



Date Prepared/Revised 12/29/2023
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:	3044 RIVER ROAD
Phone No.:	
Sampling Point:	Latitude: 39 ^o 57' 30.58" Longitude: 76 ^o 26' 11.25"
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)	11/10/2023 Sample Collection Time: 9:14 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	11/29/2023
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

11/10/2023

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.5 ND	SM4500D
BICARBONATE ALKALINITY	15	SM20-2321
CALCIUM, TOTAL	15.9	EPA 200.7
CALCIUM, DISSOLVED	14.7	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	18.5	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	10.8	EPA 200.7
MAGNESIUM, DISSOLVED	9.5	EPA 200.7
MANGANESE, TOTAL (ug/l)	12	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	10	EPA 200.7
NITRATE-NITROGEN	18.6	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 LCSWMA

Sample Date

11/10/2023

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)	7.18	FIELD
pH-LAB (SU)	7.24	SM4500B
POTASSIUM, TOTAL	1.6	EPA 200.7
POTASSIUM, DISSOLVED	1.8	EPA 200.7
SODIUM, TOTAL	9.5	EPA 200.7
SODIUM, DISSOLVED	8.8	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	239	FIELD
SPEC. COND., LAB (umhos/cm)	246	EPA 120.1
SULFATE	2 ND	EPA 300
ALKALINITY	15	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	192	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.3 ND	SM 2130B

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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

11/10/2023

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

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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 (D ^o 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 ^o 57' 29.85" Longitude: 76 ^o 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 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)	11/10/2023 Sample Collection Time: 11:52 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	11/27/2023
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

11/10/2023

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	8	SM20-2321
CALCIUM, TOTAL	15.6	EPA 200.7
CALCIUM, DISSOLVED	14.5	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	19.3	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	9.8	EPA 200.7
MAGNESIUM, DISSOLVED	8.6	EPA 200.7
MANGANESE, TOTAL (ug/l)	37	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	32	EPA 200.7
NITRATE-NITROGEN	17.8	EPA 300

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PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS MILLER

Sample Date

11/10/2023

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)	6.85	SM4500B
POTASSIUM, TOTAL	2.5	EPA 200.7
POTASSIUM, DISSOLVED	2.2	EPA 200.7
SODIUM, TOTAL	8.5	EPA 200.7
SODIUM, DISSOLVED	7.2	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	237	FIELD
SPEC. COND., LAB (umhos/cm)	232	EPA 120.1
SULFATE	3	EPA 300
ALKALINITY	8	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	186	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.3 ND	SM 2130B

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PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS MILLER

Sample Date

11/10/2023

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

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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:	LCSWMA
Address:	3056 RIVER ROAD
Phone No.:	
Sampling Point:	Latitude: 39 ^o 57' 28.44" Longitude: 76 ^o 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 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)	11/10/2023 Sample Collection Time: 12:07 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	11/27/2023
Were any holding times exceeded?:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field.
Comments:	

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MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

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Sample Date

11/10/2023

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	8	SM20-2321
CALCIUM, TOTAL	12.3	EPA 200.7
CALCIUM, DISSOLVED	11.9	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	22.8	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	12	EPA 200.7
MAGNESIUM, DISSOLVED	11.1	EPA 200.7
MANGANESE, TOTAL (ug/l)	69	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	66	EPA 200.7
NITRATE-NITROGEN	17	EPA 300

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PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS LCSWMA

Sample Date

11/10/2023

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)	6.94	FIELD
pH-LAB (SU)	7.01	SM4500B
POTASSIUM, TOTAL	2.2	EPA 200.7
POTASSIUM, DISSOLVED	2.5	EPA 200.7
SODIUM, TOTAL	8.2	EPA 200.7
SODIUM, DISSOLVED	7.8	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	246	FIELD
SPEC. COND., LAB (umhos/cm)	238	EPA 120.1
SULFATE	2 ND	EPA 300
ALKALINITY	8	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	152	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.3	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

11/10/2023

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

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PRIVATE WATER SUPPLY
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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:	LCSWMA
Address:	3060 RIVER ROAD
Phone No.:	
Sampling Point:	Latitude: 39 ^o 57' 27.63" Longitude: 76 ^o 26' 10.01"
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)	11/10/2023 Sample Collection Time: 12:18 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	11/27/2023
Were any holding times exceeded?:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field.
Comments:	

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QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

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Monitoring Point I.D. No.

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Sample Date

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	6	SM20-2321
CALCIUM, TOTAL	10.4	EPA 200.7
CALCIUM, DISSOLVED	9.8	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	16.7	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	37	EPA 200.7
IRON, DISSOLVED (ug/l)	60 ND	EPA 200.7
MAGNESIUM, TOTAL	10.8	EPA 200.7
MAGNESIUM, DISSOLVED	9.7	EPA 200.7
MANGANESE, TOTAL (ug/l)	98	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	78	EPA 200.7
NITRATE-NITROGEN	14.8	EPA 300

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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)	6.74	FIELD
pH-LAB (SU)	6.78	SM4500B
POTASSIUM, TOTAL	2.5	EPA 200.7
POTASSIUM, DISSOLVED	2.8	EPA 200.7
SODIUM, TOTAL	8.6	EPA 200.7
SODIUM, DISSOLVED	8	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	222	FIELD
SPEC. COND., LAB (umhos/cm)	216	EPA 120.1
SULFATE	10.6	EPA 300
ALKALINITY	6	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	142	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.3 ND	SM 2130B

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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

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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 ^o 57' 28.2" Longitude: 76 ^o 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)	11/10/2023 Sample Collection Time: 1:50 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	11/27/2023
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

11/10/2023

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	6	SM20-2321
CALCIUM, TOTAL	16.2	EPA 200.7
CALCIUM, DISSOLVED	13.5	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	54.6	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	9.1	EPA 200.7
MAGNESIUM, DISSOLVED	7.9	EPA 200.7
MANGANESE, TOTAL (ug/l)	180	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	150	EPA 200.7
NITRATE-NITROGEN	10.8	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

11/10/2023

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)	6.67	FIELD
pH-LAB (SU)	6.7	SM4500B
POTASSIUM, TOTAL	4.1	EPA 200.7
POTASSIUM, DISSOLVED	3.7	EPA 200.7
SODIUM, TOTAL	25.7	EPA 200.7
SODIUM, DISSOLVED	22.3	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	311	FIELD
SPEC. COND., LAB (umhos/cm)	310	EPA 120.1
SULFATE	12	EPA 300
ALKALINITY	6	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	194	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 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

11/10/2023

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 12/29/2023
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 ^o 57' 21.99" Longitude: 76 ^o 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 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)	11/28/2023 Sample Collection Time: 8:30 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	12/13/2023
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

11/28/2023

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	1 ND	SM4500D
BICARBONATE ALKALINITY	23	SM20-2321
CALCIUM, TOTAL	10.4	EPA 200.7
CALCIUM, DISSOLVED	10.3	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	31.9	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	5.9	EPA 200.7
MAGNESIUM, DISSOLVED	5.7	EPA 200.7
MANGANESE, TOTAL (ug/l)	22	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	19	EPA 200.7
NITRATE-NITROGEN	1.2	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

11/28/2023

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)	7.79	FIELD
pH-LAB (SU)	7.32	SM4500B
POTASSIUM, TOTAL	1.8	EPA 200.7
POTASSIUM, DISSOLVED	2.1	EPA 200.7
SODIUM, TOTAL	13.1	EPA 200.7
SODIUM, DISSOLVED	13.8	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	783	FIELD
SPEC. COND., LAB (umhos/cm)	178	EPA 120.1
SULFATE	10.6	EPA 300
ALKALINITY	23	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	136	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 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

11/28/2023

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 12/29/2023
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:	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 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)	11/10/2023 Sample Collection Time: 3:08 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	11/30/2023
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

11/10/2023

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	181	SM20-2321
CALCIUM, TOTAL	0.15	EPA 200.7
CALCIUM, DISSOLVED	0.14	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	244	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	0.074	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	4.7	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

11/10/2023

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)	7.89	FIELD
pH-LAB (SU)	8.21	SM4500B
POTASSIUM, TOTAL	0.67	EPA 200.7
POTASSIUM, DISSOLVED	0.55	EPA 200.7
SODIUM, TOTAL	214	EPA 200.7
SODIUM, DISSOLVED	229	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	1120	FIELD
SPEC. COND., LAB (umhos/cm)	1140	EPA 120.1
SULFATE	2 ND	EPA 300
ALKALINITY	181	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	644	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	9	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 WEBER

Sample Date

11/10/2023

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 12/29/2023
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:	KIRCHNER
Address:	3100 RIVER ROAD
Phone No.:	
Sampling Point:	Latitude: 39 ^o 57' 17.9" Longitude: 76 ^o 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)	11/10/2023 Sample Collection Time: 9:45 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	11/30/2023
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

11/10/2023

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	27	SM20-2321
CALCIUM, TOTAL	13.4	EPA 200.7
CALCIUM, DISSOLVED	13.9	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	41.7	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	6.1	EPA 200.7
MAGNESIUM, DISSOLVED	6.6	EPA 200.7
MANGANESE, TOTAL (ug/l)	8.3	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	8	EPA 200.7
NITRATE-NITROGEN	3.2	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

11/10/2023

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)	7.21	FIELD
pH-LAB (SU)	7.38	SM4500B
POTASSIUM, TOTAL	1.5	EPA 200.7
POTASSIUM, DISSOLVED	1.7	EPA 200.7
SODIUM, TOTAL	14.5	EPA 200.7
SODIUM, DISSOLVED	15.4	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	219	FIELD
SPEC. COND., LAB (umhos/cm)	228	EPA 120.1
SULFATE	6	EPA 300
ALKALINITY	27	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	169	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	5	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 KIRCHNER

Sample Date

11/10/2023

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 12/29/2023
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 ^o 57' 17.27" Longitude: 76 ^o 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 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)	11/10/2023 Sample Collection Time: 3:38 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	11/30/2023
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

11/10/2023

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	17	SM20-2321
CALCIUM, TOTAL	18	EPA 200.7
CALCIUM, DISSOLVED	17.9	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	90.9	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	10.7	EPA 200.7
MAGNESIUM, DISSOLVED	11	EPA 200.7
MANGANESE, TOTAL (ug/l)	34	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	34	EPA 200.7
NITRATE-NITROGEN	9.8	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

11/10/2023

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)	7.33	SM4500B
POTASSIUM, TOTAL	1.9	EPA 200.7
POTASSIUM, DISSOLVED	2.2	EPA 200.7
SODIUM, TOTAL	33	EPA 200.7
SODIUM, DISSOLVED	34.6	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	428	FIELD
SPEC. COND., LAB (umhos/cm)	417	EPA 120.1
SULFATE	7.1	EPA 300
ALKALINITY	17	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	280	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 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

11/10/2023

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 12/29/2023
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:	BECK
Address:	3125 RIVER ROAD
Phone No.:	
Sampling Point:	Latitude: 39 ^o 57' 11.6" Longitude: 76 ^o 26' 5.4"
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)	11/10/2023 Sample Collection Time: 3:50 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	11/27/2023
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 BECK

Sample Date

11/10/2023

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	173	SM20-2321
CALCIUM, TOTAL	25.2	EPA 200.7
CALCIUM, DISSOLVED	24.3	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	75.9	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	5.6	EPA 200.7
MAGNESIUM, DISSOLVED	5.5	EPA 200.7
MANGANESE, TOTAL (ug/l)	12	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	11	EPA 200.7
NITRATE-NITROGEN	3.9	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

11/10/2023

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)	8.15	FIELD
pH-LAB (SU)	8.22	SM4500B
POTASSIUM, TOTAL	2.5	EPA 200.7
POTASSIUM, DISSOLVED	1.7	EPA 200.7
SODIUM, TOTAL	105	EPA 200.7
SODIUM, DISSOLVED	97.1	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	628	FIELD
SPEC. COND., LAB (umhos/cm)	616	EPA 120.1
SULFATE	8.2	EPA 300
ALKALINITY	173	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	364	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 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

11/10/2023

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 CONTIGUOUS LANDOWNER-3044 RIVE
Workorder 3332530
Report ID 286017 on 11/30/2023

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Nov 10, 2023.

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

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

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

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

Recipient(s):

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

Susan Scherer

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

Susan Scherer
Project Coordinator

(ALS Digital Signature)



Sample Summary

<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>
3332530001	3044 River Road, Conestoga, PA	Water	11/10/2023 09:14	11/10/2023 18:25	BGS	Analytical Laboratory Service



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
EPA 300.1 Rev. 1.0-1997
EPA 300.0 Rev. 2.1-1993
EPA 353.2 Rev. 2.0-1993
EPA 410.4 Rev. 1.0-1993
EPA 420.4 Rev. 1.0-1993
EPA 365.1 Rev. 2.0-1993
EPA 200.7 Rev. 4.4-1994
EPA 200.8 Rev. 5.4-1994
EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are 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 CONTIGUOUS LANDOWNER-3044 RIVE
Workorder 3332530

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 3044 River Road, Conestoga, PA Collected 11/10/2023 09:14
 Lab Sample ID 3332530001 Lab Receipt 11/10/2023 18:25

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	7.18	pH_Units		Field	#
Specific Conductance, Field	239	umhos/cm	1	Field	#
Temperature	13.62	Deg. C		Field	#
METALS					
Calcium, Dissolved	14.7	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	10.8	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.010	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.012	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	1.8	mg/L	0.50	EPA 200.7	#
Potassium, Total	1.6	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	8.8	mg/L	0.50	EPA 200.7	#
Sodium, Total	9.5	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	#
Chloride	18.5	mg/L	2.0	EPA 300.0	#
Nitrate-N	18.6	mg/L	1.0	EPA 300.0	#
pH	7.24	pH_Units		S4500HB-11	#
Specific Conductance	246	umhos/cm	5	SM2510B-2011	#
Total Dissolved Solids	192	mg/L	25	SM2540C-15	#



Results

Client Sample ID	3044 River Road, Conestoga, PA	Collected	11/10/2023 09:14
Lab Sample ID	3332530001	Lab Receipt	11/10/2023 18:25

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	7.18		pH_Units		Field	1	11/10/2023 09:14	BGS	P
Specific Conductance, Field	239		umhos/cm	1	Field	1	11/10/2023 09:14	BGS	P
Temperature	13.62		Deg. C		Field	1	11/10/2023 09:14	BGS	P

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	14.7		mg/L	0.10	EPA 200.7	1	11/14/2023 19:11	MO	F1
Calcium, Total	15.9		mg/L	0.050	EPA 200.7	1	11/24/2023 11:49	AXW	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	11/14/2023 19:11	MO	F1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	11/24/2023 11:49	AXW	D1
Magnesium, Dissolved	9.5		mg/L	0.10	EPA 200.7	1	11/14/2023 19:11	MO	F1
Magnesium, Total	10.8		mg/L	0.050	EPA 200.7	1	11/24/2023 11:49	AXW	D1
Manganese, Dissolved	0.010		mg/L	0.0050	EPA 200.7	1	11/14/2023 19:11	MO	F1
Manganese, Total	0.012		mg/L	0.0025	EPA 200.7	1	11/24/2023 11:49	AXW	D1
Potassium, Dissolved	1.8		mg/L	0.50	EPA 200.7	1	11/14/2023 19:11	MO	F1
Potassium, Total	1.6		mg/L	0.25	EPA 200.7	1	11/24/2023 11:49	AXW	D1
Sodium, Dissolved	8.8		mg/L	0.50	EPA 200.7	1	11/14/2023 19:11	MO	F1
Sodium, Total	9.5		mg/L	0.25	EPA 200.7	1	11/24/2023 11:49	AXW	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	11/21/2023 23:55	PDK	M
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/21/2023 23:55	PDK	M
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/21/2023 23:55	PDK	M
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/21/2023 23:55	PDK	M
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/21/2023 23:55	PDK	M
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/21/2023 23:55	PDK	M
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/21/2023 23:55	PDK	M
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/21/2023 23:55	PDK	M
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/21/2023 23:55	PDK	M
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/21/2023 23:55	PDK	M
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	11/21/2023 23:55	PDK	M
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	11/21/2023 23:55	PDK	M
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/21/2023 23:55	PDK	M
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/21/2023 23:55	PDK	M
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/21/2023 23:55	PDK	M
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/21/2023 23:55	PDK	M

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	90.8%	70 - 130	11/21/2023 23:55	

WET CHEMISTRY



Results

Client Sample ID	3044 River Road, Conestoga, PA	Collected	11/10/2023 09:14
Lab Sample ID	3332530001	Lab Receipt	11/10/2023 18:25

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	15		mg/L	5	SM2320B-2011	1	11/15/2023 22:40	JMS	A
Alkalinity, Total	15	1	mg/L	5	SM2320B-2011	1	11/15/2023 22:40	JMS	A
Ammonia-N, Low Level	ND	ND	mg/L	0.50	SM 4500-NH3G	5	11/29/2023 17:03	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	11/15/2023 11:50	KMS	C
Chloride	18.5		mg/L	2.0	EPA 300.0	2	11/11/2023 10:48	GMM	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	11/11/2023 10:48	GMM	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	11/21/2023 17:09	PAG	K
Nitrate-N	18.6		mg/L	1.0	EPA 300.0	2	11/11/2023 10:48	GMM	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	11/11/2023 10:48	GMM	A
pH	7.24	2	pH_Units		S4500HB-11	1	11/15/2023 22:40	JMS	A
Phenolics	ND	ND	mg/L	0.005	EPA 420.4	1	11/21/2023 19:53	AKH	J
Specific Conductance	246		umhos/cm	5	SM2510B-2011	1	11/27/2023 10:40	JXL	A
Sulfate	ND	ND	mg/L	2.0	EPA 300.0	2	11/11/2023 10:48	GMM	A
Total Dissolved Solids	192		mg/L	25	SM2540C-15	1	11/14/2023 14:11	RAG	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	11/13/2023 22:07	PAG	H
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	11/10/2023 22:30	NRB	A



Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3332530001	3044 River Road, Conestoga, PA	Field	N/A	
		EPA 200.7	EPA TRMD	
		EPA 200.7	EPA ACID	
		EPA 524.2	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	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
3332530001	3044 River Road, Conestoga, PA	N/A	N/A	N/A		Field	1095450
		EPA TRMD	1089314	11/15/2023 08:30	MEM	EPA 200.7	1094462
		EPA ACID	1088916	11/13/2023 15:20	MO	EPA 200.7	1088918
		N/A	N/A	N/A		EPA 524.2	1092819
		N/A	N/A	N/A		EPA 300.0	1088310
		N/A	N/A	N/A		EPA 410.4	1089317
		SW846 9066	1092708	11/21/2023 10:31	AKH	EPA 420.4	1092710
		N/A	N/A	N/A		S4500HB-11	1089401
		N/A	N/A	N/A		SM 4500-NH3G	1095220
		N/A	N/A	N/A		SM2130B-2011	1087901
		N/A	N/A	N/A		SM2320B-2011	1089401
		N/A	N/A	N/A		SM2510B-2011	1093436
		N/A	N/A	N/A		SM2540C-15	1089045
		N/A	N/A	N/A		SM5310B-14	1088894
		N/A	N/A	N/A		SW846 9020B	1092719



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

Generated by ALS

C A

3332530
Logged By: SLS
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
Fax? -Y No.:

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time
1 3044RIVERRD	11/10/23	09:14
2. Trip Blank	11/10/23	AN
3		
4		
5		
6		
7		
8		
9		
10		

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

ANALYSES/METHOD REQUESTED												
Container	Matrix	G or C	TOC	O-H	TOX	FPA 524.2 - Form 52	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, TB, SPC	Alkalinity, HCO3
			2	1	2	3	X	1	2	2	1	1
					2							

Enter Number of Containers Per Sample or Field Results Below.	
1	1
2	1
3	1
4	1
5	1
6	1
7	1
8	1
9	1
10	1

Cooler Temp: _____ Therm ID: _____
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 By: WO Temp (°C) 570
Receipt Info Completed By: RW
Cooler Custody Seal Intact: Y N
Sample Custody Seal Intact: Y N
Received on Ice: Y N
Cooler & Samples Intact: Y N
Correct Containers Provided: Y N
Sample Label/COC Agree: Y N
Adequate Sample Volumes: Y N
C16 Samples Filtered: Y N
OP Samples Filtered: Y N
VOA Trip Blank: Y N
NIS-4 Days? Y N
Rad Screen (uCi): Y N
Courier/Tracking #: Y N

SDWA Compliance: Y N
PWSID: Y N
WV Containers 0-6°C: Y N

ALS Field Services: Pickup Labor
 Composite_Sampling Rental_Equipment
 Other:

Special Processing
USACE
Navy

State Samples Collected In
NY
NJ
PA
NC

Reportable to PADEP? Yes
Sample Disposal Lab
Special
PWSID # _____
EDDS: Format Type _____

Project Comments:	LOGGED BY (signature):	DATE	TIME
1 Requisitioned By / Company Name: ALS	[Signature]	11/10/23	15:55
3			
5			
7			
9			

* G=Grab, C=Composite **Matrix - AF=Air, DW=Drinking Water, GW=Groundwater, OI=Oil, OL=Other Liquid, SL=Sludge, SO=Soil, WP=Wipe, WW=Wastewater
ALS ENVIRONMENTAL SHIPPING ADDRESS: 34 DOGWOOD LANE, MIDDLETOWN, PA 17057



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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 2023 3052 RIVER RD
Workorder 3332528
Report ID 286011 on 11/30/2023

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Nov 10, 2023.

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.

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

Recipient(s):

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

Susan Scherer

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

Susan Scherer
Project Coordinator

(ALS Digital Signature)



Sample Summary

<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>
3332528001	3052 River Road, Conestoga, PA	Water	11/10/2023 11:52	11/10/2023 18:25	BGS	Analytical Laboratory Service



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
EPA 300.1 Rev. 1.0-1997
EPA 300.0 Rev. 2.1-1993
EPA 353.2 Rev. 2.0-1993
EPA 410.4 Rev. 1.0-1993
EPA 420.4 Rev. 1.0-1993
EPA 365.1 Rev. 2.0-1993
EPA 200.7 Rev. 4.4-1994
EPA 200.8 Rev. 5.4-1994
EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are 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 2023 3052 RIVER RD
Workorder 3332528

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	3052 River Road, Conestoga, PA	Collected	11/10/2023 11:52
Lab Sample ID	3332528001	Lab Receipt	11/10/2023 18:25

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	6.79	pH_Units		Field	#
Specific Conductance, Field	237	umhos/cm	1	Field	#
Temperature	13.67	Deg. C		Field	#
METALS					
Calcium, Dissolved	14.5	mg/L	0.10	EPA 200.7	#
Calcium, Total	15.6	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	8.6	mg/L	0.10	EPA 200.7	#
Magnesium, Total	9.8	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.032	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.037	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	2.2	mg/L	0.50	EPA 200.7	#
Potassium, Total	2.5	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	7.2	mg/L	0.50	EPA 200.7	#
Sodium, Total	8.5	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	8	mg/L	5	SM2320B-2011	#
Alkalinity, Total	8	mg/L	5	SM2320B-2011	#
Chloride	19.3	mg/L	2.0	EPA 300.0	#
Nitrate-N	17.8	mg/L	1.0	EPA 300.0	#
pH	6.85	pH_Units		S4500HB-11	#
Specific Conductance	232	umhos/cm	5	SM2510B-2011	#
Sulfate	3.0	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	186	mg/L	25	SM2540C-15	#



Results

Client Sample ID	3052 River Road, Conestoga, PA	Collected	11/10/2023 11:52
Lab Sample ID	3332528001	Lab Receipt	11/10/2023 18:25

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	6.79		pH_Units		Field	1	11/10/2023 11:52	BGS	P
Specific Conductance, Field	237		umhos/cm	1	Field	1	11/10/2023 11:52	BGS	P
Temperature	13.67		Deg. C		Field	1	11/10/2023 11:52	BGS	P

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	14.5		mg/L	0.10	EPA 200.7	1	11/14/2023 19:08	MO	F1
Calcium, Total	15.6		mg/L	0.050	EPA 200.7	1	11/22/2023 15:12	SRT	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	11/14/2023 19:08	MO	F1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	11/22/2023 15:12	SRT	D1
Magnesium, Dissolved	8.6		mg/L	0.10	EPA 200.7	1	11/14/2023 19:08	MO	F1
Magnesium, Total	9.8		mg/L	0.050	EPA 200.7	1	11/22/2023 15:12	SRT	D1
Manganese, Dissolved	0.032		mg/L	0.0050	EPA 200.7	1	11/14/2023 19:08	MO	F1
Manganese, Total	0.037		mg/L	0.0025	EPA 200.7	1	11/22/2023 15:12	SRT	D1
Potassium, Dissolved	2.2		mg/L	0.50	EPA 200.7	1	11/14/2023 19:08	MO	F1
Potassium, Total	2.5		mg/L	0.25	EPA 200.7	1	11/22/2023 15:12	SRT	D1
Sodium, Dissolved	7.2		mg/L	0.50	EPA 200.7	1	11/14/2023 19:08	MO	F1
Sodium, Total	8.5		mg/L	0.25	EPA 200.7	1	11/22/2023 15:12	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	11/22/2023 01:38	PDK	M
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 01:38	PDK	M
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 01:38	PDK	M
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 01:38	PDK	M
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 01:38	PDK	M
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 01:38	PDK	M
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 01:38	PDK	M
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 01:38	PDK	M
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 01:38	PDK	M
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 01:38	PDK	M
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 01:38	PDK	M
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 01:38	PDK	M
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 01:38	PDK	M
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 01:38	PDK	M
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 01:38	PDK	M
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 01:38	PDK	M

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	91.7%	70 - 130	11/22/2023 01:38	

WET CHEMISTRY



Results

Client Sample ID	3052 River Road, Conestoga, PA	Collected	11/10/2023 11:52
Lab Sample ID	3332528001	Lab Receipt	11/10/2023 18:25

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	8		mg/L	5	SM2320B-2011	1	11/15/2023 21:33	JMS	A
Alkalinity, Total	8	1	mg/L	5	SM2320B-2011	1	11/15/2023 21:33	JMS	A
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	11/16/2023 17:30	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	11/15/2023 11:50	KMS	C
Chloride	19.3		mg/L	2.0	EPA 300.0	2	11/11/2023 10:37	GMM	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	11/11/2023 10:37	GMM	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	11/21/2023 17:09	PAG	K
Nitrate-N	17.8		mg/L	1.0	EPA 300.0	2	11/11/2023 10:37	GMM	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	11/11/2023 10:37	GMM	A
pH	6.85	2	pH_Units		S4500HB-11	1	11/15/2023 21:33	JMS	A
Phenolics	ND	ND	mg/L	0.005	EPA 420.4	1	11/21/2023 16:26	AKH	J
Specific Conductance	232		umhos/cm	5	SM2510B-2011	1	11/27/2023 10:40	JXL	A
Sulfate	3.0		mg/L	2.0	EPA 300.0	2	11/11/2023 10:37	GMM	A
Total Dissolved Solids	186		mg/L	25	SM2540C-15	1	11/14/2023 14:11	RAG	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	11/13/2023 22:07	PAG	H
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	11/10/2023 22:30	NRB	A



Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3332528001	3052 River Road, Conestoga, PA	Field	N/A	
		EPA 200.7	EPA TRMD	
		EPA 200.7	EPA ACID	
		EPA 524.2	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	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
3332528001	3052 River Road, Conestoga, PA	N/A	N/A	N/A		Field	1095450
		EPA TRMD	1089057	11/14/2023 08:30	MEM	EPA 200.7	1091374
		EPA ACID	1088916	11/13/2023 15:20	MO	EPA 200.7	1088918
		N/A	N/A	N/A		EPA 524.2	1092819
		N/A	N/A	N/A		EPA 300.0	1088310
		N/A	N/A	N/A		EPA 410.4	1089317
		SW846 9066	1092708	11/21/2023 10:31	AKH	EPA 420.4	1092710
		N/A	N/A	N/A		S4500HB-11	1089401
		N/A	N/A	N/A		SM 4500-NH3G	1089443
		N/A	N/A	N/A		SM2130B-2011	1087901
		N/A	N/A	N/A		SM2320B-2011	1089401
		N/A	N/A	N/A		SM2510B-2011	1093436
		N/A	N/A	N/A		SM2540C-15	1089045
		N/A	N/A	N/A		SM5310B-14	1088894
		N/A	N/A	N/A		SW846 9020B	1092719



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

Generated by ALS

CO
ALS

3332528
Logged By: SLS
PM: SJB

1 of 1

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

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	ASCHCl	H2SO4	HNO3	HNO3	None	None	None

ANALYSES/METHOD REQUESTED

Matrix	TOC	O-OH	TOX	FPA 524.2 - Form 52	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
G or C	2	1	2	3	X	1	2	2	1	1
DW	2	1	2	3	X	1	2	2	1	1
DI			2							

Enter Number of Containers Per Sample or Field Results Below.

Sample Date	Time
11/10/23	1152
11/10/23	1805

Receipt Info Completed By: _____
Cooler Custody Seal Intact **Sample Custody Seal Intact**
Received on Ice **Cooler & Samples Intact**
Correct Containers Provided **Sample Label/COC Agree**
Adequate Sample Volumes **OP Samples Filtered**
VOA Trip Blank **NI: 4 Days?**
Rad Screen (uCi) _____ **Courier/Tracking #:** _____

ALS Field Services: Pickup Labor
 Composite_Sampling Rental_Equipment
 Other:

Project Comments:	LOGGED BY (signature):	REVIEWED BY (signature):	Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1			ALS	11/10/23	1805	[Signature]	11/10/23	1825
3								
5								
7								
9								



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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 2023 3056 RIVER RD

Workorder 3332527

Report ID 286013 on 11/30/2023

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Nov 10, 2023.

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.

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

Recipient(s):

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

Susan Scherer

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

Susan Scherer
Project Coordinator

(ALS Digital Signature)



Sample Summary

<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>
3332527001	3056RIVERRD	Water	11/10/2023 12:07	11/10/2023 18:25	BGS	Analytical Laboratory Service



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
EPA 300.1 Rev. 1.0-1997
EPA 300.0 Rev. 2.1-1993
EPA 353.2 Rev. 2.0-1993
EPA 410.4 Rev. 1.0-1993
EPA 420.4 Rev. 1.0-1993
EPA 365.1 Rev. 2.0-1993
EPA 200.7 Rev. 4.4-1994
EPA 200.8 Rev. 5.4-1994
EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are 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 QC sample type DUP for method EPA 350.1 was outside the control limits for the analyte Ammonia-N, Low Level. The RPD was reported as 21.9 and the upper control limit is 20. |
| 3 | 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	11/10/2023 12:07
Lab Sample ID	3332527001	Lab Receipt	11/10/2023 18:25

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	6.94	pH_Units		Field	#
Specific Conductance, Field	246	umhos/cm	1	Field	#
Temperature	13.48	Deg. C		Field	#
METALS					
Calcium, Dissolved	11.9	mg/L	0.10	EPA 200.7	#
Calcium, Total	12.3	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	11.1	mg/L	0.10	EPA 200.7	#
Magnesium, Total	12.0	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.066	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.069	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	2.5	mg/L	0.50	EPA 200.7	#
Potassium, Total	2.2	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	7.8	mg/L	0.50	EPA 200.7	#
Sodium, Total	8.2	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	8	mg/L	5	SM2320B-2011	#
Alkalinity, Total	8	mg/L	5	SM2320B-2011	#
Chloride	22.8	mg/L	2.0	EPA 300.0	#
Nitrate-N	17.0	mg/L	1.0	EPA 300.0	#
pH	7.01	pH_Units		S4500HB-11	#
Specific Conductance	238	umhos/cm	5	SM2510B-2011	#
Total Dissolved Solids	152	mg/L	25	SM2540C-15	#
Turbidity	0.30	NTU	0.30	SM2130B-2011	#



Results

Client Sample ID	3056RIVERRD	Collected	11/10/2023 12:07
Lab Sample ID	3332527001	Lab Receipt	11/10/2023 18:25

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	6.94		pH_Units		Field	1	11/10/2023 12:07	BGS	P
Specific Conductance, Field	246		umhos/cm	1	Field	1	11/10/2023 12:07	BGS	P
Temperature	13.48		Deg. C		Field	1	11/10/2023 12:07	BGS	P

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	11.9		mg/L	0.10	EPA 200.7	1	11/14/2023 19:05	MO	F1
Calcium, Total	12.3		mg/L	0.050	EPA 200.7	1	11/24/2023 11:48	AXW	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	11/14/2023 19:05	MO	F1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	11/24/2023 11:48	AXW	D1
Magnesium, Dissolved	11.1		mg/L	0.10	EPA 200.7	1	11/14/2023 19:05	MO	F1
Magnesium, Total	12.0		mg/L	0.050	EPA 200.7	1	11/24/2023 11:48	AXW	D1
Manganese, Dissolved	0.066		mg/L	0.0050	EPA 200.7	1	11/14/2023 19:05	MO	F1
Manganese, Total	0.069		mg/L	0.0025	EPA 200.7	1	11/24/2023 11:48	AXW	D1
Potassium, Dissolved	2.5		mg/L	0.50	EPA 200.7	1	11/14/2023 19:05	MO	F1
Potassium, Total	2.2		mg/L	0.25	EPA 200.7	1	11/24/2023 11:48	AXW	D1
Sodium, Dissolved	7.8		mg/L	0.50	EPA 200.7	1	11/14/2023 19:05	MO	F1
Sodium, Total	8.2		mg/L	0.25	EPA 200.7	1	11/24/2023 11:48	AXW	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	11/22/2023 02:04	PDK	M
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 02:04	PDK	M
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 02:04	PDK	M
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 02:04	PDK	M
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 02:04	PDK	M
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 02:04	PDK	M
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 02:04	PDK	M
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 02:04	PDK	M
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 02:04	PDK	M
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 02:04	PDK	M
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 02:04	PDK	M
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 02:04	PDK	M
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 02:04	PDK	M
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 02:04	PDK	M
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 02:04	PDK	M
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 02:04	PDK	M

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	91.1%	70 - 130	11/22/2023 02:04	

WET CHEMISTRY



Results

Client Sample ID	3056RIVERRD	Collected	11/10/2023 12:07
Lab Sample ID	3332527001	Lab Receipt	11/10/2023 18:25

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	8		mg/L	5	SM2320B-2011	1	11/15/2023 21:58	JMS	A
Alkalinity, Total	8	1	mg/L	5	SM2320B-2011	1	11/15/2023 21:58	JMS	A
Ammonia-N, Low Level	ND	ND,2	mg/L	0.10	SM 4500-NH3G	1	11/16/2023 17:57	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	11/15/2023 11:50	KMS	C
Chloride	22.8		mg/L	2.0	EPA 300.0	2	11/11/2023 10:27	GMM	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	11/11/2023 10:27	GMM	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	11/21/2023 17:09	PAG	K
Nitrate-N	17.0		mg/L	1.0	EPA 300.0	2	11/11/2023 10:27	GMM	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	11/11/2023 10:27	GMM	A
pH	7.01	3	pH_Units		S4500HB-11	1	11/15/2023 21:58	JMS	A
Phenolics	ND	ND	mg/L	0.005	EPA 420.4	1	11/21/2023 17:12	AKH	J
Specific Conductance	238		umhos/cm	5	SM2510B-2011	1	11/27/2023 10:40	JXL	A
Sulfate	ND	ND	mg/L	2.0	EPA 300.0	2	11/11/2023 10:27	GMM	A
Total Dissolved Solids	152		mg/L	25	SM2540C-15	1	11/14/2023 11:06	RAG	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	11/13/2023 22:07	PAG	H
Turbidity	0.30		NTU	0.30	SM2130B-2011	1	11/10/2023 22:30	NRB	A



Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3332527001	3056RIVERRD	Field	N/A	
		EPA 200.7	EPA TRMD	
		EPA 200.7	EPA ACID	
		EPA 524.2	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	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
3332527001	3056RIVERRD	N/A	N/A	N/A		Field	1095450
		EPA TRMD	1089314	11/15/2023 08:30	MEM	EPA 200.7	1094462
		EPA ACID	1088916	11/13/2023 15:20	MO	EPA 200.7	1088918
		N/A	N/A	N/A		EPA 524.2	1092819
		N/A	N/A	N/A		EPA 300.0	1088310
		N/A	N/A	N/A		EPA 410.4	1089317
		SW846 9066	1092708	11/21/2023 10:31	AKH	EPA 420.4	1092710
		N/A	N/A	N/A		S4500HB-11	1089401
		N/A	N/A	N/A		SM 4500-NH3G	1089443
		N/A	N/A	N/A		SM2130B-2011	1087901
		N/A	N/A	N/A		SM2320B-2011	1089401
		N/A	N/A	N/A		SM2510B-2011	1093436
		N/A	N/A	N/A		SM2540C-15	1089044
		N/A	N/A	N/A		SM5310B-14	1088894
		N/A	N/A	N/A		SW846 9020B	1092719



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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 2023 3060 RIVER RD
Workorder 3332525
Report ID 286024 on 11/30/2023

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Nov 10, 2023.

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

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

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

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

Recipient(s):

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

Susan Scherer

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

Susan Scherer
Project Coordinator

(ALS Digital Signature)



Sample Summary

<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>
3332525001	3060RIVERRD	Water	11/10/2023 12:18	11/10/2023 18:25	BGS	Analytical Laboratory Service



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
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EPA 300.0 Rev. 2.1-1993
EPA 353.2 Rev. 2.0-1993
EPA 410.4 Rev. 1.0-1993
EPA 420.4 Rev. 1.0-1993
EPA 365.1 Rev. 2.0-1993
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- 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 2023 3060 RIVER RD
Workorder 3332525

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	3060RIVERRD	Collected	11/10/2023 12:18
Lab Sample ID	3332525001	Lab Receipt	11/10/2023 18:25

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	6.74	pH_Units		Field	#
Specific Conductance, Field	222	umhos/cm	1	Field	#
Temperature	13.21	Deg. C		Field	#
METALS					
Calcium, Dissolved	9.8	mg/L	0.10	EPA 200.7	#
Calcium, Total	10.4	mg/L	0.050	EPA 200.7	#
Iron, Total	0.037	mg/L	0.030	EPA 200.7	#
Magnesium, Dissolved	9.7	mg/L	0.10	EPA 200.7	#
Magnesium, Total	10.8	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.078	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.098	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	2.8	mg/L	0.50	EPA 200.7	#
Potassium, Total	2.5	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	8.0	mg/L	0.50	EPA 200.7	#
Sodium, Total	8.6	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	6	mg/L	5	SM2320B-2011	#
Alkalinity, Total	6	mg/L	5	SM2320B-2011	#
Chloride	16.7	mg/L	2.0	EPA 300.0	#
Nitrate-N	14.8	mg/L	1.0	EPA 300.0	#
pH	6.78	pH_Units		S4500HB-11	#
Specific Conductance	216	umhos/cm	5	SM2510B-2011	#
Sulfate	10.6	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	142	mg/L	25	SM2540C-15	#



Results

Client Sample ID	3060RIVERRD	Collected	11/10/2023 12:18
Lab Sample ID	3332525001	Lab Receipt	11/10/2023 18:25

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	6.74		pH_Units		Field	1	11/10/2023 12:18	BGS	P
Specific Conductance, Field	222		umhos/cm	1	Field	1	11/10/2023 12:18	BGS	P
Temperature	13.21		Deg. C		Field	1	11/10/2023 12:18	BGS	P

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	9.8		mg/L	0.10	EPA 200.7	1	11/14/2023 18:55	MO	F1
Calcium, Total	10.4		mg/L	0.050	EPA 200.7	1	11/24/2023 11:19	AXW	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	11/14/2023 18:55	MO	F1
Iron, Total	0.037		mg/L	0.030	EPA 200.7	1	11/24/2023 11:19	AXW	D1
Magnesium, Dissolved	9.7		mg/L	0.10	EPA 200.7	1	11/14/2023 18:55	MO	F1
Magnesium, Total	10.8		mg/L	0.050	EPA 200.7	1	11/24/2023 11:19	AXW	D1
Manganese, Dissolved	0.078		mg/L	0.0050	EPA 200.7	1	11/14/2023 18:55	MO	F1
Manganese, Total	0.098		mg/L	0.0025	EPA 200.7	1	11/24/2023 11:19	AXW	D1
Potassium, Dissolved	2.8		mg/L	0.50	EPA 200.7	1	11/14/2023 18:55	MO	F1
Potassium, Total	2.5		mg/L	0.25	EPA 200.7	1	11/24/2023 11:19	AXW	D1
Sodium, Dissolved	8.0		mg/L	0.50	EPA 200.7	1	11/14/2023 18:55	MO	F1
Sodium, Total	8.6		mg/L	0.25	EPA 200.7	1	11/24/2023 11:19	AXW	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	11/22/2023 02:30	PDK	M
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 02:30	PDK	M
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 02:30	PDK	M
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 02:30	PDK	M
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 02:30	PDK	M
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 02:30	PDK	M
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 02:30	PDK	M
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 02:30	PDK	M
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 02:30	PDK	M
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 02:30	PDK	M
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 02:30	PDK	M
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 02:30	PDK	M
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 02:30	PDK	M
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 02:30	PDK	M
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 02:30	PDK	M
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 02:30	PDK	M

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	90.4%	70 - 130	11/22/2023 02:30	

WET CHEMISTRY



Results

Client Sample ID	3060RIVERRD	Collected	11/10/2023 12:18						
Lab Sample ID	3332525001	Lab Receipt	11/10/2023 18:25						
Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	6		mg/L	5	SM2320B-2011	1	11/15/2023 22:26	JMS	A
Alkalinity, Total	6	1	mg/L	5	SM2320B-2011	1	11/15/2023 22:26	JMS	A
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	11/16/2023 18:21	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	11/15/2023 11:50	KMS	C
Chloride	16.7		mg/L	2.0	EPA 300.0	2	11/11/2023 10:16	GMM	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	11/11/2023 10:16	GMM	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	11/21/2023 17:09	PAG	K
Nitrate-N	14.8		mg/L	1.0	EPA 300.0	2	11/11/2023 10:16	GMM	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	11/11/2023 10:16	GMM	A
pH	6.78	2	pH_Units		S4500HB-11	1	11/15/2023 22:26	JMS	A
Phenolics	ND	ND	mg/L	0.005	EPA 420.4	1	11/21/2023 19:49	AKH	J
Specific Conductance	216		umhos/cm	5	SM2510B-2011	1	11/27/2023 10:40	JXL	A
Sulfate	10.6		mg/L	2.0	EPA 300.0	2	11/11/2023 10:16	GMM	A
Total Dissolved Solids	142		mg/L	25	SM2540C-15	1	11/14/2023 11:06	RAG	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	11/13/2023 22:07	PAG	H
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	11/10/2023 22:30	NRB	A



Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3332525001	3060RIVERRD	Field	N/A	
		EPA 200.7	EPA TRMD	
		EPA 200.7	EPA ACID	
		EPA 524.2	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	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
3332525001	3060RIVERRD	N/A	N/A	N/A		Field	1095450
		EPA TRMD	1089314	11/15/2023 08:30	MEM	EPA 200.7	1094462
		EPA ACID	1088916	11/13/2023 15:20	MO	EPA 200.7	1088918
		N/A	N/A	N/A		EPA 524.2	1092819
		N/A	N/A	N/A		EPA 300.0	1088310
		N/A	N/A	N/A		EPA 410.4	1089317
		SW846 9066	1092708	11/21/2023 10:31	AKH	EPA 420.4	1092710
		N/A	N/A	N/A		S4500HB-11	1089401
		N/A	N/A	N/A		SM 4500-NH3G	1089443
		N/A	N/A	N/A		SM2130B-2011	1087901
		N/A	N/A	N/A		SM2320B-2011	1089401
		N/A	N/A	N/A		SM2510B-2011	1093436
		N/A	N/A	N/A		SM2540C-15	1089044
		N/A	N/A	N/A		SM5310B-14	1088894
		N/A	N/A	N/A		SW846 9020B	1092719



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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

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. 3060RIVERRD	11/10/23	1218
2. Trip Blank	11/10/23	1805
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

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

Generated by ALS

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-OH	TOX	EPA 524.2 - Form 52	FM	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
**Matrix	2	1	2	3	X				
*G or C	DW	G	G	DI					

3332525
Logged By: SLS
PM: SJB

1 of 1

Cooler Temp: _____ Therm ID: _____

No. of Coolers: _____ Y N Initial

Custody Seals Present? _____

(if present) Seals Intact? _____

Received on Ice? _____

COC/ahels Complete/Accurate? _____

Temp By: _____ W/O Temp (°C) _____

Receipt Info Completed By: _____

Cooler Custody Seal Intact _____

Sample Custody Seal Intact _____

Received on Ice _____

Cooler & Samples Intact _____

Correct Containers Provided _____

Sample Label/COC Agree _____

Adequate Sample Volumes _____

CR6 Samples Filtered _____

OP Samples Filtered _____

VOA Trip Blank _____

NI: 4 Days? _____

Rad Screen (uCi) _____

Courier/Tracking #: _____

SDWA Compliance _____

PWSID _____

WV Containers 0-6°C _____

ALS Field Services: Pickup Labor

Composite_Sampling Rental_Equipment

Other: _____

Project Comments:	LOGGED BY (signature):		REVIEWED BY (signature):		Relinquished By / Company Name		Received By / Company Name		Date		Time		Date		Time	
	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME
1. 3060RIVERRD					11-10-23	1805	AS	AS	11-10-23	1805	AS	AS	11-10-23	1805		
3.																
5.																
7.																
9.																

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

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

11/30/2023 3:26 PM 10 of 10 Rev 8/04



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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 2023-3076 RIVER RD
Workorder 3332517
Report ID 286022 on 11/30/2023

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Nov 10, 2023.

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

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

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

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

Recipient(s):

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

Susan Scherer

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

Susan Scherer
Project Coordinator

(ALS Digital Signature)



Sample Summary

<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>
3332517001	3076 River Road, Conestoga, PA	Water	11/10/2023 13:50	11/10/2023 18:25	BGS	Analytical Laboratory Service



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
EPA 300.1 Rev. 1.0-1997
EPA 300.0 Rev. 2.1-1993
EPA 353.2 Rev. 2.0-1993
EPA 410.4 Rev. 1.0-1993
EPA 420.4 Rev. 1.0-1993
EPA 365.1 Rev. 2.0-1993
EPA 200.7 Rev. 4.4-1994
EPA 200.8 Rev. 5.4-1994
EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are 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 2023-3076 RIVER RD
Workorder 3332517

Project Notations

Sample Notations

Lab ID **Sample ID**

Result Notations

Notation Ref.

- | | |
|---|---|
| 1 | The concentration of this analyte was greater than 4 times the concentration of the spike added to the matrix spike. According to protocol, the calculation for percent recovery of the matrix spike is not valid. |
| 2 | The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L. |
| 3 | 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	11/10/2023 13:50
Lab Sample ID	3332517001	Lab Receipt	11/10/2023 18:25

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	6.67	pH_Units		Field	#
Specific Conductance, Field	311	umhos/cm	1	Field	#
Temperature	14.25	Deg. C		Field	#
METALS					
Calcium, Dissolved	13.5	mg/L	0.10	EPA 200.7	#
Calcium, Total	16.2	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	7.9	mg/L	0.10	EPA 200.7	#
Magnesium, Total	9.1	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.15	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.18	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	3.7	mg/L	0.50	EPA 200.7	#
Potassium, Total	4.1	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	22.3	mg/L	0.50	EPA 200.7	#
Sodium, Total	25.7	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	6	mg/L	5	SM2320B-2011	#
Alkalinity, Total	6	mg/L	5	SM2320B-2011	#
Chloride	54.6	mg/L	2.0	EPA 300.0	#
Nitrate-N	10.8	mg/L	1.0	EPA 300.0	#
pH	6.70	pH_Units		S4500HB-11	#
Specific Conductance	310	umhos/cm	5	SM2510B-2011	#
Sulfate	12.0	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	194	mg/L	25	SM2540C-15	#



Results

Client Sample ID	3076 River Road, Conestoga, PA	Collected	11/10/2023 13:50
Lab Sample ID	3332517001	Lab Receipt	11/10/2023 18:25

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	6.67		pH_Units		Field	1	11/10/2023 13:50	BGS	N
Specific Conductance, Field	311		umhos/cm	1	Field	1	11/10/2023 13:50	BGS	N
Temperature	14.25		Deg. C		Field	1	11/10/2023 13:50	BGS	N

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	13.5	1	mg/L	0.10	EPA 200.7	1	11/14/2023 18:45	MO	E1
Calcium, Total	16.2		mg/L	0.050	EPA 200.7	1	11/22/2023 12:31	SRT	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	11/14/2023 18:45	MO	E1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	11/22/2023 12:31	SRT	D1
Magnesium, Dissolved	7.9		mg/L	0.10	EPA 200.7	1	11/14/2023 18:45	MO	E1
Magnesium, Total	9.1		mg/L	0.050	EPA 200.7	1	11/22/2023 12:31	SRT	D1
Manganese, Dissolved	0.15		mg/L	0.0050	EPA 200.7	1	11/14/2023 18:45	MO	E1
Manganese, Total	0.18		mg/L	0.0025	EPA 200.7	1	11/22/2023 12:31	SRT	D1
Potassium, Dissolved	3.7		mg/L	0.50	EPA 200.7	1	11/14/2023 18:45	MO	E1
Potassium, Total	4.1		mg/L	0.25	EPA 200.7	1	11/22/2023 12:31	SRT	D1
Sodium, Dissolved	22.3		mg/L	0.50	EPA 200.7	1	11/14/2023 18:45	MO	E1
Sodium, Total	25.7		mg/L	0.25	EPA 200.7	1	11/22/2023 12:31	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	11/22/2023 03:47	PDK	K
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 03:47	PDK	K
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 03:47	PDK	K
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 03:47	PDK	K
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 03:47	PDK	K
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 03:47	PDK	K
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 03:47	PDK	K
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 03:47	PDK	K
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 03:47	PDK	K
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 03:47	PDK	K
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 03:47	PDK	K
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 03:47	PDK	K
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 03:47	PDK	K
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 03:47	PDK	K
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 03:47	PDK	K
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 03:47	PDK	K

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	86.9%	70 - 130	11/22/2023 03:47	

WET CHEMISTRY



Results

Client Sample ID	3076 River Road, Conestoga, PA	Collected	11/10/2023 13:50
Lab Sample ID	3332517001	Lab Receipt	11/10/2023 18:25

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	6		mg/L	5	SM2320B-2011	1	11/15/2023 22:51	JMS	A
Alkalinity, Total	6	2	mg/L	5	SM2320B-2011	1	11/15/2023 22:51	JMS	A
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	11/16/2023 18:24	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	11/15/2023 11:50	KMS	C
Chloride	54.6		mg/L	2.0	EPA 300.0	2	11/11/2023 10:06	GMM	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	11/11/2023 10:06	GMM	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	11/21/2023 17:09	PAG	I
Nitrate-N	10.8		mg/L	1.0	EPA 300.0	2	11/11/2023 10:06	GMM	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	11/11/2023 10:06	GMM	A
pH	6.70	3	pH_Units		S4500HB-11	1	11/15/2023 22:51	JMS	A
Phenolics	ND	ND	mg/L	0.005	EPA 420.4	1	11/21/2023 20:46	AKH	H
Specific Conductance	310		umhos/cm	5	SM2510B-2011	1	11/27/2023 10:40	JXL	A
Sulfate	12.0		mg/L	2.0	EPA 300.0	2	11/11/2023 10:06	GMM	A
Total Dissolved Solids	194		mg/L	25	SM2540C-15	1	11/14/2023 11:06	RAG	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	11/13/2023 22:07	PAG	F
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	11/10/2023 22:30	NRB	A



Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3332517001	3076 River Road, Conestoga, PA	Field	N/A	
		EPA 200.7	EPA TRMD	
		EPA 200.7	EPA ACID	
		EPA 524.2	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	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
3332517001	3076 River Road, Conestoga, PA	N/A	N/A	N/A		Field	1095450
		EPA TRMD	1089052	11/13/2023 08:30	MEM	EPA 200.7	1091373
		EPA ACID	1088916	11/13/2023 15:20	MO	EPA 200.7	1088918
		N/A	N/A	N/A		EPA 524.2	1092819
		N/A	N/A	N/A		EPA 300.0	1088310
		N/A	N/A	N/A		EPA 410.4	1089317
		SW846 9066	1092708	11/21/2023 10:31	AKH	EPA 420.4	1092710
		N/A	N/A	N/A		S4500HB-11	1089401
		N/A	N/A	N/A		SM 4500-NH3G	1089443
		N/A	N/A	N/A		SM2130B-2011	1087901
		N/A	N/A	N/A		SM2320B-2011	1089401
		N/A	N/A	N/A		SM2510B-2011	1093436
		N/A	N/A	N/A		SM2540C-15	1089044
		N/A	N/A	N/A		SM5310B-14	1088894
N/A	N/A	N/A		SW846 9020B	1092719		



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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALS

3332517

Logged By: SLS
PM: SJB



1 of 1

Client Name: LCSWMA - Brian Sensenich

Address: 3076 Rover Road

Contestoga, PA 17516

Contact: Brian Sensenich

Phone#: (717) 676-5779

Project Name#: LCSWMA - Quarterly

Bill To: LCSWMA - Brian Sensenich

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. 3076RIVERRD	11/10/23	1350
2. Trip Blank	11/10/23	1805
3		
4		
5		
6		
7		
8		
9		
10		

Project Comments:

Received By / Company Name	Date	Time
<i>Robert By AHS</i>	11-10-23	1805

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

Matrix	TOC	O-OH	TOX	EPA 524.2 - Form 52	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, T, SPC	Alkalinity, HCO3
*Matrix	2	1	2	3	X	1	1	1	1	1	1
G or C	G	DW	G	DW	G	DI					

Enter Number of Containers Per Sample or Field Results Below.

Deleted by Receiving Lab

Therm ID: _____

Therm ID: _____

WO Temp (°C): _____

Temp By: *Rid* *zc*

No. of C: _____

Y: _____ N: _____

Initial: _____

Therm ID: *58*

Receipt Info Completed By: *RW*

Cooler Custody Seal Intact: *Y*

Sample Custody Seal Intact: *Y*

Received on Ice: *Y*

Cooler & Samples Intact: *Y*

Correct Containers Provided: *Y*

Sample Label/COC Agree: *Y*

Adequate Sample Volumes: *Y*

CR6 Samples Filtered: *Y*

OP Samples Filtered: *Y*

VOA Trip Blank: *Y*

MIS 4 Days?: *Y*

Rad Screen (uCi): *Y*

Courier/Tracking #: _____

SDWA Compliance: *Y*

PWSID: *C*

WW Containers 0-6°C: *Y*

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"/>
<input type="checkbox"/> USACE	Navy <input type="checkbox"/>	NJ <input type="checkbox"/>
Reportable to PADEP?	Sample Disposal	PA <input checked="" type="checkbox"/>
Yes <input type="checkbox"/>	Lab <input checked="" type="checkbox"/>	NC <input type="checkbox"/>
PWSID #	Special <input type="checkbox"/>	
EDDS, Format Type:		

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



Main Site: 301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | www.alsglobal.com
 Associated Site: 20 Riverside Drive | Spring City, PA 19475 | Phone: 610-948-4903 | Fax: 717-944-1430 |

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 2023 3079 RIVER RD
 Workorder 3334742
 Report ID 289836 on 12/19/2023

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Nov 28, 2023.

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

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

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

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

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

Susan Scherer

Susan Scherer
 Project Coordinator

(ALS Digital Signature)

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>
3334742001	3079RIVERRD	Water	11/28/2023 08:30	11/28/2023 17:25	BGS	Analytical Laboratory Service



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
 - EPA 300.1 Rev. 1.0-1997
 - EPA 300.0 Rev. 2.1-1993
 - EPA 353.2 Rev. 2.0-1993
 - EPA 410.4 Rev. 1.0-1993
 - EPA 420.4 Rev. 1.0-1993
 - EPA 365.1 Rev. 2.0-1993
 - EPA 200.7 Rev. 4.4-1994
 - EPA 200.8 Rev. 5.4-1994
 - EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are 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 2023 3079 RIVER RD
Workorder 3334742

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	3079RIVERRD	Collected	11/28/2023 08:30
Lab Sample ID	3334742001	Lab Receipt	11/28/2023 17:25

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	7.79	pH_Units		Field	#
Specific Conductance, Field	783	umhos/cm	1	Field	#
Temperature	15.42	Deg. C		Field	#
METALS					
Calcium, Dissolved	10.3	mg/L	0.10	EPA 200.7	#
Calcium, Total	10.4	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	5.7	mg/L	0.10	EPA 200.7	#
Magnesium, Total	5.9	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.019	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.022	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	2.1	mg/L	0.50	EPA 200.7	#
Potassium, Total	1.8	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	13.8	mg/L	0.50	EPA 200.7	#
Sodium, Total	13.1	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	23	mg/L	5	SM2320B-2011	#
Alkalinity, Total	23	mg/L	5	SM2320B-2011	#
Chloride	31.9	mg/L	2.0	EPA 300.0	#
Nitrate-N	1.2	mg/L	1.0	EPA 300.0	#
pH	7.32	pH_Units		S4500HB-11	#
Specific Conductance	178	umhos/cm	5	SM2510B-2011	#
Sulfate	10.6	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	136	mg/L	25	SM2540C-15	#



Results

Client Sample ID	3079RIVERRD	Collected	11/28/2023 08:30
Lab Sample ID	3334742001	Lab Receipt	11/28/2023 17:25

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	7.79		pH_Units		Field	1	11/28/2023 08:30	BGS	P
Specific Conductance, Field	783		umhos/cm	1	Field	1	11/28/2023 08:30	BGS	P
Temperature	15.42		Deg. C		Field	1	11/28/2023 08:30	BGS	P

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	10.3		mg/L	0.10	EPA 200.7	1	12/02/2023 10:15	SRT	F
Calcium, Total	10.4		mg/L	0.050	EPA 200.7	1	12/13/2023 16:13	AXW	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	12/02/2023 10:15	SRT	F
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	12/13/2023 16:13	AXW	D1
Magnesium, Dissolved	5.7		mg/L	0.10	EPA 200.7	1	12/02/2023 10:15	SRT	F
Magnesium, Total	5.9		mg/L	0.050	EPA 200.7	1	12/13/2023 16:13	AXW	D1
Manganese, Dissolved	0.019		mg/L	0.0050	EPA 200.7	1	12/02/2023 10:15	SRT	F
Manganese, Total	0.022		mg/L	0.0025	EPA 200.7	1	12/13/2023 16:13	AXW	D1
Potassium, Dissolved	2.1		mg/L	0.50	EPA 200.7	1	12/02/2023 10:15	SRT	F
Potassium, Total	1.8		mg/L	0.25	EPA 200.7	1	12/13/2023 16:13	AXW	D1
Sodium, Dissolved	13.8		mg/L	0.50	EPA 200.7	1	12/02/2023 10:15	SRT	F
Sodium, Total	13.1		mg/L	0.25	EPA 200.7	1	12/13/2023 16:13	AXW	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	12/04/2023 14:36	ILY	M
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	12/04/2023 14:36	ILY	M
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	12/04/2023 14:36	ILY	M
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	12/04/2023 14:36	ILY	M
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	12/04/2023 14:36	ILY	M
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	12/04/2023 14:36	ILY	M
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	12/04/2023 14:36	ILY	M
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	12/04/2023 14:36	ILY	M
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	12/04/2023 14:36	ILY	M
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	12/04/2023 14:36	ILY	M
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	12/04/2023 14:36	ILY	M
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	12/04/2023 14:36	ILY	M
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	12/04/2023 14:36	ILY	M
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	12/04/2023 14:36	ILY	M
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	12/04/2023 14:36	ILY	M
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	12/04/2023 14:36	ILY	M

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	93.9%	70 - 130	12/04/2023 14:36	

WET CHEMISTRY



Results

Client Sample ID	3079RIVERRD	Collected	11/28/2023 08:30
Lab Sample ID	3334742001	Lab Receipt	11/28/2023 17:25

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	23		mg/L	5	SM2320B-2011	1	11/30/2023 23:48	JMS	A
Alkalinity, Total	23	1	mg/L	5	SM2320B-2011	1	11/30/2023 23:48	JMS	A
Ammonia-N, Low Level	ND	ND	mg/L	1.00	SM 4500-NH3G	10	12/05/2023 23:52	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	11/30/2023 11:00	KMS	C
Chloride	31.9		mg/L	2.0	EPA 300.0	2	11/29/2023 13:07	J1W	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	11/29/2023 13:07	J1W	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	12/07/2023 17:15	PAG	K
Nitrate-N	1.2		mg/L	1.0	EPA 300.0	2	11/29/2023 13:07	J1W	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	11/29/2023 13:07	J1W	A
pH	7.32	2	pH_Units		S4500HB-11	1	11/30/2023 23:48	JMS	A
Phenolics	ND	ND	mg/L	0.005	EPA 420.4	1	12/08/2023 18:38	AKH	J
Specific Conductance	178		umhos/cm	5	SM2510B-2011	1	12/05/2023 14:32	JMS	A
Sulfate	10.6		mg/L	2.0	EPA 300.0	2	11/29/2023 13:07	J1W	A
Total Dissolved Solids	136		mg/L	25	SM2540C-15	1	11/30/2023 11:30	RAG	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	11/30/2023 09:38	PAG	H
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	11/29/2023 00:30	NRB	A



Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3334742001	3079RIVERRD	Field	N/A	
		EPA 200.7	EPA TRMD	
		EPA 200.7	EPA ACID	
		EPA 524.2	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	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
3334742001	3079RIVERRD	N/A	N/A	N/A		Field	1097000
		EPA TRMD	1095574	11/30/2023 08:00	MEM	EPA 200.7	1104239
		EPA ACID	1095938	12/02/2023 09:00	AT	EPA 200.7	1095939
		N/A	N/A	N/A		EPA 524.2	1096551
		N/A	N/A	N/A		EPA 300.0	1095357
		N/A	N/A	N/A		EPA 410.4	1095576
		SW846 9066	1098664	12/08/2023 08:47	AKH	EPA 420.4	1098665
		N/A	N/A	N/A		S4500HB-11	1095598
		N/A	N/A	N/A		SM 4500-NH3G	1096877
		N/A	N/A	N/A		SM2130B-2011	1095342
		N/A	N/A	N/A		SM2320B-2011	1095598
		N/A	N/A	N/A		SM2510B-2011	1097002
		N/A	N/A	N/A		SM2540C-15	1095596
		N/A	N/A	N/A		SM5310B-14	1095453
		N/A	N/A	N/A		SW846 9020B	1097858



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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

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

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

Generated by ALS

3334742

Logged By: SLS
PH: SJB



1 of 1

Cooler Temp: _____ Therm ID: _____
No. of Coolers: _____
Custody Seals Present? (if present) Seals Intact? Received on Ice? COC/Labels Complete/Accurate? Cont. in Good Cond.?
Temp By: W WO Temp (°C) 4C Therm ID: 520

ANALYSES/METHOD REQUESTED

Sample Description/Location (as it will appear on the lab report)	Matrix	*G or C	Time	Enter Number of Containers Per Sample or Field Results Below.																
				TOC	O-OH	TOX	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						
1. 3079RIVERRD	DW	G	0830	2	1	2	3	X												
2. Trip Blank	DI	G	1705				2													
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

LOGGED BY (signature): _____

REVIEWED BY (signature): _____

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
<u>[Signature]</u>	11/28/23	1705	<u>[Signature]</u>	11/28/23	1705

* G=Grab; C=Composite

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

ALS ENVIRONMENTAL SHIPPING ADDRESS: 34 DOGWOOD LANE, MIDDLETOWN, PA 17057 10 of 10



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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 2023-3088 RIVER RD

Workorder 3332545

Report ID 286032 on 11/30/2023

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Nov 10, 2023.

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

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

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

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

Recipient(s):

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

Susan Scherer

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

Susan Scherer
Project Coordinator

(ALS Digital Signature)



Sample Summary

<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>
3332545001	3088 River Road, Conestoga PA	Water	11/10/2023 15:08	11/10/2023 18:25	BGS	Analytical Laboratory Service



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
EPA 300.1 Rev. 1.0-1997
EPA 300.0 Rev. 2.1-1993
EPA 353.2 Rev. 2.0-1993
EPA 410.4 Rev. 1.0-1993
EPA 420.4 Rev. 1.0-1993
EPA 365.1 Rev. 2.0-1993
EPA 200.7 Rev. 4.4-1994
EPA 200.8 Rev. 5.4-1994
EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
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- 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.
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- 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	3088 River Road, Conestoga PA	Collected	11/10/2023 15:08
Lab Sample ID	3332545001	Lab Receipt	11/10/2023 18:25

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	7.89	pH_Units		Field	#
Specific Conductance, Field	1120	umhos/cm	1	Field	#
Temperature	18.11	Deg. C		Field	#
METALS					
Calcium, Dissolved	0.14	mg/L	0.10	EPA 200.7	#
Calcium, Total	0.15	mg/L	0.050	EPA 200.7	#
Magnesium, Total	0.074	mg/L	0.050	EPA 200.7	#
Potassium, Dissolved	0.55	mg/L	0.50	EPA 200.7	#
Potassium, Total	0.67	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	229	mg/L	0.50	EPA 200.7	#
Sodium, Total	214	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	181	mg/L	5	SM2320B-2011	#
Alkalinity, Total	181	mg/L	5	SM2320B-2011	#
Chloride	244	mg/L	5.0	EPA 300.0	#
Nitrate-N	4.7	mg/L	1.0	EPA 300.0	#
pH	8.21	pH_Units		S4500HB-11	#
Phenolics	0.009	mg/L	0.005	EPA 420.4	#
Specific Conductance	1140	umhos/cm	5	SM2510B-2011	#
Total Dissolved Solids	644	mg/L	25	SM2540C-15	#



Results

Client Sample ID	3088 River Road, Conestoga PA	Collected	11/10/2023 15:08
Lab Sample ID	3332545001	Lab Receipt	11/10/2023 18:25

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	7.89		pH_Units		Field	1	11/10/2023 15:08	BGS	P
Specific Conductance, Field	1120		umhos/cm	1	Field	1	11/10/2023 15:08	BGS	P
Temperature	18.11		Deg. C		Field	1	11/10/2023 15:08	BGS	P

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	11/16/2023 18:52	MO	F1
Calcium, Total	0.15		mg/L	0.050	EPA 200.7	1	11/25/2023 12:11	MO	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	11/16/2023 18:52	MO	F1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	11/25/2023 12:11	MO	D1
Magnesium, Dissolved	ND	ND	mg/L	0.10	EPA 200.7	1	11/16/2023 18:52	MO	F1
Magnesium, Total	0.074		mg/L	0.050	EPA 200.7	1	11/25/2023 12:11	MO	D1
Manganese, Dissolved	ND	ND	mg/L	0.0050	EPA 200.7	1	11/16/2023 18:52	MO	F1
Manganese, Total	ND	ND	mg/L	0.0025	EPA 200.7	1	11/25/2023 12:11	MO	D1
Potassium, Dissolved	0.55		mg/L	0.50	EPA 200.7	1	11/21/2023 17:19	AXW	F1
Potassium, Total	0.67		mg/L	0.25	EPA 200.7	1	11/30/2023 09:38	HTO	D1
Sodium, Dissolved	229		mg/L	0.50	EPA 200.7	1	11/16/2023 18:52	MO	F1
Sodium, Total	214		mg/L	0.25	EPA 200.7	1	11/25/2023 12:11	MO	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	11/22/2023 05:05	PDK	M
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 05:05	PDK	M
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 05:05	PDK	M
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 05:05	PDK	M
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 05:05	PDK	M
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 05:05	PDK	M
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 05:05	PDK	M
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 05:05	PDK	M
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 05:05	PDK	M
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 05:05	PDK	M
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 05:05	PDK	M
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 05:05	PDK	M
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 05:05	PDK	M
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 05:05	PDK	M
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 05:05	PDK	M
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 05:05	PDK	M

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	89.8%	70 - 130	11/22/2023 05:05	

WET CHEMISTRY



Results

Client Sample ID	3088 River Road, Conestoga PA	Collected	11/10/2023 15:08
Lab Sample ID	3332545001	Lab Receipt	11/10/2023 18:25

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	181		mg/L	5	SM2320B-2011	1	11/15/2023 20:21	JMS	A
Alkalinity, Total	181	1	mg/L	5	SM2320B-2011	1	11/15/2023 20:21	JMS	A
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	11/21/2023 15:25	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	11/15/2023 11:50	KMS	C
Chloride	244		mg/L	5.0	EPA 300.0	5	11/14/2023 09:39	J1W	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	11/11/2023 12:11	GMM	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	11/22/2023 17:33	PAG	K
Nitrate-N	4.7		mg/L	1.0	EPA 300.0	2	11/11/2023 12:11	GMM	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	11/11/2023 12:11	GMM	A
pH	8.21	2	pH_Units		S4500HB-11	1	11/15/2023 20:21	JMS	A
Phenolics	0.009		mg/L	0.005	EPA 420.4	1	11/21/2023 14:27	AKH	J
Specific Conductance	1140		umhos/cm	5	SM2510B-2011	1	11/27/2023 10:40	JXL	A
Sulfate	ND	ND	mg/L	2.0	EPA 300.0	2	11/11/2023 12:11	GMM	A
Total Dissolved Solids	644		mg/L	25	SM2540C-15	1	11/14/2023 14:11	RAG	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	11/13/2023 22:07	PAG	H
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	11/10/2023 22:30	NRB	A



Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3332545001	3088 River Road, Conestoga PA	Field	N/A	
		EPA 200.7	EPA ACID	
		EPA 200.7	EPA TRMD	
		EPA 524.2	N/A	
		EPA 300.0	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	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
3332545001	3088 River Road, Conestoga PA	N/A	N/A	N/A		Field	1095450
		EPA ACID	1090897	11/16/2023 11:45	MO	EPA 200.7	1090898
		EPA ACID	1090897	11/16/2023 11:45	MO	EPA 200.7	1092803
		EPA TRMD	1089220	11/14/2023 22:23	ANN	EPA 200.7	1095237
		EPA TRMD	1089220	11/14/2023 22:23	ANN	EPA 200.7	1094464
		N/A	N/A	N/A		EPA 524.2	1092819
		N/A	N/A	N/A		EPA 300.0	1089039
		N/A	N/A	N/A		EPA 300.0	1088310
		N/A	N/A	N/A		EPA 410.4	1089317
		SW846 9066	1092708	11/21/2023 10:31	AKH	EPA 420.4	1092710
		N/A	N/A	N/A		S4500HB-11	1089401
		N/A	N/A	N/A		SM 4500-NH3G	1092383
		N/A	N/A	N/A		SM2130B-2011	1087901
		N/A	N/A	N/A		SM2320B-2011	1089401
		N/A	N/A	N/A		SM2510B-2011	1093436
		N/A	N/A	N/A		SM2540C-15	1089045
		N/A	N/A	N/A		SM5310B-14	1088894
		N/A	N/A	N/A		SW846 9020B	1093500



34 Dogwood Lane • Middletown, PA 17057 • Fax: 717.944.5541 • Fax: 717.944.1430

Client Name: LCSWMA - Hans Weber and Deb Kalbach

Address: 3088 River Road

Conestoga, PA 17516

Contact: Hans Weber and Deb Kalbach

Phone#: (717) 419-7982

Project Name#: LCSWMA - Quarterly

Bill To: LCSWMA - Hans Weber and Deb Kalbach

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.:

Generated by ALS

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

3332545
 Logged By: SLS
 PM: SJB



1 of 1
 Receiving Lab

Cooler Temp: 5 Therm ID: _____

No. of Coolers: _____ Y N Initial

Custody Seals Present? _____

(if present) Seals Intact? _____

Temp By: DAG WO Temp (°C) 570

Receipt Info Completed By: DAG
 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
 CR6 Samples Filtered Y N NA
 OP Samples Filtered Y N NA
 VOA Trip Blank Y N NA
 NUS 4 Days? Y N NA
 Rad Screen (uCi) Y N NA
 Courier/Tracking #: _____

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.

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	None	None
	TOC	O-OH	TOX	EPA 524.2-Form 52	FM	Dissolved Metals: Ca, Fe, Mg, Mn, K, Na	PH, TDS, NO2, NO3, Cl, SO4, F, Pb, SpC	Alkalinity, HCO3

Enter Number of Containers Per Sample or Field Results Below.

* G or C	** Matrix	1	2	3	X	1	2	2	1
G	DW	2	1	2	3	1	2	2	1
G	DI			2					

LOGGED BY (signature): _____

REVIEWED BY (signature): _____

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
<i>Deb Kalbach</i>	11-10-23	18:52	<i>Hans Weber</i>	11/14/23	18:25

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



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-2023 3100 RIVER RD
Workorder 3332544
Report ID 286026 on 11/30/2023

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Nov 10, 2023.

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

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

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

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

Recipient(s):

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

Susan Scherer

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

Susan Scherer
Project Coordinator

(ALS Digital Signature)



Sample Summary

<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>
3332544001	3100 River Road, Conestoga, PA	Water	11/10/2023 09:45	11/10/2023 18:25	BGS	Analytical Laboratory Service



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
 EPA 300.1 Rev. 1.0-1997
 EPA 300.0 Rev. 2.1-1993
 EPA 353.2 Rev. 2.0-1993
 EPA 410.4 Rev. 1.0-1993
 EPA 420.4 Rev. 1.0-1993
 EPA 365.1 Rev. 2.0-1993
 EPA 200.7 Rev. 4.4-1994
 EPA 200.8 Rev. 5.4-1994
 EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are 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-2023 3100 RIVER RD
Workorder 3332544

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	11/10/2023 09:45
Lab Sample ID	3332544001	Lab Receipt	11/10/2023 18:25

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	7.21	pH_Units		Field	#
Specific Conductance, Field	219	umhos/cm	1	Field	#
Temperature	16.26	Deg. C		Field	#
METALS					
Calcium, Dissolved	13.9	mg/L	0.10	EPA 200.7	#
Calcium, Total	13.4	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	6.6	mg/L	0.10	EPA 200.7	#
Magnesium, Total	6.1	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.0080	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.0083	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	1.7	mg/L	0.50	EPA 200.7	#
Potassium, Total	1.5	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	15.4	mg/L	0.50	EPA 200.7	#
Sodium, Total	14.5	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	27	mg/L	5	SM2320B-2011	#
Alkalinity, Total	27	mg/L	5	SM2320B-2011	#
Chloride	41.7	mg/L	2.0	EPA 300.0	#
Nitrate-N	3.2	mg/L	1.0	EPA 300.0	#
pH	7.38	pH_Units		S4500HB-11	#
Phenolics	0.005	mg/L	0.005	EPA 420.4	#
Specific Conductance	228	umhos/cm	5	SM2510B-2011	#
Sulfate	6.0	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	169	mg/L	25	SM2540C-15	#



Results

Client Sample ID	3100 River Road, Conestoga, PA	Collected	11/10/2023 09:45
Lab Sample ID	3332544001	Lab Receipt	11/10/2023 18:25

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	7.21		pH_Units		Field	1	11/10/2023 09:45	BGS	P
Specific Conductance, Field	219		umhos/cm	1	Field	1	11/10/2023 09:45	BGS	P
Temperature	16.26		Deg. C		Field	1	11/10/2023 09:45	BGS	P

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	13.9		mg/L	0.10	EPA 200.7	1	11/16/2023 18:49	MO	F1
Calcium, Total	13.4		mg/L	0.050	EPA 200.7	1	11/25/2023 12:08	MO	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	11/16/2023 18:49	MO	F1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	11/25/2023 12:08	MO	D1
Magnesium, Dissolved	6.6		mg/L	0.10	EPA 200.7	1	11/16/2023 18:49	MO	F1
Magnesium, Total	6.1		mg/L	0.050	EPA 200.7	1	11/25/2023 12:08	MO	D1
Manganese, Dissolved	0.0080		mg/L	0.0050	EPA 200.7	1	11/16/2023 18:49	MO	F1
Manganese, Total	0.0083		mg/L	0.0025	EPA 200.7	1	11/25/2023 12:08	MO	D1
Potassium, Dissolved	1.7		mg/L	0.50	EPA 200.7	1	11/21/2023 17:18	AXW	F1
Potassium, Total	1.5		mg/L	0.25	EPA 200.7	1	11/30/2023 09:37	HTO	D1
Sodium, Dissolved	15.4		mg/L	0.50	EPA 200.7	1	11/16/2023 18:49	MO	F1
Sodium, Total	14.5		mg/L	0.25	EPA 200.7	1	11/25/2023 12:08	MO	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	11/22/2023 00:21	PDK	M
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 00:21	PDK	M
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 00:21	PDK	M
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 00:21	PDK	M
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 00:21	PDK	M
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 00:21	PDK	M
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 00:21	PDK	M
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 00:21	PDK	M
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 00:21	PDK	M
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 00:21	PDK	M
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 00:21	PDK	M
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 00:21	PDK	M
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 00:21	PDK	M
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 00:21	PDK	M
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 00:21	PDK	M
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 00:21	PDK	M

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	87.2%	70 - 130	11/22/2023 00:21	

WET CHEMISTRY



Results

Client Sample ID	3100 River Road, Conestoga, PA	Collected	11/10/2023 09:45
Lab Sample ID	3332544001	Lab Receipt	11/10/2023 18:25

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	27		mg/L	5	SM2320B-2011	1	11/15/2023 21:21	JMS	A
Alkalinity, Total	27	1	mg/L	5	SM2320B-2011	1	11/15/2023 21:21	JMS	A
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	11/21/2023 15:16	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	11/15/2023 11:50	KMS	C
Chloride	41.7		mg/L	2.0	EPA 300.0	2	11/11/2023 12:01	GMM	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	11/11/2023 12:01	GMM	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	11/22/2023 17:33	PAG	K
Nitrate-N	3.2		mg/L	1.0	EPA 300.0	2	11/11/2023 12:01	GMM	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	11/11/2023 12:01	GMM	A
pH	7.38	2	pH_Units		S4500HB-11	1	11/15/2023 21:21	JMS	A
Phenolics	0.005		mg/L	0.005	EPA 420.4	1	11/21/2023 14:43	AKH	J
Specific Conductance	228		umhos/cm	5	SM2510B-2011	1	11/27/2023 10:40	JXL	A
Sulfate	6.0		mg/L	2.0	EPA 300.0	2	11/11/2023 12:01	GMM	A
Total Dissolved Solids	169		mg/L	25	SM2540C-15	1	11/14/2023 14:11	RAG	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	11/13/2023 22:07	PAG	H
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	11/10/2023 22:30	NRB	A



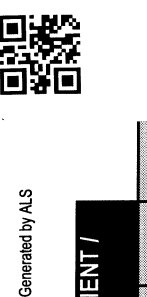
Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3332544001	3100 River Road, Conestoga, PA	Field	N/A	
		EPA 200.7	EPA TRMD	
		EPA 200.7	EPA ACID	
		EPA 524.2	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	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
3332544001	3100 River Road, Conestoga, PA	N/A	N/A	N/A		Field	1095450
		EPA TRMD	1089220	11/14/2023 22:23	ANN	EPA 200.7	1094464
		EPA ACID	1090897	11/16/2023 11:45	MO	EPA 200.7	1092803
		EPA ACID	1090897	11/16/2023 11:45	MO	EPA 200.7	1090898
		EPA TRMD	1089220	11/14/2023 22:23	ANN	EPA 200.7	1095237
		N/A	N/A	N/A		EPA 524.2	1092819
		N/A	N/A	N/A		EPA 300.0	1088310
		N/A	N/A	N/A		EPA 410.4	1089317
		SW846 9066	1092708	11/21/2023 10:31	AKH	EPA 420.4	1092710
		N/A	N/A	N/A		S4500HB-11	1089401
		N/A	N/A	N/A		SM 4500-NH3G	1092383
		N/A	N/A	N/A		SM2130B-2011	1087901
		N/A	N/A	N/A		SM2320B-2011	1089401
		N/A	N/A	N/A		SM2510B-2011	1093436
		N/A	N/A	N/A		SM2540C-15	1089045
		N/A	N/A	N/A		SM5310B-14	1088894
		N/A	N/A	N/A		SW846 9020B	1093500



Generated by ALS

**CHAIN OF CUSTODY/
 REQUEST FOR ANALYSIS**

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

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.:

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

Sample Description/Location	Sample Date	Time	*G or C	**Matrix	Enter Number of Containers Per Sample or Field Results Below.	TOC	O-OH	TOX	EPA 524.2 - Form 52	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
1. 3100RIVERRRD	11/10/23	0945	G DW	DW	2	2	1	2	2	X	1	2	2	1	1
2. Trip Blank	11/10/23	1015	G DI	DI	2										
3															
4															
5															
6															
7															
8															
9															
10															

Receipt Info Completed By: DAG
 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
 CR6 Samples Filtered: Y N NA
 OP Samples Filtered: 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
 WV Containers 0-6°C: Y N NA

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

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
Larry Kirchner ALS	11/10/23	0945	[Signature]	11/10/23	1825



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 2023-3106 RIVER RD
Workorder 3332538
Report ID 286025 on 11/30/2023

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Nov 10, 2023.

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

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

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

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

Recipient(s):

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

Susan Scherer

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

Susan Scherer
Project Coordinator

(ALS Digital Signature)



Sample Summary

<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>
3332538001	3106 River Road, Conestoga, PA	Water	11/10/2023 15:38	11/10/2023 18:25	BGS	Analytical Laboratory Service
3332538002	Trip Blank	Water	11/10/2023 18:25	11/10/2023 18:25	BGS	Analytical Laboratory Service



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
EPA 300.1 Rev. 1.0-1997
EPA 300.0 Rev. 2.1-1993
EPA 353.2 Rev. 2.0-1993
EPA 410.4 Rev. 1.0-1993
EPA 420.4 Rev. 1.0-1993
EPA 365.1 Rev. 2.0-1993
EPA 200.7 Rev. 4.4-1994
EPA 200.8 Rev. 5.4-1994
EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are 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 DUP for method EPA 350.1 was outside the control limits for the analyte Ammonia-N, Low Level. The RPD was reported as 29.2 and the upper control limit is 20. |
| 3 | 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	11/10/2023 15:38
Lab Sample ID	3332538001	Lab Receipt	11/10/2023 18:25

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	7.38	pH_Units		Field	#
Specific Conductance, Field	428	umhos/cm	1	Field	#
Temperature	15.85	Deg. C		Field	#
METALS					
Calcium, Dissolved	17.9	mg/L	0.10	EPA 200.7	#
Calcium, Total	18.0	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	11.0	mg/L	0.10	EPA 200.7	#
Magnesium, Total	10.7	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.034	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.034	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	2.2	mg/L	0.50	EPA 200.7	#
Potassium, Total	1.9	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	34.6	mg/L	0.50	EPA 200.7	#
Sodium, Total	33.0	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	17	mg/L	5	SM2320B-2011	#
Alkalinity, Total	17	mg/L	5	SM2320B-2011	#
Chloride	90.9	mg/L	2.0	EPA 300.0	#
Nitrate-N	9.8	mg/L	1.0	EPA 300.0	#
pH	7.33	pH_Units		S4500HB-11	#
Specific Conductance	417	umhos/cm	5	SM2510B-2011	#
Sulfate	7.1	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	280	mg/L	25	SM2540C-15	#



Results

Client Sample ID	3106 River Road, Conestoga, PA	Collected	11/10/2023 15:38
Lab Sample ID	3332538001	Lab Receipt	11/10/2023 18:25

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	7.38		pH_Units		Field	1	11/10/2023 15:38	BGS	P
Specific Conductance, Field	428		umhos/cm	1	Field	1	11/10/2023 15:38	BGS	P
Temperature	15.85		Deg. C		Field	1	11/10/2023 15:38	BGS	P

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	17.9		mg/L	0.10	EPA 200.7	1	11/14/2023 19:15	MO	F1
Calcium, Total	18.0		mg/L	0.050	EPA 200.7	1	11/25/2023 12:05	MO	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	11/14/2023 19:15	MO	F1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	11/25/2023 12:05	MO	D1
Magnesium, Dissolved	11.0		mg/L	0.10	EPA 200.7	1	11/14/2023 19:15	MO	F1
Magnesium, Total	10.7		mg/L	0.050	EPA 200.7	1	11/25/2023 12:05	MO	D1
Manganese, Dissolved	0.034		mg/L	0.0050	EPA 200.7	1	11/14/2023 19:15	MO	F1
Manganese, Total	0.034		mg/L	0.0025	EPA 200.7	1	11/25/2023 12:05	MO	D1
Potassium, Dissolved	2.2		mg/L	0.50	EPA 200.7	1	11/14/2023 19:15	MO	F1
Potassium, Total	1.9		mg/L	0.25	EPA 200.7	1	11/30/2023 09:36	HTO	D1
Sodium, Dissolved	34.6		mg/L	0.50	EPA 200.7	1	11/14/2023 19:15	MO	F1
Sodium, Total	33.0		mg/L	0.25	EPA 200.7	1	11/25/2023 12:05	MO	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	11/22/2023 13:58	ILY	N
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:58	ILY	N
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:58	ILY	N
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:58	ILY	N
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:58	ILY	N
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:58	ILY	N
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:58	ILY	N
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:58	ILY	N
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:58	ILY	N
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:58	ILY	N
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:58	ILY	N
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:58	ILY	N
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:58	ILY	N
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:58	ILY	N
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:58	ILY	N
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:58	ILY	N

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	90.2%	70 - 130	11/22/2023 13:58	

WET CHEMISTRY



Results

Client Sample ID	3106 River Road, Conestoga, PA	Collected	11/10/2023 15:38
Lab Sample ID	3332538001	Lab Receipt	11/10/2023 18:25

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	17		mg/L	5	SM2320B-2011	1	11/15/2023 23:42	JMS	A
Alkalinity, Total	17	1	mg/L	5	SM2320B-2011	1	11/15/2023 23:42	JMS	A
Ammonia-N, Low Level	ND	ND,2	mg/L	0.10	SM 4500-NH3G	1	11/16/2023 16:36	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	11/15/2023 11:50	KMS	C
Chloride	90.9		mg/L	2.0	EPA 300.0	2	11/11/2023 10:58	GMM	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	11/11/2023 10:58	GMM	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	11/21/2023 17:09	PAG	K
Nitrate-N	9.8		mg/L	1.0	EPA 300.0	2	11/11/2023 10:58	GMM	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	11/11/2023 10:58	GMM	A
pH	7.33	3	pH_Units		S4500HB-11	1	11/15/2023 23:42	JMS	A
Phenolics	ND	ND	mg/L	0.005	EPA 420.4	1	11/21/2023 15:13	AKH	J
Specific Conductance	417		umhos/cm	5	SM2510B-2011	1	11/27/2023 10:40	JXL	A
Sulfate	7.1		mg/L	2.0	EPA 300.0	2	11/11/2023 10:58	GMM	A
Total Dissolved Solids	280		mg/L	25	SM2540C-15	1	11/14/2023 14:11	RAG	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	11/13/2023 22:07	PAG	H
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	11/10/2023 22:30	NRB	A



Results

Client Sample ID	Trip Blank	Collected	11/10/2023 18:25
Lab Sample ID	3332538002	Lab Receipt	11/10/2023 18:25

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	11/22/2023 12:40	ILY	A
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 12:40	ILY	A
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 12:40	ILY	A
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 12:40	ILY	A
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 12:40	ILY	A
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 12:40	ILY	A
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 12:40	ILY	A
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 12:40	ILY	A
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 12:40	ILY	A
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 12:40	ILY	A
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 12:40	ILY	A
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 12:40	ILY	A
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 12:40	ILY	A
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 12:40	ILY	A
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 12:40	ILY	A
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 12:40	ILY	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	89.5%	70 - 130	11/22/2023 12:40	



Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3332538001	3106 River Road, Conestoga, PA	Field	N/A	
		EPA 200.7	EPA TRMD	
		EPA 200.7	EPA ACID	
		EPA 524.2	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	N/A	
		SW846 9020B	N/A	
3332538002	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
3332538001	3106 River Road, Conestoga, PA	N/A	N/A	N/A		Field	1095450
		EPA TRMD	1089220	11/14/2023 22:23	ANN	EPA 200.7	1095237
		EPA ACID	1088916	11/13/2023 15:20	MO	EPA 200.7	1088918
		EPA TRMD	1089220	11/14/2023 22:23	ANN	EPA 200.7	1094464
		N/A	N/A	N/A		EPA 524.2	1093467
		N/A	N/A	N/A		EPA 300.0	1088310
		N/A	N/A	N/A		EPA 410.4	1089317
		SW846 9066	1092708	11/21/2023 10:31	AKH	EPA 420.4	1092710
		N/A	N/A	N/A		S4500HB-11	1089401
		N/A	N/A	N/A		SM 4500-NH3G	1089443
		N/A	N/A	N/A		SM2130B-2011	1087901
		N/A	N/A	N/A		SM2320B-2011	1089401
		N/A	N/A	N/A		SM2510B-2011	1093436
		N/A	N/A	N/A		SM2540C-15	1089045
		N/A	N/A	N/A		SM5310B-14	1088894
		N/A	N/A	N/A		SW846 9020B	1092719
3332538002	Trip Blank	N/A	N/A	N/A		EPA 524.2	1093467



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301 Fulfilling 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

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.

Generated by:



3332538

Logged By: SLS
PM: SJB



38
1 of 1

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

ANALYSES/METHOD REQUESTED

*G or C	# Matrix	TOC	O-OH	TOX	EPA 524.2 - Form 52	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, TP, SPC	Alkalinity, HCO3

Enter Number of Containers Per Sample or Field Results Below.

	1	2	3	X	1	2	2	2	1
1. 3106RIVERRD									
2. Trip Blank									
3									
4									
5									
6									
7									
8									
9									
10									

LOGGED BY (signature):

REVIEWED BY (signature):

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
<i>[Signature]</i>	11/10/23	18:25	<i>[Signature]</i>	11/10/23	18:25

DATE

DATE

DATE

DATE

DATE

DATE

DATE

Completed by Receiving Lab

Cooler Temp: 7 Therm ID: Y N Initial

No. of Coolers: Y N Initial

Temp By: DAG WO Temp (°C) 7 Therm ID: 570

- Receipt Info Completed By: DAG
- 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
- CR6 Samples Filtered: Y N NA
- OP Samples Filtered: 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 PWSID: WV Containers 0-6°C

ALS Field Services: Pickup Labor Composite_Sampling Rental_Equipment Other:

Standard	Special Processing	State Samples Collected In
<input type="checkbox"/> Standard	USACE	<input type="checkbox"/> NY
<input type="checkbox"/> CLP-like	Navy	<input type="checkbox"/> NJ
<input type="checkbox"/> USACE		<input checked="" type="checkbox"/> PA
		<input type="checkbox"/> NC

Reportable to PADEP? Yes Lab Special

PWSID #

EDDS: Format Type-

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



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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 2023-3125 RIVER RD

Workorder 3332543

Report ID 286031 on 11/30/2023

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Nov 10, 2023.

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

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

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

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

Recipient(s):

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

Susan Scherer

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>
3332543001	3125 River Road, Conestoga, PA	Water	11/10/2023 15:50	11/10/2023 18:25	BGS	Analytical Laboratory Service
3332543003	Field Blank	Water	11/10/2023 16:00	11/10/2023 18:25	BGS	Analytical Laboratory Service



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
 - EPA 300.1 Rev. 1.0-1997
 - EPA 300.0 Rev. 2.1-1993
 - EPA 353.2 Rev. 2.0-1993
 - EPA 410.4 Rev. 1.0-1993
 - EPA 420.4 Rev. 1.0-1993
 - EPA 365.1 Rev. 2.0-1993
 - EPA 200.7 Rev. 4.4-1994
 - EPA 200.8 Rev. 5.4-1994
 - EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are 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 2023-3125 RIVER RD
Workorder 3332543

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	3125 River Road, Conestoga, PA	Collected	11/10/2023 15:50
Lab Sample ID	3332543001	Lab Receipt	11/10/2023 18:25

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	8.15	pH_Units		Field	#
Specific Conductance, Field	628	umhos/cm	1	Field	#
Temperature	17.05	Deg. C		Field	#
METALS					
Calcium, Dissolved	24.3	mg/L	0.10	EPA 200.7	#
Calcium, Total	25.2	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	5.5	mg/L	0.10	EPA 200.7	#
Magnesium, Total	5.6	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.011	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.012	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	1.7	mg/L	0.50	EPA 200.7	#
Potassium, Total	2.5	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	97.1	mg/L	0.50	EPA 200.7	#
Sodium, Total	105	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	173	mg/L	5	SM2320B-2011	#
Alkalinity, Total	173	mg/L	5	SM2320B-2011	#
Chloride	75.9	mg/L	2.0	EPA 300.0	#
Nitrate-N	3.9	mg/L	1.0	EPA 300.0	#
pH	8.22	pH_Units		S4500HB-11	#
Specific Conductance	616	umhos/cm	5	SM2510B-2011	#
Sulfate	8.2	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	364	mg/L	25	SM2540C-15	#



Detected Results Summary

Client Sample ID	Field Blank	Collected	11/10/2023 16:00
Lab Sample ID	3332543003	Lab Receipt	11/10/2023 18:25

<u>Compound</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>	<u>Method</u>	<u>Flag</u>
VOLATILE ORGANICS					
Methylene Chloride	0.85	ug/L	0.50	EPA 524.2	#



Results

Client Sample ID	3125 River Road, Conestoga, PA	Collected	11/10/2023 15:50
Lab Sample ID	3332543001	Lab Receipt	11/10/2023 18:25

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	8.15		pH_Units		Field	1	11/10/2023 15:50	BGS	P
Specific Conductance, Field	628		umhos/cm	1	Field	1	11/10/2023 15:50	BGS	P
Temperature	17.05		Deg. C		Field	1	11/10/2023 15:50	BGS	P

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	24.3		mg/L	0.10	EPA 200.7	1	11/16/2023 18:46	MO	F1
Calcium, Total	25.2		mg/L	0.050	EPA 200.7	1	11/22/2023 13:33	SRT	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	11/16/2023 18:46	MO	F1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	11/22/2023 13:33	SRT	D1
Magnesium, Dissolved	5.5		mg/L	0.10	EPA 200.7	1	11/16/2023 18:46	MO	F1
Magnesium, Total	5.6		mg/L	0.050	EPA 200.7	1	11/22/2023 13:33	SRT	D1
Manganese, Dissolved	0.011		mg/L	0.0050	EPA 200.7	1	11/16/2023 18:46	MO	F1
Manganese, Total	0.012		mg/L	0.0025	EPA 200.7	1	11/22/2023 13:33	SRT	D1
Potassium, Dissolved	1.7		mg/L	0.50	EPA 200.7	1	11/21/2023 17:17	AXW	F1
Potassium, Total	2.5		mg/L	0.25	EPA 200.7	1	11/22/2023 13:33	SRT	D1
Sodium, Dissolved	97.1		mg/L	0.50	EPA 200.7	1	11/16/2023 18:46	MO	F1
Sodium, Total	105		mg/L	0.25	EPA 200.7	1	11/22/2023 13:33	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	11/22/2023 13:32	ILY	M
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:32	ILY	M
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:32	ILY	M
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:32	ILY	M
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:32	ILY	M
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:32	ILY	M
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:32	ILY	M
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:32	ILY	M
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:32	ILY	M
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:32	ILY	M
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:32	ILY	M
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:32	ILY	M
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:32	ILY	M
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:32	ILY	M
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:32	ILY	M
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:32	ILY	M

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	89.6%	70 - 130	11/22/2023 13:32	

WET CHEMISTRY



Results

Client Sample ID	3125 River Road, Conestoga, PA	Collected	11/10/2023 15:50
Lab Sample ID	3332543001	Lab Receipt	11/10/2023 18:25

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	173		mg/L	5	SM2320B-2011	1	11/15/2023 21:46	JMS	A
Alkalinity, Total	173	1	mg/L	5	SM2320B-2011	1	11/15/2023 21:46	JMS	A
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	11/21/2023 15:13	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	11/15/2023 11:50	KMS	C
Chloride	75.9		mg/L	2.0	EPA 300.0	2	11/11/2023 11:50	GMM	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	11/11/2023 11:50	GMM	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	11/22/2023 17:33	PAG	K
Nitrate-N	3.9		mg/L	1.0	EPA 300.0	2	11/11/2023 11:50	GMM	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	11/11/2023 11:50	GMM	A
pH	8.22	2	pH_Units		S4500HB-11	1	11/15/2023 21:46	JMS	A
Phenolics	ND	ND	mg/L	0.005	EPA 420.4	1	11/21/2023 20:43	AKH	J
Specific Conductance	616		umhos/cm	5	SM2510B-2011	1	11/27/2023 10:40	JXL	A
Sulfate	8.2		mg/L	2.0	EPA 300.0	2	11/11/2023 11:50	GMM	A
Total Dissolved Solids	364		mg/L	25	SM2540C-15	1	11/14/2023 14:11	RAG	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	11/13/2023 22:07	PAG	H
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	11/10/2023 22:30	NRB	A



Results

Client Sample ID	Field Blank	Collected	11/10/2023 16:00
Lab Sample ID	3332543003	Lab Receipt	11/10/2023 18:25

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	11/22/2023 13:06	ILY	A
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:06	ILY	A
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:06	ILY	A
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:06	ILY	A
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:06	ILY	A
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:06	ILY	A
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:06	ILY	A
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:06	ILY	A
Methylene Chloride	0.85		ug/L	0.50	EPA 524.2	1	11/22/2023 13:06	ILY	A
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:06	ILY	A
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:06	ILY	A
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:06	ILY	A
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:06	ILY	A
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:06	ILY	A
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:06	ILY	A
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	11/22/2023 13:06	ILY	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	90.4%	70 - 130	11/22/2023 13:06	



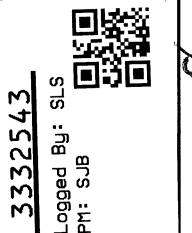
Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3332543001	3125 River Road, Conestoga, PA	Field	N/A	
		EPA 200.7	EPA TRMD	
		EPA 200.7	EPA ACID	
		EPA 524.2	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	N/A	
		SW846 9020B	N/A	
3332543003	Field 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
3332543001	3125 River Road, Conestoga, PA	N/A	N/A	N/A		Field	1095450
		EPA TRMD	1089052	11/13/2023 08:30	MEM	EPA 200.7	1091373
		EPA ACID	1090897	11/16/2023 11:45	MO	EPA 200.7	1090898
		EPA ACID	1090897	11/16/2023 11:45	MO	EPA 200.7	1092803
		N/A	N/A	N/A		EPA 524.2	1093467
		N/A	N/A	N/A		EPA 300.0	1088310
		N/A	N/A	N/A		EPA 410.4	1089317
		SW846 9066	1092708	11/21/2023 10:31	AKH	EPA 420.4	1092710
		N/A	N/A	N/A		S4500HB-11	1089401
		N/A	N/A	N/A		SM 4500-NH3G	1092383
		N/A	N/A	N/A		SM2130B-2011	1087901
		N/A	N/A	N/A		SM2320B-2011	1089401
		N/A	N/A	N/A		SM2510B-2011	1093436
		N/A	N/A	N/A		SM2540C-15	1089045
		N/A	N/A	N/A		SM5310B-14	1088894
		N/A	N/A	N/A		SW846 9020B	1093500
3332543003	Field Blank	N/A	N/A	N/A		EPA 524.2	1093467



Generated by ALS
 CHAIN OF CUSTODY/
 REQUEST FOR ANALYSIS

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

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

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

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time
1 3125RIVERRD	11/10/23	1550
2. Trip Blank	11/10/23	1825
3. Field Blank	11/10/23	1600
4		
5		
6		
7		
8		
9		
10		

Container Type	AG	AN	AN	CG	PL	PL	PL
Container Size	40 ml	125 ml	250 ml	40 ml	250 ml	125 ml	125 ml
Preservative	HCl	H2SO4	H2SO4	ASC/HCl	H2SO4	HNO3	HNO3

Matrix	TOC	O-OH	TOX	EPA 524.2 - Form 52	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 or C	2	1	2	3	X	1	2	2	1	1

Enter Number of Containers Per Sample of Field Results Below.

Project Comments:

Relinquished By / Company Name: ALS

Date: 11/10/23 Time: 10:25

Received By / Company Name: [Signature] Date: 11/10/23 Time: 15:25

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

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

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