/2025 12:51	JXK	B
Alkalinity, Total	15	1	mg/L	5	SM2320B-2011	1	01/17/2025 12:51	JXK	B
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	01/16/2025 14:53	AYS	A
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	01/16/2025 13:52	KMS	A
Chloride	77.2		mg/L	2.0	EPA 300.0	2	01/14/2025 13:06	J1W	B
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	01/14/2025 13:06	J1W	B
Nitrate-N	9.2		mg/L	1.0	EPA 300.0	2	01/14/2025 13:06	J1W	B
pH	7.06	2	pH_Units		S4500HB-11	1	01/17/2025 12:51	JXK	B
Phenolics	ND	ND	mg/L	0.004	SW846 9066	1	01/21/2025 15:21	AKH	G
Specific Conductance	397		umhos/cm	5	SW846 9050A	1	01/27/2025 12:21	MAN	B
Sulfate	18.4		mg/L	2.0	EPA 300.0	2	01/14/2025 13:06	J1W	B
Total Dissolved Solids	198		mg/L	25	SM2540C-15	1	01/15/2025 15:15	RAG	B
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SW846 9060A	1	01/14/2025 19:56	PAG	E
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	01/14/2025 10:26	GMM	B



Results

Client Sample ID	CWMP001W	Collected	01/13/2025 11:21
Lab Sample ID	3395716002	Lab Receipt	01/13/2025 15:20

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Depth to Water Level	30.20		Feet		Field	1	01/13/2025 11:21	BGS	D
Dissolved Oxygen	8.74		mg/L	0.01	Field	1	01/13/2025 11:21	BGS	D
Elev Top MW Casing above MSL	515.13		Feet		Field	1	01/13/2025 11:21	BGS	D
Flow Rate	1.60		gal/min		Field	1	01/13/2025 11:21	BGS	D
Ground Water Elevation	484.93		ft/MSL		Field	1	01/13/2025 11:21	BGS	D
Oxidation-Reduction Potential	335		mV		Field	1	01/13/2025 11:21	BGS	D
pH, Field (SM4500B)	5.11		pH_Units		Field	1	01/13/2025 11:21	BGS	D
Sample Depth	57.00		Feet		Field	1	01/13/2025 11:21	BGS	D
Specific Conductance, Field	254		umhos/cm	1	Field	1	01/13/2025 11:21	BGS	D
Temperature	13.78		Deg. C		Field	1	01/13/2025 11:21	BGS	D
Total Well Depth	66.30		Feet		Field	1	01/13/2025 11:21	BGS	D
Turbidity, Field	189		NTU	1	Field	1	01/13/2025 11:21	BGS	D
Volume in Water Column	53.07		Gallons		Field	1	01/13/2025 11:21	BGS	D
Water Level After Purge	54.65		Feet		Field	1	01/13/2025 11:21	BGS	D
Well Volumes Purged	2.71		Vol		Field	1	01/13/2025 11:21	BGS	D

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Total	16.3		mg/L	0.11	SW846 6010C	1	01/21/2025 11:51	MSY	K1
Iron, Total	0.21		mg/L	0.067	SW846 6010C	1	01/21/2025 11:51	MSY	K1
Magnesium, Total	10.2		mg/L	0.11	SW846 6010C	1	01/21/2025 11:51	MSY	K1
Manganese, Total	0.059		mg/L	0.0056	SW846 6010C	1	01/21/2025 11:51	MSY	K1
Potassium, Total	2.2		mg/L	0.56	SW846 6010C	1	01/21/2025 11:51	MSY	K1
Sodium, Total	13.7		mg/L	0.56	SW846 6010C	1	01/21/2025 11:51	MSY	K1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 03:02	PDK	H
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 03:02	PDK	H
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 03:02	PDK	H
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 03:02	PDK	H
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 03:02	PDK	H
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 03:02	PDK	H
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 03:02	PDK	H
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 03:02	PDK	H
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 03:02	PDK	H
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 03:02	PDK	H
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 03:02	PDK	H
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	01/16/2025 03:02	PDK	H
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 03:02	PDK	H
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 03:02	PDK	H
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 03:02	PDK	H



Results

Client Sample ID	CWMP001W	Collected	01/13/2025 11:21
Lab Sample ID	3395716002	Lab Receipt	01/13/2025 15:20

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
SURROGATES									
Compound	CAS No			Recovery	Limits(%)		Analysis Date/Time		Qualifiers
1,2-Dichloroethane-d4	17060-07-0			104%	62 – 133		01/16/2025 03:02		
4-Bromofluorobenzene	460-00-4			99.3%	79 – 114		01/16/2025 03:02		
Dibromofluoromethane	1868-53-7			95.1%	78 – 116		01/16/2025 03:02		
Toluene-d8	2037-26-5			101%	76 – 127		01/16/2025 03:02		

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	9		mg/L	5	SM2320B-2011	1	01/17/2025 13:03	JXK	B
Alkalinity, Total	9	1	mg/L	5	SM2320B-2011	1	01/17/2025 13:03	JXK	B
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	01/16/2025 12:53	AYS	A
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	01/16/2025 13:52	KMS	A
Chloride	27.1		mg/L	2.0	EPA 300.0	2	01/14/2025 13:52	J1W	B
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	01/14/2025 13:52	J1W	B
Nitrate-N	17.3		mg/L	1.0	EPA 300.0	2	01/14/2025 13:52	J1W	B
pH	6.74	2	pH_Units		S4500HB-11	1	01/17/2025 13:03	JXK	B
Phenolics	ND	ND	mg/L	0.004	SW846 9066	1	01/21/2025 15:31	AKH	G
Specific Conductance	258		umhos/cm	5	SW846 9050A	1	01/27/2025 12:21	MAN	B
Sulfate	2.2		mg/L	2.0	EPA 300.0	2	01/14/2025 13:52	J1W	B
Total Dissolved Solids	125		mg/L	25	SM2540C-15	1	01/15/2025 15:15	RAG	B
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SW846 9060A	1	01/14/2025 19:56	PAG	E
Turbidity	95		NTU	0.30	SM2130B-2011	1	01/14/2025 10:26	GMM	B



Results

Client Sample ID	CWMP003W	Collected	01/13/2025 13:50
Lab Sample ID	3395716003	Lab Receipt	01/13/2025 15:20

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Depth to Water Level	54.76		Feet		Field	1	01/13/2025 13:50	BGS	D
Dissolved Oxygen	4.22		mg/L	0.01	Field	1	01/13/2025 13:50	BGS	D
Elev Top MW Casing above MSL	524.21		Feet		Field	1	01/13/2025 13:50	BGS	D
Flow Rate	1.24		gal/min		Field	1	01/13/2025 13:50	BGS	D
Ground Water Elevation	469.45		ft/MSL		Field	1	01/13/2025 13:50	BGS	D
Oxidation-Reduction Potential	307		mV		Field	1	01/13/2025 13:50	BGS	D
pH, Field (SM4500B)	5.41		pH_Units		Field	1	01/13/2025 13:50	BGS	D
Sample Depth	100.00		Feet		Field	1	01/13/2025 13:50	BGS	D
Specific Conductance, Field	290		umhos/cm	1	Field	1	01/13/2025 13:50	BGS	D
Temperature	13.81		Deg. C		Field	1	01/13/2025 13:50	BGS	D
Total Well Depth	140.00		Feet		Field	1	01/13/2025 13:50	BGS	D
Turbidity, Field	ND	ND	NTU	1	Field	1	01/13/2025 13:50	BGS	D
Volume in Water Column	125.30		Gallons		Field	1	01/13/2025 13:50	BGS	D
Water Level After Purge	73.50		Feet		Field	1	01/13/2025 13:50	BGS	D
Well Volumes Purged	1.04		Vol		Field	1	01/13/2025 13:50	BGS	D

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Total	18.8		mg/L	0.11	SW846 6010C	1	01/21/2025 11:52	MSY	K1
Iron, Total	ND	ND	mg/L	0.067	SW846 6010C	1	01/21/2025 11:52	MSY	K1
Magnesium, Total	8.1		mg/L	0.11	SW846 6010C	1	01/21/2025 11:52	MSY	K1
Manganese, Total	0.033		mg/L	0.0056	SW846 6010C	1	01/21/2025 11:52	MSY	K1
Potassium, Total	2.2		mg/L	0.56	SW846 6010C	1	01/21/2025 11:52	MSY	K1
Sodium, Total	20.9		mg/L	0.56	SW846 6010C	1	01/21/2025 11:52	MSY	K1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 03:22	PDK	H
1,1-Dichloroethane	1.0		ug/L	1.0	SW846 8260B	1	01/16/2025 03:22	PDK	H
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 03:22	PDK	H
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 03:22	PDK	H
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 03:22	PDK	H
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 03:22	PDK	H
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 03:22	PDK	H
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 03:22	PDK	H
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 03:22	PDK	H
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 03:22	PDK	H
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 03:22	PDK	H
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	01/16/2025 03:22	PDK	H
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 03:22	PDK	H
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 03:22	PDK	H
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	01/16/2025 03:22	PDK	H



Results

Client Sample ID	CWMP003W	Collected	01/13/2025 13:50
Lab Sample ID	3395716003	Lab Receipt	01/13/2025 15:20

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
SURROGATES									
Compound	CAS No			Recovery	Limits(%)		Analysis Date/Time		Qualifiers
1,2-Dichloroethane-d4	17060-07-0			102%	62 – 133		01/16/2025 03:22		
4-Bromofluorobenzene	460-00-4			94.3%	79 – 114		01/16/2025 03:22		
Dibromofluoromethane	1868-53-7			94.4%	78 – 116		01/16/2025 03:22		
Toluene-d8	2037-26-5			96.8%	76 – 127		01/16/2025 03:22		

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	21		mg/L	5	SM2320B-2011	1	01/17/2025 13:17	JXK	B
Alkalinity, Total	21	1	mg/L	5	SM2320B-2011	1	01/17/2025 13:17	JXK	B
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	01/16/2025 12:11	AYS	A
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	01/16/2025 13:52	KMS	A
Chloride	53.4		mg/L	2.0	EPA 300.0	2	01/14/2025 14:03	J1W	B
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	01/14/2025 14:03	J1W	B
Nitrate-N	5.7		mg/L	1.0	EPA 300.0	2	01/14/2025 14:03	J1W	B
pH	7.13	2	pH_Units		S4500HB-11	1	01/17/2025 13:17	JXK	B
Phenolics	ND	ND	mg/L	0.004	SW846 9066	1	01/21/2025 15:34	AKH	G
Specific Conductance	289		umhos/cm	5	SW846 9050A	1	01/27/2025 12:21	MAN	B
Sulfate	13.3		mg/L	2.0	EPA 300.0	2	01/14/2025 14:03	J1W	B
Total Dissolved Solids	169		mg/L	25	SM2540C-15	1	01/15/2025 15:15	RAG	B
Total Organic Carbon (TOC)	0.70		mg/L	0.50	SW846 9060A	1	01/14/2025 19:56	PAG	E
Turbidity	1.0		NTU	0.30	SM2130B-2011	1	01/14/2025 10:26	GMM	B



Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3395716001	CWMP007W	Field	N/A	
		SW846 6010C	SW846 3015A	
		SW846 8260B	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2540C-15	N/A	
		SW846 9050A	N/A	
		SW846 9060A	N/A	
		SW846 9066	SW846 9066	
3395716002	CWMP001W	Field	N/A	
		SW846 6010C	SW846 3015A	
		SW846 8260B	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2540C-15	N/A	
		SW846 9050A	N/A	
		SW846 9060A	N/A	
		SW846 9066	SW846 9066	
3395716003	CWMP003W	Field	N/A	
		SW846 6010C	SW846 3015A	
		SW846 8260B	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2540C-15	N/A	
		SW846 9050A	N/A	
		SW846 9060A	N/A	
		SW846 9066	SW846 9066	



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3395716001	CWMP007W	N/A	N/A	N/A		Field	1380924
		SW846 3015A	1373560	01/15/2025 08:04	ANN	SW846 6010C	1376090
		N/A	N/A	N/A		SW846 8260B	1373964
		N/A	N/A	N/A		EPA 300.0	1373260
		N/A	N/A	N/A		EPA 410.4	1374304
		N/A	N/A	N/A		S4500HB-11	1373705
		N/A	N/A	N/A		SM 4500-NH3G	1374290
		N/A	N/A	N/A		SM2130B-2011	1373271
		N/A	N/A	N/A		SM2320B-2011	1373705
		N/A	N/A	N/A		SM2540C-15	1373288
		N/A	N/A	N/A		SW846 9050A	1380152
		N/A	N/A	N/A		SW846 9060A	1373332
		SW846 9066	1376119	01/21/2025 11:00	AKH	SW846 9066	1376122
3395716002	CWMP001W	N/A	N/A	N/A		Field	1380924
		SW846 3015A	1373560	01/15/2025 08:04	ANN	SW846 6010C	1376090
		N/A	N/A	N/A		SW846 8260B	1373964
		N/A	N/A	N/A		EPA 300.0	1373260
		N/A	N/A	N/A		EPA 410.4	1374304
		N/A	N/A	N/A		S4500HB-11	1373705
		N/A	N/A	N/A		SM 4500-NH3G	1374290
		N/A	N/A	N/A		SM2130B-2011	1373271
		N/A	N/A	N/A		SM2320B-2011	1373705
		N/A	N/A	N/A		SM2540C-15	1373288
		N/A	N/A	N/A		SW846 9050A	1380152
		N/A	N/A	N/A		SW846 9060A	1373332
		SW846 9066	1376119	01/21/2025 11:00	AKH	SW846 9066	1376122
3395716003	CWMP003W	N/A	N/A	N/A		Field	1380924
		SW846 3015A	1373560	01/15/2025 08:04	ANN	SW846 6010C	1376090
		N/A	N/A	N/A		SW846 8260B	1373964
		N/A	N/A	N/A		EPA 300.0	1373260
		N/A	N/A	N/A		EPA 410.4	1374304
		N/A	N/A	N/A		S4500HB-11	1373705
		N/A	N/A	N/A		SM 4500-NH3G	1374290
		N/A	N/A	N/A		SM2130B-2011	1373271
		N/A	N/A	N/A		SM2320B-2011	1373705
		N/A	N/A	N/A		SM2540C-15	1373288
		N/A	N/A	N/A		SW846 9050A	1380152
		N/A	N/A	N/A		SW846 9060A	1373332
		SW846 9066	1376119	01/21/2025 11:00	AKH	SW846 9066	1376122

301 Fulling Mill Rd, Suite A
Middletown, PA 17057
P. 717-944-5541



CHAIN OF CUSTODY/
REQUEST FOR ANALYSIS
ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT/
SAMPLER. INSTRUCTIONS ON THE BACK.

3395716

Logged By: SLS
PH: SJB



Client Name: Lancaster County Solid Waste MA		Container Type	AG	AN	CG	P	P	P	P	P	Temp Taken By:	Therm ID:	WO Temp (°C)	1
Address: 1299 Harrisburg Pike PO Box 4424		Container Size	40ml	125ml	40ml	1L	500ml	125ml	250ml	125ml	Receipt info completed by: _____			
Lancaster PA 17604		Preservative	HCL	H2SO4	UNP	UNP	UNP	HNO3	H2SO4	HNO3	Cooler Custody Seals Intact Y N NA Sample Custody Seal Intact Y N NA Received on Ice Y N NA Coolers & Samples Intact Y N NA Correct Containers Provided Y N NA Sample Label/COC Agree Y N NA Adequate Sample Volumes Y N NA VOA only: Trip Blank Y N NA NJ ≤ 4 days? Y N Courier/Tracking # _____			
Contact: Dan Brown		ANALYSIS / METHOD REQUESTED										Client contact: Date/Tech: _____		
Phone#: 717-735-0193												Rad Screen (uCi) _____		
Project Name#: Creswell/GWMP Form 19Q												New Source? Y N		
Bill To: Lancaster County Solid Waste MA												New Source Contact: _____		
Purchase Order #:												SDWA State of Origin? _____		
TAT ☒ Normal-Standard TAT is 10-12 business days. ☐ Rush-Subject to ALS approval and surcharges.												PWSID # _____		
Date Required: _____												PWS Contact: _____ PWS Phone #: _____		
Email? ☒ dbrown@lcswwma.org												SDWA Sample Type Key: D=Distribution E=Entry Point R=Raw P=Plant C=Check S=Special A=Annual Startup		
Sample Description/Location (as it will appear on the lab report)		Date Collected mm/dd/yy	Time hr:mm	Enter Number of Containers Per Sample or Field Results Below.							Sample/COC Remarks			
1	CWMP007W	1/13/25	1013	G	GW	2	1	3	1	1	1	2	2	
2	CWMP001W	1/13/25	1121	G	GW	2	1	3	1	1	1	2	2	
3	CWMP003W	1/13/25	1350	G	GW	2	1	3	1	1	1	2	2	
4														
5														
6														
7														
8														
9														
10														
Circle Sample Collector: ALS Tech / Client Name: _____ ID: _____		Comments: _____										Contains Short Hold Testing YES NO		
Date: 1-13-25 12:00	Time: 12:00	1	2	3	4	5	6	7	8	9	Internal Use: If less than 48 hours - notify lab upon receipt			
Received By / Company Name: _____		Data Deliverables										State Samples Collected In		
2												Standard Lvl 1 ☐ CLP-like ☐ HSCA ☐ NY		
4												Standard Lvl 2 ☐ DOD ☐ Landfill ☐ NJ		
6												Standard Lvl 3 ☐ NJ RED ☐ NJ GW ☐ PA		
8												Standard Lvl 4 ☐ NJ Full ☐ WV		
10												FL		
EDDs		Excel Summary										Sample Disposal		
		Equis										Lab ☒ Special ☐		
		Custom										other _____		
EDDS:		Format Type												



Middletown Sample Condition Form

Client Lancaster County Solid Waste Workorder 3395716
Temp °C 1 Therm ID 524 Ice? (Y) N N/A Initials & Date DB 1/13/25
Fedex UPS Client (ALS) Other Tracking # _____

	Yes	No ¹	N/A	Comments
Cooler Custody Seals present & intact			✓	
Sample Custody Seals present & intact			✓	
Chain-of-Custody present	✓			
Sample collector name present <i>If not present, must contact PM/client to request name.</i>	✓			
COC/bottle labels complete & in agreement	✓			
•Sample location	✓			
•Date and time of sample collection	✓			
•Type(s) of preservation	✓			
•Number of containers	✓			
•Composite or grab	✓			
•Matrix	✓			
Proper containers, preservation, and volume per method	✓			
Received within hold time	✓			
Containers intact	✓			
Trip blanks present (EPA 504, EPA 524)			✓	
Field blanks present (Hg 1631, PFAS)			✓	
NJ ≤ 4 Days			✓	
CR6 Samples Filtered			✓	
OP Samples Filtered			✓	
WV Containers 0-6°C			✓	
SDWA compliance reporting			✓	

¹ If No, provide comment

Rad Screen (uCi) _____

PM - PM to contact client

N/A - Not Applicable

UC - Updated coc with missing information

Review Comments:



Main Site: 301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | www.alsglobal.com
Associated Site: 20 Riverside Drive | Spring City, PA 19475 | Phone: 610-948-4903 |

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, NJ PA101

Analytical Results Report For **Lancaster County Solid Waste Authority**
Project 1ST QTR 2025 GWMP-FORM 19Q
Workorder 3396677
Report ID 384836 on 1/31/2025

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Jan 17, 2025.

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.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Global.
ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):

Jordan Bigler - Lancaster County Solid Waste Authority
Ashley Gichuki - Lancaster County Solid Waste Authority
Daniel Brown - Lancaster County Solid Waste Authority
Jeff Musser - Lancaster County Solid Waste Authority

Susan Scherer

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

Susan Scherer
Project Coordinator

(ALS Digital Signature)



Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3396677001	CWMP002W	Ground Water	01/17/2025 10:49	01/17/2025 14:10	BGS	Analytical Laboratory Service
3396677002	CWMP012W	Ground Water	01/17/2025 11:57	01/17/2025 14:10	BGS	Analytical Laboratory Service
3396677003	Field Blank	Water	01/17/2025 12:10	01/17/2025 14:10	BGS	Analytical Laboratory Service
3396677004	Trip Blank	Water	01/17/2025 14:10	01/17/2025 14:10	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, including but not limited to the following EPA Method reference revisions:
EPA 300.1 Rev. 1.0-1997
EPA 300.0 Rev. 2.1-1993
EPA 353.2 Rev. 2.0-1993
EPA 410.4 Rev. 1.0-1993
EPA 420.4 Rev. 1.0-1993
EPA 365.1 Rev. 2.0-1993
EPA 200.7 Rev. 4.4-1994
EPA 200.8 Rev. 5.4-1994
EPA 245.1 Rev. 3.0-1994
- 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) above the MDL
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Practical Quantitation Limit for this Project
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	CWMP002W	Collected	01/17/2025 10:49		
Lab Sample ID	3396677001	Lab Receipt	01/17/2025 14:10		
Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Depth to Water Level	44.82	Feet		Field	#
Dissolved Oxygen	2.13	mg/L	0.01	Field	#
Elev Top MW Casing above MSL	525.81	Feet		Field	#
Flow Rate	1.68	gal/min		Field	#
Ground Water Elevation	480.99	ft/MSL		Field	#
Oxidation-Reduction Potential	226	mV		Field	#
pH, Field (SM4500B)	5.26	pH_Units		Field	#
Sample Depth	85.00	Feet		Field	#
Specific Conductance, Field	500	umhos/cm	1	Field	#
Temperature	13.72	Deg. C		Field	#
Total Well Depth	100.00	Feet		Field	#
Volume in Water Column	81.11	Gallons		Field	#
Water Level After Purge	46.50	Feet		Field	#
Well Volumes Purged	1.04	Vol		Field	#
METALS					
Calcium, Total	44.3	mg/L	0.11	SW846 6010C	#
Magnesium, Total	16.7	mg/L	0.11	SW846 6010C	#
Manganese, Total	0.69	mg/L	0.0056	SW846 6010C	#
Potassium, Total	2.8	mg/L	0.56	SW846 6010C	#
Sodium, Total	28.6	mg/L	0.56	SW846 6010C	#
VOLATILE ORGANICS					
1,1-Dichloroethane	4.5	ug/L	1.0	SW846 8260B	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	73	mg/L	5	SM2320B-2011	#
Alkalinity, Total	73	mg/L	5	SM2320B-2011	#
Chloride	93.0	mg/L	2.0	EPA 300.0	#
Nitrate-N	5.8	mg/L	1.0	EPA 300.0	#
pH	7.87	pH_Units		S4500HB-11	#
Specific Conductance	491	umhos/cm	5	SW846 9050A	#
Sulfate	18.2	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	292	mg/L	25	SM2540C-15	#
Total Organic Carbon (TOC)	2.2	mg/L	0.50	SW846 9060A	#
Turbidity	1.4	NTU	0.30	SM2130B-2011	#



Detected Results Summary

Client Sample ID	CWMP012W	Collected	01/17/2025 11:57		
Lab Sample ID	3396677002	Lab Receipt	01/17/2025 14:10		
Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Depth to Water Level	65.71	Feet		Field	#
Dissolved Oxygen	3.78	mg/L	0.01	Field	#
Oxidation-Reduction Potential	179	mV		Field	#
pH, Field (SM4500B)	7.48	pH_Units		Field	#
Specific Conductance, Field	215	umhos/cm	1	Field	#
Temperature	12.14	Deg. C		Field	#
Turbidity, Field	11	NTU	1	Field	#
METALS					
Calcium, Total	31.3	mg/L	0.11	SW846 6010C	#
Iron, Total	8.3	mg/L	0.067	SW846 6010C	#
Magnesium, Total	8.6	mg/L	0.11	SW846 6010C	#
Manganese, Total	0.49	mg/L	0.0056	SW846 6010C	#
Potassium, Total	1.4	mg/L	0.56	SW846 6010C	#
Sodium, Total	14.2	mg/L	0.56	SW846 6010C	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	73	mg/L	5	SM2320B-2011	#
Alkalinity, Total	73	mg/L	5	SM2320B-2011	#
Ammonia-N, Low Level	0.37	mg/L	0.10	SM 4500-NH3G	#
Chloride	30.5	mg/L	2.0	EPA 300.0	#
Nitrate-N	7.6	mg/L	1.0	EPA 300.0	#
pH	7.55	pH_Units		S4500HB-11	#
Specific Conductance	282	umhos/cm	5	SW846 9050A	#
Sulfate	3.9	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	185	mg/L	25	SM2540C-15	#
Total Organic Carbon (TOC)	1.0	mg/L	0.50	SW846 9060A	#
Turbidity	10	NTU	0.30	SM2130B-2011	#



Detected Results Summary

Client Sample ID	Field Blank	Collected	01/17/2025 12:10		
Lab Sample ID	3396677003	Lab Receipt	01/17/2025 14:10		
Compound	Result	Units	RDL	Method	Flag
WET CHEMISTRY					
pH	5.51	pH_Units		S4500HB-11	#
Turbidity	0.40	NTU	0.30	SM2130B-2011	#



Results

Client Sample ID	CWMP002W	Collected	01/17/2025 10:49
Lab Sample ID	3396677001	Lab Receipt	01/17/2025 14:10

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Depth to Water Level	44.82		Feet		Field	1	01/17/2025 10:49	BGS	D
Dissolved Oxygen	2.13		mg/L	0.01	Field	1	01/17/2025 10:49	BGS	D
Elev Top MW Casing above MSL	525.81		Feet		Field	1	01/17/2025 10:49	BGS	D
Flow Rate	1.68		gal/min		Field	1	01/17/2025 10:49	BGS	D
Ground Water Elevation	480.99		ft/MSL		Field	1	01/17/2025 10:49	BGS	D
Oxidation-Reduction Potential	226		mV		Field	1	01/17/2025 10:49	BGS	D
pH, Field (SM4500B)	5.26		pH_Units		Field	1	01/17/2025 10:49	BGS	D
Sample Depth	85.00		Feet		Field	1	01/17/2025 10:49	BGS	D
Specific Conductance, Field	500		umhos/cm	1	Field	1	01/17/2025 10:49	BGS	D
Temperature	13.72		Deg. C		Field	1	01/17/2025 10:49	BGS	D
Total Well Depth	100.00		Feet		Field	1	01/17/2025 10:49	BGS	D
Turbidity, Field	ND	ND	NTU	1	Field	1	01/17/2025 10:49	BGS	D
Volume in Water Column	81.11		Gallons		Field	1	01/17/2025 10:49	BGS	D
Water Level After Purge	46.50		Feet		Field	1	01/17/2025 10:49	BGS	D
Well Volumes Purged	1.04		Vol		Field	1	01/17/2025 10:49	BGS	D

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Total	44.3		mg/L	0.11	SW846 6010C	1	01/23/2025 11:51	MSY	K1
Iron, Total	ND	ND	mg/L	0.067	SW846 6010C	1	01/23/2025 11:51	MSY	K1
Magnesium, Total	16.7		mg/L	0.11	SW846 6010C	1	01/23/2025 11:51	MSY	K1
Manganese, Total	0.69		mg/L	0.0056	SW846 6010C	1	01/23/2025 11:51	MSY	K1
Potassium, Total	2.8		mg/L	0.56	SW846 6010C	1	01/23/2025 11:51	MSY	K1
Sodium, Total	28.6		mg/L	0.56	SW846 6010C	1	01/23/2025 11:51	MSY	K1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 15:18	TMP	H
1,1-Dichloroethane	4.5		ug/L	1.0	SW846 8260B	1	01/27/2025 15:18	TMP	H
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 15:18	TMP	H
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 15:18	TMP	H
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 15:18	TMP	H
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 15:18	TMP	H
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 15:18	TMP	H
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 15:18	TMP	H
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 15:18	TMP	H
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 15:18	TMP	H
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 15:18	TMP	H
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	01/27/2025 15:18	TMP	H
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 15:18	TMP	H
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 15:18	TMP	H
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 15:18	TMP	H



Results

Client Sample ID	CWMP002W	Collected	01/17/2025 10:49
Lab Sample ID	3396677001	Lab Receipt	01/17/2025 14:10

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
SURROGATES									
Compound	CAS No			Recovery	Limits(%)		Analysis Date/Time		Qualifiers
1,2-Dichloroethane-d4	17060-07-0			102%	62 – 133		01/27/2025 15:18		
4-Bromofluorobenzene	460-00-4			98.1%	79 – 114		01/27/2025 15:18		
Dibromofluoromethane	1868-53-7			98.3%	78 – 116		01/27/2025 15:18		
Toluene-d8	2037-26-5			102%	76 – 127		01/27/2025 15:18		

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	73		mg/L	5	SM2320B-2011	1	01/23/2025 23:13	JXK	B
Alkalinity, Total	73	1	mg/L	5	SM2320B-2011	1	01/23/2025 23:13	JXK	B
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	01/21/2025 12:07	AYS	A
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	01/21/2025 13:35	KMS	A
Chloride	93.0		mg/L	2.0	EPA 300.0	2	01/18/2025 09:00	GMM	B
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	01/18/2025 09:00	GMM	B
Nitrate-N	5.8		mg/L	1.0	EPA 300.0	2	01/18/2025 09:00	GMM	B
pH	7.87	2	pH_Units		S4500HB-11	1	01/23/2025 23:13	JXK	B
Phenolics	ND	ND	mg/L	0.004	SW846 9066	1	01/28/2025 16:55	AKH	G
Specific Conductance	491		umhos/cm	5	SW846 9050A	1	01/29/2025 14:51	MAN	B
Sulfate	18.2		mg/L	2.0	EPA 300.0	2	01/18/2025 09:00	GMM	B
Total Dissolved Solids	292		mg/L	25	SM2540C-15	1	01/23/2025 08:52	RAG	B
Total Organic Carbon (TOC)	2.2		mg/L	0.50	SW846 9060A	1	01/21/2025 22:02	PAG	E
Turbidity	1.4		NTU	0.30	SM2130B-2011	1	01/18/2025 08:34	NPF	B



Results

Client Sample ID	CWMP012W	Collected	01/17/2025 11:57
Lab Sample ID	3396677002	Lab Receipt	01/17/2025 14:10

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Depth to Water Level	65.71		Feet		Field	1	01/17/2025 11:57	BGS	D
Dissolved Oxygen	3.78		mg/L	0.01	Field	1	01/17/2025 11:57	BGS	D
Oxidation-Reduction Potential	179		mV		Field	1	01/17/2025 11:57	BGS	D
pH, Field (SM4500B)	7.48		pH_Units		Field	1	01/17/2025 11:57	BGS	D
Specific Conductance, Field	215		umhos/cm	1	Field	1	01/17/2025 11:57	BGS	D
Temperature	12.14		Deg. C		Field	1	01/17/2025 11:57	BGS	D
Turbidity, Field	11		NTU	1	Field	1	01/17/2025 11:57	BGS	D

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Total	31.3		mg/L	0.11	SW846 6010C	1	01/23/2025 11:52	MSY	K1
Iron, Total	8.3		mg/L	0.067	SW846 6010C	1	01/23/2025 11:52	MSY	K1
Magnesium, Total	8.6		mg/L	0.11	SW846 6010C	1	01/23/2025 11:52	MSY	K1
Manganese, Total	0.49		mg/L	0.0056	SW846 6010C	1	01/23/2025 11:52	MSY	K1
Potassium, Total	1.4		mg/L	0.56	SW846 6010C	1	01/23/2025 11:52	MSY	K1
Sodium, Total	14.2		mg/L	0.56	SW846 6010C	1	01/23/2025 11:52	MSY	K1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 15:38	TMP	H
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 15:38	TMP	H
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 15:38	TMP	H
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 15:38	TMP	H
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 15:38	TMP	H
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 15:38	TMP	H
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 15:38	TMP	H
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 15:38	TMP	H
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 15:38	TMP	H
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 15:38	TMP	H
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 15:38	TMP	H
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	01/27/2025 15:38	TMP	H
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 15:38	TMP	H
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 15:38	TMP	H
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 15:38	TMP	H

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	103%	62 – 133	01/27/2025 15:38	
4-Bromofluorobenzene	460-00-4	107%	79 – 114	01/27/2025 15:38	
Dibromofluoromethane	1868-53-7	98.4%	78 – 116	01/27/2025 15:38	
Toluene-d8	2037-26-5	101%	76 – 127	01/27/2025 15:38	

WET CHEMISTRY



Results

Client Sample ID	CWMP012W					Collected	01/17/2025 11:57		
Lab Sample ID	3396677002					Lab Receipt	01/17/2025 14:10		
Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	73		mg/L	5	SM2320B-2011	1	01/23/2025 13:48	JXK	B
Alkalinity, Total	73	1	mg/L	5	SM2320B-2011	1	01/23/2025 13:48	JXK	B
Ammonia-N, Low Level	0.37		mg/L	0.10	SM 4500-NH3G	1	01/21/2025 12:07	AYS	A
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	01/21/2025 13:35	KMS	A
Chloride	30.5		mg/L	2.0	EPA 300.0	2	01/18/2025 09:12	GMM	B
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	01/18/2025 09:12	GMM	B
Nitrate-N	7.6		mg/L	1.0	EPA 300.0	2	01/18/2025 09:12	GMM	B
pH	7.55	2	pH_Units		S4500HB-11	1	01/23/2025 13:48	JXK	B
Phenolics	ND	ND	mg/L	0.004	SW846 9066	1	01/28/2025 17:02	AKH	G
Specific Conductance	282		umhos/cm	5	SW846 9050A	1	01/29/2025 14:51	MAN	B
Sulfate	3.9		mg/L	2.0	EPA 300.0	2	01/18/2025 09:12	GMM	B
Total Dissolved Solids	185		mg/L	25	SM2540C-15	1	01/23/2025 08:52	RAG	B
Total Organic Carbon (TOC)	1.0		mg/L	0.50	SW846 9060A	1	01/21/2025 22:02	PAG	E
Turbidity	10		NTU	0.30	SM2130B-2011	1	01/18/2025 08:34	NPF	B



Results

Client Sample ID	Field Blank	Collected	01/17/2025 12:10
Lab Sample ID	3396677003	Lab Receipt	01/17/2025 14:10

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Total	ND	ND	mg/L	0.11	SW846 6010C	1	01/23/2025 11:54	MSY	K1
Iron, Total	ND	ND	mg/L	0.067	SW846 6010C	1	01/23/2025 11:54	MSY	K1
Magnesium, Total	ND	ND	mg/L	0.11	SW846 6010C	1	01/23/2025 11:54	MSY	K1
Manganese, Total	ND	ND	mg/L	0.0056	SW846 6010C	1	01/23/2025 11:54	MSY	K1
Potassium, Total	ND	ND	mg/L	0.56	SW846 6010C	1	01/23/2025 11:54	MSY	K1
Sodium, Total	ND	ND	mg/L	0.56	SW846 6010C	1	01/23/2025 11:54	MSY	K1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 11:39	TMP	H
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 11:39	TMP	H
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 11:39	TMP	H
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 11:39	TMP	H
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 11:39	TMP	H
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 11:39	TMP	H
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 11:39	TMP	H
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 11:39	TMP	H
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 11:39	TMP	H
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 11:39	TMP	H
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 11:39	TMP	H
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	01/27/2025 11:39	TMP	H
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 11:39	TMP	H
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 11:39	TMP	H
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 11:39	TMP	H

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	102%	62 – 133	01/27/2025 11:39	
4-Bromofluorobenzene	460-00-4	94.4%	79 – 114	01/27/2025 11:39	
Dibromofluoromethane	1868-53-7	96.7%	78 – 116	01/27/2025 11:39	
Toluene-d8	2037-26-5	101%	76 – 127	01/27/2025 11:39	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	ND	ND	mg/L	5	SM2320B-2011	1	01/23/2025 13:57	JXK	B
Alkalinity, Total	ND	ND,1	mg/L	5	SM2320B-2011	1	01/23/2025 13:57	JXK	B
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	01/21/2025 12:43	AYS	A
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	01/21/2025 13:35	KMS	A
Chloride	ND	ND	mg/L	2.0	EPA 300.0	2	01/18/2025 09:23	GMM	B
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	01/18/2025 09:23	GMM	B
Nitrate-N	ND	ND	mg/L	1.0	EPA 300.0	2	01/18/2025 09:23	GMM	B
pH	5.51	2	pH_Units		S4500HB-11	1	01/23/2025 13:57	JXK	B
Phenolics	ND	ND	mg/L	0.004	SW846 9066	1	01/28/2025 16:58	AKH	G



Results

Client Sample ID	Field Blank	Collected	01/17/2025 12:10
Lab Sample ID	3396677003	Lab Receipt	01/17/2025 14:10

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Specific Conductance	ND	ND	umhos/cm	5	SW846 9050A	1	01/29/2025 14:51	MAN	B
Sulfate	ND	ND	mg/L	2.0	EPA 300.0	2	01/18/2025 09:23	GMM	B
Total Dissolved Solids	ND	ND	mg/L	25	SM2540C-15	1	01/23/2025 08:52	RAG	B
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SW846 9060A	1	01/21/2025 22:02	PAG	E
Turbidity	0.40		NTU	0.30	SM2130B-2011	1	01/18/2025 08:34	NPF	B



Results

Client Sample ID	Trip Blank	Collected	01/17/2025 14:10
Lab Sample ID	3396677004	Lab Receipt	01/17/2025 14:10

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 11:19	TMP	A
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 11:19	TMP	A
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 11:19	TMP	A
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 11:19	TMP	A
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 11:19	TMP	A
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 11:19	TMP	A
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 11:19	TMP	A
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 11:19	TMP	A
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 11:19	TMP	A
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 11:19	TMP	A
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 11:19	TMP	A
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	01/27/2025 11:19	TMP	A
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 11:19	TMP	A
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 11:19	TMP	A
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 11:19	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	98.8%	62 – 133	01/27/2025 11:19	
4-Bromofluorobenzene	460-00-4	105%	79 – 114	01/27/2025 11:19	
Dibromofluoromethane	1868-53-7	97.6%	78 – 116	01/27/2025 11:19	
Toluene-d8	2037-26-5	101%	76 – 127	01/27/2025 11:19	



Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3396677001	CWMP002W	Field	N/A	
		SW846 6010C	SW846 3015A	
		SW846 8260B	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2540C-15	N/A	
		SW846 9050A	N/A	
		SW846 9060A	N/A	
		SW846 9066	SW846 9066	
3396677002	CWMP012W	Field	N/A	
		SW846 6010C	SW846 3015A	
		SW846 8260B	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2540C-15	N/A	
		SW846 9050A	N/A	
		SW846 9060A	N/A	
		SW846 9066	SW846 9066	
3396677003	Field Blank	SW846 6010C	SW846 3015A	
		SW846 8260B	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2540C-15	N/A	
		SW846 9050A	N/A	
		SW846 9060A	N/A	
		SW846 9066	SW846 9066	
3396677004	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
3396677001	CWMP002W	N/A	N/A	N/A		Field	1380924
		SW846 3015A	1376764	01/22/2025 09:36	ANN	SW846 6010C	1377230
		N/A	N/A	N/A		SW846 8260B	1380111
		N/A	N/A	N/A		EPA 300.0	1375067
		N/A	N/A	N/A		EPA 410.4	1376100
		N/A	N/A	N/A		S4500HB-11	1377193
		N/A	N/A	N/A		SM 4500-NH3G	1376081
		N/A	N/A	N/A		SM2130B-2011	1375061
		N/A	N/A	N/A		SM2320B-2011	1377193
		N/A	N/A	N/A		SM2540C-15	1376098
		N/A	N/A	N/A		SW846 9050A	1380617
		N/A	N/A	N/A		SW846 9060A	1376137
		SW846 9066	1380531	01/28/2025 09:52	AKH	SW846 9066	1380537
3396677002	CWMP012W	N/A	N/A	N/A		Field	1380924
		SW846 3015A	1376764	01/22/2025 09:36	ANN	SW846 6010C	1377230
		N/A	N/A	N/A		SW846 8260B	1380111
		N/A	N/A	N/A		EPA 300.0	1375067
		N/A	N/A	N/A		EPA 410.4	1376100
		N/A	N/A	N/A		S4500HB-11	1377193
		N/A	N/A	N/A		SM 4500-NH3G	1376072
		N/A	N/A	N/A		SM2130B-2011	1375061
		N/A	N/A	N/A		SM2320B-2011	1377193
		N/A	N/A	N/A		SM2540C-15	1376098
		N/A	N/A	N/A		SW846 9050A	1380617
		N/A	N/A	N/A		SW846 9060A	1376137
		SW846 9066	1380531	01/28/2025 09:52	AKH	SW846 9066	1380537
3396677003	Field Blank	SW846 3015A	1376764	01/22/2025 09:36	ANN	SW846 6010C	1377230
		N/A	N/A	N/A		SW846 8260B	1380111
		N/A	N/A	N/A		EPA 300.0	1375067
		N/A	N/A	N/A		EPA 410.4	1376100
		N/A	N/A	N/A		S4500HB-11	1377193
		N/A	N/A	N/A		SM 4500-NH3G	1376072
		N/A	N/A	N/A		SM2130B-2011	1375061
		N/A	N/A	N/A		SM2320B-2011	1377193
		N/A	N/A	N/A		SM2540C-15	1376098
		N/A	N/A	N/A		SW846 9050A	1380617
		N/A	N/A	N/A		SW846 9060A	1376137
		SW846 9066	1380531	01/28/2025 09:52	AKH	SW846 9066	1380537
3396677004	Trip Blank	N/A	N/A	N/A		SW846 8260B	1380111



301 Fulling Mill Rd, Suite A
Middletown, PA 17057
P: 717-944-5541

CHAIN OF CUSTODY/
REQUEST FOR ANALYSIS
ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT /
SAMPLER. INSTRUCTIONS ON THE BACK.

3396677

Logged By: SLS
PM: SJB



of
677

Client Name: Lancaster County Solid Waste MA		Container Type	AG	AN	CG	P	P	P	P	P	P		
Address: 1299 Harrisburg Pike PO Box 4424 Lancaster PA 17604		Container Size	40ml	125ml	40ml	1L	500ml	250ml	125ml	WO Temp (°C) /			
		Preservative	HCL	H2SO4	UNP	UNP	UNP	H2SO4	HNO3	WV Containers 0-6°C Y N NA Deviations? NO YES If YES, list below.			
		Orthophosphate Filtered?	Yes	No	Hexavalent Chromium Filtered?	Yes	No	Receipt Info completed by: _____ Cooler Custody Seals Intact Y N NA Sample Custody Seal Intact Y N NA Received on Ice Y N NA Coolers & Samples Intact Y N NA Correct Containers Provided Y N NA Sample Label/COC Agree Y N NA Adequate Sample Volumes Y N NA VOA only: Trip Blank Y N NA NJ ≤ 4 days? Y N Courier/Tracking # _____ Client contact: _____ Date/Tech: _____					
Contact: Dan Brown Phone#: 717-735-0193 Project Name#: Creswell/GWMP Form 19Q Bill To: Lancaster County Solid Waste MA Purchase Order #: TAT ☒ Normal-Standard TAT is 10-12 business days. ☐ Rush-Subject to ALS approval and surcharges. Date Required: _____ Approved? Email? ☒ dbrown@lcswwma.org		ANALYSIS / METHOD REQUESTED											
Sample Description/Location (as it will appear on the lab report)		Date Collected mm/dd/yy	Time hh:mm	Enter Number of Containers Per Sample or Field Results Below.									
1	CWMP002W	1/17/25	1049	TOC	O-OH	8260 VOCs - Form 19Q	PH, CL, SpC, F, SO4, NO3, TP, TDS	Alkalinity, HCO3	FM	Sample Depth for AUX Data	NH3-N, COD	Total Metals Ca, Fe, Mn, Mg, K, Na	
2	CWMP012W	1/17/25	1157	GW	G	2	1	3	1	1	1	1	2
3	Field Blank	1/17/25	1210	GW	G	2	1	3	1	1	1	1	2
4	Trip Blank	1/17/25	1410	DI	G	2	1	3	1	1	1	1	2
5				DI	G	2		2					
6													
7													
8													
9													
10													
Circle Sample Collector: ALS Tech / Client Name: _____ ID: _____		Comments:											
Date: 1-17-25	Time: 1410	Relinquished By (Company Name): _____ Received By (Company Name): DD/ALS											
		1	2										
		3	4										
		5	6										
		7	8										
		9	10										
Data Deliverables		State Samples Collected In NY ☐ NJ ☐ PA ☒ WV ☐ FL ☐ other _____											
EDDs		Sample Disposal Lab ☒ Special ☐											
EDDS:		Format Type _____											



Right solution.
Right partner.

Middletown Sample Condition Form

Client Lancaster County Solid Workorder 3396677
 Temp °C 1 Therm ID 524 Ice? (Y) N N/A Initials & Date DB 1/17/25
 Fedex UPS Client (ALS) Other Tracking # _____

	Yes	No ¹	N/A	Comments
Cooler Custody Seals present & intact	☒	☐	☒	
Sample Custody Seals present & intact	☒	☐	☐	
Chain-of-Custody present	☒	☐	☐	
Sample collector name present <i>If not present, must contact PM/client to request name.</i>	☒	☐	☐	
COC/bottle labels complete & in agreement	☒	☐	☐	
• Sample location	☒	☐	☐	
• Date and time of sample collection	☒	☐	☐	
• Type(s) of preservation	☒	☐	☐	
• Number of containers	☒	☐	☐	
• Composite or grab	☒	☐	☐	
• Matrix	☒	☐	☐	
Proper containers, preservation, and volume per method	☒	☐	☐	
Received within hold time	☒	☐	☐	
Containers intact	☒	☐	☐	
Trip blanks present (EPA 504, EPA 524)	☒	☐	☒	
Field blanks present (Hg 1631, PFAS)	☐	☐	☒	
NJ ≤ 4 Days	☐	☐	☒	
CR6 Samples Filtered	☐	☐	☒	
OP Samples Filtered	☐	☐	☒	
WV Containers 0-6°C	☐	☐	☒	
SDWA compliance reporting	☐	☐	☐	

¹ If No, provide comment

Rad Screen (uCi) _____

PM - PM to contact client
 N/A - Not Applicable
 UC - Updated coc with missing information

Review Comments:



Main Site: 301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | www.alsglobal.com
Associated Site: 20 Riverside Drive | Spring City, PA 19475 | Phone: 610-948-4903 |

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, NJ PA101

Analytical Results Report For **Lancaster County Solid Waste Authority**
Project 1ST QTR 2025 GWMP-FORM 19Q
Workorder 3395909
Report ID 384583 on 1/30/2025

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Jan 14, 2025.

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.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Global.
ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):

Jordan Bigler - Lancaster County Solid Waste Authority
Ashley Gichuki - Lancaster County Solid Waste Authority
Daniel Brown - Lancaster County Solid Waste Authority
Jeff Musser - Lancaster County Solid Waste Authority

Susan Scherer

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

Susan Scherer
Project Coordinator

(ALS Digital Signature)



Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3395909001	CWMP005W	Ground Water	01/14/2025 11:24	01/14/2025 15:35	BGS	Analytical Laboratory Service
3395909002	CWMP004W	Ground Water	01/14/2025 13:47	01/14/2025 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, including but not limited to the following EPA Method reference revisions:
EPA 300.1 Rev. 1.0-1997
EPA 300.0 Rev. 2.1-1993
EPA 353.2 Rev. 2.0-1993
EPA 410.4 Rev. 1.0-1993
EPA 420.4 Rev. 1.0-1993
EPA 365.1 Rev. 2.0-1993
EPA 200.7 Rev. 4.4-1994
EPA 200.8 Rev. 5.4-1994
EPA 245.1 Rev. 3.0-1994
- 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) above the MDL
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Practical Quantitation Limit for this Project
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	CWMP005W	Collected	01/14/2025 11:24		
Lab Sample ID	3395909001	Lab Receipt	01/14/2025 15:35		
Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Depth to Water Level	46.09	Feet		Field	#
Dissolved Oxygen	5.98	mg/L	0.01	Field	#
Elev Top MW Casing above MSL	513.43	Feet		Field	#
Flow Rate	1.93	gal/min		Field	#
Ground Water Elevation	467.34	ft/MSL		Field	#
Oxidation-Reduction Potential	298	mV		Field	#
pH, Field (SM4500B)	5.20	pH_Units		Field	#
Sample Depth	130.00	Feet		Field	#
Specific Conductance, Field	349	umhos/cm	1	Field	#
Temperature	12.80	Deg. C		Field	#
Total Well Depth	138.92	Feet		Field	#
Volume in Water Column	136.46	Gallons		Field	#
Water Level After Purge	47.23	Feet		Field	#
Well Volumes Purged	1.06	Vol		Field	#
METALS					
Calcium, Total	16.6	mg/L	0.11	SW846 6010C	#
Magnesium, Total	7.9	mg/L	0.11	SW846 6010C	#
Manganese, Total	0.047	mg/L	0.0056	SW846 6010C	#
Potassium, Total	2.1	mg/L	0.56	SW846 6010C	#
Sodium, Total	34.0	mg/L	0.56	SW846 6010C	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	23	mg/L	5	SM2320B-2011	#
Alkalinity, Total	23	mg/L	5	SM2320B-2011	#
Chloride	70.5	mg/L	2.0	EPA 300.0	#
Nitrate-N	7.1	mg/L	1.0	EPA 300.0	#
pH	7.31	pH_Units		S4500HB-11	#
Specific Conductance	341	umhos/cm	5	SW846 9050A	#
Sulfate	7.4	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	188	mg/L	25	SM2540C-15	#
Total Organic Carbon (TOC)	0.56	mg/L	0.50	SW846 9060A	#
Turbidity	1.2	NTU	0.30	SM2130B-2011	#



Detected Results Summary

Client Sample ID	CWMP004W	Collected	01/14/2025 13:47
Lab Sample ID	3395909002	Lab Receipt	01/14/2025 15:35

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Depth to Water Level	50.30	Feet		Field	#
Dissolved Oxygen	7.89	mg/L	0.01	Field	#
Elev Top MW Casing above MSL	529.53	Feet		Field	#
Flow Rate	2.07	gal/min		Field	#
Ground Water Elevation	479.23	ft/MSL		Field	#
Oxidation-Reduction Potential	283	mV		Field	#
pH, Field (SM4500B)	5.70	pH_Units		Field	#
Sample Depth	130.00	Feet		Field	#
Specific Conductance, Field	265	umhos/cm	1	Field	#
Temperature	14.13	Deg. C		Field	#
Total Well Depth	140.00	Feet		Field	#
Volume in Water Column	131.86	Gallons		Field	#
Water Level After Purge	57.72	Feet		Field	#
Well Volumes Purged	1.02	Vol		Field	#
METALS					
Calcium, Total	19.4	mg/L	0.11	SW846 6010C	#
Iron, Total	0.12	mg/L	0.067	SW846 6010C	#
Magnesium, Total	6.2	mg/L	0.11	SW846 6010C	#
Manganese, Total	0.0072	mg/L	0.0056	SW846 6010C	#
Potassium, Total	1.4	mg/L	0.56	SW846 6010C	#
Sodium, Total	21.5	mg/L	0.56	SW846 6010C	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	23	mg/L	5	SM2320B-2011	#
Alkalinity, Total	23	mg/L	5	SM2320B-2011	#
Chloride	53.1	mg/L	2.0	EPA 300.0	#
Nitrate-N	5.4	mg/L	1.0	EPA 300.0	#
pH	7.30	pH_Units		S4500HB-11	#
Specific Conductance	273	umhos/cm	5	SW846 9050A	#
Sulfate	5.5	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	182	mg/L	25	SM2540C-15	#
Turbidity	2.0	NTU	0.30	SM2130B-2011	#



Results

Client Sample ID	CWMP005W	Collected	01/14/2025 11:24
Lab Sample ID	3395909001	Lab Receipt	01/14/2025 15:35

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Depth to Water Level	46.09		Feet		Field	1	01/14/2025 11:23	BGS	D
Dissolved Oxygen	5.98		mg/L	0.01	Field	1	01/14/2025 11:23	BGS	D
Elev Top MW Casing above MSL	513.43		Feet		Field	1	01/14/2025 11:23	BGS	D
Flow Rate	1.93		gal/min		Field	1	01/14/2025 11:23	BGS	D
Ground Water Elevation	467.34		ft/MSL		Field	1	01/14/2025 11:23	BGS	D
Oxidation-Reduction Potential	298		mV		Field	1	01/14/2025 11:23	BGS	D
pH, Field (SM4500B)	5.20		pH_Units		Field	1	01/14/2025 11:23	BGS	D
Sample Depth	130.00		Feet		Field	1	01/14/2025 11:23	BGS	D
Specific Conductance, Field	349		umhos/cm	1	Field	1	01/14/2025 11:23	BGS	D
Temperature	12.80		Deg. C		Field	1	01/14/2025 11:23	BGS	D
Total Well Depth	138.92		Feet		Field	1	01/14/2025 11:23	BGS	D
Turbidity, Field	ND	ND	NTU	1	Field	1	01/14/2025 11:23	BGS	D
Volume in Water Column	136.46		Gallons		Field	1	01/14/2025 11:23	BGS	D
Water Level After Purge	47.23		Feet		Field	1	01/14/2025 11:23	BGS	D
Well Volumes Purged	1.06		Vol		Field	1	01/14/2025 11:23	BGS	D

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Total	16.6		mg/L	0.11	SW846 6010C	1	01/21/2025 11:38	MSY	K1
Iron, Total	ND	ND	mg/L	0.067	SW846 6010C	1	01/21/2025 11:38	MSY	K1
Magnesium, Total	7.9		mg/L	0.11	SW846 6010C	1	01/21/2025 11:38	MSY	K1
Manganese, Total	0.047		mg/L	0.0056	SW846 6010C	1	01/21/2025 11:38	MSY	K1
Potassium, Total	2.1		mg/L	0.56	SW846 6010C	1	01/21/2025 11:38	MSY	K1
Sodium, Total	34.0		mg/L	0.56	SW846 6010C	1	01/21/2025 11:38	MSY	K1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 18:40	BST	H
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 18:40	BST	H
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 18:40	BST	H
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 18:40	BST	H
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 18:40	BST	H
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 18:40	BST	H
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 18:40	BST	H
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 18:40	BST	H
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 18:40	BST	H
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 18:40	BST	H
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 18:40	BST	H
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	01/24/2025 18:40	BST	H
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 18:40	BST	H
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 18:40	BST	H
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 18:40	BST	H



Results

Client Sample ID	CWMP005W	Collected	01/14/2025 11:24
Lab Sample ID	3395909001	Lab Receipt	01/14/2025 15:35

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
SURROGATES									
Compound	CAS No			Recovery	Limits(%)		Analysis Date/Time		Qualifiers
1,2-Dichloroethane-d4	17060-07-0			112%	62 – 133		01/24/2025 18:40		
4-Bromofluorobenzene	460-00-4			103%	79 – 114		01/24/2025 18:40		
Dibromofluoromethane	1868-53-7			110%	78 – 116		01/24/2025 18:40		
Toluene-d8	2037-26-5			113%	76 – 127		01/24/2025 18:40		

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	23		mg/L	5	SM2320B-2011	1	01/17/2025 15:07	JXK	B
Alkalinity, Total	23	1	mg/L	5	SM2320B-2011	1	01/17/2025 15:07	JXK	B
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	01/16/2025 12:56	AYS	A
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	01/16/2025 13:52	KMS	A
Chloride	70.5		mg/L	2.0	EPA 300.0	2	01/15/2025 15:12	J1W	B
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	01/15/2025 15:12	J1W	B
Nitrate-N	7.1		mg/L	1.0	EPA 300.0	2	01/15/2025 15:12	J1W	B
pH	7.31	2	pH_Units		S4500HB-11	1	01/17/2025 15:07	JXK	B
Phenolics	ND	ND	mg/L	0.004	SW846 9066	1	01/21/2025 15:57	AKH	G
Specific Conductance	341		umhos/cm	5	SW846 9050A	1	01/27/2025 12:21	MAN	B
Sulfate	7.4		mg/L	2.0	EPA 300.0	2	01/15/2025 15:12	J1W	B
Total Dissolved Solids	188		mg/L	25	SM2540C-15	1	01/15/2025 16:30	RAG	B
Total Organic Carbon (TOC)	0.56		mg/L	0.50	SW846 9060A	1	01/15/2025 20:22	PAG	E
Turbidity	1.2		NTU	0.30	SM2130B-2011	1	01/16/2025 11:20	NPF	B



Results

Client Sample ID	CWMP004W	Collected	01/14/2025 13:47
Lab Sample ID	3395909002	Lab Receipt	01/14/2025 15:35

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Depth to Water Level	50.30		Feet		Field	1	01/14/2025 13:47	BGS	D
Dissolved Oxygen	7.89		mg/L	0.01	Field	1	01/14/2025 13:47	BGS	D
Elev Top MW Casing above MSL	529.53		Feet		Field	1	01/14/2025 13:47	BGS	D
Flow Rate	2.07		gal/min		Field	1	01/14/2025 13:47	BGS	D
Ground Water Elevation	479.23		ft/MSL		Field	1	01/14/2025 13:47	BGS	D
Oxidation-Reduction Potential	283		mV		Field	1	01/14/2025 13:47	BGS	D
pH, Field (SM4500B)	5.70		pH_Units		Field	1	01/14/2025 13:47	BGS	D
Sample Depth	130.00		Feet		Field	1	01/14/2025 13:47	BGS	D
Specific Conductance, Field	265		umhos/cm	1	Field	1	01/14/2025 13:47	BGS	D
Temperature	14.13		Deg. C		Field	1	01/14/2025 13:47	BGS	D
Total Well Depth	140.00		Feet		Field	1	01/14/2025 13:47	BGS	D
Turbidity, Field	ND	ND	NTU	1	Field	1	01/14/2025 13:47	BGS	D
Volume in Water Column	131.86		Gallons		Field	1	01/14/2025 13:47	BGS	D
Water Level After Purge	57.72		Feet		Field	1	01/14/2025 13:47	BGS	D
Well Volumes Purged	1.02		Vol		Field	1	01/14/2025 13:47	BGS	D

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Total	19.4		mg/L	0.11	SW846 6010C	1	01/21/2025 11:43	MSY	K1
Iron, Total	0.12		mg/L	0.067	SW846 6010C	1	01/21/2025 11:43	MSY	K1
Magnesium, Total	6.2		mg/L	0.11	SW846 6010C	1	01/21/2025 11:43	MSY	K1
Manganese, Total	0.0072		mg/L	0.0056	SW846 6010C	1	01/21/2025 11:43	MSY	K1
Potassium, Total	1.4		mg/L	0.56	SW846 6010C	1	01/21/2025 11:43	MSY	K1
Sodium, Total	21.5		mg/L	0.56	SW846 6010C	1	01/21/2025 11:43	MSY	K1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 19:00	BST	H
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 19:00	BST	H
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 19:00	BST	H
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 19:00	BST	H
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 19:00	BST	H
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 19:00	BST	H
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 19:00	BST	H
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 19:00	BST	H
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 19:00	BST	H
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 19:00	BST	H
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 19:00	BST	H
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	01/24/2025 19:00	BST	H
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 19:00	BST	H
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 19:00	BST	H
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 19:00	BST	H



Results

Client Sample ID	CWMP004W	Collected	01/14/2025 13:47
Lab Sample ID	3395909002	Lab Receipt	01/14/2025 15:35

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
SURROGATES									
Compound	CAS No			Recovery	Limits(%)		Analysis Date/Time		Qualifiers
1,2-Dichloroethane-d4	17060-07-0			110%	62 – 133		01/24/2025 19:00		
4-Bromofluorobenzene	460-00-4			90%	79 – 114		01/24/2025 19:00		
Dibromofluoromethane	1868-53-7			105%	78 – 116		01/24/2025 19:00		
Toluene-d8	2037-26-5			106%	76 – 127		01/24/2025 19:00		

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	23		mg/L	5	SM2320B-2011	1	01/17/2025 15:21	JXK	B
Alkalinity, Total	23	1	mg/L	5	SM2320B-2011	1	01/17/2025 15:21	JXK	B
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	01/16/2025 13:32	AYS	A
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	01/16/2025 13:52	KMS	A
Chloride	53.1		mg/L	2.0	EPA 300.0	2	01/15/2025 15:25	J1W	B
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	01/15/2025 15:25	J1W	B
Nitrate-N	5.4		mg/L	1.0	EPA 300.0	2	01/15/2025 15:25	J1W	B
pH	7.30	2	pH_Units		S4500HB-11	1	01/17/2025 15:21	JXK	B
Phenolics	ND	ND	mg/L	0.004	SW846 9066	1	01/21/2025 16:01	AKH	G
Specific Conductance	273		umhos/cm	5	SW846 9050A	1	01/27/2025 12:21	MAN	B
Sulfate	5.5		mg/L	2.0	EPA 300.0	2	01/15/2025 15:25	J1W	B
Total Dissolved Solids	182		mg/L	25	SM2540C-15	1	01/16/2025 15:00	RAG	B
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SW846 9060A	1	01/15/2025 20:22	PAG	E
Turbidity	2.0		NTU	0.30	SM2130B-2011	1	01/16/2025 11:20	NPF	B



Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3395909001	CWMP005W	Field	N/A	
		SW846 6010C	SW846 3015A	
		SW846 8260B	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2540C-15	N/A	
		SW846 9050A	N/A	
		SW846 9060A	N/A	
		SW846 9066	SW846 9066	
3395909002	CWMP004W	Field	N/A	
		SW846 6010C	SW846 3015A	
		SW846 8260B	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2540C-15	N/A	
		SW846 9050A	N/A	
		SW846 9060A	N/A	
		SW846 9066	SW846 9066	



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3395909001	CWMP005W	N/A	N/A	N/A		Field	1380924
		SW846 3015A	1373560	01/15/2025 08:04	ANN	SW846 6010C	1376090
		N/A	N/A	N/A		SW846 8260B	1378868
		N/A	N/A	N/A		EPA 300.0	1373666
		N/A	N/A	N/A		EPA 410.4	1374304
		N/A	N/A	N/A		S4500HB-11	1373705
		N/A	N/A	N/A		SM 4500-NH3G	1374290
		N/A	N/A	N/A		SM2130B-2011	1374272
		N/A	N/A	N/A		SM2320B-2011	1373705
		N/A	N/A	N/A		SM2540C-15	1373704
		N/A	N/A	N/A		SW846 9050A	1380152
		N/A	N/A	N/A		SW846 9060A	1373767
		SW846 9066	1376119	01/21/2025 11:00	AKH	SW846 9066	1376122
3395909002	CWMP004W	N/A	N/A	N/A		Field	1380924
		SW846 3015A	1373560	01/15/2025 08:04	ANN	SW846 6010C	1376090
		N/A	N/A	N/A		SW846 8260B	1378868
		N/A	N/A	N/A		EPA 300.0	1373666
		N/A	N/A	N/A		EPA 410.4	1374304
		N/A	N/A	N/A		S4500HB-11	1373705
		N/A	N/A	N/A		SM 4500-NH3G	1374288
		N/A	N/A	N/A		SM2130B-2011	1374272
		N/A	N/A	N/A		SM2320B-2011	1373705
		N/A	N/A	N/A		SM2540C-15	1374295
		N/A	N/A	N/A		SW846 9050A	1380152
		N/A	N/A	N/A		SW846 9060A	1373767
		SW846 9066	1376119	01/21/2025 11:00	AKH	SW846 9066	1376122



**CHAIN OF CUSTODY/
REQUEST FOR ANALYSIS**

**301 Fulling Mill Rd, Suite A
Middletown, PA 17057
P. 717-944-5541**

3395909

Logged By: D1G
PM: SJB



COC	ALS
-----	-----

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

Client Name: Lancaster County Solid Waste MA										Temp Taken By:		Therm ID:		WO Temp (°C)		2			
Address: 1299 Harrisburg Pike PO Box 4424 Lancaster PA 17604										Receipt info completed by: _____		VW Containers 0-6°C		Y		N		NA	
Container Type										AG		AN		CG		P		P	
Container Size										40ml		125ml		40ml		1L		500ml	
Preservative										HCL		H2SO4		UNP		UNP		HNO3	
Orthophosphate Filtered?										Yes		No		Hexavalent Chromium Filtered?		Yes		No	
ANALYSIS / METHOD REQUESTED																			
Project Name#:										717-735-0193									
Bill To:										Lancaster County Solid Waste MA									
Purchase Order #:										Normal-Standard TAT is 10-12 business days.									
TAT										Rush-Subject to ALS approval and surcharges.									

Date Required: ☒ Approved? Email? ☒ dbrown@lcswwma.org		SDWA Sample Type: ☒ G or C ☐ M ***Matrix (See bottom of page)	
Sample Description/Location (as it will appear on the lab report)		Date Collected mm/dd/yy	
Time hr:mm		Enter Number of Containers Per Sample or Field Results Below.	
TOC		O-H	
8260 VOCs - For		Alkalinity, HCO ₃	
pH, CL, Spc, F,		FM	
Sample Depth to		NH ₃ -N, COD	
Total Metals Ca,		Sample(s) for Radiation testing?	
Y		N	
Reportable SDWA Sample(s)?		Y	
N		New Source?	
Y		N	
SDWA State of Origin?		Rad Screen (uCi)	
_____		New Source Contact:	
PWSID #		_____	

[illegible]

Sample/COC Remarks												Contains Short Hold Testing		YES	NO
4															
5															
6															
7															
8															
9															
10															

Internal Use: If less than 48 hours - notify lab upon receipt

[illegible]



Middletown Sample Condition Form

Client Lancaster County Solid Waste Workorder 3395909
Temp °C 2 Therm ID 524 Ice? (Y) N N/A Initials & Date DB 1/14/25
Fedex UPS Client (ALS) Other Tracking # _____

	Yes	No ¹	N/A	Comments
Cooler Custody Seals present & intact			✓	✓
Sample Custody Seals present & intact			✓	
Chain-of-Custody present	✓			
Sample collector name present <i>If not present, must contact PM/client to request name.</i>	✓			
COC/bottle labels complete & in agreement		✓		
•Sample location	✓			
•Date and time of sample collection	✓			
•Type(s) of preservation		✓		UC
•Number of containers	✓			
•Composite or grab	✓			
•Matrix	✓			
Proper containers, preservation, and volume per method	✓			
Received within hold time	✓			
Containers intact	✓			
Trip blanks present (EPA 504, EPA 524)			✓	
Field blanks present (Hg 1631, PFAS)			✓	
NJ ≤ 4 Days			✓	
CR6 Samples Filtered			✓	
OP Samples Filtered			✓	
WV Containers 0-6°C			✓	
SDWA compliance reporting			✓	

¹ If No, provide comment

Rad Screen (uCi) _____

PM - PM to contact client

N/A - Not Applicable

UC - Updated coc with missing information

Review Comments:



Main Site: 301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | www.alsglobal.com
Associated Site: 20 Riverside Drive | Spring City, PA 19475 | Phone: 610-948-4903 |

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, NJ PA101

Analytical Results Report For **Lancaster County Solid Waste Authority**
Project 1ST QTR 2025 GWMP-FORM 19Q
Workorder 3396539
Report ID 384985 on 1/31/2025

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Jan 16, 2025.

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.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Global.
ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):

Jordan Bigler - Lancaster County Solid Waste Authority
Ashley Gichuki - Lancaster County Solid Waste Authority
Daniel Brown - Lancaster County Solid Waste Authority
Jeff Musser - Lancaster County Solid Waste Authority

Susan Scherer

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

Susan Scherer
Project Coordinator

(ALS Digital Signature)



Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3396539001	CWMP018S	Ground Water	01/16/2025 10:04	01/16/2025 16:00	BGS	Analytical Laboratory Service
3396539002	CWMP008W	Ground Water	01/16/2025 10:57	01/16/2025 16:00	BGS	Analytical Laboratory Service
3396539003	CWMP017S	Ground Water	01/16/2025 11:21	01/16/2025 16:00	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, including but not limited to the following EPA Method reference revisions:
EPA 300.1 Rev. 1.0-1997
EPA 300.0 Rev. 2.1-1993
EPA 353.2 Rev. 2.0-1993
EPA 410.4 Rev. 1.0-1993
EPA 420.4 Rev. 1.0-1993
EPA 365.1 Rev. 2.0-1993
EPA 200.7 Rev. 4.4-1994
EPA 200.8 Rev. 5.4-1994
EPA 245.1 Rev. 3.0-1994
- 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) above the MDL
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Practical Quantitation Limit for this Project
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	CWMP018S	Collected	01/16/2025 10:04		
Lab Sample ID	3396539001	Lab Receipt	01/16/2025 16:00		
Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Dissolved Oxygen	14.24	mg/L	0.01	Field	#
Oxidation-Reduction Potential	209	mV		Field	#
pH, Field (SM4500B)	8.41	pH_Units		Field	#
Specific Conductance, Field	2630	umhos/cm	1	Field	#
Temperature	0.86	Deg. C		Field	#
Turbidity, Field	5	NTU	1	Field	#
METALS					
Calcium, Total	100	mg/L	0.11	SW846 6010C	#
Iron, Total	0.21	mg/L	0.067	SW846 6010C	#
Magnesium, Total	91.3	mg/L	0.11	SW846 6010C	#
Manganese, Total	0.13	mg/L	0.0056	SW846 6010C	#
Potassium, Total	23.0	mg/L	0.56	SW846 6010C	#
Sodium, Total	301	mg/L	0.56	SW846 6010C	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	491	mg/L	5	SM2320B-2011	#
Alkalinity, Total	491	mg/L	5	SM2320B-2011	#
Ammonia-N, Low Level	0.28	mg/L	0.10	SM 4500-NH3G	#
Chemical Oxygen Demand (COD)	37	mg/L	15	EPA 410.4	#
Chloride	562	mg/L	10.0	EPA 300.0	#
Nitrate-N	11.5	mg/L	2.5	EPA 300.0	#
pH	8.61	pH_Units		S4500HB-11	#
Specific Conductance	1900	umhos/cm	50	SW846 9050A	#
Sulfate	119	mg/L	5.0	EPA 300.0	#
Total Dissolved Solids	1530	mg/L	25	SM2540C-15	#
Total Organic Carbon (TOC)	12.6	mg/L	1.0	SW846 9060A	#
Turbidity	1.3	NTU	0.30	SM2130B-2011	#



Detected Results Summary

Client Sample ID	CWMP008W	Collected	01/16/2025 10:57		
Lab Sample ID	3396539002	Lab Receipt	01/16/2025 16:00		
Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Depth to Water Level	3.40	Feet		Field	#
Dissolved Oxygen	0.37	mg/L	0.01	Field	#
Elev Top MW Casing above MSL	422.30	Feet		Field	#
Flow Rate	1.09	gal/min		Field	#
Ground Water Elevation	418.90	ft/MSL		Field	#
Oxidation-Reduction Potential	-48	mV		Field	#
pH, Field (SM4500B)	6.19	pH_Units		Field	#
Sample Depth	19.00	Feet		Field	#
Specific Conductance, Field	857	umhos/cm	1	Field	#
Temperature	13.78	Deg. C		Field	#
Total Well Depth	22.80	Feet		Field	#
Volume in Water Column	3.10	Gallons		Field	#
Water Level After Purge	14.28	Feet		Field	#
Well Volumes Purged	7.02	Vol		Field	#
METALS					
Calcium, Total	70.9	mg/L	0.11	SW846 6010C	#
Iron, Total	22.0	mg/L	0.067	SW846 6010C	#
Magnesium, Total	31.8	mg/L	0.11	SW846 6010C	#
Manganese, Total	13.9	mg/L	0.0056	SW846 6010C	#
Potassium, Total	8.8	mg/L	0.56	SW846 6010C	#
Sodium, Total	47.3	mg/L	0.56	SW846 6010C	#
VOLATILE ORGANICS					
1,1-Dichloroethane	1.9	ug/L	1.0	SW846 8260B	#
Benzene	1.0	ug/L	1.0	SW846 8260B	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	369	mg/L	5	SM2320B-2011	#
Alkalinity, Total	369	mg/L	5	SM2320B-2011	#
Chemical Oxygen Demand (COD)	28	mg/L	15	EPA 410.4	#
Chloride	48.4	mg/L	2.0	EPA 300.0	#
pH	7.99	pH_Units		S4500HB-11	#
Phenolics	0.004	mg/L	0.004	SW846 9066	#
Specific Conductance	780	umhos/cm	5	SW846 9050A	#
Sulfate	6.8	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	488	mg/L	25	SM2540C-15	#
Total Organic Carbon (TOC)	8.9	mg/L	5.0	SW846 9060A	#
Turbidity	11	NTU	0.30	SM2130B-2011	#



Detected Results Summary

Client Sample ID	CWMP017S	Collected	01/16/2025 11:21		
Lab Sample ID	3396539003	Lab Receipt	01/16/2025 16:00		
Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Dissolved Oxygen	10.60	mg/L	0.01	Field	#
Oxidation-Reduction Potential	-44	mV		Field	#
pH, Field (SM4500B)	7.81	pH_Units		Field	#
Specific Conductance, Field	3315	umhos/cm	1	Field	#
Temperature	12.84	Deg. C		Field	#
Turbidity, Field	985	NTU	1	Field	#
METALS					
Calcium, Total	107	mg/L	0.11	SW846 6010C	#
Iron, Total	1.4	mg/L	0.067	SW846 6010C	#
Magnesium, Total	114	mg/L	0.11	SW846 6010C	#
Manganese, Total	0.20	mg/L	0.0056	SW846 6010C	#
Potassium, Total	26.8	mg/L	0.56	SW846 6010C	#
Sodium, Total	383	mg/L	0.56	SW846 6010C	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	656	mg/L	50	SM2320B-2011	#
Alkalinity, Total	656	mg/L	50	SM2320B-2011	#
Ammonia-N, Low Level	0.14	mg/L	0.10	SM 4500-NH3G	#
Chemical Oxygen Demand (COD)	46	mg/L	15	EPA 410.4	#
Chloride	734	mg/L	10.0	EPA 300.0	#
Fluoride	0.38	mg/L	0.20	EPA 300.0	#
Nitrate-N	6.9	mg/L	1.0	EPA 300.0	#
pH	8.50	pH_Units		S4500HB-11	#
Phenolics	0.004	mg/L	0.004	SW846 9066	#
Specific Conductance	2860	umhos/cm	50	SW846 9050A	#
Sulfate	183	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	2000	mg/L	25	SM2540C-15	#
Total Organic Carbon (TOC)	15.7	mg/L	1.0	SW846 9060A	#
Turbidity	5.5	NTU	0.30	SM2130B-2011	#



Results

Client Sample ID	CWMP018S	Collected	01/16/2025 10:04
Lab Sample ID	3396539001	Lab Receipt	01/16/2025 16:00

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dissolved Oxygen	14.24		mg/L	0.01	Field	1	01/16/2025 10:04	BGS	D
Oxidation-Reduction Potential	209		mV		Field	1	01/16/2025 10:04	BGS	D
pH, Field (SM4500B)	8.41		pH_Units		Field	1	01/16/2025 10:04	BGS	D
Specific Conductance, Field	2630		umhos/cm	1	Field	1	01/16/2025 10:04	BGS	D
Temperature	0.86		Deg. C		Field	1	01/16/2025 10:04	BGS	D
Turbidity, Field	5		NTU	1	Field	1	01/16/2025 10:04	BGS	D

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Total	100		mg/L	0.11	SW846 6010C	1	01/23/2025 11:41	MSY	K1
Iron, Total	0.21		mg/L	0.067	SW846 6010C	1	01/23/2025 11:41	MSY	K1
Magnesium, Total	91.3		mg/L	0.11	SW846 6010C	1	01/23/2025 11:41	MSY	K1
Manganese, Total	0.13		mg/L	0.0056	SW846 6010C	1	01/23/2025 11:41	MSY	K1
Potassium, Total	23.0		mg/L	0.56	SW846 6010C	1	01/23/2025 11:41	MSY	K1
Sodium, Total	301		mg/L	0.56	SW846 6010C	1	01/23/2025 11:41	MSY	K1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 12:58	TMP	H
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 12:58	TMP	H
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 12:58	TMP	H
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 12:58	TMP	H
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 12:58	TMP	H
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 12:58	TMP	H
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 12:58	TMP	H
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 12:58	TMP	H
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 12:58	TMP	H
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 12:58	TMP	H
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 12:58	TMP	H
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	01/27/2025 12:58	TMP	H
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 12:58	TMP	H
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 12:58	TMP	H
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 12:58	TMP	H

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	101%	62 – 133	01/27/2025 12:58	
4-Bromofluorobenzene	460-00-4	100%	79 – 114	01/27/2025 12:58	
Dibromofluoromethane	1868-53-7	95.4%	78 – 116	01/27/2025 12:58	
Toluene-d8	2037-26-5	100%	76 – 127	01/27/2025 12:58	

WET CHEMISTRY



Results

Client Sample ID	CWMP018S						Collected	01/16/2025 10:04	
Lab Sample ID	3396539001						Lab Receipt	01/16/2025 16:00	
Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	491		mg/L	5	SM2320B-2011	1	01/23/2025 21:27	JXK	B
Alkalinity, Total	491	1	mg/L	5	SM2320B-2011	1	01/23/2025 21:27	JXK	B
Ammonia-N, Low Level	0.28		mg/L	0.10	SM 4500-NH3G	1	01/21/2025 18:36	AYS	A
Chemical Oxygen Demand (COD)	37		mg/L	15	EPA 410.4	1	01/21/2025 11:53	KMS	A
Chloride	562		mg/L	10.0	EPA 300.0	10	01/22/2025 12:10	J1W	B
Fluoride	ND	ND	mg/L	0.50	EPA 300.0	5	01/17/2025 17:08	J1W	B
Nitrate-N	11.5		mg/L	2.5	EPA 300.0	5	01/17/2025 17:08	J1W	B
pH	8.61	2	pH_Units		S4500HB-11	1	01/23/2025 22:44	JXK	B
Phenolics	ND	ND	mg/L	0.004	SW846 9066	1	01/28/2025 16:28	AKH	G
Specific Conductance	1900		umhos/cm	50	SW846 9050A	10	01/29/2025 14:51	MAN	B
Sulfate	119		mg/L	5.0	EPA 300.0	5	01/17/2025 17:08	J1W	B
Total Dissolved Solids	1530		mg/L	25	SM2540C-15	1	01/21/2025 09:03	RAG	B
Total Organic Carbon (TOC)	12.6		mg/L	1.0	SW846 9060A	2	01/28/2025 00:55	PAG	E
Turbidity	1.3		NTU	0.30	SM2130B-2011	1	01/17/2025 08:34	NPF	B



Results

Client Sample ID	CWMP008W	Collected	01/16/2025 10:57
Lab Sample ID	3396539002	Lab Receipt	01/16/2025 16:00

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Depth to Water Level	3.40		Feet		Field	1	01/16/2025 10:51	BGS	D
Dissolved Oxygen	0.37		mg/L	0.01	Field	1	01/16/2025 10:51	BGS	D
Elev Top MW Casing above MSL	422.30		Feet		Field	1	01/16/2025 10:51	BGS	D
Flow Rate	1.09		gal/min		Field	1	01/16/2025 10:51	BGS	D
Ground Water Elevation	418.90		ft/MSL		Field	1	01/16/2025 10:51	BGS	D
Oxidation-Reduction Potential	-48		mV		Field	1	01/16/2025 10:51	BGS	D
pH, Field (SM4500B)	6.19		pH_Units		Field	1	01/16/2025 10:51	BGS	D
Sample Depth	19.00		Feet		Field	1	01/16/2025 10:51	BGS	D
Specific Conductance, Field	857		umhos/cm	1	Field	1	01/16/2025 10:51	BGS	D
Temperature	13.78		Deg. C		Field	1	01/16/2025 10:51	BGS	D
Total Well Depth	22.80		Feet		Field	1	01/16/2025 10:51	BGS	D
Turbidity, Field	ND	ND	NTU	1	Field	1	01/16/2025 10:51	BGS	D
Volume in Water Column	3.10		Gallons		Field	1	01/16/2025 10:51	BGS	D
Water Level After Purge	14.28		Feet		Field	1	01/16/2025 10:51	BGS	D
Well Volumes Purged	7.02		Vol		Field	1	01/16/2025 10:51	BGS	D

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Total	70.9		mg/L	0.11	SW846 6010C	1	01/23/2025 11:42	MSY	K1
Iron, Total	22.0		mg/L	0.067	SW846 6010C	1	01/23/2025 11:42	MSY	K1
Magnesium, Total	31.8		mg/L	0.11	SW846 6010C	1	01/23/2025 11:42	MSY	K1
Manganese, Total	13.9		mg/L	0.0056	SW846 6010C	1	01/23/2025 11:42	MSY	K1
Potassium, Total	8.8		mg/L	0.56	SW846 6010C	1	01/23/2025 11:42	MSY	K1
Sodium, Total	47.3		mg/L	0.56	SW846 6010C	1	01/23/2025 11:42	MSY	K1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 13:18	TMP	H
1,1-Dichloroethane	1.9		ug/L	1.0	SW846 8260B	1	01/27/2025 13:18	TMP	H
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 13:18	TMP	H
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 13:18	TMP	H
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 13:18	TMP	H
Benzene	1.0		ug/L	1.0	SW846 8260B	1	01/27/2025 13:18	TMP	H
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 13:18	TMP	H
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 13:18	TMP	H
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 13:18	TMP	H
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 13:18	TMP	H
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 13:18	TMP	H
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	01/27/2025 13:18	TMP	H
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 13:18	TMP	H
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 13:18	TMP	H
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 13:18	TMP	H



Results

Client Sample ID	CWMP008W	Collected	01/16/2025 10:57
Lab Sample ID	3396539002	Lab Receipt	01/16/2025 16:00

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
SURROGATES									
Compound	CAS No			Recovery	Limits(%)		Analysis Date/Time		Qualifiers
1,2-Dichloroethane-d4	17060-07-0			98.5%	62 – 133		01/27/2025 13:18		
4-Bromofluorobenzene	460-00-4			101%	79 – 114		01/27/2025 13:18		
Dibromofluoromethane	1868-53-7			93%	78 – 116		01/27/2025 13:18		
Toluene-d8	2037-26-5			95.7%	76 – 127		01/27/2025 13:18		

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	369		mg/L	5	SM2320B-2011	1	01/23/2025 06:30	JXK	B
Alkalinity, Total	369	1	mg/L	5	SM2320B-2011	1	01/23/2025 06:30	JXK	B
Ammonia-N, Low Level	ND	ND	mg/L	0.50	SM 4500-NH3G	5	01/27/2025 14:39	AYS	A
Chemical Oxygen Demand (COD)	28		mg/L	15	EPA 410.4	1	01/21/2025 11:53	KMS	A
Chloride	48.4		mg/L	2.0	EPA 300.0	2	01/17/2025 17:20	J1W	B
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	01/17/2025 17:20	J1W	B
Nitrate-N	ND	ND	mg/L	1.0	EPA 300.0	2	01/17/2025 17:20	J1W	B
pH	7.99	2	pH_Units		S4500HB-11	1	01/23/2025 06:30	JXK	B
Phenolics	0.004		mg/L	0.004	SW846 9066	1	01/28/2025 14:49	AKH	G
Specific Conductance	780		umhos/cm	5	SW846 9050A	1	01/29/2025 14:51	MAN	B
Sulfate	6.8		mg/L	2.0	EPA 300.0	2	01/17/2025 17:20	J1W	B
Total Dissolved Solids	488		mg/L	25	SM2540C-15	1	01/21/2025 09:03	RAG	B
Total Organic Carbon (TOC)	8.9		mg/L	5.0	SW846 9060A	10	01/21/2025 22:02	PAG	E
Turbidity	11		NTU	0.30	SM2130B-2011	1	01/17/2025 08:34	NPF	B



Results

Client Sample ID	CWMP017S	Collected	01/16/2025 11:21
Lab Sample ID	3396539003	Lab Receipt	01/16/2025 16:00

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dissolved Oxygen	10.60		mg/L	0.01	Field	1	01/16/2025 11:21	BGS	D
Oxidation-Reduction Potential	-44		mV		Field	1	01/16/2025 11:21	BGS	D
pH, Field (SM4500B)	7.81		pH_Units		Field	1	01/16/2025 11:21	BGS	D
Specific Conductance, Field	3315		umhos/cm	1	Field	1	01/16/2025 11:21	BGS	D
Temperature	12.84		Deg. C		Field	1	01/16/2025 11:21	BGS	D
Turbidity, Field	985		NTU	1	Field	1	01/16/2025 11:21	BGS	D

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Total	107		mg/L	0.11	SW846 6010C	1	01/23/2025 11:50	MSY	K1
Iron, Total	1.4		mg/L	0.067	SW846 6010C	1	01/23/2025 11:50	MSY	K1
Magnesium, Total	114		mg/L	0.11	SW846 6010C	1	01/23/2025 11:50	MSY	K1
Manganese, Total	0.20		mg/L	0.0056	SW846 6010C	1	01/23/2025 11:50	MSY	K1
Potassium, Total	26.8		mg/L	0.56	SW846 6010C	1	01/23/2025 11:50	MSY	K1
Sodium, Total	383		mg/L	0.56	SW846 6010C	1	01/23/2025 11:50	MSY	K1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 13:58	TMP	H
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 13:58	TMP	H
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 13:58	TMP	H
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 13:58	TMP	H
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 13:58	TMP	H
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 13:58	TMP	H
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 13:58	TMP	H
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 13:58	TMP	H
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 13:58	TMP	H
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 13:58	TMP	H
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 13:58	TMP	H
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	01/27/2025 13:58	TMP	H
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 13:58	TMP	H
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 13:58	TMP	H
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	01/27/2025 13:58	TMP	H

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	104%	62 – 133	01/27/2025 13:58	
4-Bromofluorobenzene	460-00-4	103%	79 – 114	01/27/2025 13:58	
Dibromofluoromethane	1868-53-7	101%	78 – 116	01/27/2025 13:58	
Toluene-d8	2037-26-5	104%	76 – 127	01/27/2025 13:58	

WET CHEMISTRY



Results

Client Sample ID	CWMP017S						Collected	01/16/2025 11:21	
Lab Sample ID	3396539003						Lab Receipt	01/16/2025 16:00	
Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	656		mg/L	50	SM2320B-2011	10	01/29/2025 16:50	JXK	B
Alkalinity, Total	656	1	mg/L	50	SM2320B-2011	10	01/29/2025 16:50	JXK	B
Ammonia-N, Low Level	0.14		mg/L	0.10	SM 4500-NH3G	1	01/21/2025 17:27	AYS	A
Chemical Oxygen Demand (COD)	46		mg/L	15	EPA 410.4	1	01/21/2025 11:53	KMS	A
Chloride	734		mg/L	10.0	EPA 300.0	10	01/22/2025 12:22	J1W	B
Fluoride	0.38		mg/L	0.20	EPA 300.0	2	01/17/2025 17:33	J1W	B
Nitrate-N	6.9		mg/L	1.0	EPA 300.0	2	01/17/2025 17:33	J1W	B
pH	8.50	2	pH_Units		S4500HB-11	1	01/23/2025 06:47	JXK	B
Phenolics	0.004		mg/L	0.004	SW846 9066	1	01/28/2025 14:32	AKH	G
Specific Conductance	2860		umhos/cm	50	SW846 9050A	10	01/29/2025 14:51	MAN	B
Sulfate	183		mg/L	2.0	EPA 300.0	2	01/17/2025 17:33	J1W	B
Total Dissolved Solids	2000		mg/L	25	SM2540C-15	1	01/21/2025 09:03	RAG	B
Total Organic Carbon (TOC)	15.7		mg/L	1.0	SW846 9060A	2	01/28/2025 00:55	PAG	E
Turbidity	5.5		NTU	0.30	SM2130B-2011	1	01/17/2025 08:34	NPF	B



Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3396539001	CWMP018S	Field	N/A	
		SW846 6010C	SW846 3015A	
		SW846 8260B	N/A	
		EPA 300.0	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2540C-15	N/A	
		SW846 9050A	N/A	
		SW846 9060A	N/A	
		SW846 9066	SW846 9066	
3396539002	CWMP008W	Field	N/A	
		SW846 6010C	SW846 3015A	
		SW846 8260B	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2540C-15	N/A	
		SW846 9050A	N/A	
		SW846 9060A	N/A	
		SW846 9066	SW846 9066	
3396539003	CWMP017S	Field	N/A	
		SW846 6010C	SW846 3015A	
		SW846 8260B	N/A	
		EPA 300.0	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2540C-15	N/A	
		SW846 9050A	N/A	
		SW846 9060A	N/A	
		SW846 9066	SW846 9066	



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3396539001	CWMP018S	N/A	N/A	N/A		Field	1380924
		SW846 3015A	1376764	01/22/2025 09:36	ANN	SW846 6010C	1377230
		N/A	N/A	N/A		SW846 8260B	1380111
		N/A	N/A	N/A		EPA 300.0	1374863
		N/A	N/A	N/A		EPA 300.0	1376763
		N/A	N/A	N/A		EPA 410.4	1376082
		N/A	N/A	N/A		S4500HB-11	1377193
		N/A	N/A	N/A		SM 4500-NH3G	1376081
		N/A	N/A	N/A		SM2130B-2011	1374885
		N/A	N/A	N/A		SM2320B-2011	1377193
		N/A	N/A	N/A		SM2540C-15	1375690
		N/A	N/A	N/A		SW846 9050A	1380617
		N/A	N/A	N/A		SW846 9060A	1380165
		SW846 9066	1380531	01/28/2025 09:52	AKH	SW846 9066	1380537
3396539002	CWMP008W	N/A	N/A	N/A		Field	1380924
		SW846 3015A	1376764	01/22/2025 09:36	ANN	SW846 6010C	1377230
		N/A	N/A	N/A		SW846 8260B	1380111
		N/A	N/A	N/A		EPA 300.0	1374863
		N/A	N/A	N/A		EPA 410.4	1376082
		N/A	N/A	N/A		S4500HB-11	1377193
		N/A	N/A	N/A		SM 4500-NH3G	1380140
		N/A	N/A	N/A		SM2130B-2011	1374885
		N/A	N/A	N/A		SM2320B-2011	1377193
		N/A	N/A	N/A		SM2540C-15	1375690
		N/A	N/A	N/A		SW846 9050A	1380617
		N/A	N/A	N/A		SW846 9060A	1376137
		SW846 9066	1380531	01/28/2025 09:52	AKH	SW846 9066	1380537
3396539003	CWMP017S	N/A	N/A	N/A		Field	1380924
		SW846 3015A	1376764	01/22/2025 09:36	ANN	SW846 6010C	1377230
		N/A	N/A	N/A		SW846 8260B	1380111
		N/A	N/A	N/A		EPA 300.0	1374863
		N/A	N/A	N/A		EPA 300.0	1376763
		N/A	N/A	N/A		EPA 410.4	1376082
		N/A	N/A	N/A		S4500HB-11	1377193
		N/A	N/A	N/A		SM 4500-NH3G	1376081
		N/A	N/A	N/A		SM2130B-2011	1374885
		N/A	N/A	N/A		SM2320B-2011	1380885
		N/A	N/A	N/A		SM2540C-15	1375690
		N/A	N/A	N/A		SW846 9050A	1380617
		N/A	N/A	N/A		SW846 9060A	1380165
		SW846 9066	1380531	01/28/2025 09:52	AKH	SW846 9066	1380537

301 Fulling Mill Rd, Suite A
Middletown, PA 17057
P. 717-944-5541



CHAIN OF CUSTODY/

REQUEST FOR ANALYSIS

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

3396539



Logged By: DXB
PM: SJB



CC
AL

of

Client Name: Lancaster County Solid Waste MA		Container Type	AG	AN	CG	P	P	P	P	P	P	Temp (Lab)	Therm ID:	WO Temp (°C)	3
Address: 1299 Harrisburg Pike PO Box 4424 Lancaster PA 17604		Container Size	40ml	125ml	40ml	1L	500ml	250ml	125ml	125ml	125ml	Receipt info completed by: WV Containers 0-6°C Y N NA			
		Preservative	HCL	H2SO4	UNP	UNP	UNP	H2SO4	HNO3	HNO3	HNO3	Cooler Custody Seals Intact Y N NA			
		Orthophosphate Filtered?										Sample Custody Seal Intact Y N NA			
												Received on Ice Y N NA			
												Coolers & Samples Intact Y N NA			
												Correct Containers Provided Y N NA			
												Sample Label/COC Agree Y N NA			
												Adequate Sample Volumes Y N NA			
												VOA only: Trip Blank Y N NA			
												NJ ≤ 4 days? Y N NA			
												Client contact: _____ Date/Tech _____			
												Sample(s) for Radiation testing? Y N Rad Screen (uCi) _____			
												Reportable SDWA Sample(s)? Y N New Source? Y N			
												SDWA State of Origin? _____ New Source Contact: _____			
												PWSID # _____ PWS Contact: _____ PWS Phone #: _____			
												SDWA Sample Type Key: D=Distribution E=Entry Point R=Raw P=Plant C=Check S=Special A=Annual Startup			
												Sample/COC Remarks			
												Contains Short Hold Testing YES NO			
												Internal Use: If less than 48 hours - notify lab upon receipt			
												State Samples Collected In NY NJ PA WV FL other			
												Standard Lvl 1 CLP-like HSCA			
												Standard Lvl 2 DOD Landfill			
												Standard Lvl 3 NJ RED NJ GW			
												Standard Lvl 4 NJ Full			
												Excel Summary Sample Disposal			
												Equis Lab x			
												Custom Special			
												Format Type			
												EDDS: _____			
												Data Deliverables			
												Received By / Company Name			
												2			
												4			
												6			
												8			
												10			
												Comments:			
												Circle Sample Collector: ALS Tech / Client			
												Name: _____ ID: _____			
												Relinquished By / Company Name			
												1			
												3			
												5			
												7			
												9			
												10			

* G-Grab; C=Composite **Matrix - A-Air; D=Drinking Water; GW=Groundwater; O-Oil; LW=Liquid Waste; S-Solid/Soil/Sludge; SW=Surface Water; WP=Wipe; WW=Wastewater
ALS SHIPPING ADDRESS: 301 Fulling Mill Road, Suite A, Middletown, PA 17057



right solution.
right partner.

Middletown Sample Condition Form

Client Lancaster County Workorder 3396539
 Temp °C 3 Therm ID 524 Ice? (Y) N N/A Initials & Date DAG 1/16/25
 Fedex UPS Client (ALS) Other Tracking # _____

	Yes	No ¹	N/A	Comments
Cooler Custody Seals present & intact			X	
Sample Custody Seals present & intact			X	
Chain-of-Custody present	X			
Sample collector name present <i>If not present, must contact PM/client to request name.</i>	X			
COC/bottle labels complete & in agreement		X		
•Sample location	X			
•Date and time of sample collection	X			
•Type(s) of preservation		X		
•Number of containers	X			
•Composite or grab	X			
•Matrix	X			
Proper containers, preservation, and volume per method	X			
Received within hold time	X			
Containers intact	X			
Trip blanks present (EPA 504, EPA 524)			X	
Field blanks present (Hg 1631, PFAS)			X	
NJ ≤ 4 Days			X	
CR6 Samples Filtered			X	
OP Samples Filtered			X	
WV Containers 0-6°C			X	
SDWA compliance reporting			X	

¹ If No, provide comment _____

Rad Screen (uCi) _____

PM - PM to contact client
 N/A - Not Applicable
 UC - Updated coc with missing information

Review Comments:



Main Site: 301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | www.alsglobal.com
Associated Site: 20 Riverside Drive | Spring City, PA 19475 | Phone: 610-948-4903 |

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, NJ PA101

Analytical Results Report For **Lancaster County Solid Waste Authority**
Project 1ST QTR 2025 GWMP-FORM 19Q
Workorder 3396249
Report ID 385216 on 1/31/2025

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Jan 15, 2025.

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.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Global.
ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):

Jordan Bigler - Lancaster County Solid Waste Authority
Ashley Gichuki - Lancaster County Solid Waste Authority
Daniel Brown - Lancaster County Solid Waste Authority
Jeff Musser - Lancaster County Solid Waste Authority

Susan Scherer

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

Susan Scherer
Project Coordinator

(ALS Digital Signature)



Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3396249001	CWMP016W	Ground Water	01/15/2025 10:47	01/15/2025 15:40	BGS	Analytical Laboratory Service
3396249002	CWMP010W	Ground Water	01/15/2025 12:40	01/15/2025 15:40	BGS	Analytical Laboratory Service
3396249003	CWMP009W	Ground Water	01/15/2025 13:23	01/15/2025 15:40	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, including but not limited to the following EPA Method reference revisions:
EPA 300.1 Rev. 1.0-1997
EPA 300.0 Rev. 2.1-1993
EPA 353.2 Rev. 2.0-1993
EPA 410.4 Rev. 1.0-1993
EPA 420.4 Rev. 1.0-1993
EPA 365.1 Rev. 2.0-1993
EPA 200.7 Rev. 4.4-1994
EPA 200.8 Rev. 5.4-1994
EPA 245.1 Rev. 3.0-1994
- 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) above the MDL
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Practical Quantitation Limit for this Project
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 QC sample type MS for method SW846 8260B was outside the control limits for the analyte cis-1,2-Dichloroethene. The % Recovery was reported as 129 and the control limits were 78 to 125.
4	The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte cis-1,2-Dichloroethene. The % Recovery was reported as 133 and the control limits were 78 to 125.



Detected Results Summary

Client Sample ID	CWMP016W	Collected	01/15/2025 10:47
Lab Sample ID	3396249001	Lab Receipt	01/15/2025 15:40

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Depth to Water Level	12.70	Feet		Field	#
Dissolved Oxygen	9.12	mg/L	0.01	Field	#
Elev Top MW Casing above MSL	311.97	Feet		Field	#
Flow Rate	2.10	gal/min		Field	#
Ground Water Elevation	299.27	ft/MSL		Field	#
Oxidation-Reduction Potential	301	mV		Field	#
pH, Field (SM4500B)	5.16	pH_Units		Field	#
Sample Depth	71.00	Feet		Field	#
Specific Conductance, Field	63	umhos/cm	1	Field	#
Temperature	12.69	Deg. C		Field	#
Total Well Depth	73.52	Feet		Field	#
Volume in Water Column	89.41	Gallons		Field	#
Water Level After Purge	19.44	Feet		Field	#
Well Volumes Purged	1.06	Vol		Field	#
METALS					
Calcium, Total	6.0	mg/L	0.11	SW846 6010C	#
Iron, Total	0.12	mg/L	0.067	SW846 6010C	#
Magnesium, Total	1.3	mg/L	0.11	SW846 6010C	#
Potassium, Total	0.57	mg/L	0.56	SW846 6010C	#
Sodium, Total	3.9	mg/L	0.56	SW846 6010C	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	12	mg/L	5	SM2320B-2011	#
Alkalinity, Total	12	mg/L	5	SM2320B-2011	#
Chloride	2.3	mg/L	2.0	EPA 300.0	#
Nitrate-N	1.4	mg/L	1.0	EPA 300.0	#
pH	7.31	pH_Units		S4500HB-11	#
Specific Conductance	60	umhos/cm	5	SW846 9050A	#
Sulfate	9.4	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	81	mg/L	25	SM2540C-15	#
Turbidity	1.4	NTU	0.30	SM2130B-2011	#



Detected Results Summary

Client Sample ID	CWMP010W	Collected	01/15/2025 12:40		
Lab Sample ID	3396249002	Lab Receipt	01/15/2025 15:40		
Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Depth to Water Level	8.61	Feet		Field	#
Dissolved Oxygen	4.97	mg/L	0.01	Field	#
Elev Top MW Casing above MSL	360.90	Feet		Field	#
Flow Rate	0.24	gal/min		Field	#
Ground Water Elevation	352.29	ft/MSL		Field	#
Oxidation-Reduction Potential	67	mV		Field	#
pH, Field (SM4500B)	6.78	pH_Units		Field	#
Sample Depth	17.00	Feet		Field	#
Specific Conductance, Field	1908	umhos/cm	1	Field	#
Temperature	6.42	Deg. C		Field	#
Total Well Depth	19.60	Feet		Field	#
Turbidity, Field	3	NTU	1	Field	#
Volume in Water Column	7.14	Gallons		Field	#
Water Level After Purge	10.65	Feet		Field	#
Well Volumes Purged	2.69	Vol		Field	#
METALS					
Calcium, Total	69.3	mg/L	0.11	SW846 6010C	#
Iron, Total	0.87	mg/L	0.067	SW846 6010C	#
Magnesium, Total	59.8	mg/L	0.11	SW846 6010C	#
Manganese, Total	0.23	mg/L	0.0056	SW846 6010C	#
Potassium, Total	13.5	mg/L	0.56	SW846 6010C	#
Sodium, Total	213	mg/L	0.56	SW846 6010C	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	269	mg/L	5	SM2320B-2011	#
Alkalinity, Total	308	mg/L	5	SM2320B-2011	#
Ammonia-N, Low Level	0.28	mg/L	0.10	SM 4500-NH3G	#
Chemical Oxygen Demand (COD)	21	mg/L	15	EPA 410.4	#
Chloride	405	mg/L	5.0	EPA 300.0	#
Nitrate-N	19.7	mg/L	2.5	EPA 300.0	#
pH	8.26	pH_Units		S4500HB-11	#
Specific Conductance	1950	umhos/cm	5	SW846 9050A	#
Sulfate	26.3	mg/L	5.0	EPA 300.0	#
Total Dissolved Solids	1070	mg/L	25	SM2540C-15	#
Total Organic Carbon (TOC)	5.8	mg/L	0.50	SW846 9060A	#
Turbidity	9.5	NTU	0.30	SM2130B-2011	#



Detected Results Summary

Client Sample ID	CWMP009W	Collected	01/15/2025 13:23		
Lab Sample ID	3396249003	Lab Receipt	01/15/2025 15:40		
Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Depth to Water Level	9.13	Feet		Field	#
Dissolved Oxygen	0.14	mg/L	0.01	Field	#
Elev Top MW Casing above MSL	404.20	Feet		Field	#
Flow Rate	1.43	gal/min		Field	#
Ground Water Elevation	395.07	ft/MSL		Field	#
Oxidation-Reduction Potential	-51	mV		Field	#
pH, Field (SM4500B)	6.18	pH_Units		Field	#
Sample Depth	16.00	Feet		Field	#
Specific Conductance, Field	3054	umhos/cm	1	Field	#
Temperature	11.59	Deg. C		Field	#
Total Well Depth	19.70	Feet		Field	#
Volume in Water Column	6.87	Gallons		Field	#
Water Level After Purge	10.25	Feet		Field	#
Well Volumes Purged	3.33	Vol		Field	#
METALS					
Calcium, Total	199	mg/L	0.11	SW846 6010C	#
Iron, Total	38.5	mg/L	0.067	SW846 6010C	#
Magnesium, Total	91.4	mg/L	0.11	SW846 6010C	#
Manganese, Total	14.1	mg/L	0.0056	SW846 6010C	#
Potassium, Total	34.5	mg/L	0.56	SW846 6010C	#
Sodium, Total	210	mg/L	0.56	SW846 6010C	#
VOLATILE ORGANICS					
1,1-Dichloroethane	1.2	ug/L	1.0	SW846 8260B	#
Benzene	2.6	ug/L	1.0	SW846 8260B	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	559	mg/L	50	SM2320B-2011	#
Alkalinity, Total	559	mg/L	50	SM2320B-2011	#
Ammonia-N, Low Level	29.2	mg/L	1.00	SM 4500-NH3G	#
Chemical Oxygen Demand (COD)	114	mg/L	15	EPA 410.4	#
pH	7.71	pH_Units		S4500HB-11	#
Specific Conductance	2480	umhos/cm	50	SW846 9050A	#
Sulfate	2.4	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	1770	mg/L	25	SM2540C-15	#
Total Organic Carbon (TOC)	35.4	mg/L	5.0	SW846 9060A	#
Turbidity	55	NTU	0.30	SM2130B-2011	#



Results

Client Sample ID	CWMP016W	Collected	01/15/2025 10:47
Lab Sample ID	3396249001	Lab Receipt	01/15/2025 15:40

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Depth to Water Level	12.70		Feet		Field	1	01/15/2025 10:47	BGS	D
Dissolved Oxygen	9.12		mg/L	0.01	Field	1	01/15/2025 10:47	BGS	D
Elev Top MW Casing above MSL	311.97		Feet		Field	1	01/15/2025 10:47	BGS	D
Flow Rate	2.10		gal/min		Field	1	01/15/2025 10:47	BGS	D
Ground Water Elevation	299.27		ft/MSL		Field	1	01/15/2025 10:47	BGS	D
Oxidation-Reduction Potential	301		mV		Field	1	01/15/2025 10:47	BGS	D
pH, Field (SM4500B)	5.16		pH_Units		Field	1	01/15/2025 10:47	BGS	D
Sample Depth	71.00		Feet		Field	1	01/15/2025 10:47	BGS	D
Specific Conductance, Field	63		umhos/cm	1	Field	1	01/15/2025 10:47	BGS	D
Temperature	12.69		Deg. C		Field	1	01/15/2025 10:47	BGS	D
Total Well Depth	73.52		Feet		Field	1	01/15/2025 10:47	BGS	D
Turbidity, Field	ND	ND	NTU	1	Field	1	01/15/2025 10:47	BGS	D
Volume in Water Column	89.41		Gallons		Field	1	01/15/2025 10:47	BGS	D
Water Level After Purge	19.44		Feet		Field	1	01/15/2025 10:47	BGS	D
Well Volumes Purged	1.06		Vol		Field	1	01/15/2025 10:47	BGS	D

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Total	6.0		mg/L	0.11	SW846 6010C	1	01/23/2025 11:34	MSY	J1
Iron, Total	0.12		mg/L	0.067	SW846 6010C	1	01/23/2025 11:34	MSY	J1
Magnesium, Total	1.3		mg/L	0.11	SW846 6010C	1	01/23/2025 11:34	MSY	J1
Manganese, Total	ND	ND	mg/L	0.0056	SW846 6010C	1	01/23/2025 11:34	MSY	J1
Potassium, Total	0.57		mg/L	0.56	SW846 6010C	1	01/23/2025 11:34	MSY	J1
Sodium, Total	3.9		mg/L	0.56	SW846 6010C	1	01/23/2025 11:34	MSY	J1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:19	BST	H
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:19	BST	H
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:19	BST	H
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:19	BST	H
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:19	BST	H
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:19	BST	H
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:19	BST	H
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:19	BST	H
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:19	BST	H
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:19	BST	H
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:19	BST	H
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	01/24/2025 20:19	BST	H
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:19	BST	H
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:19	BST	H
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:19	BST	H



Results

Client Sample ID	CWMP016W	Collected	01/15/2025 10:47
Lab Sample ID	3396249001	Lab Receipt	01/15/2025 15:40

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
SURROGATES									
Compound	CAS No			Recovery	Limits(%)		Analysis Date/Time		Qualifiers
1,2-Dichloroethane-d4	17060-07-0			106%	62 – 133		01/24/2025 20:19		
4-Bromofluorobenzene	460-00-4			97.7%	79 – 114		01/24/2025 20:19		
Dibromofluoromethane	1868-53-7			103%	78 – 116		01/24/2025 20:19		
Toluene-d8	2037-26-5			107%	76 – 127		01/24/2025 20:19		

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	12		mg/L	5	SM2320B-2011	1	01/23/2025 00:21	JXK	B
Alkalinity, Total	12	1	mg/L	5	SM2320B-2011	1	01/23/2025 00:21	JXK	B
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	01/21/2025 20:24	AYS	A
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	01/21/2025 11:53	KMS	A
Chloride	2.3		mg/L	2.0	EPA 300.0	2	01/16/2025 14:38	J1W	B
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	01/16/2025 14:38	J1W	B
Nitrate-N	1.4		mg/L	1.0	EPA 300.0	2	01/16/2025 14:38	J1W	B
pH	7.31	2	pH_Units		S4500HB-11	1	01/23/2025 00:21	JXK	B
Phenolics	ND	ND	mg/L	0.004	SW846 9066	1	01/28/2025 16:12	AKH	G
Specific Conductance	60		umhos/cm	5	SW846 9050A	1	01/29/2025 14:51	MAN	B
Sulfate	9.4		mg/L	2.0	EPA 300.0	2	01/16/2025 14:38	J1W	B
Total Dissolved Solids	81		mg/L	25	SM2540C-15	1	01/17/2025 12:50	RAG	B
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SW846 9060A	1	01/21/2025 22:02	PAG	E
Turbidity	1.4		NTU	0.30	SM2130B-2011	1	01/16/2025 11:20	NPF	B



Results

Client Sample ID	CWMP010W	Collected	01/15/2025 12:40
Lab Sample ID	3396249002	Lab Receipt	01/15/2025 15:40

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Depth to Water Level	8.61		Feet		Field	1	01/15/2025 12:40	BGS	D
Dissolved Oxygen	4.97		mg/L	0.01	Field	1	01/15/2025 12:40	BGS	D
Elev Top MW Casing above MSL	360.90		Feet		Field	1	01/15/2025 12:40	BGS	D
Flow Rate	0.24		gal/min		Field	1	01/15/2025 12:40	BGS	D
Ground Water Elevation	352.29		ft/MSL		Field	1	01/15/2025 12:40	BGS	D
Oxidation-Reduction Potential	67		mV		Field	1	01/15/2025 12:40	BGS	D
pH, Field (SM4500B)	6.78		pH_Units		Field	1	01/15/2025 12:40	BGS	D
Sample Depth	17.00		Feet		Field	1	01/15/2025 12:40	BGS	D
Specific Conductance, Field	1908		umhos/cm	1	Field	1	01/15/2025 12:40	BGS	D
Temperature	6.42		Deg. C		Field	1	01/15/2025 12:40	BGS	D
Total Well Depth	19.60		Feet		Field	1	01/15/2025 12:40	BGS	D
Turbidity, Field	3		NTU	1	Field	1	01/15/2025 12:40	BGS	D
Volume in Water Column	7.14		Gallons		Field	1	01/15/2025 12:40	BGS	D
Water Level After Purge	10.65		Feet		Field	1	01/15/2025 12:40	BGS	D
Well Volumes Purged	2.69		Vol		Field	1	01/15/2025 12:40	BGS	D

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Total	69.3		mg/L	0.11	SW846 6010C	1	01/23/2025 11:39	MSY	K1
Iron, Total	0.87		mg/L	0.067	SW846 6010C	1	01/23/2025 11:39	MSY	K1
Magnesium, Total	59.8		mg/L	0.11	SW846 6010C	1	01/23/2025 11:39	MSY	K1
Manganese, Total	0.23		mg/L	0.0056	SW846 6010C	1	01/23/2025 11:39	MSY	K1
Potassium, Total	13.5		mg/L	0.56	SW846 6010C	1	01/23/2025 11:39	MSY	K1
Sodium, Total	213		mg/L	0.56	SW846 6010C	1	01/23/2025 11:39	MSY	K1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:39	BST	H
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:39	BST	H
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:39	BST	H
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:39	BST	H
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:39	BST	H
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:39	BST	H
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:39	BST	H
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:39	BST	H
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:39	BST	H
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:39	BST	H
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:39	BST	H
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	01/24/2025 20:39	BST	H
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:39	BST	H
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:39	BST	H
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:39	BST	H



Results

Client Sample ID	CWMP010W	Collected	01/15/2025 12:40
Lab Sample ID	3396249002	Lab Receipt	01/15/2025 15:40

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
SURROGATES									
Compound	CAS No			Recovery	Limits(%)		Analysis Date/Time		Qualifiers
1,2-Dichloroethane-d4	17060-07-0			110%	62 – 133		01/24/2025 20:39		
4-Bromofluorobenzene	460-00-4			97.8%	79 – 114		01/24/2025 20:39		
Dibromofluoromethane	1868-53-7			105%	78 – 116		01/24/2025 20:39		
Toluene-d8	2037-26-5			108%	76 – 127		01/24/2025 20:39		

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	269		mg/L	5	SM2320B-2011	1	01/22/2025 23:06	JXK	B
Alkalinity, Total	308	1	mg/L	5	SM2320B-2011	1	01/22/2025 23:06	JXK	B
Ammonia-N, Low Level	0.28		mg/L	0.10	SM 4500-NH3G	1	01/21/2025 20:33	AYS	A
Chemical Oxygen Demand (COD)	21		mg/L	15	EPA 410.4	1	01/21/2025 11:53	KMS	A
Chloride	405		mg/L	5.0	EPA 300.0	5	01/16/2025 15:35	J1W	B
Fluoride	ND	ND	mg/L	0.50	EPA 300.0	5	01/16/2025 15:35	J1W	B
Nitrate-N	19.7		mg/L	2.5	EPA 300.0	5	01/16/2025 15:35	J1W	B
pH	8.26	2	pH_Units		S4500HB-11	1	01/22/2025 23:06	JXK	B
Phenolics	ND	ND	mg/L	0.004	SW846 9066	1	01/28/2025 16:25	AKH	G
Specific Conductance	1950		umhos/cm	5	SW846 9050A	1	01/29/2025 14:51	MAN	B
Sulfate	26.3		mg/L	5.0	EPA 300.0	5	01/16/2025 15:35	J1W	B
Total Dissolved Solids	1070		mg/L	25	SM2540C-15	1	01/17/2025 12:50	RAG	B
Total Organic Carbon (TOC)	5.8		mg/L	0.50	SW846 9060A	1	01/21/2025 22:02	PAG	E
Turbidity	9.5		NTU	0.30	SM2130B-2011	1	01/16/2025 11:20	NPF	B



Results

Client Sample ID	CWMP009W	Collected	01/15/2025 13:23
Lab Sample ID	3396249003	Lab Receipt	01/15/2025 15:40

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Depth to Water Level	9.13		Feet		Field	1	01/15/2025 13:23	BGS	D
Dissolved Oxygen	0.14		mg/L	0.01	Field	1	01/15/2025 13:23	BGS	D
Elev Top MW Casing above MSL	404.20		Feet		Field	1	01/15/2025 13:23	BGS	D
Flow Rate	1.43		gal/min		Field	1	01/15/2025 13:23	BGS	D
Ground Water Elevation	395.07		ft/MSL		Field	1	01/15/2025 13:23	BGS	D
Oxidation-Reduction Potential	-51		mV		Field	1	01/15/2025 13:23	BGS	D
pH, Field (SM4500B)	6.18		pH_Units		Field	1	01/15/2025 13:23	BGS	D
Sample Depth	16.00		Feet		Field	1	01/15/2025 13:23	BGS	D
Specific Conductance, Field	3054		umhos/cm	1	Field	1	01/15/2025 13:23	BGS	D
Temperature	11.59		Deg. C		Field	1	01/15/2025 13:23	BGS	D
Total Well Depth	19.70		Feet		Field	1	01/15/2025 13:23	BGS	D
Turbidity, Field	ND	ND	NTU	1	Field	1	01/15/2025 13:23	BGS	D
Volume in Water Column	6.87		Gallons		Field	1	01/15/2025 13:23	BGS	D
Water Level After Purge	10.25		Feet		Field	1	01/15/2025 13:23	BGS	D
Well Volumes Purged	3.33		Vol		Field	1	01/15/2025 13:23	BGS	D

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Total	199		mg/L	0.11	SW846 6010C	1	01/23/2025 11:40	MSY	K1
Iron, Total	38.5		mg/L	0.067	SW846 6010C	1	01/23/2025 11:40	MSY	K1
Magnesium, Total	91.4		mg/L	0.11	SW846 6010C	1	01/23/2025 11:40	MSY	K1
Manganese, Total	14.1		mg/L	0.0056	SW846 6010C	1	01/23/2025 11:40	MSY	K1
Potassium, Total	34.5		mg/L	0.56	SW846 6010C	1	01/23/2025 11:40	MSY	K1
Sodium, Total	210		mg/L	0.56	SW846 6010C	1	01/23/2025 11:40	MSY	K1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:59	BST	H
1,1-Dichloroethane	1.2		ug/L	1.0	SW846 8260B	1	01/24/2025 20:59	BST	H
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:59	BST	H
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:59	BST	H
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:59	BST	H
Benzene	2.6		ug/L	1.0	SW846 8260B	1	01/24/2025 20:59	BST	H
cis-1,2-Dichloroethene	ND	ND,3,4	ug/L	1.0	SW846 8260B	1	01/24/2025 20:59	BST	H
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:59	BST	H
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:59	BST	H
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:59	BST	H
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:59	BST	H
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	01/24/2025 20:59	BST	H
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:59	BST	H
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:59	BST	H
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	01/24/2025 20:59	BST	H



Results

Client Sample ID	CWMP009W	Collected	01/15/2025 13:23
Lab Sample ID	3396249003	Lab Receipt	01/15/2025 15:40

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
SURROGATES									
Compound	CAS No			Recovery	Limits(%)		Analysis Date/Time		Qualifiers
1,2-Dichloroethane-d4	17060-07-0			106%	62 – 133		01/24/2025 20:59		
4-Bromofluorobenzene	460-00-4			95.1%	79 – 114		01/24/2025 20:59		
Dibromofluoromethane	1868-53-7			106%	78 – 116		01/24/2025 20:59		
Toluene-d8	2037-26-5			107%	76 – 127		01/24/2025 20:59		

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	559		mg/L	50	SM2320B-2011	10	01/23/2025 00:33	JXK	B
Alkalinity, Total	559	1	mg/L	50	SM2320B-2011	10	01/23/2025 00:33	JXK	B
Ammonia-N, Low Level	29.2		mg/L	1.00	SM 4500-NH3G	10	01/27/2025 14:30	AYS	A
Chemical Oxygen Demand (COD)	114		mg/L	15	EPA 410.4	1	01/21/2025 11:53	KMS	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	01/16/2025 15:46	J1W	B
Nitrate-N	ND	ND	mg/L	1.0	EPA 300.0	2	01/16/2025 15:46	J1W	B
pH	7.71	2	pH_Units		S4500HB-11	10	01/23/2025 00:33	JXK	B
Phenolics	ND	ND	mg/L	0.004	SW846 9066	1	01/28/2025 16:15	AKH	G
Specific Conductance	2480		umhos/cm	50	SW846 9050A	10	01/29/2025 14:51	MAN	B
Sulfate	2.4		mg/L	2.0	EPA 300.0	2	01/16/2025 15:46	J1W	B
Total Dissolved Solids	1770		mg/L	25	SM2540C-15	1	01/17/2025 12:50	RAG	B
Total Organic Carbon (TOC)	35.4		mg/L	5.0	SW846 9060A	10	01/21/2025 22:02	PAG	E
Turbidity	55		NTU	0.30	SM2130B-2011	1	01/16/2025 11:20	NPF	B



Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3396249001	CWMP016W	Field	N/A	
		SW846 6010C	SW846 3015A	
		SW846 8260B	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2540C-15	N/A	
		SW846 9050A	N/A	
		SW846 9060A	N/A	
		SW846 9066	SW846 9066	
3396249002	CWMP010W	Field	N/A	
		SW846 6010C	SW846 3015A	
		SW846 8260B	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2540C-15	N/A	
		SW846 9050A	N/A	
		SW846 9060A	N/A	
		SW846 9066	SW846 9066	
3396249003	CWMP009W	Field	N/A	
		SW846 6010C	SW846 3015A	
		SW846 8260B	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2540C-15	N/A	
		SW846 9050A	N/A	
		SW846 9060A	N/A	
		SW846 9066	SW846 9066	



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3396249001	CWMP016W	N/A	N/A	N/A		Field	1380924
		SW846 3015A	1376764	01/22/2025 09:36	ANN	SW846 6010C	1377230
		N/A	N/A	N/A		SW846 8260B	1378868
		N/A	N/A	N/A		EPA 300.0	1374264
		N/A	N/A	N/A		EPA 410.4	1376082
		N/A	N/A	N/A		S4500HB-11	1377193
		N/A	N/A	N/A		SM 4500-NH3G	1376072
		N/A	N/A	N/A		SM2130B-2011	1374272
		N/A	N/A	N/A		SM2320B-2011	1377193
		N/A	N/A	N/A		SM2540C-15	1374299
		N/A	N/A	N/A		SW846 9050A	1380617
		N/A	N/A	N/A		SW846 9060A	1376137
		SW846 9066	1380531	01/28/2025 09:52	AKH	SW846 9066	1380537
3396249002	CWMP010W	N/A	N/A	N/A		Field	1380924
		SW846 3015A	1376764	01/22/2025 09:36	ANN	SW846 6010C	1377230
		N/A	N/A	N/A		SW846 8260B	1378868
		N/A	N/A	N/A		EPA 300.0	1374264
		N/A	N/A	N/A		EPA 410.4	1376082
		N/A	N/A	N/A		S4500HB-11	1377193
		N/A	N/A	N/A		SM 4500-NH3G	1376072
		N/A	N/A	N/A		SM2130B-2011	1374272
		N/A	N/A	N/A		SM2320B-2011	1377193
		N/A	N/A	N/A		SM2540C-15	1374299
		N/A	N/A	N/A		SW846 9050A	1380617
		N/A	N/A	N/A		SW846 9060A	1376137
		SW846 9066	1380531	01/28/2025 09:52	AKH	SW846 9066	1380537
3396249003	CWMP009W	N/A	N/A	N/A		Field	1380924
		SW846 3015A	1376764	01/22/2025 09:36	ANN	SW846 6010C	1377230
		N/A	N/A	N/A		SW846 8260B	1378868
		N/A	N/A	N/A		EPA 300.0	1374264
		N/A	N/A	N/A		EPA 410.4	1376082
		N/A	N/A	N/A		S4500HB-11	1377193
		N/A	N/A	N/A		SM 4500-NH3G	1380140
		N/A	N/A	N/A		SM2130B-2011	1374272
		N/A	N/A	N/A		SM2320B-2011	1377193
		N/A	N/A	N/A		SM2540C-15	1374299
		N/A	N/A	N/A		SW846 9050A	1380617
		N/A	N/A	N/A		SW846 9060A	1376137
		SW846 9066	1380531	01/28/2025 09:52	AKH	SW846 9066	1380537



**CHAIN OF CUSTODY/
REQUEST FOR ANALYSIS**

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

COC #:	ALSC
--------	------



3396249

Logged By: DXB
PM: SJB



of

Client Name: Lancaster County Solid Waste MA Address: 1299 Harrisburg Pike PO Box 4424 Lancaster PA 17604				Temp Taken By: _____ Therm ID: _____ WO Temp (°C) _____			
Receipt Info completed by: _____ WV Containers 0-6°C Y N NA Deviations? NO YES				WV Containers 0-6°C Y N NA Deviations? NO YES			
Cooler Custody Seals Intact Y N NA Sample Custody Seal Intact Y N NA Received on Ice Y N NA Coolers & Samples Intact Y N NA Correct Containers Provided Y N NA Sample Label/COC Agree Y N NA Adequate Sample Volumes Y N NA VOA only: Trip Blank Y N NA INJ ≤ 4 days? Y N NA Courier/Tracking # _____				Client contact: _____ Date/Tech: _____			
Sample(s) for Radiation testing? Y N Reportable SDWA Sample(s)? Y N SDWA State of Origin? _____ PWSID # _____ PWS Contact: _____ PWS Phone #: _____				Rad Screen (uCi) _____ New Source? Y N New Source Contact: _____			
SDWA Sample Type Key: D=Distribution E=Entry Point R=Raw P=Plant C=Check S=Special A=Annual Startup				Sample/COC Remarks			

Contains Short Hold Testing										YES		NO	
Internal Use: If less than 48 hours - notify lab upon receipt													
Standard Lvl 1		CLP-like		HSCA		State Samples Collected In		NY		NJ		PA	
Standard Lvl 2		DOD		Landfill								x	
Standard Lvl 3		NJ RED		NJ GW								x	
Standard Lvl 4		NJ Full										x	
Excel Summary		Equis		Custom		Sample Disposal		Lab		Special		other	
EDDS:		Format Type											

ANALYSIS / METHOD REQUESTED									
Orthophosphate Filtered?									
Yes									
No									
Hexavalent Chromium Filtered?									
Yes									
No									
Enter Number of Containers Per Sample or Field Results Below.									
SDWA Sample Type (see key)									
*G or C									
**Matrix (See bottom of COC)									
TOC									
O-OH									
B260 VOCs - Form 19Q									
pH, CL, SpC, F, SO4, NO3, TB, TDS									
Alkalinity, HCO3									
FM									
Sample Depth for AUX Data									
NH3-N, COD									
Total Metals Ca, Fe, Mn, Mg, K, Na									

Container Type	AG	AN	CG	P	P	P	P
Container Size	40ml	125ml	40ml	1L	500ml	250ml	125ml
Preservative	HCL	H2SO4	UNP	UNP	UNP	H2SO4	HNO3

Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yyyy	Time hh:mm
1 CWMP016W	1/15/25	1047
2 CWMP010W	1/15/25	1240
3 CWMP009W	1/15/25	1323
4		
5		
6		
7		
8		
9		
10		

Circle Sample Collector/ALS Tech / Client Name:	Relinquished By / Company Name	Received By / Company Name
ALS	ALS	ALS
Date: 1-15-25	Date: 1-15-25	Date: 1-15-25
Time: 1047	Time: 1047	Time: 1047

Comments:

Container Type	AG	AN	CG	P	P	P	P
Container Size	40ml	125ml	40ml	1L	500ml	250ml	125ml
Preservative	HCL	H2SO4	UNP	UNP	UNP	H2SO4	HNO3

Purchase Order #:			
☒ Normal Standard TAT is 10-12 business days. ☐ Rush-Subject to ALS approval and surcharges.			
Date Required: _____ Approved: _____ Initial: _____ Email: ☒ dbrown@lcswwma.org			



Right solution.
Right partner.

Middletown Sample Condition Form

Client Lon Caster County Workorder 3396749
 Temp °C 5 Therm ID 569 Ice? Y N N/A Initials & Date DAG 1/15/25
 Fedex UPS Client ALS Other Tracking # _____

	Yes	No ¹	N/A	Comments
Cooler Custody Seals present & intact			X	
Sample Custody Seals present & intact			X	
Chain-of-Custody present	X			
Sample collector name present <i>If not present, must contact PM/client to request name.</i>	X			
COC/bottle labels complete & in agreement	X			
• Sample location	X			
• Date and time of sample collection	X			
• Type(s) of preservation	X			
• Number of containers	X			
• Composite or grab	X			
• Matrix	X			
Proper containers, preservation, and volume per method	X			
Received within hold time	X			
Containers intact	X			
Trip blanks present (EPA 504, EPA 524)			X	
Field blanks present (Hg 1631, PFAS)			X	
NJ ≤ 4 Days			X	
CR6 Samples Filtered			X	
OP Samples Filtered			X	
WV Containers 0-6°C			X	
SDWA compliance reporting			X	

¹ If No, provide comment _____

Rad Screen (uCi) _____

PM - PM to contact client

N/A - Not Applicable

UC - Updated coc with missing information

Review Comments:
