



Date Prepared/Revised
01/27/2023

DEP USE ONLY

Date Received

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

All information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 52, 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: Act 101 Section 1103

SECTION A. SITE IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Manage

Site Name: Frey Farm Landfill

Facility ID (as issued by DEP): 101389

SECTION B. PRIVATE WATER SUPPLY INFORMATION

INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DE° MM' SS.S")

Facility Name: Frey Farm Landfill

County: Lancaster County

Township or Municipality: MANOR TOWNSHIP

Landowner Name: LCSWMA

Address: 3044 RIVER ROAD

Phone No.:

Sampling Point: Latitude: 39° 57' 30.58" Longitude: 76° 26' 11.25"

Depth to Water Level: _____ ft.

Measured from: Land Surface TOC

Casing Stick Up: _____ ft.

Elevation of Water Level: _____ ft./MSL

Total Well Depth: _____ ft.

Sampling Depth: _____ ft.

Sampling Method: Pumped Bailed

Well Purged: Yes No

Well Volumes Purged: _____

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

Sample Date:(mm/dd/yy) 11/11/2022

Sample Collection Time: 12:50 PM

Laboratory(ies) Performing Analysis ALS Environmental

(include address and phone number) 301 Fulling Mill Road

Middletown, PA 17057

(717) 944-5541

Lab Accreditation Number(s) 22-293

Lab Analysis Date 12/02/2022

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

Comments:

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS LCSWMA

Sample Date

11/11/2022

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.101	SM4500D
BICARBONATE ALKALINITY	12	SM20-2321
CALCIUM, TOTAL	15.9	EPA 200.7
CALCIUM, DISSOLVED	13.8	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	16.8	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	30 ND	EPA 200.7
IRON, DISSOLVED (ug/l)	60 ND	EPA 200.7
MAGNESIUM, TOTAL	11	EPA 200.7
MAGNESIUM, DISSOLVED	9.5	EPA 200.7
MANGANESE, TOTAL (ug/l)	17	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	14	EPA 200.7
NITRATE-NITROGEN	17.5	EPA 300

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS LCSWMA

Sample Date

11/11/2022

1. Inorganics, continued (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE - NITROGEN	1 ND	EPA 300
pH-FIELD (SU)	7.05	FIELD
pH-LAB (SU)	7.14	SM4500B
POTASSIUM, TOTAL	1.9	EPA 200.7
POTASSIUM, DISSOLVED	1.6	EPA 200.7
SODIUM, TOTAL	9.6	EPA 200.7
SODIUM, DISSOLVED	8.4	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	246	FIELD
SPEC. COND., LAB (umhos/cm)	241	EPA 120.1
SULFATE	2 ND	EPA 300
ALKALINITY	20 ND	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	186	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	4 ND	EPA 420.4
TURBIDITY (NTU)	0.3 ND	SM 2130B

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS LCSWMA

Sample Date

11/11/2022

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	0.5 ND	EPA 524.2
1,2-DIBROMOETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHENE	0.5 ND	EPA 524.2
1,2-DICHLOROETHANE	0.5 ND	EPA 524.2
CIS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
TRANS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
ETHYLBENZENE	0.5 ND	EPA 524.2
METHYLENE CHLORIDE	0.5 ND	EPA 524.2
TETRACHLOROETHENE	0.5 ND	EPA 524.2
TOLUENE	0.5 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	0.5 ND	EPA 524.2
TRICHLOROETHENE	0.5 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	0.5 ND	EPA 524.2
VINYL CHLORIDE	0.5 ND	EPA 524.2
XYLENES (TOTAL)	0.5 ND	EPA 524.2

T Please indicate detection limit if analyte is not detected.



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**FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES**

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General Reference: Act 101 Section 1103	
SECTION A. SITE IDENTIFIER	
Applicant/permittee:	Lancaster County Solid Waste Manage
Site Name:	Frey Farm Landfill
Facility ID (as issued by DEP):	101389
SECTION B. PRIVATE WATER SUPPLY INFORMATION	
INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DE° MM' SS.S")	
Facility Name:	Frey Farm Landfill
County:	Lancaster County
Township or Municipality:	MANOR TOWNSHIP
Landowner Name:	MILLER
Address:	3052 RIVER ROAD
Phone No.:	
Sampling Point:	Latitude: 39° 57' 29.85" Longitude: 76° 26' 11.45"
Depth to Water Level:	ft. Measured from: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC
Casing Stick Up:	ft. Elevation of Water Level: ft./MSL
Total Well Depth:	ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed
Sampling Depth:	ft. Well Volumes Purged:
Well Purged:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Sample Field Filtered (must be 0.45 micron)?:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Date:(mm/dd/yy)	11/11/2022 Sample Collection Time: 12:40 PM
Laboratory(ies) Performing Analysis	ALS Environmental
(include address and phone number)	301 Fulling Mill Road Middletown, PA 17057 (717) 944-5541
Lab Accreditation Number(s)	22-293
Lab Analysis Date	12/02/2022
Were any holding times exceeded?:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field.
Comments:	

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS MILLER

Sample Date

11/11/2022

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.106	SM4500D
BICARBONATE ALKALINITY	7	SM20-2321
CALCIUM, TOTAL	16.5	EPA 200.7
CALCIUM, DISSOLVED	14.2	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	18.3	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	30 ND	EPA 200.7
IRON, DISSOLVED (ug/l)	60 ND	EPA 200.7
MAGNESIUM, TOTAL	10.4	EPA 200.7
MAGNESIUM, DISSOLVED	8.9	EPA 200.7
MANGANESE, TOTAL (ug/l)	40	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	34	EPA 200.7
NITRATE-NITROGEN	17.1	EPA 300

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS MILLER

Sample Date

11/11/2022

1. Inorganics, continued (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE - NITROGEN	1 ND	EPA 300
pH-FIELD (SU)	6.85	FIELD
pH-LAB (SU)	6.89	SM4500B
POTASSIUM, TOTAL	2.2	EPA 200.7
POTASSIUM, DISSOLVED	2	EPA 200.7
SODIUM, TOTAL	8.2	EPA 200.7
SODIUM, DISSOLVED	7.1	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	234	FIELD
SPEC. COND., LAB (umhos/cm)	234	EPA 120.1
SULFATE	2 ND	EPA 300
ALKALINITY	7	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	178	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	4 ND	EPA 420.4
TURBIDITY (NTU)	0.3 ND	SM 2130B

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS MILLER

Sample Date

11/11/2022

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	0.5 ND	EPA 524.2
1,2-DIBROMOETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHENE	0.5 ND	EPA 524.2
1,2-DICHLOROETHANE	0.5 ND	EPA 524.2
CIS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
TRANS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
ETHYLBENZENE	0.5 ND	EPA 524.2
METHYLENE CHLORIDE	0.5 ND	EPA 524.2
TETRACHLOROETHENE	0.5 ND	EPA 524.2
TOLUENE	0.5 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	0.5 ND	EPA 524.2
TRICHLOROETHENE	0.5 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	0.5 ND	EPA 524.2
VINYL CHLORIDE	0.5 ND	EPA 524.2
XYLENES (TOTAL)	0.5 ND	EPA 524.2

T Please indicate detection limit if analyte is not detected.



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FORM 52 MUNICIPAL WASTE LANDFILL PRIVATE WATER SUPPLY QUARTERLY WATER QUALITY ANALYSES

All information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 52, 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: Act 101 Section 1103	
SECTION A. SITE IDENTIFIER	
Applicant/permittee:	Lancaster County Solid Waste Manage
Site Name:	Frey Farm Landfill
Facility ID (as issued by DEP):	101389
SECTION B. PRIVATE WATER SUPPLY INFORMATION	
INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D ^o MM' SS.S")	
Facility Name:	Frey Farm Landfill
County:	Lancaster County
Township or Municipality:	MANOR TOWNSHIP
Landowner Name:	LCSWMA
Address:	3056 RIVER ROAD
Phone No.:	
Sampling Point:	Latitude: 39° 57' 28.44" Longitude: 76° 26' 10.43"
Depth to Water Level:	ft. Measured from: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC
Casing Stick Up:	ft. Elevation of Water Level: ft./MSL
Total Well Depth:	ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed
Sampling Depth:	ft. Well Volumes Purged:
Well Purged:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Sample Field Filtered (must be 0.45 micron)?:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Date:(mm/dd/yy)	11/11/2022 Sample Collection Time: 12:30 PM
Laboratory(ies) Performing Analysis	ALS Environmental
(include address and phone number)	301 Fulling Mill Road Middletown, PA 17057 (717) 944-5541
Lab Accreditation Number(s)	22-293
Lab Analysis Date	12/01/2022
Were any holding times exceeded?:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field.
Comments:	

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS LCSWMA

Sample Date

11/11/2022

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.104	SM4500D
BICARBONATE ALKALINITY	12	SM20-2321
CALCIUM, TOTAL	12.4	EPA 200.7
CALCIUM, DISSOLVED	10.8	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	21.7	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	30 ND	EPA 200.7
IRON, DISSOLVED (ug/l)	60 ND	EPA 200.7
MAGNESIUM, TOTAL	12.6	EPA 200.7
MAGNESIUM, DISSOLVED	11.1	EPA 200.7
MANGANESE, TOTAL (ug/l)	87	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	75	EPA 200.7
NITRATE-NITROGEN	16	EPA 300

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS LCSWMA

Sample Date

11/11/2022

1. Inorganics, continued (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE - NITROGEN	1 ND	EPA 300
pH-FIELD (SU)	6.79	FIELD
pH-LAB (SU)	7.09	SM4500B
POTASSIUM, TOTAL	2.5	EPA 200.7
POTASSIUM, DISSOLVED	2.3	EPA 200.7
SODIUM, TOTAL	8.4	EPA 200.7
SODIUM, DISSOLVED	7.4	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	231	FIELD
SPEC. COND., LAB (umhos/cm)	239	EPA 120.1
SULFATE	2 ND	EPA 300
ALKALINITY	12	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	156	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	4 ND	EPA 420.4
TURBIDITY (NTU)	0.3 ND	SM 2130B

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS LCSWMA

Sample Date

11/11/2022

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	0.5 ND	EPA 524.2
1,2-DIBROMOETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHENE	0.5 ND	EPA 524.2
1,2-DICHLOROETHANE	0.5 ND	EPA 524.2
CIS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
TRANS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
ETHYLBENZENE	0.5 ND	EPA 524.2
METHYLENE CHLORIDE	0.5 ND	EPA 524.2
TETRACHLOROETHENE	0.5 ND	EPA 524.2
TOLUENE	0.5 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	0.5 ND	EPA 524.2
TRICHLOROETHENE	0.5 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	0.5 ND	EPA 524.2
VINYL CHLORIDE	0.5 ND	EPA 524.2
XYLENES (TOTAL)	0.5 ND	EPA 524.2

T Please indicate detection limit if analyte is not detected.



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FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

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General Reference: Act 101 Section 1103

SECTION A. SITE IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Manage

Site Name: Frey Farm Landfill

Facility ID (as issued by DEP): 101389

SECTION B. PRIVATE WATER SUPPLY INFORMATION

INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DE° MM' SS.S")

Facility Name: Frey Farm Landfill

County: Lancaster County

Township or Municipality: MANOR TOWNSHIP

Landowner Name: LCSWMA

Address: 3060 RIVER ROAD

Phone No.:

Sampling Point: Latitude: 39° 57' 27.63" Longitude: 76° 26' 10.01"

Depth to Water Level: _____ ft.

Measured from: Land Surface TOC

Casing Stick Up: _____ ft.

Elevation of Water Level: _____ ft./MSL

Total Well Depth: _____ ft.

Sampling Depth: _____ ft.

Sampling Method: Pumped Bailed

Well Purged: Yes No

Well Volumes Purged: _____

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

Sample Date:(mm/dd/yy) 11/11/2022

Sample Collection Time: 12:10 PM

Laboratory(ies) Performing Analysis ALS Environmental

(include address and phone number) 301 Fulling Mill Road

Middletown, PA 17057

(717) 944-5541

Lab Accreditation Number(s) 22-293

Lab Analysis Date 12/01/2022

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

Comments:

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS LCSWMA

Sample Date

11/11/2022

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	5	SM20-2321
CALCIUM, TOTAL	11.2	EPA 200.7
CALCIUM, DISSOLVED	9.1	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	14.8	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	110	EPA 200.7
IRON, DISSOLVED (ug/l)	70	EPA 200.7
MAGNESIUM, TOTAL	11.8	EPA 200.7
MAGNESIUM, DISSOLVED	9.6	EPA 200.7
MANGANESE, TOTAL (ug/l)	110	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	67	EPA 200.7
NITRATE-NITROGEN	14	EPA 300

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MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS LCSWMA

Sample Date

11/11/2022

1. Inorganics, continued (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE - NITROGEN	1 ND	EPA 300
pH-FIELD (SU)	6.78	FIELD
pH-LAB (SU)	6.66	SM4500B
POTASSIUM, TOTAL	3.2	EPA 200.7
POTASSIUM, DISSOLVED	2.8	EPA 200.7
SODIUM, TOTAL	9.5	EPA 200.7
SODIUM, DISSOLVED	7.9	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	227	FIELD
SPEC. COND., LAB (umhos/cm)	216	EPA 120.1
SULFATE	9.1	EPA 300
ALKALINITY	5	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	142	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	4 ND	EPA 420.4
TURBIDITY (NTU)	0.3 ND	SM 2130B

T Please indicate detection limit if analyte is not detected.

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MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

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PS LCSWMA

Sample Date

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	0.5 ND	EPA 524.2
1,2-DIBROMOETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHENE	0.5 ND	EPA 524.2
1,2-DICHLOROETHANE	0.5 ND	EPA 524.2
CIS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
TRANS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
ETHYLBENZENE	0.5 ND	EPA 524.2
METHYLENE CHLORIDE	0.5 ND	EPA 524.2
TETRACHLOROETHENE	0.5 ND	EPA 524.2
TOLUENE	0.5 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	0.5 ND	EPA 524.2
TRICHLOROETHENE	0.5 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	0.5 ND	EPA 524.2
VINYL CHLORIDE	0.5 ND	EPA 524.2
XYLENES (TOTAL)	0.5 ND	EPA 524.2

T Please indicate detection limit if analyte is not detected.



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General Reference: Act 101 Section 1103	
SECTION A. SITE IDENTIFIER	
Applicant/permittee:	Lancaster County Solid Waste Manage
Site Name:	Frey Farm Landfill
Facility ID (as issued by DEP):	101389
SECTION B. PRIVATE WATER SUPPLY INFORMATION	
INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D ^o MM' SS.S")	
Facility Name:	Frey Farm Landfill
County:	Lancaster County
Township or Municipality:	MANOR TOWNSHIP
Landowner Name:	SENSENICH
Address:	3076 RIVER ROAD
Phone No.:	
Sampling Point:	Latitude: 39° 57' 28.2" Longitude: 76° 26' 11.1"
Depth to Water Level:	ft. Measured from: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC
Casing Stick Up:	ft. Elevation of Water Level: ft./MSL
Total Well Depth:	ft.
Sampling Depth:	ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed
Well Purged:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Volumes Purged:
Sample Field Filtered (must be 0.45 micron)?:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Date:(mm/dd/yy)	11/11/2022 Sample Collection Time: 11:50 AM
Laboratory(ies) Performing Analysis	ALS Environmental
(include address and phone number)	301 Fulling Mill Road Middletown, PA 17057 (717) 944-5541
Lab Accreditation Number(s)	22-293
Lab Analysis Date	12/01/2022
Were any holding times exceeded?:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field.
Comments:	

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS SENSENICH

Sample Date

11/11/2022

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.105	SM4500D
BICARBONATE ALKALINITY	5	SM20-2321
CALCIUM, TOTAL	16.6	EPA 200.7
CALCIUM, DISSOLVED	13.4	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	51.1	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	30 ND	EPA 200.7
IRON, DISSOLVED (ug/l)	60 ND	EPA 200.7
MAGNESIUM, TOTAL	9.4	EPA 200.7
MAGNESIUM, DISSOLVED	7.6	EPA 200.7
MANGANESE, TOTAL (ug/l)	210	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	170	EPA 200.7
NITRATE-NITROGEN	9.4	EPA 300

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS SENSENICH

Sample Date

11/11/2022

1. Inorganics, continued (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE - NITROGEN	1 ND	EPA 300
pH-FIELD (SU)	6.68	FIELD
pH-LAB (SU)	6.72	SM4500B
POTASSIUM, TOTAL	3.9	EPA 200.7
POTASSIUM, DISSOLVED	3.3	EPA 200.7
SODIUM, TOTAL	26.9	EPA 200.7
SODIUM, DISSOLVED	22.4	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	311	FIELD
SPEC. COND., LAB (umhos/cm)	305	EPA 120.1
SULFATE	8.9	EPA 300
ALKALINITY	5	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	192	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	4 ND	EPA 420.4
TURBIDITY (NTU)	0.3 ND	SM 2130B

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS SENSENICH

Sample Date

11/11/2022

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	0.5 ND	EPA 524.2
1,2-DIBROMOETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHENE	0.5 ND	EPA 524.2
1,2-DICHLOROETHANE	0.5 ND	EPA 524.2
CIS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
TRANS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
ETHYLBENZENE	0.5 ND	EPA 524.2
METHYLENE CHLORIDE	0.5 ND	EPA 524.2
TETRACHLOROETHENE	0.5 ND	EPA 524.2
TOLUENE	0.5 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	0.5 ND	EPA 524.2
TRICHLOROETHENE	0.5 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	0.5 ND	EPA 524.2
VINYL CHLORIDE	0.5 ND	EPA 524.2
XYLENES (TOTAL)	0.5 ND	EPA 524.2

T Please indicate detection limit if analyte is not detected.



Date Prepared/Revised 01/27/2023
DEP USE ONLY
Date Received

**FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES**

All information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 52, 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: Act 101 Section 1103	
SECTION A. SITE IDENTIFIER	
Applicant/permittee:	Lancaster County Solid Waste Manage
Site Name:	Frey Farm Landfill
Facility ID (as issued by DEP):	101389
SECTION B. PRIVATE WATER SUPPLY INFORMATION	
INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D ^o MM' SS.S")	
Facility Name:	Frey Farm Landfill
County:	Lancaster County
Township or Municipality:	MANOR TOWNSHIP
Landowner Name:	LCSWMA
Address:	3079 RIVER ROAD
Phone No.:	
Sampling Point:	Latitude: 39° 57' 21.99" Longitude: 76° 26' 10.58"
Depth to Water Level:	ft. Measured from: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC
Casing Stick Up:	ft. Elevation of Water Level: ft./MSL
Total Well Depth:	ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed
Sampling Depth:	ft. Well Volumes Purged:
Well Purged:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Sample Field Filtered (must be 0.45 micron)?:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Date:(mm/dd/yy)	11/11/2022 Sample Collection Time: 1:20 PM
Laboratory(ies) Performing Analysis	ALS Environmental
(include address and phone number)	301 Fulling Mill Road Middletown, PA 17057 (717) 944-5541
Lab Accreditation Number(s)	22-293
Lab Analysis Date	12/01/2022
Were any holding times exceeded?:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field.
Comments:	

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS LCSWMA

Sample Date

11/11/2022

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.162	SM4500D
BICARBONATE ALKALINITY	24	SM20-2321
CALCIUM, TOTAL	11.8	EPA 200.7
CALCIUM, DISSOLVED	10.2	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	33.5	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	30 ND	EPA 200.7
IRON, DISSOLVED (ug/l)	60 ND	EPA 200.7
MAGNESIUM, TOTAL	6	EPA 200.7
MAGNESIUM, DISSOLVED	5.5	EPA 200.7
MANGANESE, TOTAL (ug/l)	40	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	35	EPA 200.7
NITRATE-NITROGEN	1	EPA 300

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS LCSWMA

Sample Date

11/11/2022

1. Inorganics, continued (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE - NITROGEN	1 ND	EPA 300
pH-FIELD (SU)	7.38	FIELD
pH-LAB (SU)	7.42	SM4500B
POTASSIUM, TOTAL	2.2	EPA 200.7
POTASSIUM, DISSOLVED	2	EPA 200.7
SODIUM, TOTAL	14.6	EPA 200.7
SODIUM, DISSOLVED	12.8	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	209	FIELD
SPEC. COND., LAB (umhos/cm)	196	EPA 120.1
SULFATE	8.1	EPA 300
ALKALINITY	24	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	122	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	4 ND	EPA 420.4
TURBIDITY (NTU)	0.3 ND	SM 2130B

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS LCSWMA

Sample Date

11/11/2022

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	0.5 ND	EPA 524.2
1,2-DIBROMOETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHENE	0.5 ND	EPA 524.2
1,2-DICHLOROETHANE	0.5 ND	EPA 524.2
CIS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
TRANS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
ETHYLBENZENE	0.5 ND	EPA 524.2
METHYLENE CHLORIDE	0.5 ND	EPA 524.2
TETRACHLOROETHENE	0.5 ND	EPA 524.2
TOLUENE	0.5 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	0.5 ND	EPA 524.2
TRICHLOROETHENE	0.5 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	0.5 ND	EPA 524.2
VINYL CHLORIDE	0.5 ND	EPA 524.2
XYLENES (TOTAL)	0.5 ND	EPA 524.2

T Please indicate detection limit if analyte is not detected.



Date Prepared/Revised 01/27/2023
DEP USE ONLY
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**FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES**

All information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 52, 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: Act 101 Section 1103	
SECTION A. SITE IDENTIFIER	
Applicant/permittee:	Lancaster County Solid Waste Manage
Site Name:	Frey Farm Landfill
Facility ID (as issued by DEP):	101389
SECTION B. PRIVATE WATER SUPPLY INFORMATION	
INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D ^o MM' SS.S")	
Facility Name:	Frey Farm Landfill
County:	Lancaster County
Township or Municipality:	MANOR TOWNSHIP
Landowner Name:	WEBER
Address:	3088 RIVER ROAD
Phone No.:	
Sampling Point: Latitude:	39° 57' 21" Longitude: 76° 26' 7.1"
Depth to Water Level:	ft. Measured from: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC
Casing Stick Up:	ft. Elevation of Water Level: _____ ft./MSL
Total Well Depth:	ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed
Sampling Depth:	ft. Well Volumes Purged: _____
Well Purged:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Sample Field Filtered (must be 0.45 micron)?:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Date:(mm/dd/yy)	11/11/2022 Sample Collection Time: 11:30 AM
Laboratory(ies) Performing Analysis	ALS Environmental
(include address and phone number)	301 Fulling Mill Road Middletown, PA 17057 (717) 944-5541
Lab Accreditation Number(s)	22-293
Lab Analysis Date	12/01/2022
Were any holding times exceeded?:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field.
Comments:	

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS WEBER

Sample Date

11/11/2022

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	172	SM20-2321
CALCIUM, TOTAL	0.18	EPA 200.7
CALCIUM, DISSOLVED	0.14	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	246	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	30 ND	EPA 200.7
IRON, DISSOLVED (ug/l)	60 ND	EPA 200.7
MAGNESIUM, TOTAL	0.057	EPA 200.7
MAGNESIUM, DISSOLVED	0.1 ND	EPA 200.7
MANGANESE, TOTAL (ug/l)	2.5 ND	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	5 ND	EPA 200.7
NITRATE-NITROGEN	5.4	EPA 300

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS WEBER

Sample Date

11/11/2022

1. Inorganics, continued (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE - NITROGEN	2.5 ND	EPA 300
pH-FIELD (SU)	8.19	FIELD
pH-LAB (SU)	8.23	SM4500B
POTASSIUM, TOTAL	2.8	EPA 200.7
POTASSIUM, DISSOLVED	2.5	EPA 200.7
SODIUM, TOTAL	249	EPA 200.7
SODIUM, DISSOLVED	217	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	1192	FIELD
SPEC. COND., LAB (umhos/cm)	1180	EPA 120.1
SULFATE	5 ND	EPA 300
ALKALINITY	172	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	646	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	4 ND	EPA 420.4
TURBIDITY (NTU)	0.4	SM 2130B

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS WEBER

Sample Date

11/11/2022

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	0.5 ND	EPA 524.2
1,2-DIBROMOETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHENE	0.5 ND	EPA 524.2
1,2-DICHLOROETHANE	0.5 ND	EPA 524.2
CIS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
TRANS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
ETHYLBENZENE	0.5 ND	EPA 524.2
METHYLENE CHLORIDE	0.5 ND	EPA 524.2
TETRACHLOROETHENE	0.5 ND	EPA 524.2
TOLUENE	0.5 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	0.5 ND	EPA 524.2
TRICHLOROETHENE	0.5 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	0.5 ND	EPA 524.2
VINYL CHLORIDE	0.5 ND	EPA 524.2
XYLENES (TOTAL)	0.5 ND	EPA 524.2

T Please indicate detection limit if analyte is not detected.



Date Prepared/Revised 01/27/2023
DEP USE ONLY
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FORM 52 MUNICIPAL WASTE LANDFILL PRIVATE WATER SUPPLY QUARTERLY WATER QUALITY ANALYSES

All information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 52, 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: Act 101 Section 1103	
SECTION A. SITE IDENTIFIER	
Applicant/permittee:	Lancaster County Solid Waste Manage
Site Name:	Frey Farm Landfill
Facility ID (as issued by DEP):	101389
SECTION B. PRIVATE WATER SUPPLY INFORMATION	
INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D ^o MM' SS.S")	
Facility Name:	Frey Farm Landfill
County:	Lancaster County
Township or Municipality:	MANOR TOWNSHIP
Landowner Name:	KIRCHNER
Address:	3100 RIVER ROAD
Phone No.:	
Sampling Point:	Latitude: 39° 57' 17.9" Longitude: 76° 26' 6.28"
Depth to Water Level:	ft. Measured from: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC
Casing Stick Up:	ft. Elevation of Water Level: ft./MSL
Total Well Depth:	ft.
Sampling Depth:	ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed
Well Purged:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Volumes Purged:
Sample Field Filtered (must be 0.45 micron)?:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Date:(mm/dd/yy)	11/11/2022 Sample Collection Time: 11:00 AM
Laboratory(ies) Performing Analysis	ALS Environmental
(include address and phone number)	301 Fulling Mill Road Middletown, PA 17057 (717) 944-5541
Lab Accreditation Number(s)	22-293
Lab Analysis Date	12/01/2022
Were any holding times exceeded?:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field.
Comments:	

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS KIRCHNER

Sample Date

11/11/2022

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.32	SM4500D
BICARBONATE ALKALINITY	24	SM20-2321
CALCIUM, TOTAL	15.8	EPA 200.7
CALCIUM, DISSOLVED	12.7	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	38.8	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	46	EPA 200.7
IRON, DISSOLVED (ug/l)	60 ND	EPA 200.7
MAGNESIUM, TOTAL	7.2	EPA 200.7
MAGNESIUM, DISSOLVED	5.8	EPA 200.7
MANGANESE, TOTAL (ug/l)	11	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	8.2	EPA 200.7
NITRATE-NITROGEN	2.6	EPA 300

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS KIRCHNER

Sample Date

11/11/2022

1. Inorganics, continued (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE - NITROGEN	1 ND	EPA 300
pH-FIELD (SU)	7.37	FIELD
pH-LAB (SU)	7.45	SM4500B
POTASSIUM, TOTAL	1.8	EPA 200.7
POTASSIUM, DISSOLVED	1.6	EPA 200.7
SODIUM, TOTAL	17.8	EPA 200.7
SODIUM, DISSOLVED	14.7	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	226	FIELD
SPEC. COND., LAB (umhos/cm)	220	EPA 120.1
SULFATE	4.5	EPA 300
ALKALINITY	24	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	136	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	4 ND	EPA 420.4
TURBIDITY (NTU)	0.4	SM 2130B

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS KIRCHNER

Sample Date

11/11/2022

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	0.5 ND	EPA 524.2
1,2-DIBROMOETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHENE	0.5 ND	EPA 524.2
1,2-DICHLOROETHANE	0.5 ND	EPA 524.2
CIS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
TRANS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
ETHYLBENZENE	0.5 ND	EPA 524.2
METHYLENE CHLORIDE	0.5 ND	EPA 524.2
TETRACHLOROETHENE	0.5 ND	EPA 524.2
TOLUENE	0.5 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	0.5 ND	EPA 524.2
TRICHLOROETHENE	0.5 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	0.5 ND	EPA 524.2
VINYL CHLORIDE	0.5 ND	EPA 524.2
XYLENES (TOTAL)	0.5 ND	EPA 524.2

T Please indicate detection limit if analyte is not detected.



Date Prepared/Revised 01/27/2023
DEP USE ONLY
Date Received

**FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES**

All information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 52, 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: Act 101 Section 1103	
SECTION A. SITE IDENTIFIER	
Applicant/permittee:	Lancaster County Solid Waste Manage
Site Name:	Frey Farm Landfill
Facility ID (as issued by DEP):	101389
SECTION B. PRIVATE WATER SUPPLY INFORMATION	
INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D ^o MM' SS.S")	
Facility Name:	Frey Farm Landfill
County:	Lancaster County
Township or Municipality:	MANOR TOWNSHIP
Landowner Name:	FRY
Address:	3106 RIVER ROAD
Phone No.:	
Sampling Point:	Latitude: 39° 57' 17.27" Longitude: 76° 26' 5.6"
Depth to Water Level:	ft. Measured from: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC
Casing Stick Up:	ft. Elevation of Water Level: ft./MSL
Total Well Depth:	ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed
Sampling Depth:	ft. Well Volumes Purged:
Well Purged:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Sample Field Filtered (must be 0.45 micron)?:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Date:(mm/dd/yy)	11/11/2022 Sample Collection Time: 11:20 AM
Laboratory(ies) Performing Analysis	ALS Environmental
(include address and phone number)	301 Fulling Mill Road Middletown, PA 17057 (717) 944-5541
Lab Accreditation Number(s)	22-293
Lab Analysis Date	12/02/2022
Were any holding times exceeded?:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field.
Comments:	

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS FRY

Sample Date

11/11/2022

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.103	SM4500D
BICARBONATE ALKALINITY	15	SM20-2321
CALCIUM, TOTAL	19.9	EPA 200.7
CALCIUM, DISSOLVED	18	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	92.7	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	30 ND	EPA 200.7
IRON, DISSOLVED (ug/l)	60 ND	EPA 200.7
MAGNESIUM, TOTAL	12.6	EPA 200.7
MAGNESIUM, DISSOLVED	11.5	EPA 200.7
MANGANESE, TOTAL (ug/l)	42	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	39	EPA 200.7
NITRATE-NITROGEN	10.3	EPA 300

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS FRY

Sample Date

11/11/2022

1. Inorganics, continued (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE - NITROGEN	1 ND	EPA 300
pH-FIELD (SU)	7.17	FIELD
pH-LAB (SU)	7.24	SM4500B
POTASSIUM, TOTAL	2.2	EPA 200.7
POTASSIUM, DISSOLVED	2.1	EPA 200.7
SODIUM, TOTAL	39.8	EPA 200.7
SODIUM, DISSOLVED	36.7	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	251	FIELD
SPEC. COND., LAB (umhos/cm)	458	EPA 120.1
SULFATE	5.1	EPA 300
ALKALINITY	15	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	258	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	4 ND	EPA 420.4
TURBIDITY (NTU)	0.3 ND	SM 2130B

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS FRY

Sample Date

11/11/2022

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	0.5 ND	EPA 524.2
1,2-DIBROMOETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHENE	0.5 ND	EPA 524.2
1,2-DICHLOROETHANE	0.5 ND	EPA 524.2
CIS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
TRANS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
ETHYLBENZENE	0.5 ND	EPA 524.2
METHYLENE CHLORIDE	0.5 ND	EPA 524.2
TETRACHLOROETHENE	0.5 ND	EPA 524.2
TOLUENE	0.5 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	0.5 ND	EPA 524.2
TRICHLOROETHENE	0.5 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	0.5 ND	EPA 524.2
VINYL CHLORIDE	0.5 ND	EPA 524.2
XYLENES (TOTAL)	0.5 ND	EPA 524.2

T Please indicate detection limit if analyte is not detected.


 Date Prepared/Revised
 01/27/2023

DEP USE ONLY

Date Received

FORM 52

MUNICIPAL WASTE LANDFILL PRIVATE WATER SUPPLY QUARTERLY WATER QUALITY ANALYSES

All information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 52, 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: Act 101 Section 1103

SECTION A. SITE IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Manage

Site Name: Frey Farm Landfill

Facility ID (as issued by DEP): 101389

SECTION B. PRIVATE WATER SUPPLY INFORMATION

INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DE° MM' SS.S")

Facility Name: Frey Farm Landfill

County: Lancaster County

Township or Municipality: MANOR TOWNSHIP

Landowner Name: BECK

Address: 3125 RIVER ROAD

Phone No.:

Sampling Point: Latitude: 39° 57' 11.6" Longitude: 76° 26' 5.4"

Depth to Water Level: _____ ft.

 Measured from: Land Surface TOC

Casing Stick Up: _____ ft.

Elevation of Water Level: _____ ft./MSL

Total Well Depth: _____ ft.

Sampling Depth: _____ ft.

 Sampling Method: Pumped Bailed

 Well Purged: Yes No

Well Volumes Purged: _____

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

Sample Date:(mm/dd/yy) 11/11/2022

Sample Collection Time: 1:00 PM

Laboratory(ies) Performing Analysis ALS Environmental

(include address and phone number) 301 Fulling Mill Road

Middletown, PA 17057

(717) 944-5541

Lab Accreditation Number(s) 22-293

Lab Analysis Date 12/02/2022

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

Comments:

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS BECK

Sample Date

11/11/2022

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.119	SM4500D
BICARBONATE ALKALINITY	152	SM20-2321
CALCIUM, TOTAL	33.2	EPA 200.7
CALCIUM, DISSOLVED	31.7	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	80.5	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	30 ND	EPA 200.7
IRON, DISSOLVED (ug/l)	60 ND	EPA 200.7
MAGNESIUM, TOTAL	3.8	EPA 200.7
MAGNESIUM, DISSOLVED	3.7	EPA 200.7
MANGANESE, TOTAL (ug/l)	15	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	5 ND	EPA 200.7
NITRATE-NITROGEN	4.3	EPA 300

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS BECK

Sample Date

11/11/2022

1. Inorganics, continued (Enter all data in mg/l except as noted)

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE - NITROGEN	1 ND	EPA 300
pH-FIELD (SU)	8.21	FIELD
pH-LAB (SU)	8.18	SM4500B
POTASSIUM, TOTAL	2.7	EPA 200.7
POTASSIUM, DISSOLVED	2.6	EPA 200.7
SODIUM, TOTAL	98.3	EPA 200.7
SODIUM, DISSOLVED	95.4	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	631	FIELD
SPEC. COND., LAB (umhos/cm)	626	EPA 120.1
SULFATE	9.3	EPA 300
ALKALINITY	152	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	366	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	4 ND	EPA 420.4
TURBIDITY (NTU)	0.3 ND	SM 2130B

T Please indicate detection limit if analyte is not detected.

FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS BECK

Sample Date

11/11/2022

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	0.5 ND	EPA 524.2
1,2-DIBROMOETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHANE	0.5 ND	EPA 524.2
1,1-DICHLOROETHENE	0.5 ND	EPA 524.2
1,2-DICHLOROETHANE	0.5 ND	EPA 524.2
CIS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
TRANS 1,2-DICHLOROETHENE	0.5 ND	EPA 524.2
ETHYLBENZENE	0.5 ND	EPA 524.2
METHYLENE CHLORIDE	0.5 ND	EPA 524.2
TETRACHLOROETHENE	0.5 ND	EPA 524.2
TOLUENE	0.5 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	0.5 ND	EPA 524.2
TRICHLOROETHENE	0.5 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	0.5 ND	EPA 524.2
VINYL CHLORIDE	0.5 ND	EPA 524.2
XYLENES (TOTAL)	0.5 ND	EPA 524.2

T Please indicate detection limit if analyte is not detected.



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

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

Analytical Results Report For

Lancaster County Solid Waste Authority

Project 4TH QTR 2022-3044 RIVER RD

Workorder 3273618

Report ID 211132 on 12/6/2022

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Nov 11, 2022.

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

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

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

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):

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

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

<u>Lab ID</u>	<u>Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>	<u>Collector</u>	<u>Collection Company</u>
3273618001	3044 River Road, Conestoga, PA	Water	11/11/2022 12:50	11/11/2022 16:30	BGS	Analytical Laboratory Service



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136.
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed 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 CaCO ₃ /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	3044 River Road, Conestoga, PA	Collected	11/11/2022 12:50
Lab Sample ID	3273618001	Lab Receipt	11/11/2022 16:30

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	7.05	pH_Units		Field	#
Specific Conductance, Field	246	umhos/cm	1	Field	#
Temperature	17.30	Deg. C		Field	#
METALS					
Calcium, Dissolved	13.8	mg/L	0.10	EPA 200.7	#
Calcium, Total	15.9	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	9.5	mg/L	0.10	EPA 200.7	#
Magnesium, Total	11.0	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.014	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.017	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	1.6	mg/L	0.50	EPA 200.7	#
Potassium, Total	1.9	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	8.4	mg/L	0.50	EPA 200.7	#
Sodium, Total	9.6	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	12	mg/L	5	SM2320B-2011	#
Ammonia-N	0.101	mg/L	0.100	ASTM D6919-09	#
Chloride	16.8	mg/L	2.0	EPA 300.0	#
Nitrate-N	17.5	mg/L	1.0	EPA 300.0	#
pH	7.14	pH_Units		S4500HB-11	#
Specific Conductance	241	umhos/cm	5	SM2510B-2011	#
Total Dissolved Solids	186	mg/L	25	S2540C-11	#



Results

Client Sample ID	3044 River Road, Conestoga, PA	Collected	11/11/2022 12:50
Lab Sample ID	3273618001	Lab Receipt	11/11/2022 16:30

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	7.05		pH_Units		Field	1	11/11/2022 12:50	BGS	N
Specific Conductance, Field	246		umhos/cm	1	Field	1	11/11/2022 12:50	BGS	N
Temperature	17.30		Deg. C		Field	1	11/11/2022 12:50	BGS	N

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	13.8		mg/L	0.10	EPA 200.7	1	11/17/2022 21:21	SRT	E1
Calcium, Total	15.9		mg/L	0.050	EPA 200.7	1	11/23/2022 11:33	SRT	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	11/17/2022 21:21	SRT	E1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	11/23/2022 11:33	SRT	D1
Magnesium, Dissolved	9.5		mg/L	0.10	EPA 200.7	1	11/17/2022 21:21	SRT	E1
Magnesium, Total	11.0		mg/L	0.050	EPA 200.7	1	11/23/2022 11:33	SRT	D1
Manganese, Dissolved	0.014		mg/L	0.0050	EPA 200.7	1	11/17/2022 21:21	SRT	E1
Manganese, Total	0.017		mg/L	0.0025	EPA 200.7	1	11/23/2022 11:33	SRT	D1
Potassium, Dissolved	1.6		mg/L	0.50	EPA 200.7	1	11/17/2022 21:21	SRT	E1
Potassium, Total	1.9		mg/L	0.25	EPA 200.7	1	11/23/2022 11:33	SRT	D1
Sodium, Dissolved	8.4		mg/L	0.50	EPA 200.7	1	11/17/2022 21:21	SRT	E1
Sodium, Total	9.6		mg/L	0.25	EPA 200.7	1	11/23/2022 11:33	SRT	D1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:30	PDK	K
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:30	PDK	K
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:30	PDK	K
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:30	PDK	K
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:30	PDK	K
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:30	PDK	K
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:30	PDK	K
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:30	PDK	K
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:30	PDK	K
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:30	PDK	K
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:30	PDK	K
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:30	PDK	K
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:30	PDK	K
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:30	PDK	K
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:30	PDK	K
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:30	PDK	K

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	97.6%	70 - 130	11/23/2022 07:30	

WET CHEMISTRY



Results

Client Sample ID	3044 River Road, Conestoga, PA	Collected	11/11/2022 12:50
Lab Sample ID	3273618001	Lab Receipt	11/11/2022 16:30

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	12		mg/L	5	SM2320B-2011	1	11/16/2022 02:12	NML	A
Alkalinity, Total	ND	ND,1	mg/L	20	SM2320B-2011	1	11/16/2022 02:12	NML	A
Ammonia-N	0.101		mg/L	0.100	ASTM D6919-09	10	11/21/2022 16:02	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	11/18/2022 14:40	KMS	C
Chloride	16.8		mg/L	2.0	EPA 300.0	2	11/12/2022 21:37	J1W	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	12/02/2022 00:45	AXW	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	11/29/2022 17:22	PAG	I
Nitrate-N	17.5		mg/L	1.0	EPA 300.0	2	11/12/2022 21:37	J1W	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	11/12/2022 21:37	J1W	A
pH	7.14	2	pH_Units		S4500HB-11	1	11/16/2022 02:12	NML	A
Phenolics	ND	ND	mg/L	0.004	EPA 420.4	1	11/23/2022 15:10	AKH	H
Specific Conductance	241		umhos/cm	5	SM2510B-2011	1	11/15/2022 10:00	JXL	A
Sulfate	ND	ND	mg/L	2.0	EPA 300.0	2	11/12/2022 21:37	J1W	A
Total Dissolved Solids	186		mg/L	25	S2540C-11	1	11/15/2022 11:48	SMS	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-2011	1	11/15/2022 03:52	PAG	F
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	11/12/2022 05:50	NRB	A



Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3273618001	3044 River Road, Conestoga, PA	Field	N/A	
		EPA 200.7	EPA TRMD	
		EPA 200.7	EPA ACID	
		EPA 524.2	N/A	
		ASTM D6919-09	N/A	
		EPA 300.0	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S2540C-11	N/A	
		S4500HB-11	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM5310B-2011	N/A	
		SW846 9020B	N/A	



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3273618001	3044 River Road, Conestoga, PA	N/A	N/A	N/A		Field	913842
		EPA TRMD	910082	11/17/2022 23:59	ANN	EPA 200.7	912315
		EPA ACID	909740	11/17/2022 16:24	MO	EPA 200.7	909741
		N/A	N/A	N/A		EPA 524.2	912190
		N/A	N/A	N/A		ASTM D6919-09	909648
		N/A	N/A	N/A		EPA 300.0	907981
		N/A	N/A	N/A		EPA 300.0	913851
		N/A	N/A	N/A		EPA 410.4	910328
		SW846 9066	912106	11/22/2022 15:26	AKH	EPA 420.4	912123
		N/A	N/A	N/A		S2540C-11	908061
		N/A	N/A	N/A		S4500HB-11	908951
		N/A	N/A	N/A		SM2130B-2011	907975
		N/A	N/A	N/A		SM2320B-2011	908951
		N/A	N/A	N/A		SM2510B-2011	909067
		N/A	N/A	N/A		SM5310B-2011	908924
		N/A	N/A	N/A		SW846 9020B	914106

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

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

TAT Normal-Standard TAT is 10-12 business days.
 Rush-Subject to ALS approval and surcharges.
 Date Required: _____ Approved By: _____
 Email? -Y
 Fax? -Y No.:

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time
1. 3044RIVERRD	11/11/22	1250
2. Trip Blank	11/11/22	1630
3		
4		
5		
6		
7		
8		
9		
10		

Container Type	AG	AN	AN	CG	PL	PL	PL	PL	PL
Container Size	40 ml	125 ml	250 ml	40 ml	250 ml	125 ml	125 ml	500 ml	500 ml
Preservative	HCl	H2SO4	H2SO4	Asc&HCl	H2SO4	HNO3	HNO3	None	None

ANALYSES/METHOD REQUESTED

Enter Number of Containers Per Sample or Field Results Below.	TOC	O-H	TOX	524 VOCs	FM	NH3-N, COD	Dissolved Metals: Ca, Fe, Mg, Mn, K, Na	Metals: Ca, Fe, Mg, Mn, K, Na	PH, TDS, NO2, NO3, Cl, SO4, F, Pb, Spc	Alkalinity, HCO3
2	1	2	3	1	X	24	1	1		
2			2							

Temp Taken By: WFE
 WO Temp (°C): 570
 Therm ID: 570
 Receipt Info Completed By: WFE
 Cooler Custody Seal Intact: Y N MA
 Sample Custody Seal Intact: Y N MA
 Received on Ice: Y N MA
 Cooler & Samples Intact: Y N MA
 Correct Containers Provided: Y N MA
 Sample Label/COC Agree: Y N MA
 Adequate Sample Volumes: Y N MA
 VOA Headspace Present: Y N MA
 Voa Trip Blank: Y N MA
 NIS 4 Days?: Y N MA
 Rad Screen (uCi): Y N MA
 Courier/Tracking #: _____
 SDWA Compliance: Y N MA
 PWSID: Y N MA
 WV Containers 0-6°C: Y N MA

ALS Field Services: Pickup Labor
 Composite Sampling Rental Equipment
 Other:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
<u>XOShael</u>	<u>11/11/22</u>	<u>1630</u>	<u>Michelle</u>	<u>11/12/22</u>	<u>1630</u>



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

Analytical Results Report For

Lancaster County Solid Waste Authority

Project 4TH QTR 2022 3052 RIVER RD

Workorder 3273615

Report ID 211145 on 12/6/2022

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Nov 11, 2022.

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

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

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

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):

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

Susan Scherer

Susan Scherer

(ALS Digital Signature)

Project Coordinator

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



Sample Summary

<u>Lab ID</u>	<u>Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>	<u>Collector</u>	<u>Collection Company</u>
3273615001	3052 River Road, Conestoga, PA	Water	11/11/2022 12:40	11/11/2022 16:30	BGS	Analytical Laboratory Service



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136.
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed 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 CaCO ₃ /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	3052 River Road, Conestoga, PA	Collected	11/11/2022 12:40
Lab Sample ID	3273615001	Lab Receipt	11/11/2022 16:30

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	6.85	pH_Units		Field	#
Specific Conductance, Field	234	umhos/cm	1	Field	#
Temperature	17.20	Deg. C		Field	#
METALS					
Calcium, Dissolved	14.2	mg/L	0.10	EPA 200.7	#
Calcium, Total	16.5	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	8.9	mg/L	0.10	EPA 200.7	#
Magnesium, Total	10.4	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.034	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.040	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	2.0	mg/L	0.50	EPA 200.7	#
Potassium, Total	2.2	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	7.1	mg/L	0.50	EPA 200.7	#
Sodium, Total	8.2	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	7	mg/L	5	SM2320B-2011	#
Alkalinity, Total	7	mg/L	5	SM2320B-2011	#
Ammonia-N	0.106	mg/L	0.100	ASTM D6919-09	#
Chloride	18.3	mg/L	2.0	EPA 300.0	#
Nitrate-N	17.1	mg/L	1.0	EPA 300.0	#
pH	6.89	pH_Units		S4500HB-11	#
Specific Conductance	234	umhos/cm	5	SM2510B-2011	#
Total Dissolved Solids	178	mg/L	25	S2540C-11	#



Results

Client Sample ID	3052 River Road, Conestoga, PA	Collected	11/11/2022 12:40
Lab Sample ID	3273615001	Lab Receipt	11/11/2022 16:30

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	6.85		pH_Units		Field	1	11/11/2022 12:40	BGS	N
Specific Conductance, Field	234		umhos/cm	1	Field	1	11/11/2022 12:40	BGS	N
Temperature	17.20		Deg. C		Field	1	11/11/2022 12:40	BGS	N

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	14.2		mg/L	0.10	EPA 200.7	1	11/17/2022 21:18	SRT	E1
Calcium, Total	16.5		mg/L	0.050	EPA 200.7	1	11/23/2022 11:29	SRT	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	11/17/2022 21:18	SRT	E1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	11/23/2022 11:29	SRT	D1
Magnesium, Dissolved	8.9		mg/L	0.10	EPA 200.7	1	11/17/2022 21:18	SRT	E1
Magnesium, Total	10.4		mg/L	0.050	EPA 200.7	1	11/23/2022 11:29	SRT	D1
Manganese, Dissolved	0.034		mg/L	0.0050	EPA 200.7	1	11/17/2022 21:18	SRT	E1
Manganese, Total	0.040		mg/L	0.0025	EPA 200.7	1	11/23/2022 11:29	SRT	D1
Potassium, Dissolved	2.0		mg/L	0.50	EPA 200.7	1	11/17/2022 21:18	SRT	E1
Potassium, Total	2.2		mg/L	0.25	EPA 200.7	1	11/23/2022 11:29	SRT	D1
Sodium, Dissolved	7.1		mg/L	0.50	EPA 200.7	1	11/17/2022 21:18	SRT	E1
Sodium, Total	8.2		mg/L	0.25	EPA 200.7	1	11/23/2022 11:29	SRT	D1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:04	PDK	K
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:04	PDK	K
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:04	PDK	K
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:04	PDK	K
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:04	PDK	K
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:04	PDK	K
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:04	PDK	K
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:04	PDK	K
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:04	PDK	K
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:04	PDK	K
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:04	PDK	K
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:04	PDK	K
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:04	PDK	K
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:04	PDK	K
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:04	PDK	K
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:04	PDK	K

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	96.3%	70 - 130	11/23/2022 07:04	

WET CHEMISTRY



Results

Client Sample ID	3052 River Road, Conestoga, PA	Collected	11/11/2022 12:40
Lab Sample ID	3273615001	Lab Receipt	11/11/2022 16:30

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	7		mg/L	5	SM2320B-2011	1	11/16/2022 02:00	NML	A
Alkalinity, Total	7	1	mg/L	5	SM2320B-2011	1	11/16/2022 02:00	NML	A
Ammonia-N	0.106		mg/L	0.100	ASTM D6919-09	10	11/21/2022 16:16	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	11/18/2022 14:40	KMS	C
Chloride	18.3		mg/L	2.0	EPA 300.0	2	11/12/2022 21:16	J1W	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	12/02/2022 00:24	AXW	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	11/29/2022 17:22	PAG	I
Nitrate-N	17.1		mg/L	1.0	EPA 300.0	2	11/12/2022 21:16	J1W	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	11/12/2022 21:16	J1W	A
pH	6.89	2	pH_Units		S4500HB-11	1	11/16/2022 02:00	NML	A
Phenolics	ND	ND	mg/L	0.004	EPA 420.4	1	11/23/2022 15:32	AKH	H
Specific Conductance	234		umhos/cm	5	SM2510B-2011	1	11/15/2022 10:00	JXL	A
Sulfate	ND	ND	mg/L	2.0	EPA 300.0	2	11/12/2022 21:16	J1W	A
Total Dissolved Solids	178		mg/L	25	S2540C-11	1	11/15/2022 11:48	SMS	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-2011	1	11/15/2022 03:52	PAG	F
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	11/12/2022 05:50	NRB	A



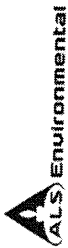
Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3273615001	3052 River Road, Conestoga, PA	Field	N/A	
		EPA 200.7	EPA TRMD	
		EPA 200.7	EPA ACID	
		EPA 524.2	N/A	
		ASTM D6919-09	N/A	
		EPA 300.0	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S2540C-11	N/A	
		S4500HB-11	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM5310B-2011	N/A	
		SW846 9020B	N/A	



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3273615001	3052 River Road, Conestoga, PA	N/A	N/A	N/A		Field	913842
		EPA TRMD	910082	11/17/2022 23:59	ANN	EPA 200.7	912315
		EPA ACID	909740	11/17/2022 16:24	MO	EPA 200.7	909741
		N/A	N/A	N/A		EPA 524.2	912190
		N/A	N/A	N/A		ASTM D6919-09	909648
		N/A	N/A	N/A		EPA 300.0	907981
		N/A	N/A	N/A		EPA 300.0	913851
		N/A	N/A	N/A		EPA 410.4	910328
		SW846 9066	912106	11/22/2022 15:26	AKH	EPA 420.4	912123
		N/A	N/A	N/A		S2540C-11	908061
		N/A	N/A	N/A		S4500HB-11	908951
		N/A	N/A	N/A		SM2130B-2011	907975
		N/A	N/A	N/A		SM2320B-2011	908951
		N/A	N/A	N/A		SM2510B-2011	909067
		N/A	N/A	N/A		SM5310B-2011	908924
N/A	N/A	N/A		SW846 9020B	914106		



34 Dogwood Lane • Middletown, PA 17057 • Phone: 717-944-5541 • Fax: 717-944-5541 • www.alsglobal.com

301 Filling Mill Road • Middletown, PA 17057 • 717-944-5541 • Fax: 717-944-1430

Client Name: LCSWMA - Gerald E. Miller, Sr.

Address: 3052 River Road
Conestoga, PA 17516

Contact: Gerald E. Miller, Sr.
Phone#: (717) 872-5117

Project Name#: LCSWMA - Quarterly

Bill To: Lancaster County Solid Waste MA

TAT Normal-Standard TAT is 10-12 business days.
 Rush-Subject to ALS approval and surcharges.

Date Required: _____ Approved By: _____

Email? -Y -N

Fax? -Y -N

Sample Description/Location (as it will appear on the lab report)

Sample Date

Time

1. 3052RIVERRD 11/11/22 1240

2. Trip Blank 11/11/22 1030

3

4

5

6

7

8

9

10

Project Comments:

Relinquished By / Company Name: *Richard AFB*

Date: 11/11/22

Time: 11:20 AM

Received By / Company Name: *Michelle*

Date: 11/12/22

Time: 1630

3

4

6

8

10

* G=Grab, C=Composite

**Matrix - A=Air, DW=Drinking Water, GW=Groundwater, O=Oil, OL=Other Liquid, SL=Sludge, SO=Soil, WP=Wipe, WW=Wastewater

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

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

Container Type	AG	AN	AN	CG	PL	PL	PL	PL	PL	PL
Container Size	40 ml	125 ml	250 ml	40 ml	250 ml	125 ml	125 ml	125 ml	500 ml	500 ml
Preservative	HCl	H2SO4	H2SO4	Asc&HCl	H2SO4	HNO3	HNO3	HNO3	None	None

ANALYSES/METHOD REQUESTED

Container Type	AG	AN	AN	CG	PL	PL	PL	PL	PL	PL
Container Size	40 ml	125 ml	250 ml	40 ml	250 ml	125 ml	125 ml	125 ml	500 ml	500 ml
Preservative	HCl	H2SO4	H2SO4	Asc&HCl	H2SO4	HNO3	HNO3	HNO3	None	None

Enter Number of Containers Per Sample or Field Results Below.

Container Type	AG	AN	AN	CG	PL	PL	PL	PL	PL	PL
Container Size	40 ml	125 ml	250 ml	40 ml	250 ml	125 ml	125 ml	125 ml	500 ml	500 ml
Preservative	HCl	H2SO4	H2SO4	Asc&HCl	H2SO4	HNO3	HNO3	HNO3	None	None

LOGGED BY (signature):

REVIEWED BY (signature):

Date

Time

Received By / Company Name

Date

Time

3

4

6

8

10

3273615

Logged By: SLS

PM: SJB



Receipt Information (Completed by Receiving Lab)

Cooler Temp: 12 Therm ID: TH50

No. of Coolers: Y N Initial

Custody Seals Present? Y N Initial

(if present) Seals Intact? Y N Initial

Received on Ice? Y N Initial

COC Labels Complete/Accurate? Y N Initial

Cont. in Good Cond.? Y N Initial

Temp Taken By: ANE

WO Temp (°C):

Therm ID: 570

Receipt Info Completed By: KSP

Cooler Custody Seal Intact: Y N NA

Sample Custody Seal Intact: Y N NA

Received on Ice: Y N NA

Cooler & Samples Intact: Y N NA

Correct Containers Provided: Y N NA

Sample Label/COC Agree: Y N NA

Adequate Sample Volumes: Y N NA

VOA Headspace Present: Y N NA

Voa Trip Blank: Y N NA

NJs 4 Days? Y N NA

Rad Screen (uCi): Y N NA

Courier/Tracking #: Y N NA

SDWA Compliance: Y N NA

PWSID: Y N NA

WV Containers 0-6°C: Y N NA

ALS Field Services: Pickup Labor

Composite_Sampling Rental_Equipment

Other:

Standard

CLP-like

USACE

USACE

Navy

USACE

State Samples Collected In

NY

NJ

PA

NC

Special Processing

USACE

Special



Generated by ALS



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

Analytical Results Report For **Lancaster County Solid Waste Authority**
Project 4TH QTR 2022 3056 RIVER RD
Workorder 3273606
Report ID 211150 on 12/6/2022

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Nov 11, 2022.

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

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

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

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

Susan Scherer

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

Susan Scherer (ALS Digital Signature)
Project Coordinator



Sample Summary

<u>Lab ID</u>	<u>Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>	<u>Collector</u>	<u>Collection Company</u>
3273606001	3056RIVERRD	Water	11/11/2022 12:30	11/11/2022 16:30	BGS	Analytical Laboratory Service



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136.
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed 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 4TH QTR 2022 3056 RIVER RD
Workorder 3273606

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 CaCO ₃ /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	3056RIVERRD	Collected	11/11/2022 12:30
Lab Sample ID	3273606001	Lab Receipt	11/11/2022 16:30

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	6.79	pH_Units		Field	#
Specific Conductance, Field	231	umhos/cm	1	Field	#
Temperature	16.40	Deg. C		Field	#
METALS					
Calcium, Dissolved	10.8	mg/L	0.10	EPA 200.7	#
Calcium, Total	12.4	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	11.1	mg/L	0.10	EPA 200.7	#
Magnesium, Total	12.6	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.075	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.087	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	2.3	mg/L	0.50	EPA 200.7	#
Potassium, Total	2.5	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	7.4	mg/L	0.50	EPA 200.7	#
Sodium, Total	8.4	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	12	mg/L	5	SM2320B-2011	#
Alkalinity, Total	12	mg/L	5	SM2320B-2011	#
Ammonia-N	0.104	mg/L	0.100	ASTM D6919-09	#
Chloride	21.7	mg/L	2.0	EPA 300.0	#
Nitrate-N	16.0	mg/L	1.0	EPA 300.0	#
pH	7.09	pH_Units		S4500HB-11	#
Specific Conductance	239	umhos/cm	5	SM2510B-2011	#
Total Dissolved Solids	156	mg/L	25	S2540C-11	#



Results

Client Sample ID	3056RIVERRD	Collected	11/11/2022 12:30
Lab Sample ID	3273606001	Lab Receipt	11/11/2022 16:30

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	6.79		pH_Units		Field	1	11/11/2022 12:30	BGS	M
Specific Conductance, Field	231		umhos/cm	1	Field	1	11/11/2022 12:30	BGS	M
Temperature	16.40		Deg. C		Field	1	11/11/2022 12:30	BGS	M

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	10.8		mg/L	0.10	EPA 200.7	1	11/17/2022 20:58	SRT	E1
Calcium, Total	12.4		mg/L	0.050	EPA 200.7	1	11/23/2022 11:16	SRT	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	11/17/2022 20:58	SRT	E1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	11/23/2022 11:16	SRT	D1
Magnesium, Dissolved	11.1		mg/L	0.10	EPA 200.7	1	11/17/2022 20:58	SRT	E1
Magnesium, Total	12.6		mg/L	0.050	EPA 200.7	1	11/23/2022 11:16	SRT	D1
Manganese, Dissolved	0.075		mg/L	0.0050	EPA 200.7	1	11/17/2022 20:58	SRT	E1
Manganese, Total	0.087		mg/L	0.0025	EPA 200.7	1	11/23/2022 11:16	SRT	D1
Potassium, Dissolved	2.3		mg/L	0.50	EPA 200.7	1	11/17/2022 20:58	SRT	E1
Potassium, Total	2.5		mg/L	0.25	EPA 200.7	1	11/23/2022 11:16	SRT	D1
Sodium, Dissolved	7.4		mg/L	0.50	EPA 200.7	1	11/17/2022 20:58	SRT	E1
Sodium, Total	8.4		mg/L	0.25	EPA 200.7	1	11/23/2022 11:16	SRT	D1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 06:38	PDK	J
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 06:38	PDK	J
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 06:38	PDK	J
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 06:38	PDK	J
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 06:38	PDK	J
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 06:38	PDK	J
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 06:38	PDK	J
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 06:38	PDK	J
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 06:38	PDK	J
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 06:38	PDK	J
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 06:38	PDK	J
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 06:38	PDK	J
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 06:38	PDK	J
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 06:38	PDK	J
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 06:38	PDK	J
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 06:38	PDK	J

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	97.2%	70 - 130	11/23/2022 06:38	

WET CHEMISTRY



Results

Client Sample ID	3056RIVERRD	Collected	11/11/2022 12:30
Lab Sample ID	3273606001	Lab Receipt	11/11/2022 16:30

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	12		mg/L	5	SM2320B-2011	1	11/16/2022 00:40	NML	A
Alkalinity, Total	12	1	mg/L	5	SM2320B-2011	1	11/16/2022 00:40	NML	A
Ammonia-N	0.104		mg/L	0.100	ASTM D6919-09	10	11/21/2022 18:32	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	11/18/2022 14:40	KMS	C
Chloride	21.7		mg/L	2.0	EPA 300.0	2	11/12/2022 20:34	J1W	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	12/01/2022 23:11	AXW	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	11/28/2022 17:14	PAG	I
Nitrate-N	16.0		mg/L	1.0	EPA 300.0	2	11/12/2022 20:34	J1W	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	11/12/2022 20:34	J1W	A
pH	7.09	2	pH_Units		S4500HB-11	1	11/16/2022 00:40	NML	A
Phenolics	ND	ND	mg/L	0.004	EPA 420.4	1	11/23/2022 16:34	AKH	H
Specific Conductance	239		umhos/cm	5	SM2510B-2011	1	11/15/2022 10:00	JXL	A
Sulfate	ND	ND	mg/L	2.0	EPA 300.0	2	11/12/2022 20:34	J1W	A
Total Dissolved Solids	156		mg/L	25	S2540C-11	1	11/15/2022 11:48	SMS	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-2011	1	11/15/2022 03:52	PAG	F
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	11/12/2022 05:50	NRB	A



Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3273606001	3056RIVERRD	Field	N/A	
		EPA 200.7	EPA TRMD	
		EPA 200.7	EPA ACID	
		EPA 524.2	N/A	
		ASTM D6919-09	N/A	
		EPA 300.0	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S2540C-11	N/A	
		S4500HB-11	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM5310B-2011	N/A	
		SW846 9020B	N/A	



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3273606001	3056RIVERRD	N/A	N/A	N/A		Field	913842
		EPA TRMD	910082	11/17/2022 23:59	ANN	EPA 200.7	912315
		EPA ACID	909740	11/17/2022 16:24	MO	EPA 200.7	909741
		N/A	N/A	N/A		EPA 524.2	912190
		N/A	N/A	N/A		ASTM D6919-09	909652
		N/A	N/A	N/A		EPA 300.0	907981
		N/A	N/A	N/A		EPA 300.0	913851
		N/A	N/A	N/A		EPA 410.4	910328
		SW846 9066	912106	11/22/2022 15:26	AKH	EPA 420.4	912123
		N/A	N/A	N/A		S2540C-11	908061
		N/A	N/A	N/A		S4500HB-11	908951
		N/A	N/A	N/A		SM2130B-2011	907975
		N/A	N/A	N/A		SM2320B-2011	908951
		N/A	N/A	N/A		SM2510B-2011	909067
		N/A	N/A	N/A		SM5310B-2011	908924
		N/A	N/A	N/A		SW846 9020B	913900



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

3273606
Logged By: ANF
PM: SJB



1 of 1

Client Name: Lancaster County Solid Waste MA

Address: 1299 Harrisburg Pike, P.O. Box 4424

Lancaster, PA 17604

Contact: Dan Brown

Phone#: (717) 735-0193

Project Name#: LCSWMA - Quarterly

Bill To: Lancaster County Solid Waste MA

TAT Normal-Standard TAT is 10-12 business days.
 Rush-Subject to ALS approval and surcharges.

Date Required: _____ Approved By: _____

Email? -Y -N

Fax? -Y -N

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	TOC	O-OH	TOX	524 VOCs	FM	NH3-N, COD	Dissolved Metals: Ca, Fe, Mg, Mn, K, Na	K, Na	Metals: Ca, Fe, Mg, Mn, K, Na	pH, TDS, NO2, NO3, Cl, SO4, F, TP, SpC	Alkalinity, HCO3
1. 3056RIVERRD	11/11/22	1230	G	DW	2	1	2	3	X	1	2	2	2	1	1
2. Trip Blank	11/11/22	1630						2							
3															
4															
5															
6															
7															
8															
9															
10															

Container Type	AG	AN	AN	CG	PL	PL	PL	PL	PL	PL	PL	PL	PL	PL	PL
Container Size	40 ml	125 ml	250 ml	40 ml	125 ml	125 ml	125 ml	250 ml	500 ml	500 ml	500 ml	500 ml	500 ml	500 ml	500 ml
Preservative	HCl	H2SO4	H2SO4	Asc&HCl	H2SO4	HNO3	HNO3	H2SO4	HNO3	HNO3	HNO3	HNO3	HNO3	HNO3	None

Cooler Temp: 12 Therm ID: TH576

No. of Coolers: Y N Initial

Custody Seals Present? (if present) Seals Intact? Received on Ice? COC/Labels Complete/Accurate? Cont. in Good Cond.?

Temp Taken By: MJE

WO Temp (°C): 570

Receipt Info Completed By: USA

Cooler Custody Seal Intact: Y N NA

Sample Custody Seal Intact: Y N NA

Received on Ice: Y N NA

Cooler & Samples Intact: Y N NA

Correct Containers Provided: Y N NA

Sample Label/COC Agree: Y N NA

Adequate Sample Volumes: Y N NA

VOA Headspace Present: Y N NA

Voa Trip Blank: Y N NA

NJs 4 Days? Y N NA

Rad Screen (uCi): Y N NA

Courier/Tracking #: _____

SDWA Compliance: Y N NA

PWSID: Y N NA

WW Containers 0-6°C: Y N NA

ALS Field Services: Pickup Labor Rental_Equipment

Composite_Sampling Other:

Special Processing: USACE Navy

State Samples Collected In: NY NJ PA NC

Sample Disposal: Lab Special

Reportable to PADEP? Yes No

PWSID #: _____

EDDS: Format Type: _____

Project Comments: _____

Reinquished By / Company Name: Michael Miller Date: 11/12/22 Time: 1630



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

Analytical Results Report For **Lancaster County Solid Waste Authority**
Project 4TH QTR 2022 3060 RIVER RD
Workorder 3273605
Report ID 211139 on 12/6/2022

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Nov 11, 2022.

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

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

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

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):

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

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

<u>Lab ID</u>	<u>Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>	<u>Collector</u>	<u>Collection Company</u>
3273605001	3060RIVERRD	Water	11/11/2022 12:10	11/11/2022 16:30	BGS	Analytical Laboratory Service



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136.
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed 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 4TH QTR 2022 3060 RIVER RD
Workorder 3273605

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	3060RIVERRD	Collected	11/11/2022 12:10
Lab Sample ID	3273605001	Lab Receipt	11/11/2022 16:30

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	6.78	pH_Units		Field	#
Specific Conductance, Field	227	umhos/cm	1	Field	#
Temperature	17.30	Deg. C		Field	#
METALS					
Calcium, Dissolved	9.1	mg/L	0.10	EPA 200.7	#
Calcium, Total	11.2	mg/L	0.050	EPA 200.7	#
Iron, Dissolved	0.070	mg/L	0.060	EPA 200.7	#
Iron, Total	0.11	mg/L	0.030	EPA 200.7	#
Magnesium, Dissolved	9.6	mg/L	0.10	EPA 200.7	#
Magnesium, Total	11.8	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.067	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.11	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	2.8	mg/L	0.50	EPA 200.7	#
Potassium, Total	3.2	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	7.9	mg/L	0.50	EPA 200.7	#
Sodium, Total	9.5	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	5	mg/L	5	SM2320B-2011	#
Alkalinity, Total	5	mg/L	5	SM2320B-2011	#
Chloride	14.8	mg/L	2.0	EPA 300.0	#
Nitrate-N	14.0	mg/L	1.0	EPA 300.0	#
pH	6.66	pH_Units		S4500HB-11	#
Specific Conductance	216	umhos/cm	5	SM2510B-2011	#
Sulfate	9.1	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	142	mg/L	25	S2540C-11	#



Results

Client Sample ID	3060RIVERRD	Collected	11/11/2022 12:10
Lab Sample ID	3273605001	Lab Receipt	11/11/2022 16:30

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	6.78		pH_Units		Field	1	11/11/2022 12:10	BGS	M
Specific Conductance, Field	227		umhos/cm	1	Field	1	11/11/2022 12:10	BGS	M
Temperature	17.30		Deg. C		Field	1	11/11/2022 12:10	BGS	M

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	9.1		mg/L	0.10	EPA 200.7	1	11/17/2022 20:54	SRT	E1
Calcium, Total	11.2		mg/L	0.050	EPA 200.7	1	11/23/2022 11:13	SRT	D1
Iron, Dissolved	0.070		mg/L	0.060	EPA 200.7	1	11/17/2022 20:54	SRT	E1
Iron, Total	0.11		mg/L	0.030	EPA 200.7	1	11/23/2022 11:13	SRT	D1
Magnesium, Dissolved	9.6		mg/L	0.10	EPA 200.7	1	11/17/2022 20:54	SRT	E1
Magnesium, Total	11.8		mg/L	0.050	EPA 200.7	1	11/23/2022 11:13	SRT	D1
Manganese, Dissolved	0.067		mg/L	0.0050	EPA 200.7	1	11/17/2022 20:54	SRT	E1
Manganese, Total	0.11		mg/L	0.0025	EPA 200.7	1	11/23/2022 11:13	SRT	D1
Potassium, Dissolved	2.8		mg/L	0.50	EPA 200.7	1	11/17/2022 20:54	SRT	E1
Potassium, Total	3.2		mg/L	0.25	EPA 200.7	1	11/23/2022 11:13	SRT	D1
Sodium, Dissolved	7.9		mg/L	0.50	EPA 200.7	1	11/17/2022 20:54	SRT	E1
Sodium, Total	9.5		mg/L	0.25	EPA 200.7	1	11/23/2022 11:13	SRT	D1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 04:01	PDK	J
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 04:01	PDK	J
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 04:01	PDK	J
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 04:01	PDK	J
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 04:01	PDK	J
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 04:01	PDK	J
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 04:01	PDK	J
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 04:01	PDK	J
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 04:01	PDK	J
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 04:01	PDK	J
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 04:01	PDK	J
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 04:01	PDK	J
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 04:01	PDK	J
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 04:01	PDK	J
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 04:01	PDK	J
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 04:01	PDK	J

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	100%	70 - 130	11/23/2022 04:01	

WET CHEMISTRY



Results

Client Sample ID	3060RIVERRD	Collected	11/11/2022 12:10
Lab Sample ID	3273605001	Lab Receipt	11/11/2022 16:30

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	5		mg/L	5	SM2320B-2011	1	11/16/2022 00:29	NML	A
Alkalinity, Total	5	1	mg/L	5	SM2320B-2011	1	11/16/2022 00:29	NML	A
Ammonia-N	ND	ND	mg/L	0.100	ASTM D6919-09	10	11/21/2022 18:19	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	11/18/2022 14:40	KMS	C
Chloride	14.8		mg/L	2.0	EPA 300.0	2	11/12/2022 20:24	J1W	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	12/01/2022 23:00	AXW	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	11/28/2022 17:14	PAG	I
Nitrate-N	14.0		mg/L	1.0	EPA 300.0	2	11/12/2022 20:24	J1W	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	11/12/2022 20:24	J1W	A
pH	6.66	2	pH_Units		S4500HB-11	1	11/16/2022 00:29	NML	A
Phenolics	ND	ND	mg/L	0.004	EPA 420.4	1	11/23/2022 16:31	AKH	H
Specific Conductance	216		umhos/cm	5	SM2510B-2011	1	11/15/2022 10:00	JXL	A
Sulfate	9.1		mg/L	2.0	EPA 300.0	2	11/12/2022 20:24	J1W	A
Total Dissolved Solids	142		mg/L	25	S2540C-11	1	11/15/2022 11:48	SMS	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-2011	1	11/15/2022 03:52	PAG	F
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	11/12/2022 05:50	NRB	A



Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3273605001	3060RIVERRD	Field	N/A	
		EPA 200.7	EPA TRMD	
		EPA 200.7	EPA ACID	
		EPA 524.2	N/A	
		ASTM D6919-09	N/A	
		EPA 300.0	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S2540C-11	N/A	
		S4500HB-11	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM5310B-2011	N/A	
		SW846 9020B	N/A	



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3273605001	3060RIVERRD	N/A	N/A	N/A		Field	913842
		EPA TRMD	910082	11/17/2022 23:59	ANN	EPA 200.7	912315
		EPA ACID	909740	11/17/2022 16:24	MO	EPA 200.7	909741
		N/A	N/A	N/A		EPA 524.2	912190
		N/A	N/A	N/A		ASTM D6919-09	909652
		N/A	N/A	N/A		EPA 300.0	907981
		N/A	N/A	N/A		EPA 300.0	913851
		N/A	N/A	N/A		EPA 410.4	910328
		SW846 9066	912106	11/22/2022 15:26	AKH	EPA 420.4	912123
		N/A	N/A	N/A		S2540C-11	908061
		N/A	N/A	N/A		S4500HB-11	908951
		N/A	N/A	N/A		SM2130B-2011	907975
		N/A	N/A	N/A		SM2320B-2011	908951
		N/A	N/A	N/A		SM2510B-2011	909067
		N/A	N/A	N/A		SM5310B-2011	908924
		N/A	N/A	N/A		SW846 9020B	913900



301 Fulfilling Mill Road • Middletown, PA 17057 • Phone: 717-944-5541 • Fax: 717-944-1430 • www.alsinfo.com

Client Name: Lancaster County Solid Waste MA

Address: 1299 Harrisburg Pike, P.O. Box 4424
Lancaster, PA 17604

Contact: Dan Brown

Phone#: (717) 735-0193

Project Name#: LCSWMA - Quarterly

Bill To: Lancaster County Solid Waste MA

TAT Normal-Standard TAT is 10-12 business days.

Rush-Subject to ALS approval and surcharges.

Date Required: _____ Approved By: _____

Email? -Y -N

Fax? -Y -N

Sample Description/Location (as it will appear on the lab report)

Sample Date

Time

1 3060RIVERRD 11/11/22 1210

2. Trip Blank 11/11/22 1630

3

4

5

6

7

8

9

10

Project Comments:

LOGGED BY (signature):

REVIEWED BY (signature):

Date Time Received By / Company Name

11/11/22 1630 ALS

4

6

8

10

Requisitioned By / Company Name

ALS

Date Time

11/11/22 1630

4

6

8

10

* G=Grab, C=Composite

**Matrix - A=Air, DW=Drinking Water, GW=Groundwater, O=Oil, OL=Other Liquid, SL=Sludge, SO=Soil, WP=Wipe, WW=Wastewater

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

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

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

Generated by ALS



3273605

Logged By: AIF
PM: SJB



C AI

1 of 1

Receipt Information (completed by Receiving Lab)

Cooler Temp: 12°C Therm ID: TH-570

No. of Coolers: Y N Initial

Custody Seals Present? (if present) Seals Intact?

Received on Ice?

COCLabels Complete/Accurate?

Cont in Good Cond?

Temp Taken By: MUE

WO Temp (°C): 570

Therm ID: KSP

Receipt Info Completed By: Y N NA

Cooler Custody Seal Intact: Y N NA

Sample Custody Seal Intact: Y N NA

Received on Ice: Y N NA

Cooler & Samples Intact: Y N NA

Correct Containers Provided: Y N NA

Sample Label/COC Agree: Y N NA

Adequate Sample Volumes: Y N NA

VOA Headspace Present: Y N NA

Voa Trip Blank: Y N NA

NIS 4 Days? Y N NA

Rad Screen (uCi): Y N NA

Courier/Tracking #: Y N NA

SDWA Compliance: Y N NA

PWSID: Y N NA

WW Containers 0-6°C: Y N NA

ALS Field Services: Pickup Labor

Composite_Sampling Rental_Equipment

Other:

State Samples Collected In

USACE NY

Navy NJ

Reportable to PADEP? X PA

Lab X

Special

Standard

CLP-like

USACE

Special Processing

USACE

Navy

Reportable to PADEP? Yes

PWSID #

EDDS: Format Type-

9/11/22 1630

4

6

8

10

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

Rev 8/04

12/6/2022 8:45 AM



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

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

Analytical Results Report For

Lancaster County Solid Waste Authority

Project 4TH QTR 2022-3076 RIVER RD

Workorder 3273612

Report ID 211141 on 12/6/2022

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Nov 11, 2022.

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

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

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

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):

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

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

<u>Lab ID</u>	<u>Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>	<u>Collector</u>	<u>Collection Company</u>
3273612001	3076 River Road, Conestoga, PA	Water	11/11/2022 11:50	11/11/2022 16:30	BGS	Analytical Laboratory Service



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136.
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed 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.

- | | |
|---|---|
| 2 | The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO ₃ /L. |
| 3 | The QC sample type MS for method EPA 300.0 was outside the control limits for the analyte Fluoride. The % Recovery was reported as 77.3 and the control limits were 80 to 120. |
| 4 | 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	3076 River Road, Conestoga, PA	Collected	11/11/2022 11:50
Lab Sample ID	3273612001	Lab Receipt	11/11/2022 16:30

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	6.68	pH_Units		Field	#
Specific Conductance, Field	311	umhos/cm	1	Field	#
Temperature	16.90	Deg. C		Field	#
METALS					
Calcium, Dissolved	13.4	mg/L	0.10	EPA 200.7	#
Calcium, Total	16.6	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	7.6	mg/L	0.10	EPA 200.7	#
Magnesium, Total	9.4	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.17	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.21	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	3.3	mg/L	0.50	EPA 200.7	#
Potassium, Total	3.9	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	22.4	mg/L	0.50	EPA 200.7	#
Sodium, Total	26.9	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	5	mg/L	5	SM2320B-2011	#
Alkalinity, Total	5	mg/L	5	SM2320B-2011	#
Ammonia-N	0.105	mg/L	0.100	ASTM D6919-09	#
Chloride	51.1	mg/L	2.0	EPA 300.0	#
Nitrate-N	9.4	mg/L	1.0	EPA 300.0	#
pH	6.72	pH_Units		S4500HB-11	#
Specific Conductance	305	umhos/cm	5	SM2510B-2011	#
Sulfate	8.9	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	192	mg/L	25	S2540C-11	#



Results

Client Sample ID	3076 River Road, Conestoga, PA	Collected	11/11/2022 11:50
Lab Sample ID	3273612001	Lab Receipt	11/11/2022 16:30

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	6.68		pH_Units		Field	1	11/11/2022 11:50	BGS	N
Specific Conductance, Field	311		umhos/cm	1	Field	1	11/11/2022 11:50	BGS	N
Temperature	16.90		Deg. C		Field	1	11/11/2022 11:50	BGS	N

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	13.4		mg/L	0.10	EPA 200.7	1	11/17/2022 21:08	SRT	E1
Calcium, Total	16.6		mg/L	0.050	EPA 200.7	1	11/23/2022 11:26	SRT	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	11/17/2022 21:08	SRT	E1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	11/23/2022 11:26	SRT	D1
Magnesium, Dissolved	7.6		mg/L	0.10	EPA 200.7	1	11/17/2022 21:08	SRT	E1
Magnesium, Total	9.4		mg/L	0.050	EPA 200.7	1	11/23/2022 11:26	SRT	D1
Manganese, Dissolved	0.17		mg/L	0.0050	EPA 200.7	1	11/17/2022 21:08	SRT	E1
Manganese, Total	0.21		mg/L	0.0025	EPA 200.7	1	11/23/2022 11:26	SRT	D1
Potassium, Dissolved	3.3		mg/L	0.50	EPA 200.7	1	11/17/2022 21:08	SRT	E1
Potassium, Total	3.9		mg/L	0.25	EPA 200.7	1	11/23/2022 11:26	SRT	D1
Sodium, Dissolved	22.4		mg/L	0.50	EPA 200.7	1	11/17/2022 21:08	SRT	E1
Sodium, Total	26.9		mg/L	0.25	EPA 200.7	1	11/23/2022 11:26	SRT	D1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 02:43	PDK	K
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 02:43	PDK	K
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 02:43	PDK	K
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 02:43	PDK	K
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 02:43	PDK	K
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 02:43	PDK	K
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 02:43	PDK	K
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 02:43	PDK	K
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 02:43	PDK	K
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 02:43	PDK	K
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 02:43	PDK	K
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 02:43	PDK	K
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 02:43	PDK	K
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 02:43	PDK	K
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 02:43	PDK	K
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 02:43	PDK	K

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	97.7%	70 - 130	11/23/2022 02:43	

WET CHEMISTRY



Results

Client Sample ID	3076 River Road, Conestoga, PA	Collected	11/11/2022 11:50
Lab Sample ID	3273612001	Lab Receipt	11/11/2022 16:30

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	5		mg/L	5	SM2320B-2011	1	11/16/2022 01:15	NML	A
Alkalinity, Total	5	2	mg/L	5	SM2320B-2011	1	11/16/2022 01:15	NML	A
Ammonia-N	0.105		mg/L	0.100	ASTM D6919-09	10	11/21/2022 16:29	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	11/18/2022 14:40	KMS	C
Chloride	51.1		mg/L	2.0	EPA 300.0	2	11/12/2022 21:05	J1W	A
Fluoride	ND	ND,3	mg/L	0.20	EPA 300.0	2	12/01/2022 23:42	AXW	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	11/29/2022 17:22	PAG	I
Nitrate-N	9.4		mg/L	1.0	EPA 300.0	2	11/12/2022 21:05	J1W	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	11/12/2022 21:05	J1W	A
pH	6.72	4	pH_Units		S4500HB-11	1	11/16/2022 01:15	NML	A
Phenolics	ND	ND	mg/L	0.004	EPA 420.4	1	11/23/2022 16:23	AKH	H
Specific Conductance	305		umhos/cm	5	SM2510B-2011	1	11/15/2022 10:00	JXL	A
Sulfate	8.9		mg/L	2.0	EPA 300.0	2	11/12/2022 21:05	J1W	A
Total Dissolved Solids	192		mg/L	25	S2540C-11	1	11/15/2022 11:48	SMS	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-2011	1	11/15/2022 03:52	PAG	F
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	11/12/2022 05:50	NRB	A



Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3273612001	3076 River Road, Conestoga, PA	Field	N/A	
		EPA 200.7	EPA TRMD	
		EPA 200.7	EPA ACID	
		EPA 524.2	N/A	
		ASTM D6919-09	N/A	
		EPA 300.0	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S2540C-11	N/A	
		S4500HB-11	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM5310B-2011	N/A	
		SW846 9020B	N/A	



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3273612001	3076 River Road, Conestoga, PA	N/A	N/A	N/A		Field	913842
		EPA TRMD	910082	11/17/2022 23:59	ANN	EPA 200.7	912315
		EPA ACID	909740	11/17/2022 16:24	MO	EPA 200.7	909741
		N/A	N/A	N/A		EPA 524.2	912190
		N/A	N/A	N/A		ASTM D6919-09	909648
		N/A	N/A	N/A		EPA 300.0	907981
		N/A	N/A	N/A		EPA 300.0	913851
		N/A	N/A	N/A		EPA 410.4	910328
		SW846 9066	912106	11/22/2022 15:26	AKH	EPA 420.4	912123
		N/A	N/A	N/A		S2540C-11	908061
		N/A	N/A	N/A		S4500HB-11	908951
		N/A	N/A	N/A		SM2130B-2011	907975
		N/A	N/A	N/A		SM2320B-2011	908951
		N/A	N/A	N/A		SM2510B-2011	909067
		N/A	N/A	N/A		SM5310B-2011	908924
		N/A	N/A	N/A		SW846 9020B	914106



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

Analytical Results Report For **Lancaster County Solid Waste Authority**
Project 4TH QTR 2022 3079 RIVER RD
Workorder 3273603
Report ID 211146 on 12/6/2022

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Nov 11, 2022.

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

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

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

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):

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

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

<u>Lab ID</u>	<u>Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>	<u>Collector</u>	<u>Collection Company</u>
3273603001	3079RIVERRD	Water	11/11/2022 13:20	11/11/2022 16:30	BGS	Analytical Laboratory Service



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136.
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed 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 4TH QTR 2022 3079 RIVER RD
Workorder 3273603

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 CaCO ₃ /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	3079RIVERRD	Collected	11/11/2022 13:20
Lab Sample ID	3273603001	Lab Receipt	11/11/2022 16:30

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	7.38	pH_Units		Field	#
Specific Conductance, Field	209	umhos/cm	1	Field	#
Temperature	17.20	Deg. C		Field	#
METALS					
Calcium, Dissolved	10.2	mg/L	0.10	EPA 200.7	#
Calcium, Total	11.8	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	5.5	mg/L	0.10	EPA 200.7	#
Magnesium, Total	6.0	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.035	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.040	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	2.0	mg/L	0.50	EPA 200.7	#
Potassium, Total	2.2	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	12.8	mg/L	0.50	EPA 200.7	#
Sodium, Total	14.6	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	24	mg/L	5	SM2320B-2011	#
Alkalinity, Total	24	mg/L	5	SM2320B-2011	#
Ammonia-N	0.162	mg/L	0.100	ASTM D6919-09	#
Chloride	33.5	mg/L	2.0	EPA 300.0	#
Nitrate-N	1.0	mg/L	1.0	EPA 300.0	#
pH	7.42	pH_Units		S4500HB-11	#
Specific Conductance	196	umhos/cm	5	SM2510B-2011	#
Sulfate	8.1	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	122	mg/L	25	S2540C-11	#



Results

Client Sample ID	3079RIVERRD	Collected	11/11/2022 13:20
Lab Sample ID	3273603001	Lab Receipt	11/11/2022 16:30

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	7.38		pH_Units		Field	1	11/11/2022 13:20	BGS	M
Specific Conductance, Field	209		umhos/cm	1	Field	1	11/11/2022 13:20	BGS	M
Temperature	17.20		Deg. C		Field	1	11/11/2022 13:20	BGS	M

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	10.2		mg/L	0.10	EPA 200.7	1	11/17/2022 20:51	SRT	E1
Calcium, Total	11.8		mg/L	0.050	EPA 200.7	1	11/22/2022 21:49	SRT	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	11/17/2022 20:51	SRT	E1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	11/22/2022 21:49	SRT	D1
Magnesium, Dissolved	5.5		mg/L	0.10	EPA 200.7	1	11/17/2022 20:51	SRT	E1
Magnesium, Total	6.0		mg/L	0.050	EPA 200.7	1	11/22/2022 21:49	SRT	D1
Manganese, Dissolved	0.035		mg/L	0.0050	EPA 200.7	1	11/17/2022 20:51	SRT	E1
Manganese, Total	0.040		mg/L	0.0025	EPA 200.7	1	11/22/2022 21:49	SRT	D1
Potassium, Dissolved	2.0		mg/L	0.50	EPA 200.7	1	11/17/2022 20:51	SRT	E1
Potassium, Total	2.2		mg/L	0.25	EPA 200.7	1	11/22/2022 21:49	SRT	D1
Sodium, Dissolved	12.8		mg/L	0.50	EPA 200.7	1	11/17/2022 20:51	SRT	E1
Sodium, Total	14.6		mg/L	0.25	EPA 200.7	1	11/22/2022 21:49	SRT	D1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 08:23	PKD	J
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 08:23	PKD	J
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 08:23	PKD	J
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 08:23	PKD	J
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 08:23	PKD	J
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 08:23	PKD	J
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 08:23	PKD	J
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 08:23	PKD	J
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 08:23	PKD	J
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 08:23	PKD	J
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 08:23	PKD	J
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 08:23	PKD	J
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 08:23	PKD	J
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 08:23	PKD	J
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 08:23	PKD	J
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 08:23	PKD	J

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	97.7%	70 - 130	11/23/2022 08:23	

WET CHEMISTRY



Results

Client Sample ID	3079RIVERRD	Collected	11/11/2022 13:20
Lab Sample ID	3273603001	Lab Receipt	11/11/2022 16:30

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	24		mg/L	5	SM2320B-2011	1	11/16/2022 00:18	NML	A
Alkalinity, Total	24	1	mg/L	5	SM2320B-2011	1	11/16/2022 00:18	NML	A
Ammonia-N	0.162		mg/L	0.100	ASTM D6919-09	10	11/21/2022 18:05	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	11/18/2022 14:40	KMS	C
Chloride	33.5		mg/L	2.0	EPA 300.0	2	11/12/2022 19:32	J1W	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	12/01/2022 22:50	AXW	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	11/28/2022 17:14	PAG	I
Nitrate-N	1.0		mg/L	1.0	EPA 300.0	2	11/12/2022 19:32	J1W	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	11/12/2022 19:32	J1W	A
pH	7.42	2	pH_Units		S4500HB-11	1	11/16/2022 00:18	NML	A
Phenolics	ND	ND	mg/L	0.004	EPA 420.4	1	11/23/2022 16:09	AKH	H
Specific Conductance	196		umhos/cm	5	SM2510B-2011	1	11/15/2022 10:00	JXL	A
Sulfate	8.1		mg/L	2.0	EPA 300.0	2	11/12/2022 19:32	J1W	A
Total Dissolved Solids	122		mg/L	25	S2540C-11	1	11/15/2022 11:48	SMS	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-2011	1	11/15/2022 03:52	PAG	F
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	11/12/2022 05:50	NRB	A



Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3273603001	3079RIVERRD	Field	N/A	
		EPA 200.7	EPA TRMD	
		EPA 200.7	EPA ACID	
		EPA 524.2	N/A	
		ASTM D6919-09	N/A	
		EPA 300.0	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S2540C-11	N/A	
		S4500HB-11	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM5310B-2011	N/A	
		SW846 9020B	N/A	



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3273603001	3079RIVERRD	N/A	N/A	N/A		Field	913842
		EPA TRMD	909605	11/17/2022 10:08	JSE	EPA 200.7	911809
		EPA ACID	909740	11/17/2022 16:24	MO	EPA 200.7	909741
		N/A	N/A	N/A		EPA 524.2	912190
		N/A	N/A	N/A		ASTM D6919-09	909652
		N/A	N/A	N/A		EPA 300.0	907981
		N/A	N/A	N/A		EPA 300.0	913851
		N/A	N/A	N/A		EPA 410.4	910328
		SW846 9066	912106	11/22/2022 15:26	AKH	EPA 420.4	912123
		N/A	N/A	N/A		S2540C-11	908061
		N/A	N/A	N/A		S4500HB-11	908951
		N/A	N/A	N/A		SM2130B-2011	907975
		N/A	N/A	N/A		SM2320B-2011	908951
		N/A	N/A	N/A		SM2510B-2011	909067
		N/A	N/A	N/A		SM5310B-2011	908924
		N/A	N/A	N/A		SW846 9020B	913900



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

Project Name#: LCSWMA - Quarterly Fire Co.
Bill To: Lancaster County Solid Waste MA

TAT Normal-Standard TAT is 10-12 business days.
 Rush-Subject to ALS approval and surcharges.

Date Required: _____ Approved By: _____
Email? -Y -N
Fax? -Y -N

Sample Description/Location (as it will appear on the lab report)

Sample Date Time

1 3079RIVERRRD 11/11/22 1320

2. Trip Blank 11/11/22 1630

3

4

5

6

7

8

9

10

Project Comments:

LOGGED BY (signature):

REVIEWED BY (signature):

Date Time Received By / Company Name

11/11/22 1630 2 *Meen Cee* 11/12/22 1630

3

4

6

8

10

Relinquished By / Company Name

1 *DD Shinde* *ALS*

3

5

7

9

10

**Matrix - G=Grab, C=Composite

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

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

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

Container Type	AG	AN	AN	CG	PL	PL	PL	PL	PL	PL
Container Size	40 ml	125 ml	250 ml	40 ml	250 ml	125 ml	125 ml	500 ml	500 ml	500 ml
Preservative	HCl	H2SO4	H2SO4	Asc/HCl	H2SO4	HNO3	HNO3	None	None	None

ANALYSES/METHOD REQUESTED

Matrix	TOC	O-OH	TOX	524 VOC	FM	NH3-N, COD	Dissolved Metals: Ca, Fe, Mg, Mn, K, Na	Metals: Ca, Fe, Mg, Mn, K, Na	pH, TDS, NO2, NO3, Cl, SO4, Tr, Pb, Spc	Alkalinity, HCO3
G or C	2	1	2	3	X	1	24	24	1	1
**Matrix										

Enter Number of Containers Per Sample or Field Results Below.

Temp Taken By:	WO Temp (°C)	Therm ID:	Receipt Info Completed By:	Sample Custody Seal Intact	Received on Ice	Cooler & Samples Intact	Correct Containers Provided	Sample Label/COC Agree	Adequate Sample Volumes	VOA Headspace Present	Voa Trip Blank	NIS 4 Days?	Rad Screen (uCi)	Courier/Tracking #:	SDWA Compliance	PWSID	WW Containers 0-6 C
		570	KSP	Y N NA	Y N NA	Y N NA	Y N NA	Y N NA	Y N NA	Y N NA	Y N NA	Y N NA	Y N NA		Y N		Y N NA

ALS Field Services: Pickup Labor Rental_Equipment

Composite_Sampling Other:

Special Processing

USACE Navy

State Samples Collected In

Reportable to PADEP? Yes No

Sample Disposal Lab Special

PWSID #

EDDS: Format Type-

3273603

Logged By: AMF
PM: SJB

1 of 1

receipt information (completed by Receiving Lab)
Cooler Temp: 1°C Therm ID: TH576
No. of Coolers: Y N Initial
Custody Seals Present?
(if present) Seals Intact?
Received on Ice?
COC Labels Complete/Accurate?
Cont. in Good Cond.?



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

Analytical Results Report For

Lancaster County Solid Waste Authority

Project 4TH QTR 2022-3088 RIVER RD

Workorder 3273610

Report ID 211057 on 12/5/2022

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Nov 11, 2022.

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

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

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

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):

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

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

<u>Lab ID</u>	<u>Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>	<u>Collector</u>	<u>Collection Company</u>
3273610001	3088 River Road, Conestoga PA	Water	11/11/2022 11:30	11/11/2022 16:30	BGS	Analytical Laboratory Service



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136.
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed 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 CaCO ₃ /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 9066 was outside the control limits for the analyte Phenolics. The % Recovery was reported as 155 and the control limits were 90 to 110. |



Detected Results Summary

Client Sample ID	3088 River Road, Conestoga PA	Collected	11/11/2022 11:30
Lab Sample ID	3273610001	Lab Receipt	11/11/2022 16:30

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	8.19	pH_Units		Field	#
Specific Conductance, Field	1192	umhos/cm	1	Field	#
Temperature	17.10	Deg. C		Field	#
METALS					
Calcium, Dissolved	0.14	mg/L	0.10	EPA 200.7	#
Calcium, Total	0.18	mg/L	0.050	EPA 200.7	#
Magnesium, Total	0.057	mg/L	0.050	EPA 200.7	#
Potassium, Dissolved	2.5	mg/L	0.50	EPA 200.7	#
Potassium, Total	2.8	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	217	mg/L	0.50	EPA 200.7	#
Sodium, Total	249	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	172	mg/L	5	SM2320B-2011	#
Alkalinity, Total	172	mg/L	5	SM2320B-2011	#
Chloride	246	mg/L	5.0	EPA 300.0	#
Nitrate-N	5.4	mg/L	2.5	EPA 300.0	#
pH	8.23	pH_Units		S4500HB-11	#
Specific Conductance	1180	umhos/cm	5	SM2510B-2011	#
Total Dissolved Solids	646	mg/L	25	S2540C-11	#
Turbidity	0.40	NTU	0.30	SM2130B-2011	#



Results

Client Sample ID	3088 River Road, Conestoga PA	Collected	11/11/2022 11:30
Lab Sample ID	3273610001	Lab Receipt	11/11/2022 16:30

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	8.19		pH_Units		Field	1	11/11/2022 11:30	BGS	N
Specific Conductance, Field	1192		umhos/cm	1	Field	1	11/11/2022 11:30	BGS	N
Temperature	17.10		Deg. C		Field	1	11/11/2022 11:30	BGS	N

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	0.14		mg/L	0.10	EPA 200.7	1	11/17/2022 21:04	SRT	E1
Calcium, Total	0.18		mg/L	0.050	EPA 200.7	1	11/23/2022 11:23	SRT	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	11/17/2022 21:04	SRT	E1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	11/23/2022 11:23	SRT	D1
Magnesium, Dissolved	ND	ND	mg/L	0.10	EPA 200.7	1	11/17/2022 21:04	SRT	E1
Magnesium, Total	0.057		mg/L	0.050	EPA 200.7	1	11/23/2022 11:23	SRT	D1
Manganese, Dissolved	ND	ND	mg/L	0.0050	EPA 200.7	1	11/17/2022 21:04	SRT	E1
Manganese, Total	ND	ND	mg/L	0.0025	EPA 200.7	1	11/23/2022 11:23	SRT	D1
Potassium, Dissolved	2.5		mg/L	0.50	EPA 200.7	1	11/17/2022 21:04	SRT	E1
Potassium, Total	2.8		mg/L	0.25	EPA 200.7	1	11/23/2022 11:23	SRT	D1
Sodium, Dissolved	217		mg/L	0.50	EPA 200.7	1	11/17/2022 21:04	SRT	E1
Sodium, Total	249		mg/L	0.25	EPA 200.7	1	11/23/2022 11:23	SRT	D1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 01:50	PDK	K
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 01:50	PDK	K
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 01:50	PDK	K
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 01:50	PDK	K
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 01:50	PDK	K
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 01:50	PDK	K
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 01:50	PDK	K
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 01:50	PDK	K
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 01:50	PDK	K
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 01:50	PDK	K
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 01:50	PDK	K
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 01:50	PDK	K
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 01:50	PDK	K
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 01:50	PDK	K
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 01:50	PDK	K
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 01:50	PDK	K

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	98.8%	70 - 130	11/23/2022 01:50	

WET CHEMISTRY



Results

Client Sample ID	3088 River Road, Conestoga PA	Collected	11/11/2022 11:30
Lab Sample ID	3273610001	Lab Receipt	11/11/2022 16:30

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	172		mg/L	5	SM2320B-2011	1	11/16/2022 01:04	NML	A
Alkalinity, Total	172	1	mg/L	5	SM2320B-2011	1	11/16/2022 01:04	NML	A
Ammonia-N	ND	ND	mg/L	0.100	ASTM D6919-09	10	11/21/2022 19:00	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	11/18/2022 14:40	KMS	C
Chloride	246		mg/L	5.0	EPA 300.0	5	11/12/2022 20:55	J1W	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	12/01/2022 23:32	AXW	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	11/28/2022 17:14	PAG	I
Nitrate-N	5.4		mg/L	2.5	EPA 300.0	5	11/12/2022 20:55	J1W	A
Nitrite-N	ND	ND	mg/L	2.5	EPA 300.0	5	11/12/2022 20:55	J1W	A
pH	8.23	2	pH_Units		S4500HB-11	1	11/16/2022 01:04	NML	A
Phenolics	ND	ND,3	mg/L	0.004	EPA 420.4	1	11/23/2022 15:36	AKH	H
Specific Conductance	1180		umhos/cm	5	SM2510B-2011	1	11/15/2022 10:00	JXL	A
Sulfate	ND	ND	mg/L	5.0	EPA 300.0	5	11/12/2022 20:55	J1W	A
Total Dissolved Solids	646		mg/L	25	S2540C-11	1	11/15/2022 11:48	SMS	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-2011	1	11/15/2022 03:52	PAG	F
Turbidity	0.40		NTU	0.30	SM2130B-2011	1	11/12/2022 05:50	NRB	A



Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3273610001	3088 River Road, Conestoga PA	Field	N/A	
		EPA 200.7	EPA ACID	
		EPA 200.7	EPA TRMD	
		EPA 524.2	N/A	
		ASTM D6919-09	N/A	
		EPA 300.0	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S2540C-11	N/A	
		S4500HB-11	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM5310B-2011	N/A	
		SW846 9020B	N/A	



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3273610001	3088 River Road, Conestoga PA	N/A	N/A	N/A		Field	913842
		EPA ACID	909740	11/17/2022 16:24	MO	EPA 200.7	909741
		EPA TRMD	910082	11/17/2022 23:59	ANN	EPA 200.7	912315
		N/A	N/A	N/A		EPA 524.2	912190
		N/A	N/A	N/A		ASTM D6919-09	909652
		N/A	N/A	N/A		EPA 300.0	907981
		N/A	N/A	N/A		EPA 300.0	913851
		N/A	N/A	N/A		EPA 410.4	910328
		SW846 9066	912106	11/22/2022 15:26	AKH	EPA 420.4	912123
		N/A	N/A	N/A		S2540C-11	908061
		N/A	N/A	N/A		S4500HB-11	908951
		N/A	N/A	N/A		SM2130B-2011	907975
		N/A	N/A	N/A		SM2320B-2011	908951
		N/A	N/A	N/A		SM2510B-2011	909067
		N/A	N/A	N/A		SM5310B-2011	908924
		N/A	N/A	N/A		SW846 9020B	913900



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State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

Analytical Results Report For **Lancaster County Solid Waste Authority**
Project 4TH QTR 2022-3100 RIVER RD
Workorder 3273608
Report ID 211142 on 12/6/2022

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Nov 11, 2022.

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

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

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

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):

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

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

<u>Lab ID</u>	<u>Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>	<u>Collector</u>	<u>Collection Company</u>
3273608001	3100 River Road, Conestoga, PA	Water	11/11/2022 11:00	11/11/2022 16:30	BGS	Analytical Laboratory Service



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136.
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed 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 4TH QTR 2022-3100 RIVER RD
Workorder 3273608

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	3100 River Road, Conestoga, PA	Collected	11/11/2022 11:00
Lab Sample ID	3273608001	Lab Receipt	11/11/2022 16:30

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	7.37	pH_Units		Field	#
Specific Conductance, Field	226	umhos/cm	1	Field	#
Temperature	16.70	Deg. C		Field	#
METALS					
Calcium, Dissolved	12.7	mg/L	0.10	EPA 200.7	#
Calcium, Total	15.8	mg/L	0.050	EPA 200.7	#
Iron, Total	0.046	mg/L	0.030	EPA 200.7	#
Magnesium, Dissolved	5.8	mg/L	0.10	EPA 200.7	#
Magnesium, Total	7.2	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.0082	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.011	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	1.6	mg/L	0.50	EPA 200.7	#
Potassium, Total	1.8	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	14.7	mg/L	0.50	EPA 200.7	#
Sodium, Total	17.8	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	24	mg/L	5	SM2320B-2011	#
Alkalinity, Total	24	mg/L	5	SM2320B-2011	#
Ammonia-N	0.320	mg/L	0.100	ASTM D6919-09	#
Chloride	38.8	mg/L	2.0	EPA 300.0	#
Nitrate-N	2.6	mg/L	1.0	EPA 300.0	#
pH	7.45	pH_Units		S4500HB-11	#
Specific Conductance	220	umhos/cm	5	SM2510B-2011	#
Sulfate	4.5	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	136	mg/L	25	S2540C-11	#
Turbidity	0.40	NTU	0.30	SM2130B-2011	#



Results

Client Sample ID	3100 River Road, Conestoga, PA	Collected	11/11/2022 11:00
Lab Sample ID	3273608001	Lab Receipt	11/11/2022 16:30

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	7.37		pH_Units		Field	1	11/11/2022 11:00	BGS	N
Specific Conductance, Field	226		umhos/cm	1	Field	1	11/11/2022 11:00	BGS	N
Temperature	16.70		Deg. C		Field	1	11/11/2022 11:00	BGS	N

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	12.7		mg/L	0.10	EPA 200.7	1	11/17/2022 21:01	SRT	E1
Calcium, Total	15.8		mg/L	0.050	EPA 200.7	1	11/23/2022 11:19	SRT	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	11/17/2022 21:01	SRT	E1
Iron, Total	0.046		mg/L	0.030	EPA 200.7	1	11/23/2022 11:19	SRT	D1
Magnesium, Dissolved	5.8		mg/L	0.10	EPA 200.7	1	11/17/2022 21:01	SRT	E1
Magnesium, Total	7.2		mg/L	0.050	EPA 200.7	1	11/23/2022 11:19	SRT	D1
Manganese, Dissolved	0.0082		mg/L	0.0050	EPA 200.7	1	11/17/2022 21:01	SRT	E1
Manganese, Total	0.011		mg/L	0.0025	EPA 200.7	1	11/23/2022 11:19	SRT	D1
Potassium, Dissolved	1.6		mg/L	0.50	EPA 200.7	1	11/17/2022 21:01	SRT	E1
Potassium, Total	1.8		mg/L	0.25	EPA 200.7	1	11/23/2022 11:19	SRT	D1
Sodium, Dissolved	14.7		mg/L	0.50	EPA 200.7	1	11/17/2022 21:01	SRT	E1
Sodium, Total	17.8		mg/L	0.25	EPA 200.7	1	11/23/2022 11:19	SRT	D1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2022 17:06	TMP	K
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2022 17:06	TMP	K
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2022 17:06	TMP	K
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2022 17:06	TMP	K
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2022 17:06	TMP	K
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2022 17:06	TMP	K
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2022 17:06	TMP	K
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2022 17:06	TMP	K
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2022 17:06	TMP	K
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2022 17:06	TMP	K
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2022 17:06	TMP	K
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2022 17:06	TMP	K
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2022 17:06	TMP	K
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2022 17:06	TMP	K
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2022 17:06	TMP	K
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2022 17:06	TMP	K

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	98.1%	70 - 130	11/22/2022 17:06	

WET CHEMISTRY



Results

Client Sample ID	3100 River Road, Conestoga, PA	Collected	11/11/2022 11:00
Lab Sample ID	3273608001	Lab Receipt	11/11/2022 16:30

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	24		mg/L	5	SM2320B-2011	1	11/16/2022 00:53	NML	A
Alkalinity, Total	24	1	mg/L	5	SM2320B-2011	1	11/16/2022 00:53	NML	A
Ammonia-N	0.320		mg/L	0.100	ASTM D6919-09	10	11/21/2022 18:46	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	11/18/2022 14:40	KMS	C
Chloride	38.8		mg/L	2.0	EPA 300.0	2	11/12/2022 20:45	J1W	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	12/01/2022 23:21	AXW	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	11/28/2022 17:14	PAG	I
Nitrate-N	2.6		mg/L	1.0	EPA 300.0	2	11/12/2022 20:45	J1W	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	11/12/2022 20:45	J1W	A
pH	7.45	2	pH_Units		S4500HB-11	1	11/16/2022 00:53	NML	A
Phenolics	ND	ND	mg/L	0.004	EPA 420.4	1	11/23/2022 15:29	AKH	H
Specific Conductance	220		umhos/cm	5	SM2510B-2011	1	11/15/2022 10:00	JXL	A
Sulfate	4.5		mg/L	2.0	EPA 300.0	2	11/12/2022 20:45	J1W	A
Total Dissolved Solids	136		mg/L	25	S2540C-11	1	11/15/2022 11:48	SMS	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-2011	1	11/15/2022 03:52	PAG	F
Turbidity	0.40		NTU	0.30	SM2130B-2011	1	11/12/2022 05:50	NRB	A



Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3273608001	3100 River Road, Conestoga, PA	Field	N/A	
		EPA 200.7	EPA TRMD	
		EPA 200.7	EPA ACID	
		EPA 524.2	N/A	
		ASTM D6919-09	N/A	
		EPA 300.0	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S2540C-11	N/A	
		S4500HB-11	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM5310B-2011	N/A	
		SW846 9020B	N/A	



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3273608001	3100 River Road, Conestoga, PA	N/A	N/A	N/A		Field	913842
		EPA TRMD	910082	11/17/2022 23:59	ANN	EPA 200.7	912315
		EPA ACID	909740	11/17/2022 16:24	MO	EPA 200.7	909741
		N/A	N/A	N/A		EPA 524.2	911895
		N/A	N/A	N/A		ASTM D6919-09	909652
		N/A	N/A	N/A		EPA 300.0	907981
		N/A	N/A	N/A		EPA 300.0	913851
		N/A	N/A	N/A		EPA 410.4	910328
		SW846 9066	912106	11/22/2022 15:26	AKH	EPA 420.4	912123
		N/A	N/A	N/A		S2540C-11	908061
		N/A	N/A	N/A		S4500HB-11	908951
		N/A	N/A	N/A		SM2130B-2011	907975
		N/A	N/A	N/A		SM2320B-2011	908951
		N/A	N/A	N/A		SM2510B-2011	909067
		N/A	N/A	N/A		SM5310B-2011	908924
		N/A	N/A	N/A		SW846 9020B	913900



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Client Name: LCSWMA - Larry Kirchner

Address: 3100 River Road

Conestoga, PA 17516

Contact: Larry Kirchner

Phone#: (717) 584-0030

Project Name#: LCSWMA - Quarterly

Bill To: Lancaster County Solid Waste MA

TAT Normal-Standard TAT is 10-12 business days.
 Rush-Subject to ALS approval and surcharges.

Date Required: _____ Approved By: _____

Email? -Y

Fax? -Y No.:

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

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

Container Type	AG	AN	AN	CG	PL	PL	PL	PL	PL	PL
Container Size	40 ml	125 ml	250 ml	40 ml	250 ml	125 ml	125 ml	125 ml	500 ml	500 ml
Preservative	HCl	H2SO4	H2SO4	Asc&HCl	H2SO4	HNO3	HNO3	HNO3	None	None

ANALYSES/METHOD REQUESTED

*G or C	*Matrix	TOC	O-OH	TOX	524 VOC	TM	NH3-N, COD	Dissolved Metals: Ca, Fe, Mg, Mn, K, Na	Metals: Ca, Fe, Mg, Mn, K, Na	pH, TDS, NO2, NO3, Cl, SO4, F, Tb, Spc	Alkalinity, HCO3
1	G DW	2	1	2	3	X	1	2	2	1	1
2	G DW				2						

Enter Number of Containers Per Sample or Field Results Below.

3273608

Logged By: SLS
PM: SJB



Cooler Temp: 10°C Therm ID: 71526

No. of Coolers: Y N Initial

Custody Seals Present?

(if present) Seals Intact?

Received on Ice?

COC/Labels Complete/Accurate?

Cont. in Good Cond.?

Correct Containers?

Temp Taken By: WVE

WO Temp (°C): 570

Therm ID: 570

Receipt Info Completed By: KSP

Cooler Custody Seal Intact: Y N NA

Sample Custody Seal Intact: Y N NA

Received on Ice: Y N NA

Cooler & Samples Intact: Y N NA

Correct Containers Provided: Y N NA

Sample Label/COC Agree: Y N NA

Adequate Sample Volumes: Y N NA

VOA Headspace Present: Y N NA

Voa Trip Blank: Y N NA

Mis 4 Days? Y N NA

Rad Screen (uCi): Y N NA

Courier/Tracking #: Y N NA

SDWA Compliance: Y N NA

PWSID: Y N NA

WV Containers 0-6°C: Y N NA

ALS Field Services: Pickup Labor
 Composite Sampling Rental Equipment
 Other:

Project Comments:	LOGGED BY (signature):		REVIEWED BY (signature):		Received By / Company Name		Date		Time		Deliverables		Special Processing		State Samples Collected In				
	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	Standard	CLP-like	USACE	USACE	Navy	NY	PA	NC	
1 Relinquished By / Company Name: R. Shardo ALS	11/11/22	1630	11/11/22	1630	2	Middleton	11/12	1630	4	6									
3					4				8	10									

* G=Grab, C=Composite

**Matrix - AL=Air; DW=Drinking Water; GW=Groundwater; OL=Oil; Other=Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

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



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

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

Analytical Results Report For

Lancaster County Solid Waste Authority

Project 4TH QTR 2022-3106 RIVER RD

Workorder 3273620

Report ID 211137 on 12/6/2022

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Nov 11, 2022.

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

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

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

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):

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

Susan Scherer

Susan Scherer

(ALS Digital Signature)

Project Coordinator

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



Sample Summary

<u>Lab ID</u>	<u>Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>	<u>Collector</u>	<u>Collection Company</u>
3273620001	3106 River Road, Conestoga, PA	Water	11/11/2022 11:20	11/11/2022 16:30	BGS	Analytical Laboratory Service



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136.
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed 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 QC sample type MS for method EPA 300.0 was outside the control limits for the analyte Chloride. The % Recovery was reported as 76.4 and the control limits were 80 to 120. |
| 3 | The QC sample type MS for method EPA 300.0 was outside the control limits for the analyte Nitrate-N. The % Recovery was reported as 75.9 and the control limits were 80 to 120. |
| 4 | 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	3106 River Road, Conestoga, PA	Collected	11/11/2022 11:20
Lab Sample ID	3273620001	Lab Receipt	11/11/2022 16:30

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	7.17	pH_Units		Field	#
Specific Conductance, Field	251	umhos/cm	1	Field	#
Temperature	16.80	Deg. C		Field	#
METALS					
Calcium, Dissolved	18.0	mg/L	0.10	EPA 200.7	#
Calcium, Total	19.9	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	11.5	mg/L	0.10	EPA 200.7	#
Magnesium, Total	12.6	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.039	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.042	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	2.1	mg/L	0.50	EPA 200.7	#
Potassium, Total	2.2	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	36.7	mg/L	0.50	EPA 200.7	#
Sodium, Total	39.8	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	15	mg/L	5	SM2320B-2011	#
Alkalinity, Total	15	mg/L	5	SM2320B-2011	#
Ammonia-N	0.103	mg/L	0.100	ASTM D6919-09	#
Chloride	92.7	mg/L	2.0	EPA 300.0	#
Nitrate-N	10.3	mg/L	1.0	EPA 300.0	#
pH	7.24	pH_Units		S4500HB-11	#
Specific Conductance	458	umhos/cm	5	SM2510B-2011	#
Sulfate	5.1	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	258	mg/L	25	S2540C-11	#



Results

Client Sample ID	3106 River Road, Conestoga, PA	Collected	11/11/2022 11:20
Lab Sample ID	3273620001	Lab Receipt	11/11/2022 16:30

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	7.17		pH_Units		Field	1	11/11/2022 11:20	BGS	N
Specific Conductance, Field	251		umhos/cm	1	Field	1	11/11/2022 11:20	BGS	N
Temperature	16.80		Deg. C		Field	1	11/11/2022 11:20	BGS	N

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	18.0		mg/L	0.10	EPA 200.7	1	11/17/2022 21:24	SRT	E1
Calcium, Total	19.9		mg/L	0.050	EPA 200.7	1	11/23/2022 11:36	SRT	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	11/17/2022 21:24	SRT	E1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	11/23/2022 11:36	SRT	D1
Magnesium, Dissolved	11.5		mg/L	0.10	EPA 200.7	1	11/17/2022 21:24	SRT	E1
Magnesium, Total	12.6		mg/L	0.050	EPA 200.7	1	11/23/2022 11:36	SRT	D1
Manganese, Dissolved	0.039		mg/L	0.0050	EPA 200.7	1	11/17/2022 21:24	SRT	E1
Manganese, Total	0.042		mg/L	0.0025	EPA 200.7	1	11/23/2022 11:36	SRT	D1
Potassium, Dissolved	2.1		mg/L	0.50	EPA 200.7	1	11/17/2022 21:24	SRT	E1
Potassium, Total	2.2		mg/L	0.25	EPA 200.7	1	11/23/2022 11:36	SRT	D1
Sodium, Dissolved	36.7		mg/L	0.50	EPA 200.7	1	11/17/2022 21:24	SRT	E1
Sodium, Total	39.8		mg/L	0.25	EPA 200.7	1	11/23/2022 11:36	SRT	D1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2022 21:55	TMP	K
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2022 21:55	TMP	K
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2022 21:55	TMP	K
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2022 21:55	TMP	K
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2022 21:55	TMP	K
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2022 21:55	TMP	K
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2022 21:55	TMP	K
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2022 21:55	TMP	K
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2022 21:55	TMP	K
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2022 21:55	TMP	K
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2022 21:55	TMP	K
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2022 21:55	TMP	K
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2022 21:55	TMP	K
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2022 21:55	TMP	K
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2022 21:55	TMP	K
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2022 21:55	TMP	K

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	97.9%	70 - 130	11/22/2022 21:55	

WET CHEMISTRY



Results

Client Sample ID	3106 River Road, Conestoga, PA	Collected	11/11/2022 11:20
Lab Sample ID	3273620001	Lab Receipt	11/11/2022 16:30

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	15		mg/L	5	SM2320B-2011	1	11/16/2022 02:24	NML	A
Alkalinity, Total	15	1	mg/L	5	SM2320B-2011	1	11/16/2022 02:24	NML	A
Ammonia-N	0.103		mg/L	0.100	ASTM D6919-09	10	11/21/2022 15:48	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	11/18/2022 14:40	KMS	C
Chloride	92.7	2	mg/L	2.0	EPA 300.0	2	11/12/2022 21:47	J1W	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	12/02/2022 00:55	AXW	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	11/29/2022 17:22	PAG	I
Nitrate-N	10.3	3	mg/L	1.0	EPA 300.0	2	11/12/2022 21:47	J1W	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	11/12/2022 21:47	J1W	A
pH	7.24	4	pH_Units		S4500HB-11	1	11/16/2022 02:24	NML	A
Phenolics	ND	ND	mg/L	0.004	EPA 420.4	1	11/23/2022 16:05	AKH	H
Specific Conductance	458		umhos/cm	5	SM2510B-2011	1	11/15/2022 10:00	JXL	A
Sulfate	5.1		mg/L	2.0	EPA 300.0	2	11/12/2022 21:47	J1W	A
Total Dissolved Solids	258		mg/L	25	S2540C-11	1	11/15/2022 11:48	SMS	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-2011	1	11/15/2022 03:52	PAG	F
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	11/12/2022 05:50	NRB	A



Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3273620001	3106 River Road, Conestoga, PA	Field	N/A	
		EPA 200.7	EPA TRMD	
		EPA 200.7	EPA ACID	
		EPA 524.2	N/A	
		ASTM D6919-09	N/A	
		EPA 300.0	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S2540C-11	N/A	
		S4500HB-11	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM5310B-2011	N/A	
		SW846 9020B	N/A	



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3273620001	3106 River Road, Conestoga, PA	N/A	N/A	N/A		Field	913842
		EPA TRMD	910082	11/17/2022 23:59	ANN	EPA 200.7	912315
		EPA ACID	909740	11/17/2022 16:24	MO	EPA 200.7	909741
		N/A	N/A	N/A		EPA 524.2	911895
		N/A	N/A	N/A		ASTM D6919-09	909648
		N/A	N/A	N/A		EPA 300.0	907981
		N/A	N/A	N/A		EPA 300.0	913851
		N/A	N/A	N/A		EPA 410.4	910328
		SW846 9066	912106	11/22/2022 15:26	AKH	EPA 420.4	912123
		N/A	N/A	N/A		S2540C-11	908061
		N/A	N/A	N/A		S4500HB-11	908951
		N/A	N/A	N/A		SM2130B-2011	907975
		N/A	N/A	N/A		SM2320B-2011	908951
		N/A	N/A	N/A		SM2510B-2011	909067
		N/A	N/A	N/A		SM5310B-2011	908924
N/A	N/A	N/A		SW846 9020B	914106		



301 Filling Mill Road • Middletown, PA 17057 • 717.944.5541 • Fax: 717.944.1430
 Client Name: LCSWMA - Aaron Fry
 Address: 3106 River Road
 Conestoga, PA 17516
 Contact: Aaron Fry
 Phone#: (717) 669-6831
 Project Name#: LCSWMA - Quarterly
 Bill To: LCSWMA - Aaron Fry

3273620
 Logged By: SLS
 PM: SJB



1 of 1

Receipt Information (completed by Receiving Lab)
 Cooler Temp: 1°C Therm ID: TH570
 No. of Coolers: Y N Initial

Container Type	AG	AN	AN	CG	PL	PL	PL	PL
Container Size	40 ml	125 ml	250 ml	40 ml	125 ml	125 ml	500 ml	500 ml
Preservative	HCl	H2SO4	H2SO4	Asc&HCl	H2SO4	HNO3	HNO3	None

Temp Taken By: WJE
 WO Temp (°C): 1°C
 Therm ID: 570
 Receipt Info Completed By: KSA
 Cooler Custody Seal Intact: Y N MA
 Sample Custody Seal Intact: Y N MA
 Received on Ice: Y N MA
 Cooler & Samples Intact: Y N MA
 Correct Containers Provided: Y N MA
 Sample Label/COC Agree: Y N MA
 Adequate Sample Volumes: Y N MA
 VOA Headspace Present: Y N MA
 Voa Trip Blank: Y N MA
 NLS 4 Days?: Y N MA
 Rad Screen (uCi): Y N MA
 Courier/Tracking #: Y N MA
 SDWA Compliance: Y N MA
 PWSID: Y N MA
 WW Containers 0-6°C: Y N MA

Custody Seals Present? (if present) Seals Intact? Received on Ice? COC Labels Complete/Accurate?

ANALYSES/METHOD REQUESTED

Container Type	AG	AN	AN	CG	PL	PL	PL	PL
Container Size	40 ml	125 ml	250 ml	40 ml	125 ml	125 ml	500 ml	500 ml
Preservative	HCl	H2SO4	H2SO4	Asc&HCl	H2SO4	HNO3	HNO3	None

Temp Taken By: WJE
 WO Temp (°C): 1°C
 Therm ID: 570
 Receipt Info Completed By: KSA
 Cooler Custody Seal Intact: Y N MA
 Sample Custody Seal Intact: Y N MA
 Received on Ice: Y N MA
 Cooler & Samples Intact: Y N MA
 Correct Containers Provided: Y N MA
 Sample Label/COC Agree: Y N MA
 Adequate Sample Volumes: Y N MA
 VOA Headspace Present: Y N MA
 Voa Trip Blank: Y N MA
 NLS 4 Days?: Y N MA
 Rad Screen (uCi): Y N MA
 Courier/Tracking #: Y N MA
 SDWA Compliance: Y N MA
 PWSID: Y N MA
 WW Containers 0-6°C: Y N MA

ALS Field Services: Pickup Labor
 Composite Sampling Rental Equipment
 Other:

Standard	Special Processing	State Samples Collected In
<input type="checkbox"/> CLP-like	USACE	<input type="checkbox"/> NY
<input type="checkbox"/> USACE	Navy	<input type="checkbox"/> NJ
<input type="checkbox"/> Reportable to PADEP?	Sample Disposal	<input checked="" type="checkbox"/> PA
Yes <input type="checkbox"/>	Lab <input checked="" type="checkbox"/>	NC <input type="checkbox"/>
PWSID #	Special <input type="checkbox"/>	
EDDS: Format Type		

Temp Taken By: WJE
 WO Temp (°C): 1°C
 Therm ID: 570
 Receipt Info Completed By: KSA
 Cooler Custody Seal Intact: Y N MA
 Sample Custody Seal Intact: Y N MA
 Received on Ice: Y N MA
 Cooler & Samples Intact: Y N MA
 Correct Containers Provided: Y N MA
 Sample Label/COC Agree: Y N MA
 Adequate Sample Volumes: Y N MA
 VOA Headspace Present: Y N MA
 Voa Trip Blank: Y N MA
 NLS 4 Days?: Y N MA
 Rad Screen (uCi): Y N MA
 Courier/Tracking #: Y N MA
 SDWA Compliance: Y N MA
 PWSID: Y N MA
 WW Containers 0-6°C: Y N MA

Enter Number of Containers Per Sample or Field Results Below.

*Matrix	TOC	O-H	TOX	524 VOC	FM	NH3-N, COD	Dissolved Metals: Ca, Fe, Mg, Mn, K, Na	K, Na	Metals: Ca, Fe, Mg, Mn, K, Na	pH, TDS, NO2, NO3, Cl, SO4, F, Tb, Spc	Alkalinity, HCO3
G DW	2	1	2	3	X	1	2	2	2	1	1
G DW				2							

Sample Date	Time
11/11/22	1120
11/11/22	1630

Project Comments:

Relinquished By / Company Name: [Signature]

Date	Time
11/11/22	1630
	4
	6
	8
	10

Received By / Company Name: [Signature]

LOGGED BY (signature): [Signature]

DATE	TIME
11/11/22	1630

REVIEWED BY (signature): [Signature]

ALS Field Services: Pickup Labor
 Composite Sampling Rental Equipment
 Other:

Standard	Special Processing	State Samples Collected In
<input type="checkbox"/> CLP-like	USACE	<input type="checkbox"/> NY
<input type="checkbox"/> USACE	Navy	<input type="checkbox"/> NJ
<input type="checkbox"/> Reportable to PADEP?	Sample Disposal	<input checked="" type="checkbox"/> PA
Yes <input type="checkbox"/>	Lab <input checked="" type="checkbox"/>	NC <input type="checkbox"/>
PWSID #	Special <input type="checkbox"/>	
EDDS: Format Type		

Temp Taken By: WJE
 WO Temp (°C): 1°C
 Therm ID: 570
 Receipt Info Completed By: KSA
 Cooler Custody Seal Intact: Y N MA
 Sample Custody Seal Intact: Y N MA
 Received on Ice: Y N MA
 Cooler & Samples Intact: Y N MA
 Correct Containers Provided: Y N MA
 Sample Label/COC Agree: Y N MA
 Adequate Sample Volumes: Y N MA
 VOA Headspace Present: Y N MA
 Voa Trip Blank: Y N MA
 NLS 4 Days?: Y N MA
 Rad Screen (uCi): Y N MA
 Courier/Tracking #: Y N MA
 SDWA Compliance: Y N MA
 PWSID: Y N MA
 WW Containers 0-6°C: Y N MA

ALS Field Services: Pickup Labor
 Composite Sampling Rental Equipment
 Other:

Standard	Special Processing	State Samples Collected In
<input type="checkbox"/> CLP-like	USACE	<input type="checkbox"/> NY
<input type="checkbox"/> USACE	Navy	<input type="checkbox"/> NJ
<input type="checkbox"/> Reportable to PADEP?	Sample Disposal	<input checked="" type="checkbox"/> PA
Yes <input type="checkbox"/>	Lab <input checked="" type="checkbox"/>	NC <input type="checkbox"/>
PWSID #	Special <input type="checkbox"/>	
EDDS: Format Type		

Temp Taken By: WJE
 WO Temp (°C): 1°C
 Therm ID: 570
 Receipt Info Completed By: KSA
 Cooler Custody Seal Intact: Y N MA
 Sample Custody Seal Intact: Y N MA
 Received on Ice: Y N MA
 Cooler & Samples Intact: Y N MA
 Correct Containers Provided: Y N MA
 Sample Label/COC Agree: Y N MA
 Adequate Sample Volumes: Y N MA
 VOA Headspace Present: Y N MA
 Voa Trip Blank: Y N MA
 NLS 4 Days?: Y N MA
 Rad Screen (uCi): Y N MA
 Courier/Tracking #: Y N MA
 SDWA Compliance: Y N MA
 PWSID: Y N MA
 WW Containers 0-6°C: Y N MA

ALS Field Services: Pickup Labor
 Composite Sampling Rental Equipment
 Other:

Standard	Special Processing	State Samples Collected In
<input type="checkbox"/> CLP-like	USACE	<input type="checkbox"/> NY
<input type="checkbox"/> USACE	Navy	<input type="checkbox"/> NJ
<input type="checkbox"/> Reportable to PADEP?	Sample Disposal	<input checked="" type="checkbox"/> PA
Yes <input type="checkbox"/>	Lab <input checked="" type="checkbox"/>	NC <input type="checkbox"/>
PWSID #	Special <input type="checkbox"/>	
EDDS: Format Type		

Temp Taken By: WJE
 WO Temp (°C): 1°C
 Therm ID: 570
 Receipt Info Completed By: KSA
 Cooler Custody Seal Intact: Y N MA
 Sample Custody Seal Intact: Y N MA
 Received on Ice: Y N MA
 Cooler & Samples Intact: Y N MA
 Correct Containers Provided: Y N MA
 Sample Label/COC Agree: Y N MA
 Adequate Sample Volumes: Y N MA
 VOA Headspace Present: Y N MA
 Voa Trip Blank: Y N MA
 NLS 4 Days?: Y N MA
 Rad Screen (uCi): Y N MA
 Courier/Tracking #: Y N MA
 SDWA Compliance: Y N MA
 PWSID: Y N MA
 WW Containers 0-6°C: Y N MA

ALS Field Services: Pickup Labor
 Composite Sampling Rental Equipment
 Other:

Standard	Special Processing	State Samples Collected In
<input type="checkbox"/> CLP-like	USACE	<input type="checkbox"/> NY
<input type="checkbox"/> USACE	Navy	<input type="checkbox"/> NJ
<input type="checkbox"/> Reportable to PADEP?	Sample Disposal	<input checked="" type="checkbox"/> PA
Yes <input type="checkbox"/>	Lab <input checked="" type="checkbox"/>	NC <input type="checkbox"/>
PWSID #	Special <input type="checkbox"/>	
EDDS: Format Type		

Temp Taken By: WJE
 WO Temp (°C): 1°C
 Therm ID: 570
 Receipt Info Completed By: KSA
 Cooler Custody Seal Intact: Y N MA
 Sample Custody Seal Intact: Y N MA
 Received on Ice: Y N MA
 Cooler & Samples Intact: Y N MA
 Correct Containers Provided: Y N MA
 Sample Label/COC Agree: Y N MA
 Adequate Sample Volumes: Y N MA
 VOA Headspace Present: Y N MA
 Voa Trip Blank: Y N MA
 NLS 4 Days?: Y N MA
 Rad Screen (uCi): Y N MA
 Courier/Tracking #: Y N MA
 SDWA Compliance: Y N MA
 PWSID: Y N MA
 WW Containers 0-6°C: Y N MA

ALS Field Services: Pickup Labor
 Composite Sampling Rental Equipment
 Other:

Standard	Special Processing	State Samples Collected In
<input type="checkbox"/> CLP-like	USACE	<input type="checkbox"/> NY
<input type="checkbox"/> USACE	Navy	<input type="checkbox"/> NJ
<input type="checkbox"/> Reportable to PADEP?	Sample Disposal	<input checked="" type="checkbox"/> PA
Yes <input type="checkbox"/>	Lab <input checked="" type="checkbox"/>	NC <input type="checkbox"/>
PWSID #	Special <input type="checkbox"/>	
EDDS: Format Type		

Temp Taken By: WJE
 WO Temp (°C): 1°C
 Therm ID: 570
 Receipt Info Completed By: KSA
 Cooler Custody Seal Intact: Y N MA
 Sample Custody Seal Intact: Y N MA
 Received on Ice: Y N MA
 Cooler & Samples Intact: Y N MA
 Correct Containers Provided: Y N MA
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 Adequate Sample Volumes: Y N MA
 VOA Headspace Present: Y N MA
 Voa Trip Blank: Y N MA
 NLS 4 Days?: Y N MA
 Rad Screen (uCi): Y N MA
 Courier/Tracking #: Y N MA
 SDWA Compliance: Y N MA
 PWSID: Y N MA
 WW Containers 0-6°C: Y N MA



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

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

Analytical Results Report For

Lancaster County Solid Waste Authority

Project 4TH QTR 2022-3125 RIVER RD

Workorder 3273626

Report ID 211136 on 12/6/2022

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Nov 11, 2022.

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

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

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

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):

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

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

<u>Lab ID</u>	<u>Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>	<u>Collector</u>	<u>Collection Company</u>
3273626001	3125 River Road, Conestoga, PA	Water	11/11/2022 13:00	11/11/2022 16:30	BGS	Analytical Laboratory Service
3273626002	Field Blank	Water	11/11/2022 13:50	11/11/2022 16:30	BGS	Analytical Laboratory Service
3273626003	Trip Blank	Water	11/11/2022 16:30	11/11/2022 16:30	BGS	Analytical Laboratory Service



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136.
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed 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 4TH QTR 2022-3125 RIVER RD
Workorder 3273626

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	3125 River Road, Conestoga, PA	Collected	11/11/2022 13:00
Lab Sample ID	3273626001	Lab Receipt	11/11/2022 16:30

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	8.21	pH_Units		Field	#
Specific Conductance, Field	631	umhos/cm	1	Field	#
Temperature	16.70	Deg. C		Field	#
METALS					
Calcium, Dissolved	31.7	mg/L	0.10	EPA 200.7	#
Calcium, Total	33.2	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	3.7	mg/L	0.10	EPA 200.7	#
Magnesium, Total	3.8	mg/L	0.050	EPA 200.7	#
Manganese, Total	0.015	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	2.6	mg/L	0.50	EPA 200.7	#
Potassium, Total	2.7	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	95.4	mg/L	0.50	EPA 200.7	#
Sodium, Total	98.3	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	152	mg/L	5	SM2320B-2011	#
Alkalinity, Total	152	mg/L	5	SM2320B-2011	#
Ammonia-N	0.119	mg/L	0.100	ASTM D6919-09	#
Chloride	80.5	mg/L	2.0	EPA 300.0	#
Nitrate-N	4.3	mg/L	1.0	EPA 300.0	#
pH	8.18	pH_Units		S4500HB-11	#
Specific Conductance	626	umhos/cm	5	SM2510B-2011	#
Sulfate	9.3	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	366	mg/L	25	S2540C-11	#



Results

Client Sample ID	3125 River Road, Conestoga, PA	Collected	11/11/2022 13:00
Lab Sample ID	3273626001	Lab Receipt	11/11/2022 16:30

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	8.21		pH_Units		Field	1	11/11/2022 13:00	BGS	N
Specific Conductance, Field	631		umhos/cm	1	Field	1	11/11/2022 13:00	BGS	N
Temperature	16.70		Deg. C		Field	1	11/11/2022 13:00	BGS	N

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	31.7		mg/L	0.10	EPA 200.7	1	12/01/2022 12:25	MO	E1
Calcium, Total	33.2		mg/L	0.050	EPA 200.7	1	11/23/2022 11:57	SRT	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	12/01/2022 12:25	MO	E1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	11/23/2022 11:57	SRT	D1
Magnesium, Dissolved	3.7		mg/L	0.10	EPA 200.7	1	12/01/2022 12:25	MO	E1
Magnesium, Total	3.8		mg/L	0.050	EPA 200.7	1	11/23/2022 11:57	SRT	D1
Manganese, Dissolved	ND	ND	mg/L	0.0050	EPA 200.7	1	12/01/2022 12:25	MO	E1
Manganese, Total	0.015		mg/L	0.0025	EPA 200.7	1	11/23/2022 11:57	SRT	D1
Potassium, Dissolved	2.6		mg/L	0.50	EPA 200.7	1	12/01/2022 12:25	MO	E1
Potassium, Total	2.7		mg/L	0.25	EPA 200.7	1	11/23/2022 11:57	SRT	D1
Sodium, Dissolved	95.4		mg/L	0.50	EPA 200.7	1	12/01/2022 12:25	MO	E1
Sodium, Total	98.3		mg/L	0.25	EPA 200.7	1	11/23/2022 11:57	SRT	D1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:57	PDK	K
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:57	PDK	K
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:57	PDK	K
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:57	PDK	K
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:57	PDK	K
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:57	PDK	K
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:57	PDK	K
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:57	PDK	K
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:57	PDK	K
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:57	PDK	K
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:57	PDK	K
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:57	PDK	K
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:57	PDK	K
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:57	PDK	K
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:57	PDK	K
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 07:57	PDK	K

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	98%	70 - 130	11/23/2022 07:57	

WET CHEMISTRY



Results

Client Sample ID	3125 River Road, Conestoga, PA	Collected	11/11/2022 13:00
Lab Sample ID	3273626001	Lab Receipt	11/11/2022 16:30

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	152		mg/L	5	SM2320B-2011	1	11/16/2022 03:29	NML	A
Alkalinity, Total	152	1	mg/L	5	SM2320B-2011	1	11/16/2022 03:29	NML	A
Ammonia-N	0.119		mg/L	0.100	ASTM D6919-09	10	11/21/2022 15:35	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	11/18/2022 14:40	KMS	C
Chloride	80.5		mg/L	2.0	EPA 300.0	2	11/12/2022 23:32	J1W	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	12/02/2022 02:40	AXW	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	11/29/2022 17:22	PAG	I
Nitrate-N	4.3		mg/L	1.0	EPA 300.0	2	11/12/2022 23:32	J1W	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	11/12/2022 23:32	J1W	A
pH	8.18	2	pH_Units		S4500HB-11	1	11/16/2022 03:29	NML	A
Phenolics	ND	ND	mg/L	0.004	EPA 420.4	1	11/23/2022 16:27	AKH	H
Specific Conductance	626		umhos/cm	5	SM2510B-2011	1	11/17/2022 10:15	JXL	A
Sulfate	9.3		mg/L	2.0	EPA 300.0	2	12/02/2022 02:40	AXW	A
Total Dissolved Solids	366		mg/L	25	S2540C-11	1	11/15/2022 11:48	SMS	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-2011	1	11/15/2022 03:52	PAG	F
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	11/12/2022 05:50	NRB	A



Results

Client Sample ID	Field Blank	Collected	11/11/2022 13:50
Lab Sample ID	3273626002	Lab Receipt	11/11/2022 16:30

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 14:38	TMP	A
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 14:38	TMP	A
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 14:38	TMP	A
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 14:38	TMP	A
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 14:38	TMP	A
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 14:38	TMP	A
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 14:38	TMP	A
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 14:38	TMP	A
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 14:38	TMP	A
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 14:38	TMP	A
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 14:38	TMP	A
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 14:38	TMP	A
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 14:38	TMP	A
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 14:38	TMP	A
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 14:38	TMP	A
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 14:38	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	97.5%	70 - 130	11/23/2022 14:38	



Results

Client Sample ID	Trip Blank	Collected	11/11/2022 16:30
Lab Sample ID	3273626003	Lab Receipt	11/11/2022 16:30

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 19:33	TMP	A
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 19:33	TMP	A
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 19:33	TMP	A
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 19:33	TMP	A
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 19:33	TMP	A
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 19:33	TMP	A
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 19:33	TMP	A
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 19:33	TMP	A
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 19:33	TMP	A
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 19:33	TMP	A
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 19:33	TMP	A
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 19:33	TMP	A
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 19:33	TMP	A
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 19:33	TMP	A
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 19:33	TMP	A
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/23/2022 19:33	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	98.8%	70 - 130	11/23/2022 19:33	



Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3273626001	3125 River Road, Conestoga, PA	Field	N/A	
		EPA 200.7	EPA TRMD	
		EPA 200.7	EPA ACID	
		EPA 524.2	N/A	
		ASTM D6919-09	N/A	
		EPA 300.0	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S2540C-11	N/A	
		S4500HB-11	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM5310B-2011	N/A	
SW846 9020B	N/A			
3273626002	Field Blank	EPA 524.2	N/A	
3273626003	Trip Blank	EPA 524.2	N/A	



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3273626001	3125 River Road, Conestoga, PA	N/A	N/A	N/A		Field	913842
		EPA TRMD	910082	11/17/2022 23:59	ANN	EPA 200.7	912315
		EPA ACID	915267	12/01/2022 11:04	MO	EPA 200.7	915268
		N/A	N/A	N/A		EPA 524.2	912190
		N/A	N/A	N/A		ASTM D6919-09	909648
		N/A	N/A	N/A		EPA 300.0	907981
		N/A	N/A	N/A		EPA 300.0	913851
		N/A	N/A	N/A		EPA 410.4	910328
		SW846 9066	912106	11/22/2022 15:26	AKH	EPA 420.4	912123
		N/A	N/A	N/A		S2540C-11	908061
		N/A	N/A	N/A		S4500HB-11	908951
		N/A	N/A	N/A		SM2130B-2011	907975
		N/A	N/A	N/A		SM2320B-2011	908951
		N/A	N/A	N/A		SM2510B-2011	909347
		N/A	N/A	N/A		SM5310B-2011	908924
		N/A	N/A	N/A		SW846 9020B	914106
3273626002	Field Blank	N/A	N/A	N/A		EPA 524.2	912304
3273626003	Trip Blank	N/A	N/A	N/A		EPA 524.2	912304



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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS SAMPLER. INSTRUCTIONS ON THE BACK.

3273626

Logged By: SLS
PM: SJB



1 of 1

Client Name: LCSWMA - Christian C. Beck
Address: 3125 River Road
Conestoga, PA 17516
Contact: Christian C. Beck
Phone#: (717) 871-0448

Project Name#: LCSWMA - Quarterly
Bill To: Lancaster County Solid Waste MA

TAT Normal-Standard TAT is 10-12 business days.
 Rush-Subject to ALS approval and surcharges.
Date Required: _____ Approved By: _____
Email? -Y
Fax? -Y No.:

receipt information (completed by Receiving Lab)
Cooler Temp: 12 Therm ID: 7H570
No. of Coolers: Y N Initial
Custody Seals Present? Y N
(if present) Seals Intact? Y N
Received on Ice? Y N
COC/Labels Complete/Accurate? Y N
Cont. in Good Cond.? Y N

Temp Taken By: WTE
WO Temp (°C): 570
Receipt Info Completed By: *[Signature]*
Cooler Custody Seal Intact: Y N NA
Sample Custody Seal Intact: Y N NA
Received on Ice: Y N NA
Cooler & Samples Intact: Y N NA
Correct Containers Provided: Y N NA
Sample Label/COC Agree: Y N NA
Adequate Sample Volumes: Y N NA
VOA Headspace Present: Y N NA
Voa Trip Blank: Y N NA
NI= 4 Days? Y N NA
Rad Screen (uCi): Y N NA
Courier/Tracking#: *[Signature]*
SDWA Compliance: Y N NA
PWSID: Y N NA
WV Containers 0-6°C: Y N NA

Container Type	AG	AN	AN	CG	PL	PL	PL	PL	PL
Container Size	40 ml	125 ml	250 ml	40 ml	250 ml	125 ml	125 ml	500 ml	500 ml
Preservative	HCl	H2SO4	H2SO4	HCl	H2SO4	HNO3	HNO3	None	None

*Matrix	Enter Number of Containers Per Sample or Field Results Below.									
	TOC	O-OH	TOX	524 VOC	FM	NH3-N, COD	Dissolved Metals: Ca, Fe, Mg, Mn, K, Na	Metals: Ca, Fe, Mg, Mn, K, Na	pH, TDS, NO2, NO3, Cl, SO4, F, Pb, SpC	Alkalinity, HCO3
G DW	2	1	2	3	X	1	24	24	1	1
G DW				2						
G DW				2						

Project Comments: _____

LOGGED BY (signature): _____ DATE: _____ TIME: _____

REVIEWED BY (signature): _____ DATE: _____ TIME: _____

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
<i>[Signature]</i>	11/11/22	1300	<i>[Signature]</i>	11/12/22	1630

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