2540-FM-BWM0060 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
07/23/2021
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 (DD° MM' SS.S")

Facility Name: Frey Farm Landfill

County: Lancaster County

Township or Municipality: MANOR TOWNSHIP

Landowner Name: LCSWMA

Address: 3044 RIVER ROAD

Phone No.:

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

Depth to Water Level: ft. Measured from: [X] Land Surface [ ] TOC

Casing Stick Up: ft. Elevation of Water Level: ft./MSL

Total Well Depth: ft.

Sampling Depth: ft. Sampling Method: [ ] Pumped [ ] Bailed

Well Purged: [ ] Yes [X] No Well Volumes Purged:

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

Sample Date:(mm/dd/yy) 05/21/2021 Sample Collection Time: 10:10 AM

Laboratory(ies) Performing Analysis (include address and phone number): ALS Environmental
301 Fulling Mill Road
Middletown, PA 17057 (717) 944-5541

Lab Accreditation Number(s): 22-293

Lab Analysis Date: 06/01/2021

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

Comments:

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS LCSWMA

Sample Date: 05/21/2021

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	18	SM20-2321
CALCIUM, TOTAL	15.7	EPA 200.7
CALCIUM, DISSOLVED	14.9	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	21.5	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	10.7	EPA 200.7
MAGNESIUM, DISSOLVED	9.8	EPA 200.7
MANGANESE, TOTAL (ug/l)	19	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	13	EPA 200.7
NITRATE-NITROGEN	19.8	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 LCSWMA

Sample Date: 05/21/2021

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE - NITROGEN	0.2 ND	EPA 300
pH-FIELD (SU)	5.81	FIELD
pH-LAB (SU)	6.67	SM4500B
POTASSIUM, TOTAL	2.4	EPA 200.7
POTASSIUM, DISSOLVED	2.3	EPA 200.7
SODIUM, TOTAL	9.1	EPA 200.7
SODIUM, DISSOLVED	8.8	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	192	FIELD
SPEC. COND., LAB (umhos/cm)	201	EPA 120.1
SULFATE	2 ND	EPA 300
ALKALINITY	18	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	170	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.12	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: 05/21/2021

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	1 ND	EPA 524.2
1,2-DIBROMOETHANE		EPA 524.2
1,1-DICHLOROETHANE	1 ND	EPA 524.2
1,1-DICHLOROETHENE	1 ND	EPA 524.2
1,2-DICHLOROETHANE	1 ND	EPA 524.2
CIS 1,2-DICHLOROETHENE	1 ND	EPA 524.2
TRANS 1,2-DICHLOROETHENE	1 ND	EPA 524.2
ETHYLBENZENE	1 ND	EPA 524.2
METHYLENE CHLORIDE	1 ND	EPA 524.2
TETRACHLOROETHENE	1 ND	EPA 524.2
TOLUENE	1 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	1 ND	EPA 524.2
TRICHLOROETHENE	1 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	1 ND	EPA 524.2
VINYL CHLORIDE	1 ND	EPA 524.2
XYLENES (TOTAL)	3 ND	EPA 524.2

T Please indicate detection limit if analyte is not detected.

2540-FM-BWM0060 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
07/23/2021
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Date Received

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

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General Reference: Act 101 Section 1103

SECTION A. SITE IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Manage

Site Name: Frey Farm Landfill

Facility ID (as issued by DEP): 101389

SECTION B. PRIVATE WATER SUPPLY INFORMATION

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

Facility Name: Frey Farm Landfill

County: Lancaster County

Township or Municipality: MANOR TOWNSHIP

Landowner Name: MILLER

Address: 3052 RIVER ROAD

Phone No.:

Sampling Point: Latitude: 39 ° 57 ' 29.85 " Longitude: 76 ° 26 ' 11.45 "

Depth to Water Level: ft. Measured from: [X] Land Surface [ ] TOC

Casing Stick Up: ft. Elevation of Water Level: ft./MSL

Total Well Depth: ft.

Sampling Depth: ft. Sampling Method: [ ] Pumped [ ] Bailed

Well Purged: [ ] Yes [X] No Well Volumes Purged:

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

Sample Date:(mm/dd/yy) 05/21/2021 Sample Collection Time: 10:19 AM

Laboratory(ies) Performing Analysis (include address and phone number): ALS Environmental
301 Fulling Mill Road
Middletown, PA 17057 (717) 944-5541

Lab Accreditation Number(s): 22-293

Lab Analysis Date: 06/01/2021

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

Comments:

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS MILLER

Sample Date: 05/21/2021

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	13	SM20-2321
CALCIUM, TOTAL	19	EPA 200.7
CALCIUM, DISSOLVED	17.3	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	22.2	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	8.5	EPA 200.7
MAGNESIUM, DISSOLVED	7.6	EPA 200.7
MANGANESE, TOTAL (ug/l)	19	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	17	EPA 200.7
NITRATE-NITROGEN	19.1	EPA 300

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS MILLER

Sample Date: 05/21/2021

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE - NITROGEN	0.2 ND	EPA 300
pH-FIELD (SU)	6.12	FIELD
pH-LAB (SU)	6.3	SM4500B
POTASSIUM, TOTAL	2	EPA 200.7
POTASSIUM, DISSOLVED	1.8	EPA 200.7
SODIUM, TOTAL	8.8	EPA 200.7
SODIUM, DISSOLVED	8.3	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	190	FIELD
SPEC. COND., LAB (umhos/cm)	198	EPA 120.1
SULFATE	2.6	EPA 300
ALKALINITY	13	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	170	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.16	SM 2130B

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS MILLER

Sample Date: 05/21/2021

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	1 ND	EPA 524.2
1,2-DIBROMOETHANE		EPA 524.2
1,1-DICHLOROETHANE	1 ND	EPA 524.2
1,1-DICHLOROETHENE	1 ND	EPA 524.2
1,2-DICHLOROETHANE	1 ND	EPA 524.2
CIS 1,2-DICHLOROETHENE	1 ND	EPA 524.2
TRANS 1,2-DICHLOROETHENE	1 ND	EPA 524.2
ETHYLBENZENE	1 ND	EPA 524.2
METHYLENE CHLORIDE	1 ND	EPA 524.2
TETRACHLOROETHENE	1 ND	EPA 524.2
TOLUENE	1 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	1 ND	EPA 524.2
TRICHLOROETHENE	1 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	1 ND	EPA 524.2
VINYL CHLORIDE	1 ND	EPA 524.2
XYLENES (TOTAL)	3 ND	EPA 524.2

T Please indicate detection limit if analyte is not detected.

2540-FM-BWM0060 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
07/23/2021
DEP USE ONLY
Date Received

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

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General Reference: Act 101 Section 1103

SECTION A. SITE IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Manage

Site Name: Frey Farm Landfill

Facility ID (as issued by DEP): 101389

SECTION B. PRIVATE WATER SUPPLY INFORMATION

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

Facility Name: Frey Farm Landfill

County: Lancaster County

Township or Municipality: MANOR TOWNSHIP

Landowner Name: LCSWMA

Address: 3056 RIVER ROAD

Phone No.:

Sampling Point: Latitude: 39 ° 57 ' 28.44 " Longitude: 76 ° 26 ' 10.43 "

Depth to Water Level: ft. Measured from: [X] Land Surface [ ] TOC

Casing Stick Up: ft. Elevation of Water Level: ft./MSL

Total Well Depth: ft.

Sampling Depth: ft. Sampling Method: [ ] Pumped [ ] Bailed

Well Purged: [ ] Yes [X] No Well Volumes Purged:

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

Sample Date:(mm/dd/yy) 05/21/2021 Sample Collection Time: 10:50 AM

Laboratory(ies) Performing Analysis (include address and phone number): ALS Environmental
301 Fulling Mill Road
Middletown, PA 17057 (717) 944-5541

Lab Accreditation Number(s): 22-293

Lab Analysis Date: 06/01/2021

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

Comments:

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS LCSWMA

Sample Date: 05/21/2021

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	122	SM20-2321
CALCIUM, TOTAL	15.5	EPA 200.7
CALCIUM, DISSOLVED	14.6	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	28.4	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	16.4	EPA 200.7
MAGNESIUM, DISSOLVED	15.3	EPA 200.7
MANGANESE, TOTAL (ug/l)	48	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	49	EPA 200.7
NITRATE-NITROGEN	0.2 ND	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: 05/21/2021

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE - NITROGEN	0.2 ND	EPA 300
pH-FIELD (SU)	5.92	FIELD
pH-LAB (SU)	8.36	SM4500B
POTASSIUM, TOTAL	7.1	EPA 200.7
POTASSIUM, DISSOLVED	6	EPA 200.7
SODIUM, TOTAL	10.6	EPA 200.7
SODIUM, DISSOLVED	9.7	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	219	FIELD
SPEC. COND., LAB (umhos/cm)	210	EPA 120.1
SULFATE	2 ND	EPA 300
ALKALINITY	126	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	138	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.77	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.1	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: 05/21/2021

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	1 ND	EPA 524.2
1,2-DIBROMOETHANE		EPA 524.2
1,1-DICHLOROETHANE	1 ND	EPA 524.2
1,1-DICHLOROETHENE	1 ND	EPA 524.2
1,2-DICHLOROETHANE	1 ND	EPA 524.2
CIS 1,2-DICHLOROETHENE	1 ND	EPA 524.2
TRANS 1,2-DICHLOROETHENE	1 ND	EPA 524.2
ETHYLBENZENE	1 ND	EPA 524.2
METHYLENE CHLORIDE	1 ND	EPA 524.2
TETRACHLOROETHENE	1 ND	EPA 524.2
TOLUENE	1 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	1 ND	EPA 524.2
TRICHLOROETHENE	1 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	1 ND	EPA 524.2
VINYL CHLORIDE	1 ND	EPA 524.2
XYLENES (TOTAL)	3 ND	EPA 524.2

T Please indicate detection limit if analyte is not detected.

2540-FM-BWM0060 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
07/23/2021
DEP USE ONLY
Date Received

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

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General Reference: Act 101 Section 1103

SECTION A. SITE IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Manage

Site Name: Frey Farm Landfill

Facility ID (as issued by DEP): 101389

SECTION B. PRIVATE WATER SUPPLY INFORMATION

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

Facility Name: Frey Farm Landfill

County: Lancaster County

Township or Municipality: MANOR TOWNSHIP

Landowner Name: LCSWMA

Address: 3060 RIVER ROAD

Phone No.:

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

Depth to Water Level: ft. Measured from: [X] Land Surface [ ] TOC

Casing Stick Up: ft. Elevation of Water Level: ft./MSL

Total Well Depth: ft.

Sampling Depth: ft. Sampling Method: [ ] Pumped [ ] Bailed

Well Purged: [ ] Yes [X] No Well Volumes Purged:

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

Sample Date:(mm/dd/yy) 05/21/2021 Sample Collection Time: 11:00 AM

Laboratory(ies) Performing Analysis (include address and phone number): ALS Environmental
301 Fulling Mill Road
Middletown, PA 17057 (717) 944-5541

Lab Accreditation Number(s): 22-293

Lab Analysis Date: 06/01/2021

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

Comments:

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS LCSWMA

Sample Date: 05/21/2021

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	30	SM20-2321
CALCIUM, TOTAL	12.2	EPA 200.7
CALCIUM, DISSOLVED	11.2	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	21.5	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	67	EPA 200.7
IRON, DISSOLVED (ug/l)	60 ND	EPA 200.7
MAGNESIUM, TOTAL	12.3	EPA 200.7
MAGNESIUM, DISSOLVED	11.4	EPA 200.7
MANGANESE, TOTAL (ug/l)	140	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	130	EPA 200.7
NITRATE-NITROGEN	12	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: 05/21/2021

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE - NITROGEN	0.2 ND	EPA 300
pH-FIELD (SU)	5.21	FIELD
pH-LAB (SU)	7.07	SM4500B
POTASSIUM, TOTAL	2.9	EPA 200.7
POTASSIUM, DISSOLVED	2.7	EPA 200.7
SODIUM, TOTAL	8.8	EPA 200.7
SODIUM, DISSOLVED	8.5	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	196	FIELD
SPEC. COND., LAB (umhos/cm)	189	EPA 120.1
SULFATE	10	EPA 300
ALKALINITY	30	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	154	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.1	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: 05/21/2021

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	1 ND	EPA 524.2
1,2-DIBROMOETHANE		EPA 524.2
1,1-DICHLOROETHANE	1 ND	EPA 524.2
1,1-DICHLOROETHENE	1 ND	EPA 524.2
1,2-DICHLOROETHANE	1 ND	EPA 524.2
CIS 1,2-DICHLOROETHENE	1 ND	EPA 524.2
TRANS 1,2-DICHLOROETHENE	1 ND	EPA 524.2
ETHYLBENZENE	1 ND	EPA 524.2
METHYLENE CHLORIDE	1 ND	EPA 524.2
TETRACHLOROETHENE	1 ND	EPA 524.2
TOLUENE	1 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	1 ND	EPA 524.2
TRICHLOROETHENE	1 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	1 ND	EPA 524.2
VINYL CHLORIDE	1 ND	EPA 524.2
XYLENES (TOTAL)	3 ND	EPA 524.2

T Please indicate detection limit if analyte is not detected.

2540-FM-BWM0060 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
07/23/2021
DEP USE ONLY
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PRIVATE WATER SUPPLY
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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 (DD° MM' SS.S")

Facility Name: Frey Farm Landfill

County: Lancaster County

Township or Municipality: MANOR TOWNSHIP

Landowner Name: SENSENICH

Address: 3076 RIVER ROAD

Phone No.:

Sampling Point: Latitude: 39 ° 57 ' 28.2 " Longitude: 76 ° 26 ' 11.1 "

Depth to Water Level: ft. Measured from: [X] Land Surface [ ] TOC

Casing Stick Up: ft. Elevation of Water Level: ft./MSL

Total Well Depth: ft.

Sampling Depth: ft. Sampling Method: [ ] Pumped [ ] Bailed

Well Purged: [ ] Yes [X] No Well Volumes Purged:

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

Sample Date:(mm/dd/yy) 05/21/2021 Sample Collection Time: 11:19 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 06/08/2021

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

Comments:

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS SENSENICH

Sample Date: 05/21/2021

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1	SM4500D
BICARBONATE ALKALINITY	14	SM20-2321
CALCIUM, TOTAL	13.9	EPA 200.7
CALCIUM, DISSOLVED	12.8	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	57.6	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	8.7	EPA 200.7
MAGNESIUM, DISSOLVED	7.8	EPA 200.7
MANGANESE, TOTAL (ug/l)	180	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	160	EPA 200.7
NITRATE-NITROGEN	9.9	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 SENSENICH

Sample Date: 05/21/2021

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE - NITROGEN	0.2 ND	EPA 300
pH-FIELD (SU)	6.21	FIELD
pH-LAB (SU)	6.03	SM4500B
POTASSIUM, TOTAL	3.8	EPA 200.7
POTASSIUM, DISSOLVED	3.6	EPA 200.7
SODIUM, TOTAL	26.1	EPA 200.7
SODIUM, DISSOLVED	24.6	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	268	FIELD
SPEC. COND., LAB (umhos/cm)	273	EPA 120.1
SULFATE	11	EPA 300
ALKALINITY	14	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	180	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.13	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: 05/21/2021

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	1 ND	EPA 524.2
1,2-DIBROMOETHANE		EPA 524.2
1,1-DICHLOROETHANE	1 ND	EPA 524.2
1,1-DICHLOROETHENE	1 ND	EPA 524.2
1,2-DICHLOROETHANE	1 ND	EPA 524.2
CIS 1,2-DICHLOROETHENE	1 ND	EPA 524.2
TRANS 1,2-DICHLOROETHENE	1 ND	EPA 524.2
ETHYLBENZENE	1 ND	EPA 524.2
METHYLENE CHLORIDE	1 ND	EPA 524.2
TETRACHLOROETHENE	1 ND	EPA 524.2
TOLUENE	1 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	1 ND	EPA 524.2
TRICHLOROETHENE	1 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	1 ND	EPA 524.2
VINYL CHLORIDE	1 ND	EPA 524.2
XYLENES (TOTAL)	3 ND	EPA 524.2

T Please indicate detection limit if analyte is not detected.

2540-FM-BWM0060 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
07/23/2021
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 (DD° MM' SS.S")

Facility Name: Frey Farm Landfill

County: Lancaster County

Township or Municipality: MANOR TOWNSHIP

Landowner Name: LCSWMA

Address: 3079 RIVER ROAD

Phone No.:

Sampling Point: Latitude: 39 ° 57 ' 21.99 " Longitude: 76 ° 26 ' 10.58 "

Depth to Water Level: ft. Measured from: [X] Land Surface [ ] TOC

Casing Stick Up: ft. Elevation of Water Level: ft./MSL

Total Well Depth: ft.

Sampling Depth: ft. Sampling Method: [ ] Pumped [ ] Bailed

Well Purged: [ ] Yes [X] No Well Volumes Purged:

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

Sample Date:(mm/dd/yy) 05/21/2021 Sample Collection Time: 12:40 PM

Laboratory(ies) Performing Analysis (include address and phone number): ALS Environmental
301 Fulling Mill Road
Middletown, PA 17057 (717) 944-5541

Lab Accreditation Number(s): 22-293

Lab Analysis Date: 06/01/2021

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

Comments:

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS LCSWMA

Sample Date: 05/21/2021

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	47	SM20-2321
CALCIUM, TOTAL	10	EPA 200.7
CALCIUM, DISSOLVED	9.2	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	32.6	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	5.9	EPA 200.7
MAGNESIUM, DISSOLVED	5.3	EPA 200.7
MANGANESE, TOTAL (ug/l)	82	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	76	EPA 200.7
NITRATE-NITROGEN	0.2 ND	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: 05/21/2021

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE - NITROGEN	0.2 ND	EPA 300
pH-FIELD (SU)	6.11	FIELD
pH-LAB (SU)	6.84	SM4500B
POTASSIUM, TOTAL	2.5	EPA 200.7
POTASSIUM, DISSOLVED	2.2	EPA 200.7
SODIUM, TOTAL	14.2	EPA 200.7
SODIUM, DISSOLVED	13.2	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	172	FIELD
SPEC. COND., LAB (umhos/cm)	161	EPA 120.1
SULFATE	11.1	EPA 300
ALKALINITY	47	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	80	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.1 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: 05/21/2021

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	1 ND	EPA 524.2
1,2-DIBROMOETHANE		EPA 524.2
1,1-DICHLOROETHANE	1 ND	EPA 524.2
1,1-DICHLOROETHENE	1 ND	EPA 524.2
1,2-DICHLOROETHANE	1 ND	EPA 524.2
CIS 1,2-DICHLOROETHENE	1 ND	EPA 524.2
TRANS 1,2-DICHLOROETHENE	1 ND	EPA 524.2
ETHYLBENZENE	1 ND	EPA 524.2
METHYLENE CHLORIDE	1 ND	EPA 524.2
TETRACHLOROETHENE	1 ND	EPA 524.2
TOLUENE	1 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	1 ND	EPA 524.2
TRICHLOROETHENE	1 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	1 ND	EPA 524.2
VINYL CHLORIDE	1 ND	EPA 524.2
XYLENES (TOTAL)	3 ND	EPA 524.2

T Please indicate detection limit if analyte is not detected.

2540-FM-BWM0060 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
07/23/2021
DEP USE ONLY
Date Received

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

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General Reference: Act 101 Section 1103

SECTION A. SITE IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Manage

Site Name: Frey Farm Landfill

Facility ID (as issued by DEP): 101389

SECTION B. PRIVATE WATER SUPPLY INFORMATION

INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° 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: [X] Land Surface [ ] TOC

Casing Stick Up: ft. Elevation of Water Level: ft./MSL

Total Well Depth: ft.

Sampling Depth: ft. Sampling Method: [ ] Pumped [ ] Bailed

Well Purged: [ ] Yes [X] No Well Volumes Purged:

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

Sample Date:(mm/dd/yy) 05/21/2021 Sample Collection Time: 11:35 AM

Laboratory(ies) Performing Analysis (include address and phone number): ALS Environmental
301 Fulling Mill Road
Middletown, PA 17057 (717) 944-5541

Lab Accreditation Number(s): 22-293

Lab Analysis Date: 06/01/2021

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

Comments:

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS WEBER

Sample Date: 05/21/2021

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	204	SM20-2321
CALCIUM, TOTAL	0.1	EPA 200.7
CALCIUM, DISSOLVED	0.1 ND	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	232	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	0.05 ND	EPA 200.7
MAGNESIUM, DISSOLVED	0.1 ND	EPA 200.7
MANGANESE, TOTAL (ug/l)	4.6	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	5 ND	EPA 200.7
NITRATE-NITROGEN	7.3	EPA 300

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS WEBER

Sample Date: 05/21/2021

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE - NITROGEN	0.2 ND	EPA 300
pH-FIELD (SU)	7.2	FIELD
pH-LAB (SU)	7.55	SM4500B
POTASSIUM, TOTAL	2.9	EPA 200.7
POTASSIUM, DISSOLVED	2.7	EPA 200.7
SODIUM, TOTAL	224	EPA 200.7
SODIUM, DISSOLVED	220	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	199	FIELD
SPEC. COND., LAB (umhos/cm)	191	EPA 120.1
SULFATE	2 ND	EPA 300
ALKALINITY	204	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	526	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.19	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: 05/21/2021

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	1 ND	EPA 524.2
1,2-DIBROMOETHANE		EPA 524.2
1,1-DICHLOROETHANE	1 ND	EPA 524.2
1,1-DICHLOROETHENE	1 ND	EPA 524.2
1,2-DICHLOROETHANE	1 ND	EPA 524.2
CIS 1,2-DICHLOROETHENE	1 ND	EPA 524.2
TRANS 1,2-DICHLOROETHENE	1 ND	EPA 524.2
ETHYLBENZENE	1 ND	EPA 524.2
METHYLENE CHLORIDE	1 ND	EPA 524.2
TETRACHLOROETHENE	1 ND	EPA 524.2
TOLUENE	1 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	1 ND	EPA 524.2
TRICHLOROETHENE	1 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	1 ND	EPA 524.2
VINYL CHLORIDE	1 ND	EPA 524.2
XYLENES (TOTAL)	3 ND	EPA 524.2

T Please indicate detection limit if analyte is not detected.

2540-FM-BWM0060 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
07/23/2021
DEP USE ONLY
Date Received

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

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General Reference: Act 101 Section 1103

SECTION A. SITE IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Manage

Site Name: Frey Farm Landfill

Facility ID (as issued by DEP): 101389

SECTION B. PRIVATE WATER SUPPLY INFORMATION

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

Facility Name: Frey Farm Landfill

County: Lancaster County

Township or Municipality: MANOR TOWNSHIP

Landowner Name: KIRCHNER

Address: 3100 RIVER ROAD

Phone No.:

Sampling Point: Latitude: 39 ° 57 ' 17.9 " Longitude: 76 ° 26 ' 6.28 "

Depth to Water Level: ft. Measured from: [X] Land Surface [ ] TOC

Casing Stick Up: ft. Elevation of Water Level: ft./MSL

Total Well Depth: ft.

Sampling Depth: ft. Sampling Method: [ ] Pumped [ ] Bailed

Well Purged: [ ] Yes [X] No Well Volumes Purged:

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

Sample Date:(mm/dd/yy) 05/21/2021 Sample Collection Time: 12:00 PM

Laboratory(ies) Performing Analysis (include address and phone number): ALS Environmental
301 Fulling Mill Road
Middletown, PA 17057 (717) 944-5541

Lab Accreditation Number(s): 22-293

Lab Analysis Date: 06/01/2021

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

Comments:

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS KIRCHNER

Sample Date: 05/21/2021

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	22	SM20-2321
CALCIUM, TOTAL	14	EPA 200.7
CALCIUM, DISSOLVED	12.8	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	42.3	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	6.1	EPA 200.7
MAGNESIUM, DISSOLVED	5.5	EPA 200.7
MANGANESE, TOTAL (ug/l)	7.1	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	6.2	EPA 200.7
NITRATE-NITROGEN	4.5	EPA 300

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS KIRCHNER

Sample Date: 05/21/2021

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE - NITROGEN	0.2 ND	EPA 300
pH-FIELD (SU)	6.19	FIELD
pH-LAB (SU)	6.36	SM4500B
POTASSIUM, TOTAL	1.9	EPA 200.7
POTASSIUM, DISSOLVED	1.7	EPA 200.7
SODIUM, TOTAL	17	EPA 200.7
SODIUM, DISSOLVED	16.2	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	950	FIELD
SPEC. COND., LAB (umhos/cm)	968	EPA 120.1
SULFATE	8.1	EPA 300
ALKALINITY	22	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	108	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.65	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.1 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: 05/21/2021

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	1 ND	EPA 524.2
1,2-DIBROMOETHANE		EPA 524.2
1,1-DICHLOROETHANE	1 ND	EPA 524.2
1,1-DICHLOROETHENE	1 ND	EPA 524.2
1,2-DICHLOROETHANE	1 ND	EPA 524.2
CIS 1,2-DICHLOROETHENE	1 ND	EPA 524.2
TRANS 1,2-DICHLOROETHENE	1 ND	EPA 524.2
ETHYLBENZENE	1 ND	EPA 524.2
METHYLENE CHLORIDE	1 ND	EPA 524.2
TETRACHLOROETHENE	1 ND	EPA 524.2
TOLUENE	1 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	1 ND	EPA 524.2
TRICHLOROETHENE	1 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	1 ND	EPA 524.2
VINYL CHLORIDE	1 ND	EPA 524.2
XYLENES (TOTAL)	3 ND	EPA 524.2

T Please indicate detection limit if analyte is not detected.

2540-FM-BWM0060 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
07/23/2021
DEP USE ONLY
Date Received

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

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General Reference: Act 101 Section 1103

SECTION A. SITE IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Manage

Site Name: Frey Farm Landfill

Facility ID (as issued by DEP): 101389

SECTION B. PRIVATE WATER SUPPLY INFORMATION

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

Facility Name: Frey Farm Landfill

County: Lancaster County

Township or Municipality: MANOR TOWNSHIP

Landowner Name: FRY

Address: 3106 RIVER ROAD

Phone No.:

Sampling Point: Latitude: 39 ° 57 ' 17.27 " Longitude: 76 ° 26 ' 5.6 "

Depth to Water Level: ft. Measured from: [X] Land Surface [ ] TOC

Casing Stick Up: ft. Elevation of Water Level: ft./MSL

Total Well Depth: ft.

Sampling Depth: ft. Sampling Method: [ ] Pumped [ ] Bailed

Well Purged: [ ] Yes [X] No Well Volumes Purged:

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

Sample Date:(mm/dd/yy) 05/21/2021 Sample Collection Time: 12:20 PM

Laboratory(ies) Performing Analysis (include address and phone number): ALS Environmental
301 Fulling Mill Road
Middletown, PA 17057 (717) 944-5541

Lab Accreditation Number(s): 22-293

Lab Analysis Date: 06/01/2021

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

Comments:

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS FRY

Sample Date: 05/21/2021

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	19	SM20-2321
CALCIUM, TOTAL	17.9	EPA 200.7
CALCIUM, DISSOLVED	17.1	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	98.4	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	34	EPA 200.7
IRON, DISSOLVED (ug/l)	60 ND	EPA 200.7
MAGNESIUM, TOTAL	11.9	EPA 200.7
MAGNESIUM, DISSOLVED	11.1	EPA 200.7
MANGANESE, TOTAL (ug/l)	37	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	34	EPA 200.7
NITRATE-NITROGEN	10.7	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 FRY

Sample Date: 05/21/2021

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE - NITROGEN	0.2 ND	EPA 300
pH-FIELD (SU)	6.39	FIELD
pH-LAB (SU)	6.28	SM4500B
POTASSIUM, TOTAL	2.4	EPA 200.7
POTASSIUM, DISSOLVED	2.2	EPA 200.7
SODIUM, TOTAL	36.6	EPA 200.7
SODIUM, DISSOLVED	36.3	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	374	FIELD
SPEC. COND., LAB (umhos/cm)	369	EPA 120.1
SULFATE	6.3	EPA 300
ALKALINITY	19	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	264	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.5	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: 05/21/2021

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	1 ND	EPA 524.2
1,2-DIBROMOETHANE		EPA 524.2
1,1-DICHLOROETHANE	1 ND	EPA 524.2
1,1-DICHLOROETHENE	1 ND	EPA 524.2
1,2-DICHLOROETHANE	1 ND	EPA 524.2
CIS 1,2-DICHLOROETHENE	1 ND	EPA 524.2
TRANS 1,2-DICHLOROETHENE	1 ND	EPA 524.2
ETHYLBENZENE	1 ND	EPA 524.2
METHYLENE CHLORIDE	1 ND	EPA 524.2
TETRACHLOROETHENE	1 ND	EPA 524.2
TOLUENE	1 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	1 ND	EPA 524.2
TRICHLOROETHENE	1 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	1 ND	EPA 524.2
VINYL CHLORIDE	1 ND	EPA 524.2
XYLENES (TOTAL)	3 ND	EPA 524.2

T Please indicate detection limit if analyte is not detected.

2540-FM-BWM0060 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
07/23/2021
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 (DD° MM' SS.S")

Facility Name: Frey Farm Landfill

County: Lancaster County

Township or Municipality: MANOR TOWNSHIP

Landowner Name: BECK

Address: 3125 RIVER ROAD

Phone No.:

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

Depth to Water Level: ft. Measured from: [X] Land Surface [ ] TOC

Casing Stick Up: ft. Elevation of Water Level: ft./MSL

Total Well Depth: ft.

Sampling Depth: ft. Sampling Method: [ ] Pumped [ ] Bailed

Well Purged: [ ] Yes [X] No Well Volumes Purged:

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

Sample Date:(mm/dd/yy) 05/25/2021 Sample Collection Time: 10:30 AM

Laboratory(ies) Performing Analysis (include address and phone number): ALS Environmental
301 Fulling Mill Road
Middletown, PA 17057 (717) 944-5541

Lab Accreditation Number(s): 22-293

Lab Analysis Date: 06/09/2021

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

Comments:

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS BECK

Sample Date: 05/25/2021

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.169	SM4500D
BICARBONATE ALKALINITY	254	SM20-2321
CALCIUM, TOTAL	0.19	EPA 200.7
CALCIUM, DISSOLVED	0.2	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	96	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	0.05 ND	EPA 200.7
MAGNESIUM, DISSOLVED	0.1 ND	EPA 200.7
MANGANESE, TOTAL (ug/l)	2.5 ND	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	5 ND	EPA 200.7
NITRATE-NITROGEN	5.7	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 BECK

Sample Date: 05/25/2021

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE - NITROGEN	0.2 ND	EPA 300
pH-FIELD (SU)	7.38	FIELD
pH-LAB (SU)	7.27	SM4500B
POTASSIUM, TOTAL	1.3	EPA 200.7
POTASSIUM, DISSOLVED	1.8	EPA 200.7
SODIUM, TOTAL	167	EPA 200.7
SODIUM, DISSOLVED	184	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	623	FIELD
SPEC. COND., LAB (umhos/cm)	641	EPA 120.1
SULFATE	13.7	EPA 300
ALKALINITY	254	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	396	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.11	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: 05/25/2021

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
BENZENE	1 ND	EPA 524.2
1,2-DIBROMOETHANE		EPA 524.2
1,1-DICHLOROETHANE	1 ND	EPA 524.2
1,1-DICHLOROETHENE	1 ND	EPA 524.2
1,2-DICHLOROETHANE	1 ND	EPA 524.2
CIS 1,2-DICHLOROETHENE	1 ND	EPA 524.2
TRANS 1,2-DICHLOROETHENE	1 ND	EPA 524.2
ETHYLBENZENE	1 ND	EPA 524.2
METHYLENE CHLORIDE	1 ND	EPA 524.2
TETRACHLOROETHENE	1 ND	EPA 524.2
TOLUENE	1 ND	EPA 524.2
1,1,1-TRICHLOROETHANE	1 ND	EPA 524.2
TRICHLOROETHENE	1 ND	EPA 524.2
TRICHLOROFLUOROMETHANE	1 ND	EPA 524.2
VINYL CHLORIDE	1 ND	EPA 524.2
XYLENES (TOTAL)	3 ND	EPA 524.2

T Please indicate detection limit if analyte is not detected.

ALS Environmental

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

June 8, 2021

Ms. Jordan Gallagher
Lancaster County Solid Waste Authority
1299 Hbg Pike, P.O. Box 4425
Lancaster, PA 17604

Certificate of Analysis

Project Name:	**FREY FARM**	Workorder:	**3177510**
Purchase Order:	**PO-1000371**	Workorder ID:	**2ND QTR 20213079 RIVER RD**

Dear Ms. Gallagher:

Enclosed are the analytical results for samples received by the laboratory on Friday, May 21, 2021.

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 Ms. Susan J Scherer (Project Coordinator) at (717) 944-5541.

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

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Ms. Ashley Gichuki , Mr. Daniel Brown , Mr. Jeff Musser

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

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

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SAMPLE SUMMARY

Workorder: 3177510 2ND QTR 20213079 RIVER RD

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3177510001	3079RIVERRD	Water	5/21/2021 12:40	5/21/2021 15:35	Mr. Brian G Shade

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SAMPLE SUMMARY

Workorder: 3177510 2ND QTR 20213079 RIVER RD

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

Standard Acronyms/Flags

C	Please reference the Project Summary section of this Certificate of Analysis for case narrative comments.
J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
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

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PROJECT SUMMARY

Workorder: 3177510 2ND QTR 20213079 RIVER RD

Workorder Comments

Temperature of sample taken at time of sample receipt in the laboratory. See chain of custody for actual temperature.

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ANALYTICAL RESULTS

Workorder: 3177510 2ND QTR 20213079 RIVER RD

Lab ID: **3177510001** Date Collected: 5/21/2021 12:40 Matrix: Water

Sample ID: **3079RIVERRD** Date Received: 5/21/2021 15:35

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
WET CHEMISTRY										
Alkalinity, Bicarbonate	47	C	mg/L	5	SM2320B-2011			5/29/21 10:52	MBS	C
Alkalinity, Total	47	C,1	mg/L	5	SM2320B-2011			5/29/21 10:52	MBS	A
Ammonia-N	ND	C	mg/L	0.100	ASTM D6919-09			5/28/21 11:04	ALK	B
Chemical Oxygen Demand (COD)	ND	C	mg/L	15	EPA 410.4			5/25/21 15:02	ALK	B
Chloride	32.6	C	mg/L	2.0	EPA 300.0			5/22/21 09:08	MBW	C
Fluoride	ND	C	mg/L	0.20	EPA 300.0			5/22/21 09:08	MBW	C
Halogen, Total Organic (TOX)	20.1	C	ug/L	20.0	SW846 9020B			6/1/21 11:34	PAG	I
Nitrate-N	ND	C	mg/L	0.20	EPA 300.0			5/22/21 09:08	MBW	C
Nitrite-N	ND	C	mg/L	0.20	EPA 300.0			5/22/21 09:08	MBW	C
pH	6.84	C,2	pH_Units		S4500HB-11			5/29/21 10:52	MBS	C
Phenolics	ND	C	mg/L	0.005	EPA 420.4	5/25/21 17:16	MXF	5/26/21 09:24	MXF	H
Specific Conductance	161	C	umhos/cm	1	SM2510B-2011			5/26/21 14:47	MBS	C
Sulfate	11.1	C	mg/L	2.0	EPA 300.0			5/22/21 09:08	MBW	C
Total Dissolved Solids	80	C	mg/L	25	S2540C-11			5/26/21 12:46	KMM	C
Total Organic Carbon (TOC)	ND	C	mg/L	0.50	SM5310B-2011			5/27/21 09:38	PAG	F
Turbidity	ND	C	NTU	0.10	SM2130B-2011			5/22/21 08:31	LXZ	C
VOLATILE ORGANICS										
Benzene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 03:04	VLM	K
1,1-Dichloroethane	ND	C	ug/L	1.0	SW846 8260B			5/25/21 03:04	VLM	K
1,2-Dichloroethane	ND	C	ug/L	1.0	SW846 8260B			5/25/21 03:04	VLM	K
1,1-Dichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 03:04	VLM	K
cis-1,2-Dichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 03:04	VLM	K
trans-1,2-Dichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 03:04	VLM	K
Ethylbenzene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 03:04	VLM	K
Methylene Chloride	ND	C	ug/L	1.0	SW846 8260B			5/25/21 03:04	VLM	K
Tetrachloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 03:04	VLM	K
Toluene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 03:04	VLM	K
Total Xylenes	ND	C	ug/L	3.0	SW846 8260B			5/25/21 03:04	VLM	K
1,1,1-Trichloroethane	ND	C	ug/L	1.0	SW846 8260B			5/25/21 03:04	VLM	K
Trichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 03:04	VLM	K
Trichlorofluoromethane	ND	C	ug/L	1.0	SW846 8260B			5/25/21 03:04	VLM	K
Vinyl Chloride	ND	C	ug/L	1.0	SW846 8260B			5/25/21 03:04	VLM	K
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	82.4	C	%	62 - 133	SW846 8260B			5/25/21 03:04	VLM	K

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ANALYTICAL RESULTS

Workorder: 3177510 2ND QTR 20213079 RIVER RD

Lab ID: **3177510001** Date Collected: 5/21/2021 12:40 Matrix: Water

Sample ID: **3079RIVERRD** Date Received: 5/21/2021 15:35

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
4-Bromofluorobenzene (S)	100	C	%	79 - 114	SW846 8260B			5/25/21 03:04	VLM	K
Dibromofluoromethane (S)	97.4	C	%	78 - 116	SW846 8260B			5/25/21 03:04	VLM	K
Toluene-d8 (S)	88	C	%	76 - 127	SW846 8260B			5/25/21 03:04	VLM	K
METALS										
Calcium, Total	10.0	C	mg/L	0.050	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:09	SRT	D1
Calcium, Dissolved	9.2	C	mg/L	0.10	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:25	SRT	E
Iron, Total	ND	C	mg/L	0.030	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:09	SRT	D1
Iron, Dissolved	ND	C	mg/L	0.060	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:25	SRT	E
Magnesium, Total	5.9	C	mg/L	0.050	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:09	SRT	D1
Magnesium, Dissolved	5.3	C	mg/L	0.10	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:25	SRT	E
Manganese, Total	0.082	C	mg/L	0.0025	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:09	SRT	D1
Manganese, Dissolved	0.076	C	mg/L	0.0050	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:25	SRT	E
Potassium, Total	2.5	C	mg/L	0.25	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:09	SRT	D1
Potassium, Dissolved	2.2	C	mg/L	0.50	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:25	SRT	E
Sodium, Total	14.2	C	mg/L	0.25	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:09	SRT	D1
Sodium, Dissolved	13.2	C	mg/L	0.50	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:25	SRT	E
FIELD PARAMETERS										
pH, Field (SM4500B)	6.11	C	pH_Units		Field			5/21/21 12:40	BGS	M
Specific Conductance, Field	172	C	umhos/cm	1	Field			5/21/21 12:40	BGS	M
Temperature	14.70	C	Deg. C		Field			5/21/21 12:40	BGS	M

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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ANALYTICAL RESULTS

Workorder: 3177510 2ND QTR 20213079 RIVER RD

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
3177510001	1	3079RIVERRD	SM2320B-2011	Alkalinity, Total
The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L.				
3177510001	2	3079RIVERRD	S4500HB-11	pH
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.				

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ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 3177510 2ND QTR 20213079 RIVER RD

Lab ID	Sample ID	Analysis Method	Prep Method	Leachate Method
3177510001	3079RIVERRD	ASTM D6919-09		
3177510001	3079RIVERRD	EPA 200.7	EPA ACID	
3177510001	3079RIVERRD	EPA 200.7	EPA TRMD	
3177510001	3079RIVERRD	EPA 300.0		
3177510001	3079RIVERRD	EPA 410.4		
3177510001	3079RIVERRD	EPA 420.4	420.4/9066	
3177510001	3079RIVERRD	Field		
3177510001	3079RIVERRD	S2540C-11		
3177510001	3079RIVERRD	S4500HB-11		
3177510001	3079RIVERRD	SM2130B-2011		
3177510001	3079RIVERRD	SM2320B-2011		
3177510001	3079RIVERRD	SM2510B-2011		
3177510001	3079RIVERRD	SM5310B-2011		
3177510001	3079RIVERRD	SW846 8260B		
3177510001	3079RIVERRD	SW846 9020B		

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALS

3177510

1 of 1

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

Client Name: Lancaster County Solid Waste MA

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

Contact: Dan Brown

Phone#: (717) 735-0193

Project Name/#: LCSWMA - Quarterly Fire Co.

Bill To: Lancaster County Solid Waste MA

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

Date Required: _____ **Approved By:** _____

Email? [ ] -Y _____

Fax? [ ] -Y No.: _____

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

ANALYSES/METHOD REQUESTED

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	TOC	O-OH	TOX	SW846-8260 VOCs	FM	NH3-N, COD	Dissolved Metals: Ca, Fe, Mg, Mn, K, Na	Metals: Ca, Fe, Mg, Mn, K, Na	pH, TDS, NO2, NO3, Cl, SO4, F, Tb, SpC	Alkalinity, HCO3
					Enter Number of Containers Per Sample or Field Results Below.									
1 3079RIVERRD	05/21/21	1240	G	DW	2	1	2	~~2~~ Received 3 RMC 5/22/21	X	1	1	1	1	1
2														
3														
4														
5														
6														
7														
8														
9														
10														

(by Receiving Lab)

Cooler Temp: 4 Therm ID: 574

No. of Coolers: _____

	Y	N	Initial
Custody Seals Present?			
(if present) Seals Intact?			
Received on Ice?			
COC/Labels Complete/Accurate?			
Cont. in Good Cond.?			
Correct Containers?			
Correct Sample Volumes?			
Correct Preservation?			
Headspace/Volatiles?			

Courier/Tracking #:

Sample/COC Comments

ALS Field Services: ☐Pickup ☐Labor ☐Composite_Sampling ☐Rental_Equipment ☐Other: _____

Project Comments:

LOGGED BY(signature): DATE: TIME:

REVIEWED BY(signature): DATE: TIME:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [signature] ALS	5-21-21	1533	2 [signature] ALS	5/21/21	1535
3			4		
5			6		
7			8		
9			10		

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

Special Processing: USACE [ ] Navy [ ]

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

Reportable to PADEP? Yes [ ] PWSID # _____

Sample Disposal: Lab [X] Special [ ]

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

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

Rev 8/04

ALS

301 Fulling Mill Road
Middletown, PA 17057

Condition of Sample Receipt Form

3177510

Lancaster County Solid Waste Authority

Client: | #: | Initials: AS | Date: 5/21/21

1. Were airbills / tracking numbers present and recorded?	(NONE)	YES	NO
Tracking number: _____			
2. Are Custody Seals on shipping containers intact?	(NONE)	YES	NO
3. Are Custody Seals on sample containers intact?	(NONE)	YES	NO
4. Is there a COC (Chain-of-Custody) present?		(YES)	NO
5. Are the COC and bottle labels complete, legible and in agreement?		(YES)	NO
5a. Does the COC contain sample locations?		(YES)	NO
5b. Does the COC contain date and time of sample collection for all samples?		(YES)	NO
5c. Does the COC contain sample collectors name?		(YES)	NO
5d. Does the COC note the type(s) of preservation for all bottles?		(YES)	NO
5e. Does the COC note the number of bottles submitted for each sample?		(YES)	NO
5f. Does the COC note the type of sample, composite or grab?		(YES)	NO
5g. Does the COC note the matrix of the sample(s)?		(YES)	NO
6. Are all aqueous samples requiring preservation preserved correctly?[1]	N/A	(YES)	NO
7. Were all samples placed in the proper containers for the requested analyses, with sufficient volume?		(YES)	NO
8. Are all samples within holding times for the requested analyses?		(YES)	NO
9. Were all sample containers received intact and headspace free when required? (not broken, leaking, frozen, etc.)		(YES)	NO
10. Did we receive trip blanks (applies only for methods EPA 504, EPA 524.2 and 1631E (LL Hg)?	(N/A)	YES	NO
11. Were the samples received on ice?		(YES)	NO
12. Were sample temperatures measured at 0.0-6.0°C		(YES)	NO
13. Are the samples DW matrix ? If YES, fill out Reportable Drinking Water questions below		(YES)	NO
13a. Are the samples required for SDWA compliance reporting?	N/A	YES	(NO)
13b. Did the client provide a SDWA PWS ID#?	(N/A)	YES	NO
13c. Are all aqueous unpreserved SDWA samples pH 5-9?	(N/A)	YES	NO
13d. Did the client provide the SDWA sample location ID/Description?	(N/A)	YES	NO
13e. Did the client provide the SDWA sample type (D, E, R, C, P, S)?	(N/A)	YES	NO

Cooler #: _____ _____ _____ _____ _____ _____ _____ _____

Temperature (°C): 4 _____ _____ _____ _____ _____ _____ _____

Thermometer ID: 574 _____ _____ _____ _____ _____ _____ _____

Radiological (µCi): _____

COMMENTS (Required for all NO responses above and any sample non-conformance):

[1]Final determination of correct preservation for analysis such as volatiles, microbiology, and oil and grease is made in the analytical department at the time of or following the analysis.

Rev 1/20/2020

ALS Environmental

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

June 8, 2021

Ms. Jordan Gallagher
Lancaster County Solid Waste Authority
1299 Hbg Pike, P.O. Box 4425
Lancaster, PA 17604

Certificate of Analysis

Project Name:	**CONTIGUOUS LANDOWNER-3088 RIVER RD**	Workorder:	**3177513**
Purchase Order:	**PO-1000371**	Workorder ID:	**2ND QTR 2021-3088 RIVER RD**

Dear Ms. Gallagher:

Enclosed are the analytical results for samples received by the laboratory on Friday, May 21, 2021.

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 Ms. Susan J Scherer (Project Coordinator) at (717) 944-5541.

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

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Ms. Ashley Gichuki , Mr. Daniel Brown , Landowner , Mr. Jeff Musser

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

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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SAMPLE SUMMARY

Workorder: 3177513 2ND QTR 2021-3088 RIVER RD

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3177513001	3088 River Road, Conestoga PA	Water	5/21/2021 11:35	5/21/2021 15:35	Mr. Brian G Shade

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SAMPLE SUMMARY

Workorder: 3177513 2ND QTR 2021-3088 RIVER RD

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

Standard Acronyms/Flags

C	Please reference the Project Summary section of this Certificate of Analysis for case narrative comments.
J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
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

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PROJECT SUMMARY

Workorder: 3177513 2ND QTR 2021-3088 RIVER RD

Workorder Comments

Temperature of sample taken at time of sample receipt in the laboratory. See chain of custody for actual temperature.

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ANALYTICAL RESULTS

Workorder: 3177513 2ND QTR 2021-3088 RIVER RD

Lab ID: **3177513001** Date Collected: 5/21/2021 11:35 Matrix: Water

Sample ID: **3088 River Road, Conestoga PA** Date Received: 5/21/2021 15:35

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
WET CHEMISTRY										
Alkalinity, Bicarbonate	204	C	mg/L	5	SM2320B-2011			5/29/21 10:52	MBS	C
Alkalinity, Total	204	C,1	mg/L	5	SM2320B-2011			5/29/21 10:52	MBS	A
Ammonia-N	ND	C	mg/L	0.100	ASTM D6919-09			5/28/21 11:19	ALK	B
Chemical Oxygen Demand (COD)	ND	C	mg/L	15	EPA 410.4			5/25/21 15:02	ALK	B
Chloride	232	C	mg/L	5.0	EPA 300.0			5/27/21 05:37	MBW	C
Fluoride	ND	C	mg/L	0.20	EPA 300.0			5/22/21 16:12	MBW	C
Halogen, Total Organic (TOX)	ND	C	ug/L	20.0	SW846 9020B			6/1/21 12:01	PAG	I
Nitrate-N	7.3	C	mg/L	0.20	EPA 300.0			5/22/21 16:12	MBW	C
Nitrite-N	ND	C	mg/L	0.20	EPA 300.0			5/22/21 16:12	MBW	C
pH	7.55	C,2	pH_Units		S4500HB-11			5/29/21 10:52	MBS	C
Phenolics	ND	C,3,4	mg/L	0.005	EPA 420.4	5/25/21 17:16	MXF	5/26/21 09:24	MXF	H
Specific Conductance	191	C	umhos/cm	1	SM2510B-2011			5/26/21 14:47	MBS	C
Sulfate	ND	C	mg/L	2.0	EPA 300.0			5/22/21 16:12	MBW	C
Total Dissolved Solids	526	C	mg/L	25	S2540C-11			5/26/21 12:46	KMM	C
Total Organic Carbon (TOC)	ND	C	mg/L	0.50	SM5310B-2011			5/27/21 09:38	PAG	F
Turbidity	0.19	C	NTU	0.10	SM2130B-2011			5/22/21 08:31	LXZ	C
VOLATILE ORGANICS										
Benzene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 03:26	VLM	K
1,1-Dichloroethane	ND	C	ug/L	1.0	SW846 8260B			5/25/21 03:26	VLM	K
1,2-Dichloroethane	ND	C	ug/L	1.0	SW846 8260B			5/25/21 03:26	VLM	K
1,1-Dichloroethene	ND	C,7	ug/L	1.0	SW846 8260B			5/25/21 03:26	VLM	K
cis-1,2-Dichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 03:26	VLM	K
trans-1,2-Dichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 03:26	VLM	K
Ethylbenzene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 03:26	VLM	K
Methylene Chloride	ND	C,8	ug/L	1.0	SW846 8260B			5/25/21 03:26	VLM	K
Tetrachloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 03:26	VLM	K
Toluene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 03:26	VLM	K
Total Xylenes	ND	C	ug/L	3.0	SW846 8260B			5/25/21 03:26	VLM	K
1,1,1-Trichloroethane	ND	C,9	ug/L	1.0	SW846 8260B			5/25/21 03:26	VLM	K
Trichloroethene	ND	C,10	ug/L	1.0	SW846 8260B			5/25/21 03:26	VLM	K
Trichlorofluoromethane	ND	C,5,6	ug/L	1.0	SW846 8260B			5/25/21 03:26	VLM	K
Vinyl Chloride	ND	C	ug/L	1.0	SW846 8260B			5/25/21 03:26	VLM	K

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

ANALYTICAL RESULTS

Workorder: 3177513 2ND QTR 2021-3088 RIVER RD

Lab ID: **3177513001** Date Collected: 5/21/2021 11:35 Matrix: Water

Sample ID: **3088 River Road, Conestoga PA** Date Received: 5/21/2021 15:35

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	82.4	C	%	62 - 133	SW846 8260B			5/25/21 03:26	VLM	K
4-Bromofluorobenzene (S)	102	C	%	79 - 114	SW846 8260B			5/25/21 03:26	VLM	K
Dibromofluoromethane (S)	97.2	C	%	78 - 116	SW846 8260B			5/25/21 03:26	VLM	K
Toluene-d8 (S)	88.5	C	%	76 - 127	SW846 8260B			5/25/21 03:26	VLM	K
METALS										
Calcium, Total	0.10	C	mg/L	0.050	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:30	SRT	D1
Calcium, Dissolved	ND	C	mg/L	0.10	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:44	SRT	E
Iron, Total	ND	C	mg/L	0.030	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:30	SRT	D1
Iron, Dissolved	ND	C	mg/L	0.060	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:44	SRT	E
Magnesium, Total	ND	C	mg/L	0.050	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:30	SRT	D1
Magnesium, Dissolved	ND	C	mg/L	0.10	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:44	SRT	E
Manganese, Total	0.0046	C	mg/L	0.0025	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:30	SRT	D1
Manganese, Dissolved	ND	C	mg/L	0.0050	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:44	SRT	E
Potassium, Total	2.9	C	mg/L	0.25	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:30	SRT	D1
Potassium, Dissolved	2.7	C	mg/L	0.50	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:44	SRT	E
Sodium, Total	224	C	mg/L	0.25	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:30	SRT	D1
Sodium, Dissolved	220	C	mg/L	0.50	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:44	SRT	E
FIELD PARAMETERS										
pH, Field (SM4500B)	7.20	C	pH_Units		Field			5/21/21 11:35	BGS	M
Specific Conductance, Field	199	C	umhos/cm	1	Field			5/21/21 11:35	BGS	M
Temperature	15.30	C	Deg. C		Field			5/21/21 11:35	BGS	M

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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ANALYTICAL RESULTS

Workorder: 3177513 2ND QTR 2021-3088 RIVER RD

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
3177513001	1	3088 River Road, Conestoga PA	SM2320B-2011	Alkalinity, Total
The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L.				
3177513001	2	3088 River Road, Conestoga PA	S4500HB-11	pH
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.				
3177513001	3	3088 River Road, Conestoga PA	EPA 420.4	Phenolics
The QC sample type MS for method 420.4/9066 was outside the control limits for the analyte Phenolics. The % Recovery was reported as 112 and the control limits were 90 to 110.				
3177513001	4	3088 River Road, Conestoga PA	EPA 420.4	Phenolics
The QC sample type MSD for method 420.4/9066 was outside the control limits for the analyte Phenolics. The % Recovery was reported as 113 and the control limits were 90 to 110.				
3177513001	5	3088 River Road, Conestoga PA	SW846 8260B	Trichlorofluoromethane
The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Trichlorofluoromethane. The % Recovery was reported as 145 and the control limits were 38 to 123.				
3177513001	6	3088 River Road, Conestoga PA	SW846 8260B	Trichlorofluoromethane
The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte Trichlorofluoromethane. The % Recovery was reported as 133 and the control limits were 38 to 123.				
3177513001	7	3088 River Road, Conestoga PA	SW846 8260B	1,1-Dichloroethene
The QC sample type MS for method SW846 8260B was outside the control limits for the analyte 1,1-Dichloroethene. The % Recovery was reported as 129 and the control limits were 63 to 128.				
3177513001	8	3088 River Road, Conestoga PA	SW846 8260B	Methylene Chloride
The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 123 and the control limits were 76 to 121.				
3177513001	9	3088 River Road, Conestoga PA	SW846 8260B	1,1,1-Trichloroethane
The QC sample type MS for method SW846 8260B was outside the control limits for the analyte 1,1,1-Trichloroethane. The % Recovery was reported as 134 and the control limits were 66 to 130.				
3177513001	10	3088 River Road, Conestoga PA	SW846 8260B	Trichloroethene
The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Trichloroethene. The % Recovery was reported as 132 and the control limits were 77 to 124.				

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ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 3177513 2ND QTR 2021-3088 RIVER RD

Lab ID	Sample ID	Analysis Method	Prep Method	Leachate Method
3177513001	3088 River Road, Conestoga PA	ASTM D6919-09		
3177513001	3088 River Road, Conestoga PA	EPA 200.7	EPA ACID	
3177513001	3088 River Road, Conestoga PA	EPA 200.7	EPA TRMD	
3177513001	3088 River Road, Conestoga PA	EPA 300.0		
3177513001	3088 River Road, Conestoga PA	EPA 410.4		
3177513001	3088 River Road, Conestoga PA	EPA 420.4	420.4/9066	
3177513001	3088 River Road, Conestoga PA	Field		
3177513001	3088 River Road, Conestoga PA	S2540C-11		
3177513001	3088 River Road, Conestoga PA	S4500HB-11		
3177513001	3088 River Road, Conestoga PA	SM2130B-2011		
3177513001	3088 River Road, Conestoga PA	SM2320B-2011		
3177513001	3088 River Road, Conestoga PA	SM2510B-2011		
3177513001	3088 River Road, Conestoga PA	SM5310B-2011		
3177513001	3088 River Road, Conestoga PA	SW846 8260B		
3177513001	3088 River Road, Conestoga PA	SW846 9020B		

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALS

3177513

1 of 1

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

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 [X] 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	PL
Container Size	40 ml	125 ml	250 ml	40 ml	—	250 ml	125 ml	125 ml	500 ml	500 ml
Preservative	HCl	H2SO4	H2SO4	HCl	—	H2SO4	HNO3	HNO3	None	None

ANALYSES/METHOD REQUESTED

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	TOC	O-OH	TOX	SW846-8260 VOCs	FM	NH3-N, COD	Dissolved Metals: Ca, Fe, Mg, Mn, K, Na	Metals: Ca, Fe, Mg, Mn, K, Na	pH, TDS, NO2, NO3, Cl, SO4, F, Tb, SpC	Alkalinity, HCO3
					Enter Number of Containers Per Sample or Field Results Below.									
1 3088RIVER RD	05/21/21	1135	G	DW	2	1	2	~~2~~	X	1	1	1	1	1
2								received						
3								3 VOC						
4								5/22/21						
5														
6														
7														
8														
9														
10														

Project Comments:

LOGGED BY(signature): DATE TIME

REVIEWED BY(signature): DATE TIME

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [illegible] ALS	5-21-21	1535	2 [signature] ALS	5/21/21	1535
3			4		
5			6		
7			8		
9			10		

Cooler Temp: 4 Therm ID: 574

No. of Coolers: _____

	Y	N	Initial
Custody Seals Present?			
(if present) Seals Intact?			
Received on Ice?			
COC/Labels Complete/Accurate?			
Cont. in Good Cond.?			
Correct Containers?			
Correct Sample Volumes?			
Correct Preservation?			
Headspace/Volatiles?			

Courier/Tracking #:

Sample/COC Comments

ALS Field Services: ☐Pickup ☐Labor ☐Composite_Sampling ☐Rental_Equipment ☐Other:_____

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

Special Processing: USACE [ ] Navy [ ]

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

Reportable to PADEP? Yes [ ] PWSID # _____

Sample Disposal: Lab [X] Special [ ]

EDDS: Format Type- _____

* G=Grab; C=Composite

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

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

Rev 8/04

301 Fulling Mill Road
Middletown, PA 17057

Condition of Sample Receipt Form

3177513

Client: Lancaster County Solid Waste Authority

Initials: AS **Date:** 5/21/21

1. Were airbills / tracking numbers present and recorded?	(NONE)	YES	NO
Tracking number:			
2. Are Custody Seals on shipping containers intact?	(NONE)	YES	NO
3. Are Custody Seals on sample containers intact?	(NONE)	YES	NO
4. Is there a COC (Chain-of-Custody) present?		(YES)	NO
5. Are the COC and bottle labels complete, legible and in agreement?		(YES)	NO
5a. Does the COC contain sample locations?		(YES)	NO
5b. Does the COC contain date and time of sample collection for all samples?		(YES)	NO
5c. Does the COC contain sample collectors name?		(YES)	NO
5d. Does the COC note the type(s) of preservation for all bottles?		(YES)	NO
5e. Does the COC note the number of bottles submitted for each sample?		(YES)	NO
5f. Does the COC note the type of sample, composite or grab?		(YES)	NO
5g. Does the COC note the matrix of the sample(s)?		(YES)	NO
6. Are all aqueous samples requiring preservation preserved correctly?[1]	N/A	(YES)	NO
7. Were all samples placed in the proper containers for the requested analyses, with sufficient volume?		(YES)	NO
8. Are all samples within holding times for the requested analyses?		(YES)	NO
9. Were all sample containers received intact and headspace free when required? (not broken, leaking, frozen, etc.)		(YES)	NO
10. Did we receive trip blanks (applies only for methods EPA 504, EPA 524.2 and 1631E (LL Hg)?	(N/A)	YES	NO
11. Were the samples received on ice?		(YES)	NO
12. Were sample temperatures measured at 0.0-6.0°C		(YES)	NO
13. Are the samples DW matrix ? If YES, fill out Reportable Drinking Water questions below		(YES)	NO
13a. Are the samples required for SDWA compliance reporting?	N/A	YES	(NO)
13b. Did the client provide a SDWA PWS ID#?	(N/A)	YES	NO
13c. Are all aqueous unpreserved SDWA samples pH 5-9?	(N/A)	YES	NO
13d. Did the client provide the SDWA sample location ID/Description?	(N/A)	YES	NO
13e. Did the client provide the SDWA sample type (D, E, R, C, P, S)?	(N/A)	YES	NO

Cooler #: _____

Temperature (°C): 4

Thermometer ID: 574

Radiological (µCi): _____

COMMENTS (Required for all NO responses above and any sample non-conformance):

[1]Final determination of correct preservation for analysis such as volatiles, microbiology, and oil and grease is made in the analytical department at the time of or following the analysis.

Rev 1/20/2020

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

June 8, 2021

Ms. Jordan Gallagher
Lancaster County Solid Waste Authority
1299 Hbg Pike, P.O. Box 4425
Lancaster, PA 17604

Certificate of Analysis

Project Name:	**CONTIGUOUS LANDOWNER-3106 RIVER RD**	Workorder:	**3177521**
Purchase Order:	**PO-1000371**	Workorder ID:	**2ND QTR 2021-3106 RIVER RD**

Dear Ms. Gallagher:

Enclosed are the analytical results for samples received by the laboratory on Friday, May 21, 2021.

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 Ms. Susan J Scherer (Project Coordinator) at (717) 944-5541.

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

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Ms. Ashley Gichuki , Mr. Daniel Brown , Landowner , Mr. Jeff Musser

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

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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SAMPLE SUMMARY

Workorder: 3177521 2ND QTR 2021-3106 RIVER RD

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3177521001	3106 River Road, Conestoga, PA	Water	5/21/2021 12:20	5/21/2021 15:35	Mr. Brian G Shade

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SAMPLE SUMMARY

Workorder: 3177521 2ND QTR 2021-3106 RIVER RD

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

Standard Acronyms/Flags

C	Please reference the Project Summary section of this Certificate of Analysis for case narrative comments.
J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
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

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PROJECT SUMMARY

Workorder: 3177521 2ND QTR 2021-3106 RIVER RD

Workorder Comments

Temperature of sample taken at time of sample receipt in the laboratory. See chain of custody for actual temperature.

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ANALYTICAL RESULTS

Workorder: 3177521 2ND QTR 2021-3106 RIVER RD

Lab ID: **3177521001** Date Collected: 5/21/2021 12:20 Matrix: Water

Sample ID: **3106 River Road, Conestoga, PA** Date Received: 5/21/2021 15:35

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
WET CHEMISTRY										
Alkalinity, Bicarbonate	19	C	mg/L	5	SM2320B-2011			5/29/21 10:52	MBS	C
Alkalinity, Total	19	C,1	mg/L	5	SM2320B-2011			5/29/21 10:52	MBS	A
Ammonia-N	ND	C	mg/L	0.100	ASTM D6919-09			5/27/21 23:04	ALK	B
Chemical Oxygen Demand (COD)	ND	C	mg/L	15	EPA 410.4			5/27/21 14:27	ALK	B
Chloride	98.4	C	mg/L	2.0	EPA 300.0			5/22/21 16:54	MBW	C
Fluoride	ND	C	mg/L	0.20	EPA 300.0			5/22/21 16:54	MBW	C
Halogen, Total Organic (TOX)	ND	C	ug/L	20.0	SW846 9020B			6/1/21 13:21	PAG	I
Nitrate-N	10.7	C	mg/L	0.20	EPA 300.0			5/22/21 16:54	MBW	C
Nitrite-N	ND	C	mg/L	0.20	EPA 300.0			5/22/21 16:54	MBW	C
pH	6.28	C,2	pH_Units		S4500HB-11			5/29/21 10:52	MBS	C
Phenolics	ND	C	mg/L	0.005	EPA 420.4	5/25/21 17:16	MXF	5/26/21 09:24	MXF	H
Specific Conductance	369	C	umhos/cm	1	SM2510B-2011			5/26/21 14:47	MBS	C
Sulfate	6.3	C	mg/L	2.0	EPA 300.0			5/22/21 16:54	MBW	C
Total Dissolved Solids	264	C	mg/L	25	S2540C-11			5/26/21 14:22	KMM	C
Total Organic Carbon (TOC)	ND	C	mg/L	0.50	SM5310B-2011			5/27/21 09:38	PAG	F
Turbidity	0.50	C	NTU	0.10	SM2130B-2011			5/22/21 08:31	LXZ	C
VOLATILE ORGANICS										
Benzene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:11	VLM	K
1,1-Dichloroethane	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:11	VLM	K
1,2-Dichloroethane	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:11	VLM	K
1,1-Dichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:11	VLM	K
cis-1,2-Dichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:11	VLM	K
trans-1,2-Dichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:11	VLM	K
Ethylbenzene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:11	VLM	K
Methylene Chloride	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:11	VLM	K
Tetrachloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:11	VLM	K
Toluene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:11	VLM	K
Total Xylenes	ND	C	ug/L	3.0	SW846 8260B			5/25/21 04:11	VLM	K
1,1,1-Trichloroethane	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:11	VLM	K
Trichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:11	VLM	K
Trichlorofluoromethane	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:11	VLM	K
Vinyl Chloride	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:11	VLM	K
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	81.3	C	%	62 - 133	SW846 8260B			5/25/21 04:11	VLM	K

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

ANALYTICAL RESULTS

Workorder: 3177521 2ND QTR 2021-3106 RIVER RD

Lab ID: **3177521001** Date Collected: 5/21/2021 12:20 Matrix: Water

Sample ID: **3106 River Road, Conestoga, PA** Date Received: 5/21/2021 15:35

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
4-Bromofluorobenzene (S)	100	C	%	79 - 114	SW846 8260B			5/25/21 04:11	VLM	K
Dibromofluoromethane (S)	96.8	C	%	78 - 116	SW846 8260B			5/25/21 04:11	VLM	K
Toluene-d8 (S)	87.7	C	%	76 - 127	SW846 8260B			5/25/21 04:11	VLM	K
METALS										
Calcium, Total	17.9	C	mg/L	0.050	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:19	SRT	D1
Calcium, Dissolved	17.1	C	mg/L	0.10	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:51	SRT	E
Iron, Total	0.034	C	mg/L	0.030	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:19	SRT	D1
Iron, Dissolved	ND	C	mg/L	0.060	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:51	SRT	E
Magnesium, Total	11.9	C	mg/L	0.050	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:19	SRT	D1
Magnesium, Dissolved	11.1	C	mg/L	0.10	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:51	SRT	E
Manganese, Total	0.037	C	mg/L	0.0025	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:19	SRT	D1
Manganese, Dissolved	0.034	C	mg/L	0.0050	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:51	SRT	E
Potassium, Total	2.4	C	mg/L	0.25	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:19	SRT	D1
Potassium, Dissolved	2.2	C	mg/L	0.50	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:51	SRT	E
Sodium, Total	36.6	C	mg/L	0.25	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:19	SRT	D1
Sodium, Dissolved	36.3	C	mg/L	0.50	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:51	SRT	E
FIELD PARAMETERS										
pH, Field (SM4500B)	6.39	C	pH_Units		Field			5/21/21 12:20	BGS	M
Specific Conductance, Field	374	C	umhos/cm	1	Field			5/21/21 12:20	BGS	M
Temperature	15.30	C	Deg. C		Field			5/21/21 12:20	BGS	M

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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ANALYTICAL RESULTS

Workorder: 3177521 2ND QTR 2021-3106 RIVER RD

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
3177521001	1	3106 River Road, Conestoga, PA	SM2320B-2011	Alkalinity, Total
The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L.				
3177521001	2	3106 River Road, Conestoga, PA	S4500HB-11	pH
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.				

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

ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 3177521 2ND QTR 2021-3106 RIVER RD

Lab ID	Sample ID	Analysis Method	Prep Method	Leachate Method
3177521001	3106 River Road, Conestoga, PA	ASTM D6919-09		
3177521001	3106 River Road, Conestoga, PA	EPA 200.7	EPA ACID	
3177521001	3106 River Road, Conestoga, PA	EPA 200.7	EPA TRMD	
3177521001	3106 River Road, Conestoga, PA	EPA 300.0		
3177521001	3106 River Road, Conestoga, PA	EPA 410.4		
3177521001	3106 River Road, Conestoga, PA	EPA 420.4	420.4/9066	
3177521001	3106 River Road, Conestoga, PA	Field		
3177521001	3106 River Road, Conestoga, PA	S2540C-11		
3177521001	3106 River Road, Conestoga, PA	S4500HB-11		
3177521001	3106 River Road, Conestoga, PA	SM2130B-2011		
3177521001	3106 River Road, Conestoga, PA	SM2320B-2011		
3177521001	3106 River Road, Conestoga, PA	SM2510B-2011		
3177521001	3106 River Road, Conestoga, PA	SM5310B-2011		
3177521001	3106 River Road, Conestoga, PA	SW846 8260B		
3177521001	3106 River Road, Conestoga, PA	SW846 9020B		

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALS

1 of 1

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

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 [X] Normal-Standard TAT is 10-12 business days.

[ ] Rush-Subject to ALS approval and surcharges.

Date Required: _____ Approved By: _____

Email? [ ] -Y _____

Fax? [ ] -Y No.: _____

(ALS Use Only) Receipt Temp ID: 574

No. of Coolers: _____

	Y	N	Initial
Custody Seals Present?			
(if present) Seals Intact?			
Received on Ice?			
COC/Labels Complete/Accurate?			
Cont. in Good Cond.?			
Correct Containers?			
Correct Sample Volumes?			
Correct Preservation?			
Headspace/Volatiles?			

Courier/Tracking #:

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	HCl	---	H2SO4	HNO3	HNO3	None	None

ANALYSES/METHOD REQUESTED

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	TOC	O-OH	TOX	SW846-8260 VOCs	FM	NH3-N, COD	Dissolved Metals: Ca, Fe, Mg, Mn, K, Na	Metals: Ca, Fe, Mg, Mn, K, Na	pH, TDS, NO2, NO3, Cl, SO4, F, Tb, SpC	Alkalinity, HCO3	Sample/COC Comments
					Enter Number of Containers Per Sample or Field Results Below.										
1 3106RIVERRD	05/21/21	1220	G	DW	2	1	2	3	X	1	1	1	1	1	
2								3 BBD 05/22/21							
3															
4															
5															
6															
7															
8															
9															
10															

ALS Field Services: ☐Pickup ☐Labor ☐Composite_Sampling ☐Rental_Equipment ☐Other: _____

Project Comments:

LOGGED BY(signature): DATE: TIME:

REVIEWED BY(signature): DATE: TIME:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [signature] ALS	5-21-21	15:35	2 [signature] ALS	5/21/21	1535
3			4		
5			6		
7			8		
9			10		

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

Special Processing: USACE [ ] Navy [ ]

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

Reportable to PADEP? Yes [ ] PWSID # _____

Sample Disposal: Lab [X] Special [ ]

EDDS: Format Type- _____

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

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

Rev 8/04

301 Fulling Mill Road
Middletown, PA 17057
P: (
F: (

Condition of Sample Receipt Form

3177521

Client: Lancaster County Solid Waste Authority

Initials: AS Date: 5/21/21

1. Were airbills / tracking numbers present and recorded?	(NONE)	YES	NO
Tracking number: _____			
2. Are Custody Seals on shipping containers intact?	(NONE)	YES	NO
3. Are Custody Seals on sample containers intact?	(NONE)	YES	NO
4. Is there a COC (Chain-of-Custody) present?		(YES)	NO
5. Are the COC and bottle labels complete, legible and in agreement?		(YES)	NO
5a. Does the COC contain sample locations?		(YES)	NO
5b. Does the COC contain date and time of sample collection for all samples?		(YES)	NO
5c. Does the COC contain sample collectors name?		(YES)	NO
5d. Does the COC note the type(s) of preservation for all bottles?		(YES)	NO
5e. Does the COC note the number of bottles submitted for each sample?		(YES)	NO
5f. Does the COC note the type of sample, composite or grab?		(YES)	NO
5g. Does the COC note the matrix of the sample(s)?		(YES)	NO
6. Are all aqueous samples requiring preservation preserved correctly?[1]	N/A	(YES)	NO
7. Were all samples placed in the proper containers for the requested analyses, with sufficient volume?		(YES)	NO
8. Are all samples within holding times for the requested analyses?		(YES)	NO
9. Were all sample containers received intact and headspace free when required? (not broken, leaking, frozen, etc.)		(YES)	NO
10. Did we receive trip blanks (applies only for methods EPA 504, EPA 524.2 and 1631E (LL Hg)?	(N/A)	YES	NO
11. Were the samples received on ice?		(YES)	NO
12. Were sample temperatures measured at 0.0-6.0°C		(YES)	NO
13. Are the samples DW matrix ? If YES, fill out Reportable Drinking Water questions below		(YES)	NO
13a. Are the samples required for SDWA compliance reporting?	N/A	YES	(NO)
13b. Did the client provide a SDWA PWS ID#?	(N/A)	YES	NO
13c. Are all aqueous unpreserved SDWA samples pH 5-9?	(N/A)	YES	NO
13d. Did the client provide the SDWA sample location ID/Description?	(N/A)	YES	NO
13e. Did the client provide the SDWA sample type (D, E, R, C, P, S)?	(N/A)	YES	NO

Cooler #: _____

Temperature (°C): 4

Thermometer ID: 574

Radiological (µCi): _____

COMMENTS (Required for all NO responses above and any sample non-conformance):

[1]Final determination of correct preservation for analysis such as volatiles, microbiology, and oil and grease is made in the analytical department at the time of or following the analysis.

Rev: 1 /20/2020

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

June 8, 2021

Ms. Jordan Gallagher
Lancaster County Solid Waste Authority
1299 Hbg Pike, P.O. Box 4425
Lancaster, PA 17604

Certificate of Analysis

Project Name:	**CONTIGUOUS LANDOWNER-3100 RIVER RD**	Workorder:	**3177515**
Purchase Order:	**PO-1000371**	Workorder ID:	**2ND QTR 2021-3100 RIVER RD**

Dear Ms. Gallagher:

Enclosed are the analytical results for samples received by the laboratory on Friday, May 21, 2021.

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 Ms. Susan J Scherer (Project Coordinator) at (717) 944-5541.

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

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Ms. Ashley Gichuki , Mr. Daniel Brown , Landowner , Mr. Jeff Musser

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

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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SAMPLE SUMMARY

Workorder: 3177515 2ND QTR 2021-3100 RIVER RD

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3177515001	3100 River Road, Conestoga, PA	Water	5/21/2021 12:00	5/21/2021 15:35	Mr. Brian G Shade

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SAMPLE SUMMARY

Workorder: 3177515 2ND QTR 2021-3100 RIVER RD

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

Standard Acronyms/Flags

C	Please reference the Project Summary section of this Certificate of Analysis for case narrative comments.
J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
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

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PROJECT SUMMARY

Workorder: 3177515 2ND QTR 2021-3100 RIVER RD

Workorder Comments

Temperature of sample taken at time of sample receipt in the laboratory. See chain of custody for actual temperature.

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ANALYTICAL RESULTS

Workorder: 3177515 2ND QTR 2021-3100 RIVER RD

Lab ID: **3177515001** Date Collected: 5/21/2021 12:00 Matrix: Water

Sample ID: **3100 River Road, Conestoga, PA** Date Received: 5/21/2021 15:35

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
WET CHEMISTRY										
Alkalinity, Bicarbonate	22	C	mg/L	5	SM2320B-2011			5/29/21 10:52	MBS	C
Alkalinity, Total	22	C,1	mg/L	5	SM2320B-2011			5/29/21 10:52	MBS	A
Ammonia-N	ND	C	mg/L	0.100	ASTM D6919-09			5/28/21 11:34	ALK	B
Chemical Oxygen Demand (COD)	ND	C	mg/L	15	EPA 410.4			5/25/21 15:02	ALK	B
Chloride	42.3	C	mg/L	2.0	EPA 300.0			5/22/21 16:26	MBW	C
Fluoride	ND	C	mg/L	0.20	EPA 300.0			5/22/21 16:26	MBW	C
Halogen, Total Organic (TOX)	ND	C	ug/L	20.0	SW846 9020B			6/1/21 12:33	PAG	I
Nitrate-N	4.5	C	mg/L	0.20	EPA 300.0			5/22/21 16:26	MBW	C
Nitrite-N	ND	C	mg/L	0.20	EPA 300.0			5/22/21 16:26	MBW	C
pH	6.36	C,2	pH_Units		S4500HB-11			5/29/21 10:52	MBS	C
Phenolics	ND	C	mg/L	0.005	EPA 420.4	5/25/21 17:16	MXF	5/26/21 09:24	MXF	H
Specific Conductance	968	C	umhos/cm	1	SM2510B-2011			5/26/21 14:47	MBS	C
Sulfate	8.1	C	mg/L	2.0	EPA 300.0			5/22/21 16:26	MBW	C
Total Dissolved Solids	108	C	mg/L	25	S2540C-11			5/26/21 14:22	KMM	C
Total Organic Carbon (TOC)	0.65	C	mg/L	0.50	SM5310B-2011			5/27/21 09:38	PAG	F
Turbidity	ND	C	NTU	0.10	SM2130B-2011			5/22/21 08:31	LXZ	C
VOLATILE ORGANICS										
Benzene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 03:49	VLM	K
1,1-Dichloroethane	ND	C	ug/L	1.0	SW846 8260B			5/25/21 03:49	VLM	K
1,2-Dichloroethane	ND	C	ug/L	1.0	SW846 8260B			5/25/21 03:49	VLM	K
1,1-Dichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 03:49	VLM	K
cis-1,2-Dichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 03:49	VLM	K
trans-1,2-Dichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 03:49	VLM	K
Ethylbenzene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 03:49	VLM	K
Methylene Chloride	ND	C	ug/L	1.0	SW846 8260B			5/25/21 03:49	VLM	K
Tetrachloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 03:49	VLM	K
Toluene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 03:49	VLM	K
Total Xylenes	ND	C	ug/L	3.0	SW846 8260B			5/25/21 03:49	VLM	K
1,1,1-Trichloroethane	ND	C	ug/L	1.0	SW846 8260B			5/25/21 03:49	VLM	K
Trichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 03:49	VLM	K
Trichlorofluoromethane	ND	C	ug/L	1.0	SW846 8260B			5/25/21 03:49	VLM	K
Vinyl Chloride	ND	C	ug/L	1.0	SW846 8260B			5/25/21 03:49	VLM	K
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	81.1	C	%	62 - 133	SW846 8260B			5/25/21 03:49	VLM	K

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

ANALYTICAL RESULTS

Workorder: 3177515 2ND QTR 2021-3100 RIVER RD

Lab ID: **3177515001** Date Collected: 5/21/2021 12:00 Matrix: Water

Sample ID: **3100 River Road, Conestoga, PA** Date Received: 5/21/2021 15:35

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
4-Bromofluorobenzene (S)	102	C	%	79 - 114	SW846 8260B			5/25/21 03:49	VLM	K
Dibromofluoromethane (S)	97.5	C	%	78 - 116	SW846 8260B			5/25/21 03:49	VLM	K
Toluene-d8 (S)	89	C	%	76 - 127	SW846 8260B			5/25/21 03:49	VLM	K
METALS										
Calcium, Total	14.0	C	mg/L	0.050	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:02	SRT	D1
Calcium, Dissolved	12.8	C	mg/L	0.10	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:48	SRT	E
Iron, Total	ND	C	mg/L	0.030	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:02	SRT	D1
Iron, Dissolved	ND	C	mg/L	0.060	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:48	SRT	E
Magnesium, Total	6.1	C	mg/L	0.050	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:02	SRT	D1
Magnesium, Dissolved	5.5	C	mg/L	0.10	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:48	SRT	E
Manganese, Total	0.0071	C	mg/L	0.0025	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:02	SRT	D1
Manganese, Dissolved	0.0062	C	mg/L	0.0050	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:48	SRT	E
Potassium, Total	1.9	C	mg/L	0.25	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:02	SRT	D1
Potassium, Dissolved	1.7	C	mg/L	0.50	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:48	SRT	E
Sodium, Total	17.0	C	mg/L	0.25	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:02	SRT	D1
Sodium, Dissolved	16.2	C	mg/L	0.50	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:48	SRT	E
FIELD PARAMETERS										
pH, Field (SM4500B)	6.19	C	pH_Units		Field			5/21/21 12:00	BGS	M
Specific Conductance, Field	950	C	umhos/cm	1	Field			5/21/21 12:00	BGS	M
Temperature	14.20	C	Deg. C		Field			5/21/21 12:00	BGS	M

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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ANALYTICAL RESULTS

Workorder: 3177515 2ND QTR 2021-3100 RIVER RD

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
3177515001	1	3100 River Road, Conestoga, PA	SM2320B-2011	Alkalinity, Total
The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L.				
3177515001	2	3100 River Road, Conestoga, PA	S4500HB-11	pH
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.				

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ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 3177515 2ND QTR 2021-3100 RIVER RD

Lab ID	Sample ID	Analysis Method	Prep Method	Leachate Method
3177515001	3100 River Road, Conestoga, PA	ASTM D6919-09		
3177515001	3100 River Road, Conestoga, PA	EPA 200.7	EPA ACID	
3177515001	3100 River Road, Conestoga, PA	EPA 200.7	EPA TRMD	
3177515001	3100 River Road, Conestoga, PA	EPA 300.0		
3177515001	3100 River Road, Conestoga, PA	EPA 410.4		
3177515001	3100 River Road, Conestoga, PA	EPA 420.4	420.4/9066	
3177515001	3100 River Road, Conestoga, PA	Field		
3177515001	3100 River Road, Conestoga, PA	S2540C-11		
3177515001	3100 River Road, Conestoga, PA	S4500HB-11		
3177515001	3100 River Road, Conestoga, PA	SM2130B-2011		
3177515001	3100 River Road, Conestoga, PA	SM2320B-2011		
3177515001	3100 River Road, Conestoga, PA	SM2510B-2011		
3177515001	3100 River Road, Conestoga, PA	SM5310B-2011		
3177515001	3100 River Road, Conestoga, PA	SW846 8260B		
3177515001	3100 River Road, Conestoga, PA	SW846 9020B		

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALS

1 of 1

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 [X] 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	*G or C	**Matrix	Container Type	Container Size	Preservative	TOC	O-OH	TOX	SW846-8260 VOCs	FM	NH3-N, COD	Dissolved Metals: Ca, Fe, Mg, Mn, K, Na	Metals: Ca, Fe, Mg, Mn, K, Na	pH, TDS, NO2, NO3, Cl, SO4, F, Tb, SpC	Alkalinity, HCO3
					AG	40 ml	HCl	ANALYSES/METHOD REQUESTED									
					AN	125 ml	H2SO4										
					AN	250 ml	H2SO4										
					CG	40 ml	HCl										
					---	---	---										
					PL	250 ml	H2SO4										
					PL	125 ml	HNO3										
					PL	125 ml	HNO3										
					PL	500 ml	None										
						5[illegible]	None										
1 3100RIVERRD	05/21/21	1200	G	DW				2	1	2	~~2~~ Received 3	X	1	1	1	1	1
2																	
3																	
4												RAC 5/22/21					
5																	
6																	
7																	
8																	
9																	
10																	

Enter Number of Containers Per Sample or Field Results Below.

(Receiving Lab) 574

No. of Coolers: _____

	Y	N	Initial
Custody Seals Present?			
(if present) Seals Intact?			
Received on Ice?			
COC/Labels Complete/Accurate?			
Cont. in Good Cond.?			
Correct Containers?			
Correct Sample Volumes?			
Correct Preservation?			
Headspace/Volatiles?			

Courier/Tracking #:

Sample/COC Comments

ALS Field Services: ☐Pickup ☐Labor ☐Composite_Sampling ☐Rental_Equipment ☐Other: _____

Project Comments:

LOGGED BY(signature): DATE TIME

REVIEWED BY(signature): DATE TIME

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [illegible] ALS	5-21-21	1535	2 ALS	5/21/21	1535
3			4		
5			6		
7			8		
9			10		

Data Deliverables: ☐Standard ☐CLP-like ☐USACE

Special Processing: USACE ☐ Navy ☐

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

Reportable to PADEP? Yes ☐ PWSID # _____

Sample Disposal: Lab [X] Special ☐

EDDS: Format Type- _____

* G=Grab; C=Composite

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

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

Rev 8/04

ALS

301 Fulling Mill Road
Middletown, PA
P: (717) 944-5
F: (717) 944-14

3177515

Lancaster County Solid Waste Authority

ndition of Sample Receipt Form

Client: | Initials: AS | Date: 5/21/21

1. Were airbills / tracking numbers present and recorded?	NONE	YES	NO
Tracking number:			
2. Are Custody Seals on shipping containers intact?	NONE	YES	NO
3. Are Custody Seals on sample containers intact?	NONE	YES	NO
4. Is there a COC (Chain-of-Custody) present?		YES	NO
5. Are the COC and bottle labels complete, legible and in agreement?		YES	NO
5a. Does the COC contain sample locations?		YES	NO
5b. Does the COC contain date and time of sample collection for all samples?		YES	NO
5c. Does the COC contain sample collectors name?		YES	NO
5d. Does the COC note the type(s) of preservation for all bottles?		YES	NO
5e. Does the COC note the number of bottles submitted for each sample?		YES	NO
5f. Does the COC note the type of sample, composite or grab?		YES	NO
5g. Does the COC note the matrix of the sample(s)?		YES	NO
6. Are all aqueous samples requiring preservation preserved correctly?[1]	N/A	YES	NO
7. Were all samples placed in the proper containers for the requested analyses, with sufficient volume?		YES	NO
8. Are all samples within holding times for the requested analyses?		YES	NO
9. Were all sample containers received intact and headspace free when required? (not broken, leaking, frozen, etc.)		YES	NO
10. Did we receive trip blanks (applies only for methods EPA 504, EPA 524.2 and 1631E (LL Hg)?	N/A	YES	NO
11. Were the samples received on ice?		YES	NO
12. Were sample temperatures measured at 0.0-6.0°C		YES	NO
13. Are the samples DW matrix ? If YES, fill out Reportable Drinking Water questions below		YES	NO
13a. Are the samples required for SDWA compliance reporting?	N/A	YES	NO
13b. Did the client provide a SDWA PWS ID#?	N/A	YES	NO
13c. Are all aqueous unpreserved SDWA samples pH 5-9?	N/A	YES	NO
13d. Did the client provide the SDWA sample location ID/Description?	N/A	YES	NO
13e. Did the client provide the SDWA sample type (D, E, R, C, P, S)?	N/A	YES	NO

Cooler #: _____

Temperature (°C): 4

Thermometer ID: 574

Radiological (µCi): _____

COMMENTS (Required for all NO responses above and any sample non-conformance):

[1]Final determination of correct preservation for analysis such as volatiles, microbiology, and oil and grease is made in the analytical department at the time of or following the analysis.

Rev 1/30/2020

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

June 8, 2021

Ms. Jordan Gallagher
Lancaster County Solid Waste Authority
1299 Hbg Pike, P.O. Box 4425
Lancaster, PA 17604

Certificate of Analysis

Project Name:	**FREY FARM**	Workorder:	**3177530**
Purchase Order:	**PO-1000371**	Workorder ID:	**2ND QTR 20213060 RIVER RD**

Dear Ms. Gallagher:

Enclosed are the analytical results for samples received by the laboratory on Friday, May 21, 2021.

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 Ms. Susan J Scherer (Project Coordinator) at (717) 944-5541.

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

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Ms. Ashley Gichuki , Mr. Daniel Brown , Mr. Jeff Musser

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

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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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

SAMPLE SUMMARY

Workorder: 3177530 2ND QTR 20213060 RIVER RD

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3177530001	3060RIVERRD	Water	5/21/2021 11:00	5/21/2021 15:35	Mr. Brian G Shade

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SAMPLE SUMMARY

Workorder: 3177530 2ND QTR 20213060 RIVER RD

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

Standard Acronyms/Flags

C	Please reference the Project Summary section of this Certificate of Analysis for case narrative comments.
J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
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

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PROJECT SUMMARY

Workorder: 3177530 2ND QTR 20213060 RIVER RD

Workorder Comments

Temperature of sample taken at time of sample receipt in the laboratory. See chain of custody for actual temperature.

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ANALYTICAL RESULTS

Workorder: 3177530 2ND QTR 20213060 RIVER RD

Lab ID: **3177530001** Date Collected: 5/21/2021 11:00 Matrix: Water

Sample ID: **3060RIVERRD** Date Received: 5/21/2021 15:35

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
WET CHEMISTRY										
Alkalinity, Bicarbonate	30	C	mg/L	5	SM2320B-2011			5/29/21 10:52	MBS	C
Alkalinity, Total	30	C,1	mg/L	5	SM2320B-2011			5/29/21 10:52	MBS	A
Ammonia-N	ND	C	mg/L	0.100	ASTM D6919-09			5/28/21 13:02	ALK	B
Chemical Oxygen Demand (COD)	ND	C	mg/L	15	EPA 410.4			5/25/21 15:02	ALK	B
Chloride	21.5	C	mg/L	2.0	EPA 300.0			5/22/21 13:22	MBW	C
Fluoride	ND	C	mg/L	0.20	EPA 300.0			5/22/21 13:22	MBW	C
Halogen, Total Organic (TOX)	ND	C	ug/L	20.0	SW846 9020B			6/1/21 16:42	PAG	I
Nitrate-N	12.0	C	mg/L	0.20	EPA 300.0			5/22/21 13:22	MBW	C
Nitrite-N	ND	C	mg/L	0.20	EPA 300.0			5/22/21 13:22	MBW	C
pH	7.07	C,2	pH_Units		S4500HB-11			5/29/21 10:52	MBS	C
Phenolics	ND	C	mg/L	0.005	EPA 420.4	5/25/21 17:16	MXF	5/26/21 09:24	MXF	H
Specific Conductance	189	C	umhos/cm	1	SM2510B-2011			5/26/21 14:47	MBS	C
Sulfate	10.0	C	mg/L	2.0	EPA 300.0			5/22/21 13:22	MBW	C
Total Dissolved Solids	154	C	mg/L	25	S2540C-11			5/27/21 12:17	BBD	C
Total Organic Carbon (TOC)	ND	C	mg/L	0.50	SM5310B-2011			5/27/21 15:07	PAG	F
Turbidity	0.10	C	NTU	0.10	SM2130B-2011			5/22/21 08:31	LXZ	C
VOLATILE ORGANICS										
Benzene	ND	C	ug/L	1.0	SW846 8260B			5/24/21 11:58	DPC	K
1,1-Dichloroethane	ND	C	ug/L	1.0	SW846 8260B			5/24/21 11:58	DPC	K
1,2-Dichloroethane	ND	C	ug/L	1.0	SW846 8260B			5/24/21 11:58	DPC	K
1,1-Dichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/24/21 11:58	DPC	K
cis-1,2-Dichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/24/21 11:58	DPC	K
trans-1,2-Dichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/24/21 11:58	DPC	K
Ethylbenzene	ND	C	ug/L	1.0	SW846 8260B			5/24/21 11:58	DPC	K
Methylene Chloride	ND	C	ug/L	1.0	SW846 8260B			5/24/21 11:58	DPC	K
Tetrachloroethene	ND	C	ug/L	1.0	SW846 8260B			5/24/21 11:58	DPC	K
Toluene	ND	C	ug/L	1.0	SW846 8260B			5/24/21 11:58	DPC	K
Total Xylenes	ND	C	ug/L	3.0	SW846 8260B			5/24/21 11:58	DPC	K
1,1,1-Trichloroethane	ND	C	ug/L	1.0	SW846 8260B			5/24/21 11:58	DPC	K
Trichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/24/21 11:58	DPC	K
Trichlorofluoromethane	ND	C	ug/L	1.0	SW846 8260B			5/24/21 11:58	DPC	K
Vinyl Chloride	ND	C	ug/L	1.0	SW846 8260B			5/24/21 11:58	DPC	K

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	99.8	C	%	62 - 133	SW846 8260B			5/24/21 11:58	DPC	K

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ANALYTICAL RESULTS

Workorder: 3177530 2ND QTR 20213060 RIVER RD

Lab ID: **3177530001** Date Collected: 5/21/2021 11:00 Matrix: Water

Sample ID: **3060RIVERRD** Date Received: 5/21/2021 15:35

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
4-Bromofluorobenzene (S)	104	C	%	79 - 114	SW846 8260B			5/24/21 11:58	DPC	K
Dibromofluoromethane (S)	93	C	%	78 - 116	SW846 8260B			5/24/21 11:58	DPC	K
Toluene-d8 (S)	102	C	%	76 - 127	SW846 8260B			5/24/21 11:58	DPC	K
METALS										
Calcium, Total	12.2	C	mg/L	0.050	EPA 200.7	5/22/21 11:30	AHI	5/24/21 16:17	SRT	D1
Calcium, Dissolved	11.2	C	mg/L	0.10	EPA 200.7	5/25/21 07:27	SRT	5/25/21 15:05	SRT	E
Iron, Total	0.067	C	mg/L	0.030	EPA 200.7	5/22/21 11:30	AHI	5/24/21 16:17	SRT	D1
Iron, Dissolved	ND	C	mg/L	0.060	EPA 200.7	5/25/21 07:27	SRT	5/25/21 15:05	SRT	E
Magnesium, Total	12.3	C	mg/L	0.050	EPA 200.7	5/22/21 11:30	AHI	5/24/21 16:17	SRT	D1
Magnesium, Dissolved	11.4	C	mg/L	0.10	EPA 200.7	5/25/21 07:27	SRT	5/25/21 15:05	SRT	E
Manganese, Total	0.14	C	mg/L	0.0025	EPA 200.7	5/22/21 11:30	AHI	5/24/21 16:17	SRT	D1
Manganese, Dissolved	0.13	C	mg/L	0.0050	EPA 200.7	5/25/21 07:27	SRT	5/25/21 15:05	SRT	E
Potassium, Total	2.9	C	mg/L	0.25	EPA 200.7	5/22/21 11:30	AHI	5/24/21 16:17	SRT	D1
Potassium, Dissolved	2.7	C	mg/L	0.50	EPA 200.7	5/25/21 07:27	SRT	5/25/21 15:05	SRT	E
Sodium, Total	8.8	C	mg/L	0.25	EPA 200.7	5/22/21 11:30	AHI	5/24/21 16:17	SRT	D1
Sodium, Dissolved	8.5	C	mg/L	0.50	EPA 200.7	5/25/21 07:27	SRT	5/25/21 15:05	SRT	E
FIELD PARAMETERS										
pH, Field (SM4500B)	5.21	C	pH_Units		Field			5/21/21 11:00	BGS	M
Specific Conductance, Field	196	C	umhos/cm	1	Field			5/21/21 11:00	BGS	M
Temperature	14.90	C	Deg. C		Field			5/21/21 11:00	BGS	M

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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ANALYTICAL RESULTS

Workorder: 3177530 2ND QTR 20213060 RIVER RD

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
3177530001	1	3060RIVERRD	SM2320B-2011	Alkalinity, Total
The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L.				
3177530001	2	3060RIVERRD	S4500HB-11	pH
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.				

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ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 3177530 2ND QTR 20213060 RIVER RD

Lab ID	Sample ID	Analysis Method	Prep Method	Leachate Method
3177530001	3060RIVERRD	ASTM D6919-09		
3177530001	3060RIVERRD	EPA 200.7	EPA ACID	
3177530001	3060RIVERRD	EPA 200.7	EPA TRMD	
3177530001	3060RIVERRD	EPA 300.0		
3177530001	3060RIVERRD	EPA 410.4		
3177530001	3060RIVERRD	EPA 420.4	420.4/9066	
3177530001	3060RIVERRD	Field		
3177530001	3060RIVERRD	S2540C-11		
3177530001	3060RIVERRD	S4500HB-11		
3177530001	3060RIVERRD	SM2130B-2011		
3177530001	3060RIVERRD	SM2320B-2011		
3177530001	3060RIVERRD	SM2510B-2011		
3177530001	3060RIVERRD	SM5310B-2011		
3177530001	3060RIVERRD	SW846 8260B		
3177530001	3060RIVERRD	SW846 9020B		

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALS

3177530

1 of 1

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

Client Name: Lancaster County Solid Waste MA

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

Contact: Dan Brown

Phone#: (717) 735-0193

Project Name/#: LCSWMA - Quarterly

Bill To: Lancaster County Solid Waste MA

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

Date Required: _____ Approved By: _____

Email? [ ] -Y _____

Fax? [ ] -Y No.: _____

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	TOC	O-OH	TOX	SW846-8260 VOCs	FM	NH3-N, COD	Dissolved Metals: Ca, Fe, Mg, Mn, K, Na	Metals: Ca, Fe, Mg, Mn, K, Na	pH, TDS, NO2, NO3, Cl, SO4, F, Tb, SpC	Alkalinity, HCO3
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	500 ml
Preservative					HCl	H2SO4	H2SO4	HCl	—	H2SO4	HNO3	HNO3	None	None
					Enter Number of Containers Per Sample or Field Results Below.									
1 3060RIVERRD	05/21/21	1100	G	DW	2	1	2	2	X	1	1	1	1	1
2								received						
3								3 VOA						
4									5/22/21					
5														
6														
7														
8														
9														
10														

ANALYSES/METHOD REQUESTED

(Receiving Lab)

Cooler Temp: 6 Therm ID: 574

No. of Coolers: _____

	Y	N	Initial
Custody Seals Present?			
(if present) Seals Intact?			
Received on Ice?			
COC/Labels Complete/Accurate?			
Cont. in Good Cond.?			
Correct Containers?			
Correct Sample Volumes?			
Correct Preservation?			
Headspace/Volatiles?			

Courier/Tracking #:

Sample/COC Comments

ALS Field Services: ☐Pickup ☐Labor ☐Composite_Sampling ☐Rental_Equipment ☐Other:_____

Project Comments:

LOGGED BY(signature): DATE TIME

REVIEWED BY(signature): DATE TIME

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [illegible] ALS	5-21-21	1535	2 [illegible] ALS	5/21/21	1535
3			4		
5			6		
7			8		
9			10		

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

Special Processing: USACE [ ] Navy [ ]

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

Reportable to PADEP? Yes [ ] PWSID # _____

Sample Disposal: Lab [X] Special [ ]

EDDS: Format Type- _____

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

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

Rev 8/04

301 Fulling Mill Road
Middletown, PA 17057
P: (717) 944-554
F: (717) 944-143

Condition of Sample Receipt Form

3177530

Lancaster County Solid Waste Authority

Client:

Initials: AS Date: 5/21/21

1. Were airbills / tracking numbers present and recorded?	(NONE)	YES	NO
Tracking number: _____			
2. Are Custody Seals on shipping containers intact?	(NONE)	YES	NO
3. Are Custody Seals on sample containers intact?	(NONE)	YES	NO
4. Is there a COC (Chain-of-Custody) present?		(YES)	NO
5. Are the COC and bottle labels complete, legible and in agreement?		(YES)	NO
5a. Does the COC contain sample locations?		(YES)	NO
5b. Does the COC contain date and time of sample collection for all samples?		(YES)	NO
5c. Does the COC contain sample collectors name?		(YES)	NO
5d. Does the COC note the type(s) of preservation for all bottles?		(YES)	NO
5e. Does the COC note the number of bottles submitted for each sample?		(YES)	NO
5f. Does the COC note the type of sample, composite or grab?		(YES)	NO
5g. Does the COC note the matrix of the sample(s)?		(YES)	NO
6. Are all aqueous samples requiring preservation preserved correctly?[1]	N/A	(YES)	NO
7. Were all samples placed in the proper containers for the requested analyses, with sufficient volume?		(YES)	NO
8. Are all samples within holding times for the requested analyses?		(YES)	NO
9. Were all sample containers received intact and headspace free when required? (not broken, leaking, frozen, etc.)		(YES)	NO
10. Did we receive trip blanks (applies only for methods EPA 504, EPA 524.2 and 1631E (LL Hg)?	(N/A)	YES	NO
11. Were the samples received on ice?		(YES)	NO
12. Were sample temperatures measured at 0.0-6.0°C		(YES)	NO
13. Are the samples DW matrix ? If YES, fill out Reportable Drinking Water questions below		(YES)	NO
13a. Are the samples required for SDWA compliance reporting?	N/A	YES	(NO)
13b. Did the client provide a SDWA PWS ID#?	(N/A)	YES	NO
13c. Are all aqueous unpreserved SDWA samples pH 5-9?	(N/A)	YES	NO
13d. Did the client provide the SDWA sample location ID/Description?	(N/A)	YES	NO
13e. Did the client provide the SDWA sample type (D, E, R, C, P, S)?	(N/A)	YES	NO

Cooler #: _____

Temperature (°C): 4.6 AS 5/21/21

Thermometer ID: 574

Radiological (µCi): _____

COMMENTS (Required for all NO responses above and any sample non-conformance):

[1]Final determination of correct preservation for analysis such as volatiles, microbiology, and oil and grease is made in the analytical department at the time of or following the analysis.

Rev 1/20/2020

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June 8, 2021

Ms. Jordan Gallagher
Lancaster County Solid Waste Authority
1299 Hbg Pike, P.O. Box 4425
Lancaster, PA 17604

Certificate of Analysis

Project Name:	**CONTIGUOUS LANDOWNER-3076 RIVER RD**	Workorder:	**3177507**
Purchase Order:	**PO-1000371**	Workorder ID:	**2ND QTR 2021-3076 RIVER RD**

Dear Ms. Gallagher:

Enclosed are the analytical results for samples received by the laboratory on Friday, May 21, 2021.

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 Ms. Susan J Scherer (Project Coordinator) at (717) 944-5541.

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

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Ms. Ashley Gichuki , Mr. Daniel Brown , Landowner , Mr. Jeff Musser

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

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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SAMPLE SUMMARY

Workorder: 3177507 2ND QTR 2021-3076 RIVER RD

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3177507001	3076 River Road, Conestoga, PA	Water	5/21/2021 11:19	5/21/2021 15:35	Mr. Brian G Shade

ALS Environmental

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SAMPLE SUMMARY

Workorder: 3177507 2ND QTR 2021-3076 RIVER RD

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MSD	Matrix Spike Duplicate
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RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
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*	Result outside of QC limits

ALS Environmental

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

PROJECT SUMMARY

Workorder: 3177507 2ND QTR 2021-3076 RIVER RD

Workorder Comments

Temperature of sample taken at time of sample receipt in the laboratory. See chain of custody for actual temperature.

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ANALYTICAL RESULTS

Workorder: 3177507 2ND QTR 2021-3076 RIVER RD

Lab ID: **3177507001** Date Collected: 5/21/2021 11:19 Matrix: Water

Sample ID: **3076 River Road, Conestoga, PA** Date Received: 5/21/2021 15:35

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS										
Benzene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 02:41	VLM	K
1,1-Dichloroethane	ND	C	ug/L	1.0	SW846 8260B			5/25/21 02:41	VLM	K
1,2-Dichloroethane	ND	C	ug/L	1.0	SW846 8260B			5/25/21 02:41	VLM	K
1,1-Dichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 02:41	VLM	K
cis-1,2-Dichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 02:41	VLM	K
trans-1,2-Dichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 02:41	VLM	K
Ethylbenzene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 02:41	VLM	K
Methylene Chloride	ND	C	ug/L	1.0	SW846 8260B			5/25/21 02:41	VLM	K
Tetrachloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 02:41	VLM	K
Toluene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 02:41	VLM	K
Total Xylenes	ND	C	ug/L	3.0	SW846 8260B			5/25/21 02:41	VLM	K
1,1,1-Trichloroethane	ND	C	ug/L	1.0	SW846 8260B			5/25/21 02:41	VLM	K
Trichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 02:41	VLM	K
Trichlorofluoromethane	ND	C	ug/L	1.0	SW846 8260B			5/25/21 02:41	VLM	K
Vinyl Chloride	ND	C	ug/L	1.0	SW846 8260B			5/25/21 02:41	VLM	K
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	83.7	C	%	62 - 133	SW846 8260B			5/25/21 02:41	VLM	K
4-Bromofluorobenzene (S)	101	C	%	79 - 114	SW846 8260B			5/25/21 02:41	VLM	K
Dibromofluoromethane (S)	98.2	C	%	78 - 116	SW846 8260B			5/25/21 02:41	VLM	K
Toluene-d8 (S)	88.6	C	%	76 - 127	SW846 8260B			5/25/21 02:41	VLM	K
WET CHEMISTRY										
Alkalinity, Bicarbonate	14	C	mg/L	5	SM2320B-2011			5/29/21 10:52	MBS	C
Alkalinity, Total	14	C,1	mg/L	5	SM2320B-2011			5/29/21 10:52	MBS	A
Ammonia-N	0.100	C	mg/L	0.100	ASTM D6919-09			6/8/21 12:45	ALK	B
Chemical Oxygen Demand (COD)	ND	C	mg/L	15	EPA 410.4			5/25/21 15:02	ALK	B
Chloride	57.6	C	mg/L	2.0	EPA 300.0			5/22/21 08:54	MBW	C
Fluoride	ND	C	mg/L	0.20	EPA 300.0			5/22/21 08:54	MBW	C
Halogen, Total Organic (TOX)	ND	C	ug/L	20.0	SW846 9020B			5/28/21 12:47	PAG	I
Nitrate-N	9.9	C	mg/L	0.20	EPA 300.0			5/22/21 08:54	MBW	C
Nitrite-N	ND	C	mg/L	0.20	EPA 300.0			5/22/21 08:54	MBW	C
pH	6.03	C,2	pH_Units		S4500HB-11			5/29/21 10:52	MBS	C
Phenolics	ND	C	mg/L	0.005	EPA 420.4	5/25/21 17:16	MXF	5/26/21 09:24	MXF	H
Specific Conductance	273	C	umhos/cm	1	SM2510B-2011			5/26/21 17:40	MBS	C
Sulfate	11.0	C	mg/L	2.0	EPA 300.0			5/22/21 08:54	MBW	C

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ANALYTICAL RESULTS

Workorder: 3177507 2ND QTR 2021-3076 RIVER RD

Lab ID: **3177507001** Date Collected: 5/21/2021 11:19 Matrix: Water

Sample ID: **3076 River Road, Conestoga, PA** Date Received: 5/21/2021 15:35

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
Total Dissolved Solids	180	C	mg/L	25	S2540C-11			5/26/21 12:46	KMM	C
Total Organic Carbon (TOC)	ND	C	mg/L	0.50	SM5310B-2011			5/27/21 01:10	PAG	F
Turbidity	0.13	C	NTU	0.10	SM2130B-2011			5/22/21 08:31	LXZ	C
METALS										
Calcium, Total	13.9	C	mg/L	0.050	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:34	SRT	D1
Calcium, Dissolved	12.8	C	mg/L	0.10	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:21	SRT	E
Iron, Total	ND	C	mg/L	0.030	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:34	SRT	D1
Iron, Dissolved	ND	C	mg/L	0.060	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:21	SRT	E
Magnesium, Total	8.7	C	mg/L	0.050	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:34	SRT	D1
Magnesium, Dissolved	7.8	C	mg/L	0.10	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:21	SRT	E
Manganese, Total	0.18	C	mg/L	0.0025	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:34	SRT	D1
Manganese, Dissolved	0.16	C	mg/L	0.0050	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:21	SRT	E
Potassium, Total	3.8	C	mg/L	0.25	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:34	SRT	D1
Potassium, Dissolved	3.6	C	mg/L	0.50	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:21	SRT	E
Sodium, Total	26.1	C	mg/L	0.25	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:34	SRT	D1
Sodium, Dissolved	24.6	C	mg/L	0.50	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:21	SRT	E
FIELD PARAMETERS										
pH, Field (SM4500B)	6.21	C	pH_Units		Field			5/21/21 11:19	BGS	M
Specific Conductance, Field	268	C	umhos/cm	1	Field			5/21/21 11:19	BGS	M
Temperature	15.10	C	Deg. C		Field			5/21/21 11:19	BGS	M

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 3177507 2ND QTR 2021-3076 RIVER RD

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
3177507001	1	3076 River Road, Conestoga, PA	SM2320B-2011	Alkalinity, Total
The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L.				
3177507001	2	3076 River Road, Conestoga, PA	S4500HB-11	pH
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.				

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ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 3177507 2ND QTR 2021-3076 RIVER RD

Lab ID	Sample ID	Analysis Method	Prep Method	Leachate Method
3177507001	3076 River Road, Conestoga, PA	ASTM D6919-09		
3177507001	3076 River Road, Conestoga, PA	EPA 200.7	EPA ACID	
3177507001	3076 River Road, Conestoga, PA	EPA 200.7	EPA TRMD	
3177507001	3076 River Road, Conestoga, PA	EPA 300.0		
3177507001	3076 River Road, Conestoga, PA	EPA 410.4		
3177507001	3076 River Road, Conestoga, PA	EPA 420.4	420.4/9066	
3177507001	3076 River Road, Conestoga, PA	Field		
3177507001	3076 River Road, Conestoga, PA	S2540C-11		
3177507001	3076 River Road, Conestoga, PA	S4500HB-11		
3177507001	3076 River Road, Conestoga, PA	SM2130B-2011		
3177507001	3076 River Road, Conestoga, PA	SM2320B-2011		
3177507001	3076 River Road, Conestoga, PA	SM2510B-2011		
3177507001	3076 River Road, Conestoga, PA	SM5310B-2011		
3177507001	3076 River Road, Conestoga, PA	SW846 8260B		
3177507001	3076 River Road, Conestoga, PA	SW846 9020B		

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALS

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

3177507

1 of 1

Client Name: LCSWMA - Brian Sensenich

Address: 3076 Rover Road

Conestoga, PA 17516

Contact: Brian Sensenich

Phone#: (717) 676-5779

Project Name/#: LCSWMA - Quarterly

Bill To: LCSWMA - Brian Sensenich

TAT [X] 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	(Receiving Lab)
Container Size	40 ml	125 ml	250 ml	40 ml	---	250 ml	125 ml	125 ml	500 ml	500 ml
Preservative	HCl	H2SO4	H2SO4	HCl	---	H2SO4	HNO3	HNO3	None	None

Cooler Temp: -1 Therm ID: 574

No. of Coolers: _____

	Y	N	Initial
Custody Seals Present?			
(if present) Seals Intact?			
Received on Ice?			
COC/Labels Complete/Accurate?			
Cont. in Good Cond.?			
Correct Containers?			
Correct Sample Volumes?			
Correct Preservation?			
Headspace/Volatiles?			

Courier/Tracking #:

ANALYSES/METHOD REQUESTED

Enter Number of Containers Per Sample or Field Results Below.

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	TOC	O-OH	TOX	SW846-8260 VOCs	FM	NH3-N, COD	Dissolved Metals: Ca, Fe, Mg, Mn, K, Na	Metals: Ca, Fe, Mg, Mn, K, Na	pH, TDS, NO2, NO3, Cl, SO4, F, Tb, SpC	Alkalinity, HCO3	Sample/COC Comments
1 3076RIVERRD	05/21/21	1119	G	DW	2	1	2	~~2~~	X	1	1	1	1	1	
2								received							
3								3	RAC						
4									5/22/21						
5															
6															
7															
8															
9															
10															

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

Project Comments:

LOGGED BY(signature): DATE: TIME:

REVIEWED BY(signature): DATE: TIME:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [signature] ALS	5-21-21	1535	2 [signature] ALS	5/21/21	1535
3			4		
5			6		
7			8		
9			10		

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

Special Processing: USACE [ ] Navy [ ] [ ]

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

Reportable to PADEP? Yes [ ] PWSID # _____

Sample Disposal: Lab [X] Special [ ]

EDDS: Format Type- _____

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

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

Rev 8/04

ALS

301 Fulling Mill Road
Middletown, PA 17057

Condition of Sample Receipt Form

3177507

Lancaster County Solid Waste Authority

Client:

Initials: AS Date: 5/21/21

1. Were airbills / tracking numbers present and recorded?	(NONE)	YES	NO
Tracking number: _____			
2. Are Custody Seals on shipping containers intact?	(NONE)	YES	NO
3. Are Custody Seals on sample containers intact?	(NONE)	YES	NO
4. Is there a COC (Chain-of-Custody) present?		(YES)	NO
5. Are the COC and bottle labels complete, legible and in agreement?		(YES)	NO
5a. Does the COC contain sample locations?		(YES)	NO
5b. Does the COC contain date and time of sample collection for all samples?		(YES)	NO
5c. Does the COC contain sample collectors name?		(YES)	NO
5d. Does the COC note the type(s) of preservation for all bottles?		(YES)	NO
5e. Does the COC note the number of bottles submitted for each sample?		(YES)	NO
5f. Does the COC note the type of sample, composite or grab?		(YES)	NO
5g. Does the COC note the matrix of the sample(s)?		(YES)	NO
6. Are all aqueous samples requiring preservation preserved correctly?[1]	N/A	(YES)	NO
7. Were all samples placed in the proper containers for the requested analyses, with sufficient volume?		(YES)	NO
8. Are all samples within holding times for the requested analyses?		(YES)	NO
9. Were all sample containers received intact and headspace free when required? (not broken, leaking, frozen, etc.)		(YES)	NO
10. Did we receive trip blanks (applies only for methods EPA 504, EPA 524.2 and 1631E (LL Hg)?	(N/A)	YES	NO
11. Were the samples received on ice?		(YES)	NO
12. Were sample temperatures measured at 0.0-6.0°C		(YES)	NO
13. Are the samples DW matrix ? If YES, fill out Reportable Drinking Water questions below		(YES)	NO
13a. Are the samples required for SDWA compliance reporting?	N/A	YES	(NO)
13b. Did the client provide a SDWA PWS ID#?	(N/A)	YES	NO
13c. Are all aqueous unpreserved SDWA samples pH 5-9?	(N/A)	YES	NO
13d. Did the client provide the SDWA sample location ID/Description?	(N/A)	YES	NO
13e. Did the client provide the SDWA sample type (D, E, R, C, P, S)?	(N/A)	YES	NO

Cooler #: _____

Temperature (°C): 4

Thermometer ID: 574

Radiological (µCi): _____

COMMENTS (Required for all NO responses above and any sample non-conformance):

[1]Final determination of correct preservation for analysis such as volatiles, microbiology, and oil and grease is made in the analytical department at the time of or following the analysis.

Rev 1/20/2020

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June 8, 2021

Ms. Jordan Gallagher
Lancaster County Solid Waste Authority
1299 Hbg Pike, P.O. Box 4425
Lancaster, PA 17604

Certificate of Analysis

Project Name:	**FREY FARM**	Workorder:	**3177529**
Purchase Order:	**PO-1000371**	Workorder ID:	**2ND QTR 20213056 RIVER RD**

Dear Ms. Gallagher:

Enclosed are the analytical results for samples received by the laboratory on Friday, May 21, 2021.

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 Ms. Susan J Scherer (Project Coordinator) at (717) 944-5541.

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

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Ms. Ashley Gichuki , Mr. Daniel Brown , Mr. Jeff Musser

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

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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SAMPLE SUMMARY

Workorder: 3177529 2ND QTR 20213056 RIVER RD

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3177529001	3056RIVERRD	Water	5/21/2021 10:50	5/21/2021 15:35	Mr. Brian G Shade

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SAMPLE SUMMARY

Workorder: 3177529 2ND QTR 20213056 RIVER RD

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

Standard Acronyms/Flags

C	Please reference the Project Summary section of this Certificate of Analysis for case narrative comments.
J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
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

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PROJECT SUMMARY

Workorder: 3177529 2ND QTR 20213056 RIVER RD

Workorder Comments

Temperature of sample taken at time of sample receipt in the laboratory. See chain of custody for actual temperature.

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ANALYTICAL RESULTS

Workorder: 3177529 2ND QTR 20213056 RIVER RD

Lab ID: **3177529001** Date Collected: 5/21/2021 10:50 Matrix: Water

Sample ID: **3056RIVERRD** Date Received: 5/21/2021 15:35

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
WET CHEMISTRY										
Alkalinity, Bicarbonate	122	C	mg/L	5	SM2320B-2011			5/29/21 10:52	MBS	C
Alkalinity, Total	126	C,1	mg/L	5	SM2320B-2011			5/29/21 10:52	MBS	A
Ammonia-N	ND	C	mg/L	0.100	ASTM D6919-09			5/28/21 12:48	ALK	B
Chemical Oxygen Demand (COD)	ND	C	mg/L	15	EPA 410.4			5/25/21 15:02	ALK	B
Chloride	28.4	C	mg/L	2.0	EPA 300.0			5/22/21 13:08	MBW	C
Fluoride	ND	C	mg/L	0.20	EPA 300.0			5/22/21 13:08	MBW	C
Halogen, Total Organic (TOX)	ND	C	ug/L	20.0	SW846 9020B			6/1/21 16:10	PAG	I
Nitrate-N	ND	C	mg/L	0.20	EPA 300.0			5/22/21 13:08	MBW	C
Nitrite-N	ND	C	mg/L	0.20	EPA 300.0			5/22/21 13:08	MBW	C
pH	8.36	C,2	pH_Units		S4500HB-11			5/29/21 10:52	MBS	C
Phenolics	ND	C	mg/L	0.005	EPA 420.4	5/25/21 17:16	MXF	5/26/21 09:24	MXF	H
Specific Conductance	210	C	umhos/cm	1	SM2510B-2011			5/26/21 17:40	MBS	C
Sulfate	ND	C	mg/L	2.0	EPA 300.0			5/22/21 13:08	MBW	C
Total Dissolved Solids	138	C	mg/L	25	S2540C-11			5/27/21 12:17	BBD	C
Total Organic Carbon (TOC)	0.77	C	mg/L	0.50	SM5310B-2011			5/27/21 09:38	PAG	F
Turbidity	0.10	C	NTU	0.10	SM2130B-2011			5/22/21 08:31	LXZ	C
VOLATILE ORGANICS										
Benzene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 05:19	VLM	K
1,1-Dichloroethane	ND	C	ug/L	1.0	SW846 8260B			5/25/21 05:19	VLM	K
1,2-Dichloroethane	ND	C	ug/L	1.0	SW846 8260B			5/25/21 05:19	VLM	K
1,1-Dichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 05:19	VLM	K
cis-1,2-Dichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 05:19	VLM	K
trans-1,2-Dichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 05:19	VLM	K
Ethylbenzene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 05:19	VLM	K
Methylene Chloride	ND	C	ug/L	1.0	SW846 8260B			5/25/21 05:19	VLM	K
Tetrachloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 05:19	VLM	K
Toluene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 05:19	VLM	K
Total Xylenes	ND	C	ug/L	3.0	SW846 8260B			5/25/21 05:19	VLM	K
1,1,1-Trichloroethane	ND	C	ug/L	1.0	SW846 8260B			5/25/21 05:19	VLM	K
Trichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 05:19	VLM	K
Trichlorofluoromethane	ND	C	ug/L	1.0	SW846 8260B			5/25/21 05:19	VLM	K
Vinyl Chloride	ND	C	ug/L	1.0	SW846 8260B			5/25/21 05:19	VLM	K
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	83.2	C	%	62 - 133	SW846 8260B			5/25/21 05:19	VLM	K

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ANALYTICAL RESULTS

Workorder: 3177529 2ND QTR 20213056 RIVER RD

Lab ID: **3177529001** Date Collected: 5/21/2021 10:50 Matrix: Water

Sample ID: **3056RIVERRD** Date Received: 5/21/2021 15:35

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
4-Bromofluorobenzene (S)	102	C	%	79 - 114	SW846 8260B			5/25/21 05:19	VLM	K
Dibromofluoromethane (S)	99.5	C	%	78 - 116	SW846 8260B			5/25/21 05:19	VLM	K
Toluene-d8 (S)	89.9	C	%	76 - 127	SW846 8260B			5/25/21 05:19	VLM	K
METALS										
Calcium, Total	15.5	C	mg/L	0.050	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:05	SRT	D1
Calcium, Dissolved	14.6	C	mg/L	0.10	EPA 200.7	5/25/21 07:27	SRT	5/25/21 15:01	SRT	E
Iron, Total	ND	C	mg/L	0.030	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:05	SRT	D1
Iron, Dissolved	ND	C	mg/L	0.060	EPA 200.7	5/25/21 07:27	SRT	5/25/21 15:01	SRT	E
Magnesium, Total	16.4	C	mg/L	0.050	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:05	SRT	D1
Magnesium, Dissolved	15.3	C	mg/L	0.10	EPA 200.7	5/25/21 07:27	SRT	5/25/21 15:01	SRT	E
Manganese, Total	0.048	C	mg/L	0.0025	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:05	SRT	D1
Manganese, Dissolved	0.049	C	mg/L	0.0050	EPA 200.7	5/25/21 07:27	SRT	5/25/21 15:01	SRT	E
Potassium, Total	7.1	C	mg/L	0.25	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:05	SRT	D1
Potassium, Dissolved	6.0	C	mg/L	0.50	EPA 200.7	5/25/21 07:27	SRT	5/25/21 15:01	SRT	E
Sodium, Total	10.6	C	mg/L	0.25	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:05	SRT	D1
Sodium, Dissolved	9.7	C	mg/L	0.50	EPA 200.7	5/25/21 07:27	SRT	5/25/21 15:01	SRT	E
FIELD PARAMETERS										
pH, Field (SM4500B)	5.92	C	pH_Units		Field			5/21/21 10:50	BGS	M
Specific Conductance, Field	219	C	umhos/cm	1	Field			5/21/21 10:50	BGS	M
Temperature	15.20	C	Deg. C		Field			5/21/21 10:50	BGS	M

Ms. Susan J Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 3177529 2ND QTR 20213056 RIVER RD

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
3177529001	1	3056RIVERRD	SM2320B-2011	Alkalinity, Total
The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L.				
3177529001	2	3056RIVERRD	S4500HB-11	pH
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.				

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ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 3177529 2ND QTR 20213056 RIVER RD

Lab ID	Sample ID	Analysis Method	Prep Method	Leachate Method
3177529001	3056RIVERRD	ASTM D6919-09		
3177529001	3056RIVERRD	EPA 200.7	EPA ACID	
3177529001	3056RIVERRD	EPA 200.7	EPA TRMD	
3177529001	3056RIVERRD	EPA 300.0		
3177529001	3056RIVERRD	EPA 410.4		
3177529001	3056RIVERRD	EPA 420.4	420.4/9066	
3177529001	3056RIVERRD	Field		
3177529001	3056RIVERRD	S2540C-11		
3177529001	3056RIVERRD	S4500HB-11		
3177529001	3056RIVERRD	SM2130B-2011		
3177529001	3056RIVERRD	SM2320B-2011		
3177529001	3056RIVERRD	SM2510B-2011		
3177529001	3056RIVERRD	SM5310B-2011		
3177529001	3056RIVERRD	SW846 8260B		
3177529001	3056RIVERRD	SW846 9020B		

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALS

3177529

1 of 1

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

Client Name: Lancaster County Solid Waste MA

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

Contact: Dan Brown

Phone#: (717) 735-0193

Project Name/#: LCSWMA - Quarterly

Bill To: Lancaster County Solid Waste MA

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

Date Required: _____ **Approved By:** _____

Email? [ ] -Y _____

Fax? [ ] -Y No.: _____

(Lab use only) Cooler Temp: 6 Therm ID: 574

No. of Coolers: _____

	Y	N	Initial
Custody Seals Present?			
(if present) Seals Intact?			
Received on Ice?			
COC/Labels Complete/Accurate?			
Cont. in Good Cond.?			
Correct Containers?			
Correct Sample Volumes?			
Correct Preservation?			
Headspace/Volatiles?			

Courier/Tracking #:

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

ANALYSES/METHOD REQUESTED

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	TOC	O-OH	TOX	SW846-8260 VOCs	FM	NH3-N, COD	Dissolved Metals: Ca, Fe, Mg, Mn, K, Na	Metals: Ca, Fe, Mg, Mn, K, Na	pH, TDS, NO2, NO3, Cl, SO4, F, Tb, SpC	Alkalinity, HCO3	Sample/COC Comments
					Enter Number of Containers Per Sample or Field Results Below.										
1 3056RIVERRD	05/21/21	1050	G	DW	2	1	2	~~2~~ received 3 RAC 5/22/21	X	1	1	1	1	1	
2															
3															
4															
5															
6															
7															
8															
9															
10															

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

Project Comments:

LOGGED BY(signature): _____ DATE _____ TIME _____

REVIEWED BY(signature): _____ DATE _____ TIME _____

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 X[illegible] ALS	5-21-21	1535	2 [signature] ALS	5/21/21	1535
3			4		
5			6		
7			8		
9			10		

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

Special Processing: USACE [ ] Navy [ ] [ ]

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

Reportable to PADEP? Yes [ ] PWSID # _____

Sample Disposal: Lab [X] Special [ ]

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

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

Rev 8/04

301 Fulling Mill Road
Middletown, PA 17057
P: (717) 94
F: (717) 94

3177529

Lancaster County Solid Waste Authority

Condition of Sample Receipt Form

Client:

Initials: AS Date: 5/21/21

1. Were airbills / tracking numbers present and recorded?	(NONE)	YES	NO
Tracking number: _____			
2. Are Custody Seals on shipping containers intact?	(NONE)	YES	NO
3. Are Custody Seals on sample containers intact?	(NONE)	YES	NO
4. Is there a COC (Chain-of-Custody) present?		(YES)	NO
5. Are the COC and bottle labels complete, legible and in agreement?		(YES)	NO
5a. Does the COC contain sample locations?		(YES)	NO
5b. Does the COC contain date and time of sample collection for all samples?		(YES)	NO
5c. Does the COC contain sample collectors name?		(YES)	NO
5d. Does the COC note the type(s) of preservation for all bottles?		(YES)	NO
5e. Does the COC note the number of bottles submitted for each sample?		(YES)	NO
5f. Does the COC note the type of sample, composite or grab?		(YES)	NO
5g. Does the COC note the matrix of the sample(s)?		(YES)	NO
6. Are all aqueous samples requiring preservation preserved correctly?[1]	N/A	(YES)	NO
7. Were all samples placed in the proper containers for the requested analyses, with sufficient volume?		(YES)	NO
8. Are all samples within holding times for the requested analyses?		(YES)	NO
9. Were all sample containers received intact and headspace free when required? (not broken, leaking, frozen, etc.)		(YES)	NO
10. Did we receive trip blanks (applies only for methods EPA 504, EPA 524.2 and 1631E (LL Hg)?	(N/A)	YES	NO
11. Were the samples received on ice?		(YES)	NO
12. Were sample temperatures measured at 0.0-6.0°C		(YES)	NO
13. Are the samples DW matrix ? If YES, fill out Reportable Drinking Water questions below		(YES)	NO
13a. Are the samples required for SDWA compliance reporting?	N/A	YES	(NO)
13b. Did the client provide a SDWA PWS ID#?	(N/A)	YES	NO
13c. Are all aqueous unpreserved SDWA samples pH 5-9?	(N/A)	YES	NO
13d. Did the client provide the SDWA sample location ID/Description?	(N/A)	YES	NO
13e. Did the client provide the SDWA sample type (D, E, R, C, P, S)?	(N/A)	YES	NO

Cooler #: _____

Temperature (°C): ~~4~~ 6 AS 5/21/21

Thermometer ID: 574

Radiological (µCi): _____

COMMENTS (Required for all NO responses above and any sample non-conformance):

[1]Final determination of correct preservation for analysis such as volatiles, microbiology, and oil and grease is made in the analytical department at the time of or following the analysis.

Rev 1/20/2020

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June 11, 2021

Mr. Daniel Brown
Lancaster County Solid Waste Authority
1299 Hbg Pike, P.O. Box 4425
Lancaster, PA 17604

Certificate of Analysis

Project Name:	**CONTIGUOUS LANDOWNER-3125 RIVER RD**	Workorder:	**3177940**
Purchase Order:	**PO-1000371**	Workorder ID:	**2ND QTR 2020-3125 RIVER RD**

Dear Mr. Brown:

Enclosed are the analytical results for samples received by the laboratory on Tuesday, May 25, 2021.

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 Ms. Susan J Scherer (Project Coordinator) at (717) 944-5541.

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

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Ms. Ashley Gichuki , Ms. Jordan Gallagher , Landowner , Mr. Jeff Musser

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

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

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SAMPLE SUMMARY

Workorder: 3177940 2ND QTR 2020-3125 RIVER RD

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3177940001	3125 River Road, Conestoga, PA	Water	5/25/2021 10:30	5/25/2021 15:16	Mr. Brian G Shade

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SAMPLE SUMMARY

Workorder: 3177940 2ND QTR 2020-3125 RIVER RD

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

Standard Acronyms/Flags

C	Please reference the Project Summary section of this Certificate of Analysis for case narrative comments.
J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
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

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PROJECT SUMMARY

Workorder: 3177940 2ND QTR 2020-3125 RIVER RD

Workorder Comments

Temperature of sample taken at time of sample receipt in the laboratory. See chain of custody for actual temperature.

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ANALYTICAL RESULTS

Workorder: 3177940 2ND QTR 2020-3125 RIVER RD

Lab ID: **3177940001** Date Collected: 5/25/2021 10:30 Matrix: Water

Sample ID: **3125 River Road, Conestoga, PA** Date Received: 5/25/2021 15:16

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS										
Benzene	ND	C	ug/L	1.0	SW846 8260B			5/27/21 00:08	PDK	K
1,1-Dichloroethane	ND	C	ug/L	1.0	SW846 8260B			5/27/21 00:08	PDK	K
1,2-Dichloroethane	ND	C	ug/L	1.0	SW846 8260B			5/27/21 00:08	PDK	K
1,1-Dichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/27/21 00:08	PDK	K
cis-1,2-Dichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/27/21 00:08	PDK	K
trans-1,2-Dichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/27/21 00:08	PDK	K
Ethylbenzene	ND	C	ug/L	1.0	SW846 8260B			5/27/21 00:08	PDK	K
Methylene Chloride	ND	C	ug/L	1.0	SW846 8260B			5/27/21 00:08	PDK	K
Tetrachloroethene	ND	C	ug/L	1.0	SW846 8260B			5/27/21 00:08	PDK	K
Toluene	ND	C	ug/L	1.0	SW846 8260B			5/27/21 00:08	PDK	K
Total Xylenes	ND	C	ug/L	3.0	SW846 8260B			5/27/21 00:08	PDK	K
1,1,1-Trichloroethane	ND	C	ug/L	1.0	SW846 8260B			5/27/21 00:08	PDK	K
Trichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/27/21 00:08	PDK	K
Trichlorofluoromethane	ND	C	ug/L	1.0	SW846 8260B			5/27/21 00:08	PDK	K
Vinyl Chloride	ND	C	ug/L	1.0	SW846 8260B			5/27/21 00:08	PDK	K
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	95.6	C	%	62 - 133	SW846 8260B			5/27/21 00:08	PDK	K
4-Bromofluorobenzene (S)	104	C	%	79 - 114	SW846 8260B			5/27/21 00:08	PDK	K
Dibromofluoromethane (S)	90.5	C	%	78 - 116	SW846 8260B			5/27/21 00:08	PDK	K
Toluene-d8 (S)	97.1	C	%	76 - 127	SW846 8260B			5/27/21 00:08	PDK	K
WET CHEMISTRY										
Alkalinity, Bicarbonate	254	C	mg/L	5	SM2320B-2011			6/1/21 23:56	MBS	C
Alkalinity, Total	254	C,1	mg/L	5	SM2320B-2011			6/1/21 23:56	MBS	A
Ammonia-N	0.169	C	mg/L	0.100	ASTM D6919-09			6/9/21 23:29	ALK	B
Chemical Oxygen Demand (COD)	ND	C	mg/L	15	EPA 410.4			5/27/21 14:27	ALK	B
Chloride	96.0	C	mg/L	2.0	EPA 300.0			5/26/21 07:03	MBW	C
Fluoride	ND	C	mg/L	0.20	EPA 300.0			5/26/21 07:03	MBW	C
Halogen, Total Organic (TOX)	ND	C	ug/L	20.0	SW846 9020B			6/4/21 12:36	PAG	I
Nitrate-N	5.7	C	mg/L	0.20	EPA 300.0			5/26/21 07:03	MBW	C
Nitrite-N	ND	C	mg/L	0.20	EPA 300.0			5/26/21 07:03	MBW	C
pH	7.27	C,2	pH_Units		S4500HB-11			6/1/21 23:56	MBS	C
Phenolics	ND	C	mg/L	0.005	EPA 420.4	6/4/21 13:25	MXF	6/7/21 09:23	MXF	H
Specific Conductance	641	C	umhos/cm	1	SM2510B-2011			5/26/21 17:40	MBS	C
Sulfate	13.7	C	mg/L	2.0	EPA 300.0			5/26/21 07:03	MBW	C

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

ANALYTICAL RESULTS

Workorder: 3177940 2ND QTR 2020-3125 RIVER RD

Lab ID: **3177940001** Date Collected: 5/25/2021 10:30 Matrix: Water

Sample ID: **3125 River Road, Conestoga, PA** Date Received: 5/25/2021 15:16

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
Total Dissolved Solids	396	C	mg/L	25	S2540C-11			6/1/21 12:24	KMM	C
Total Organic Carbon (TOC)	ND	C	mg/L	0.50	SM5310B-2011			5/27/21 23:10	PAG	F
Turbidity	0.11	C	NTU	0.10	SM2130B-2011			5/26/21 09:22	LXZ	C
METALS										
Calcium, Total	0.19	C	mg/L	0.050	EPA 200.7	5/27/21 14:52	SXC	6/1/21 15:03	SRT	D1
Calcium, Dissolved	0.20	C	mg/L	0.10	EPA 200.7	5/27/21 06:41	SRT	5/27/21 10:35	SRT	E
Iron, Total	ND	C	mg/L	0.030	EPA 200.7	5/27/21 14:52	SXC	6/1/21 15:03	SRT	D1
Iron, Dissolved	ND	C	mg/L	0.060	EPA 200.7	5/27/21 06:41	SRT	5/27/21 10:35	SRT	E
Magnesium, Total	ND	C	mg/L	0.050	EPA 200.7	5/27/21 14:52	SXC	6/1/21 15:03	SRT	D1
Magnesium, Dissolved	ND	C	mg/L	0.10	EPA 200.7	5/27/21 06:41	SRT	5/27/21 10:35	SRT	E
Manganese, Total	ND	C	mg/L	0.0025	EPA 200.7	5/27/21 14:52	SXC	6/1/21 15:03	SRT	D1
Manganese, Dissolved	ND	C	mg/L	0.0050	EPA 200.7	5/27/21 06:41	SRT	5/27/21 10:35	SRT	E
Potassium, Total	1.3	C	mg/L	0.25	EPA 200.7	5/27/21 14:52	SXC	6/2/21 11:04	SRT	D1
Potassium, Dissolved	1.8	C	mg/L	0.50	EPA 200.7	5/27/21 06:41	SRT	5/27/21 10:35	SRT	E
Sodium, Total	167	C	mg/L	0.25	EPA 200.7	5/27/21 14:52	SXC	6/1/21 15:03	SRT	D1
Sodium, Dissolved	184	C	mg/L	0.50	EPA 200.7	5/27/21 06:41	SRT	5/27/21 10:35	SRT	E
FIELD PARAMETERS										
pH, Field (SM4500B)	7.38	C	pH_Units		Field			5/25/21 10:30	BGS	N
Specific Conductance, Field	623	C	umhos/cm	1	Field			5/25/21 10:30	BGS	N
Temperature	16.30	C	Deg. C		Field			5/25/21 10:30	BGS	N

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 3177940 2ND QTR 2020-3125 RIVER RD

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
3177940001	1	3125 River Road, Conestoga, PA	SM2320B-2011	Alkalinity, Total
The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L.				
3177940001	2	3125 River Road, Conestoga, PA	S4500HB-11	pH
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.				

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ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 3177940 2ND QTR 2020-3125 RIVER RD

Lab ID	Sample ID	Analysis Method	Prep Method	Leachate Method
3177940001	3125 River Road, Conestoga, PA	ASTM D6919-09		
3177940001	3125 River Road, Conestoga, PA	EPA 200.7	EPA ACID	
3177940001	3125 River Road, Conestoga, PA	EPA 200.7	EPA TRMD	
3177940001	3125 River Road, Conestoga, PA	EPA 300.0		
3177940001	3125 River Road, Conestoga, PA	EPA 410.4		
3177940001	3125 River Road, Conestoga, PA	EPA 420.4	420.4/9066	
3177940001	3125 River Road, Conestoga, PA	Field		
3177940001	3125 River Road, Conestoga, PA	S2540C-11		
3177940001	3125 River Road, Conestoga, PA	S4500HB-11		
3177940001	3125 River Road, Conestoga, PA	SM2130B-2011		
3177940001	3125 River Road, Conestoga, PA	SM2320B-2011		
3177940001	3125 River Road, Conestoga, PA	SM2510B-2011		
3177940001	3125 River Road, Conestoga, PA	SM5310B-2011		
3177940001	3125 River Road, Conestoga, PA	SW846 8260B		
3177940001	3125 River Road, Conestoga, PA	SW846 9020B		

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALS

3177940

1 of 1

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

TAT [X] 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	PL
Container Size	40 ml	125 ml	250 ml	40 ml	---	250 ml	125 ml	125 ml	500 ml	500 ml
Preservative	HCl	H2SO4	H2SO4	HCl	---	H2SO4	HNO3	HNO3	None	None

ANALYSES/METHOD REQUESTED

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	TOC	O-OH	TOX	SW846-8260 VOCs	FM	NH3-N, COD	Dissolved Metals: Ca, Fe, Mg, Mn, K, Na	Metals: Ca, Fe, Mg, Mn, K, Na	pH, TDS, NO2, NO3, Cl, SO4, F, Tb, SpC	Alkalinity, HCO3
					Enter Number of Containers Per Sample or Field Results Below.									
1 3125RIVERRD	05/25/21	1030	G	DW	2	1	2	3	X	1	1	1	1	1
2														
3														
4														
5														
6														
7														
8														
9														
10														

(Lab Use Only) Cooler Temp: 5 Therm ID: 574

No. of Coolers: _____

	Y	N	Initial
Custody Seals Present?			
(if present) Seals Intact?			
Received on Ice?			
COC/Labels Complete/Accurate?			
Cont. in Good Cond.?			
Correct Containers?			
Correct Sample Volumes?			
Correct Preservation?			
Headspace/Volatiles?			

Courier/Tracking #:

Sample/COC Comments

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

Project Comments:

LOGGED BY(signature): DATE TIME

REVIEWED BY(signature): DATE TIME

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 B Rhoade ALS	5-25-21	1546	2 RAC / ALS	5/25/21	1516
3			4		
5			6		
7			8		
9			10		

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

Special Processing: USACE [ ] Navy [ ]

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

Reportable to PADEP? Yes [ ] PWSID # _____

Sample Disposal: Lab [X] Special [ ]

EDDS: Format Type- _____

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

301 Fulling Mill Road
Middletown, PA 17057
P: (717) 944-5541
F: (717) 944-1430

3177940

Lancaster County Solid Waste Authority

tion of Sample Receipt Form

Client: V

Initials: BBD Date: 05/26/21

1. Were airbills / tracking numbers present and recorded?	NONE	YES	NO
Tracking number: N/A			
2. Are Custody Seals on shipping containers intact?	NONE	YES	NO
3. Are Custody Seals on sample containers intact?	NONE	YES	NO
4. Is there a COC (Chain-of-Custody) present?		YES	NO
5. Are the COC and bottle labels complete, legible and in agreement?		YES	NO
5a. Does the COC contain sample locations?		YES	NO
5b. Does the COC contain date and time of sample collection for all samples?		YES	NO
5c. Does the COC contain sample collectors name?		YES	NO
5d. Does the COC note the type(s) of preservation for all bottles?		YES	NO
5e. Does the COC note the number of bottles submitted for each sample?		YES	NO
5f. Does the COC note the type of sample, composite or grab?		YES	NO
5g. Does the COC note the matrix of the sample(s)?		YES	NO
6. Are all aqueous samples requiring preservation preserved correctly?[1]	N/A	YES	NO
7. Were all samples placed in the proper containers for the requested analyses, with sufficient volume?		YES	NO
8. Are all samples within holding times for the requested analyses?		YES	NO
9. Were all sample containers received intact and headspace free when required? (not broken, leaking, frozen, etc.)		YES	NO
10. Did we receive trip blanks (applies only for methods EPA 504, EPA 524.2 and 1631E (LL Hg)?	N/A	YES	NO
11. Were the samples received on ice?		YES	NO
12. Were sample temperatures measured at 0.0-6.0°C		YES	NO
13. Are the samples DW matrix ? If YES, fill out Reportable Drinking Water questions below		YES	NO
13a. Are the samples required for SDWA compliance reporting?	N/A	YES	NO
13b. Did the client provide a SDWA PWS ID#?	N/A	YES	NO
13c. Are all aqueous unpreserved SDWA samples pH 5-9?	N/A	YES	NO
13d. Did the client provide the SDWA sample location ID/Description?	N/A	YES	NO
13e. Did the client provide the SDWA sample type (D, E, R, C, P, S)?	N/A	YES	NO

Cooler #: _____

Temperature (°C): 5°C

Thermometer ID: 574

Radiological (µCi): _____

COMMENTS (Required for all NO responses above and any sample non-conformance):

[1]Final determination of correct preservation for analysis such as volatiles, microbiology, and oil and grease is made in the analytical department at the time of or following the analysis.

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June 8, 2021

Ms. Jordan Gallagher
Lancaster County Solid Waste Authority
1299 Hbg Pike, P.O. Box 4425
Lancaster, PA 17604

Certificate of Analysis

Project Name:	**CONTIGUOUS LANDOWNER-3052 RIVER RD**	Workorder:	**3177527**
Purchase Order:	**PO-1000371**	Workorder ID:	**2ND QTR 2021-3052 RIVER RD**

Dear Ms. Gallagher:

Enclosed are the analytical results for samples received by the laboratory on Friday, May 21, 2021.

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 Ms. Susan J Scherer (Project Coordinator) at (717) 944-5541.

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

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Ms. Ashley Gichuki , Mr. Daniel Brown , Landowner , Mr. Jeff Musser

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

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

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SAMPLE SUMMARY

Workorder: 3177527 2ND QTR 2021-3052 RIVER RD

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3177527001	3052 River Road, Conestoga, PA	Water	5/21/2021 10:19	5/21/2021 15:35	Mr. Brian G Shade

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SAMPLE SUMMARY

Workorder: 3177527 2ND QTR 2021-3052 RIVER RD

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

Standard Acronyms/Flags

C	Please reference the Project Summary section of this Certificate of Analysis for case narrative comments.
J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
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

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PROJECT SUMMARY

Workorder: 3177527 2ND QTR 2021-3052 RIVER RD

Workorder Comments

Temperature of sample taken at time of sample receipt in the laboratory. See chain of custody for actual temperature.

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ANALYTICAL RESULTS

Workorder: 3177527 2ND QTR 2021-3052 RIVER RD

Lab ID: **3177527001** Date Collected: 5/21/2021 10:19 Matrix: Water

Sample ID: **3052 River Road, Conestoga, PA** Date Received: 5/21/2021 15:35

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
WET CHEMISTRY										
Alkalinity, Bicarbonate	13	C	mg/L	5	SM2320B-2011			5/29/21 10:52	MBS	C
Alkalinity, Total	13	C,1	mg/L	5	SM2320B-2011			5/29/21 10:52	MBS	A
Ammonia-N	ND	C	mg/L	0.100	ASTM D6919-09			5/28/21 12:33	ALK	B
Chemical Oxygen Demand (COD)	ND	C	mg/L	15	EPA 410.4			5/25/21 15:02	ALK	B
Chloride	22.2	C	mg/L	2.0	EPA 300.0			5/22/21 12:54	MBW	C
Fluoride	ND	C	mg/L	0.20	EPA 300.0			5/22/21 12:54	MBW	C
Halogen, Total Organic (TOX)	ND	C	ug/L	20.0	SW846 9020B			6/1/21 15:40	PAG	I
Nitrate-N	19.1	C	mg/L	0.20	EPA 300.0			5/22/21 12:54	MBW	C
Nitrite-N	ND	C	mg/L	0.20	EPA 300.0			5/22/21 12:54	MBW	C
pH	6.30	C,2	pH_Units		S4500HB-11			5/29/21 10:52	MBS	C
Phenolics	ND	C	mg/L	0.005	EPA 420.4	5/25/21 17:16	MXF	5/26/21 09:24	MXF	H
Specific Conductance	198	C	umhos/cm	1	SM2510B-2011			5/26/21 14:47	MBS	C
Sulfate	2.6	C	mg/L	2.0	EPA 300.0			5/22/21 12:54	MBW	C
Total Dissolved Solids	170	C	mg/L	25	S2540C-11			5/27/21 12:17	BBD	C
Total Organic Carbon (TOC)	ND	C	mg/L	0.50	SM5310B-2011			5/27/21 09:38	PAG	F
Turbidity	0.16	C	NTU	0.10	SM2130B-2011			5/22/21 08:31	LXZ	C
VOLATILE ORGANICS										
Benzene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:57	VLM	K
1,1-Dichloroethane	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:57	VLM	K
1,2-Dichloroethane	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:57	VLM	K
1,1-Dichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:57	VLM	K
cis-1,2-Dichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:57	VLM	K
trans-1,2-Dichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:57	VLM	K
Ethylbenzene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:57	VLM	K
Methylene Chloride	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:57	VLM	K
Tetrachloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:57	VLM	K
Toluene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:57	VLM	K
Total Xylenes	ND	C	ug/L	3.0	SW846 8260B			5/25/21 04:57	VLM	K
1,1,1-Trichloroethane	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:57	VLM	K
Trichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:57	VLM	K
Trichlorofluoromethane	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:57	VLM	K
Vinyl Chloride	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:57	VLM	K
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	83.3	C	%	62 - 133	SW846 8260B			5/25/21 04:57	VLM	K

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ANALYTICAL RESULTS

Workorder: 3177527 2ND QTR 2021-3052 RIVER RD

Lab ID: **3177527001** Date Collected: 5/21/2021 10:19 Matrix: Water

Sample ID: **3052 River Road, Conestoga, PA** Date Received: 5/21/2021 15:35

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
4-Bromofluorobenzene (S)	102	C	%	79 - 114	SW846 8260B			5/25/21 04:57	VLM	K
Dibromofluoromethane (S)	98.2	C	%	78 - 116	SW846 8260B			5/25/21 04:57	VLM	K
Toluene-d8 (S)	87.8	C	%	76 - 127	SW846 8260B			5/25/21 04:57	VLM	K
METALS										
Calcium, Total	19.0	C	mg/L	0.050	EPA 200.7	5/26/21 14:35	SXC	5/27/21 13:18	SRT	D
Calcium, Dissolved	17.3	C	mg/L	0.10	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:58	SRT	E
Iron, Total	ND	C	mg/L	0.030	EPA 200.7	5/26/21 14:35	SXC	5/27/21 13:18	SRT	D
Iron, Dissolved	ND	C	mg/L	0.060	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:58	SRT	E
Magnesium, Total	8.5	C	mg/L	0.050	EPA 200.7	5/26/21 14:35	SXC	5/27/21 13:18	SRT	D
Magnesium, Dissolved	7.6	C	mg/L	0.10	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:58	SRT	E
Manganese, Total	0.019	C	mg/L	0.0025	EPA 200.7	5/26/21 14:35	SXC	5/27/21 13:18	SRT	D
Manganese, Dissolved	0.017	C	mg/L	0.0050	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:58	SRT	E
Potassium, Total	2.0	C	mg/L	0.25	EPA 200.7	5/26/21 14:35	SXC	5/27/21 13:18	SRT	D
Potassium, Dissolved	1.8	C	mg/L	0.50	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:58	SRT	E
Sodium, Total	8.8	C	mg/L	0.25	EPA 200.7	5/26/21 14:35	SXC	5/27/21 13:18	SRT	D
Sodium, Dissolved	8.3	C	mg/L	0.50	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:58	SRT	E
FIELD PARAMETERS										
pH, Field (SM4500B)	6.12	C	pH_Units		Field			5/21/21 10:19	BGS	M
Specific Conductance, Field	190	C	umhos/cm	1	Field			5/21/21 10:19	BGS	M
Temperature	15.40	C	Deg. C		Field			5/21/21 10:19	BGS	M

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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

ANALYTICAL RESULTS

Workorder: 3177527 2ND QTR 2021-3052 RIVER RD

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
3177527001	1	3052 River Road, Conestoga, PA	SM2320B-2011	Alkalinity, Total
The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L.				
3177527001	2	3052 River Road, Conestoga, PA	S4500HB-11	pH
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.				

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

ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 3177527 2ND QTR 2021-3052 RIVER RD

Lab ID	Sample ID	Analysis Method	Prep Method	Leachate Method
3177527001	3052 River Road, Conestoga, PA	ASTM D6919-09		
3177527001	3052 River Road, Conestoga, PA	EPA 200.7	EPA ACID	
3177527001	3052 River Road, Conestoga, PA	EPA 200.7	EPA TRMD	
3177527001	3052 River Road, Conestoga, PA	EPA 300.0		
3177527001	3052 River Road, Conestoga, PA	EPA 410.4		
3177527001	3052 River Road, Conestoga, PA	EPA 420.4	420.4/9066	
3177527001	3052 River Road, Conestoga, PA	Field		
3177527001	3052 River Road, Conestoga, PA	S2540C-11		
3177527001	3052 River Road, Conestoga, PA	S4500HB-11		
3177527001	3052 River Road, Conestoga, PA	SM2130B-2011		
3177527001	3052 River Road, Conestoga, PA	SM2320B-2011		
3177527001	3052 River Road, Conestoga, PA	SM2510B-2011		
3177527001	3052 River Road, Conestoga, PA	SM5310B-2011		
3177527001	3052 River Road, Conestoga, PA	SW846 8260B		
3177527001	3052 River Road, Conestoga, PA	SW846 9020B		

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALS

3177527

1 of 1

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

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 [X] 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	125 ml	500 ml	500 ml
Preservative	HCl	H2SO4	H2SO4	HCl	---	H2SO4	HNO3	HNO3	None	None

ANALYSES/METHOD REQUESTED

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	TOC	O-OH	TOX	SW846-8260 VOCs	FM	NH3-N, COD	Dissolved Metals: Ca, Fe, Mg, Mn, K, Na	Metals: Ca, Fe, Mg, Mn, K, Na	pH, TDS, NO2, NO3, Cl, SO4, F, Tb, SpC	Alkalinity, HCO3
					Enter Number of Containers Per Sample or Field Results Below.									
1 3052RIVERRD	05/21/21	1019	G	DW	2	1	2	~~2~~	X	1	1	1	1	1
2								received						
3								3 VAC						
4									5/27/21					
5														
6														
7														
8														
9														
10														

(Completed by Receiving Lab)

Cooler Temp: 6 Therm ID: 574

No. of Coolers: _____

	Y	N	Initial
Custody Seals Present?			
(if present) Seals Intact?			
Received on Ice?			
COC/Labels Complete/Accurate?			
Cont. in Good Cond.?			
Correct Containers?			
Correct Sample Volumes?			
Correct Preservation?			
Headspace/Volatiles?			

Courier/Tracking #:

Sample/COC Comments

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

Project Comments:

LOGGED BY(signature): DATE TIME

REVIEWED BY(signature): DATE TIME

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [signature] ALS	5/21/21	1535	2 [signature] ALS	5/21/21	1535
3			4		
5			6		
7			8		
9			10		

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

Special Processing: USACE [ ] Navy [ ]

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

Reportable to PADEP? Yes [ ] PWSID # _____

Sample Disposal: Lab [X] Special [ ]

EDDS: Format Type- _____

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

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

Rev 8/04

301 Fulling Mill Road
Middletown, PA 17
P: (717) 944-554
F: (717) 944-143

3177527

Lancaster County Solid Waste Authority

dition of Sample Receipt Form

Client:

Initials: AS

Date: 5/21/21

1. Were airbills / tracking numbers present and recorded?	(NONE)	YES	NO
Tracking number:			
2. Are Custody Seals on shipping containers intact?	(NONE)	YES	NO
3. Are Custody Seals on sample containers intact?	(NONE)	YES	NO
4. Is there a COC (Chain-of-Custody) present?		(YES)	NO
5. Are the COC and bottle labels complete, legible and in agreement?		(YES)	NO
5a. Does the COC contain sample locations?		(YES)	NO
5b. Does the COC contain date and time of sample collection for all samples?		(YES)	NO
5c. Does the COC contain sample collectors name?		(YES)	NO
5d. Does the COC note the type(s) of preservation for all bottles?		(YES)	NO
5e. Does the COC note the number of bottles submitted for each sample?		(YES)	NO
5f. Does the COC note the type of sample, composite or grab?		(YES)	NO
5g. Does the COC note the matrix of the sample(s)?		(YES)	NO
6. Are all aqueous samples requiring preservation preserved correctly?[1]	N/A	(YES)	NO
7. Were all samples placed in the proper containers for the requested analyses, with sufficient volume?		(YES)	NO
8. Are all samples within holding times for the requested analyses?		(YES)	NO
9. Were all sample containers received intact and headspace free when required? (not broken, leaking, frozen, etc.)		(YES)	NO
10. Did we receive trip blanks (applies only for methods EPA 504, EPA 524.2 and 1631E (LL Hg)?	(N/A)	YES	NO
11. Were the samples received on ice?		(YES)	NO
12. Were sample temperatures measured at 0.0-6.0°C		(YES)	NO
13. Are the samples DW matrix ? If YES, fill out Reportable Drinking Water questions below		(YES)	NO
13a. Are the samples required for SDWA compliance reporting?	N/A	YES	(NO)
13b. Did the client provide a SDWA PWS ID#?	(N/A)	YES	NO
13c. Are all aqueous unpreserved SDWA samples pH 5-9?	(N/A)	YES	NO
13d. Did the client provide the SDWA sample location ID/Description?	(N/A)	YES	NO
13e. Did the client provide the SDWA sample type (D, E, R, C, P, S)?	(N/A)	YES	NO

Cooler #: _____

Temperature (°C): 4.6 5/21/21

Thermometer ID: 574

Radiological (µCi): _____

COMMENTS (Required for all NO responses above and any sample non-conformance):

[1]Final determination of correct preservation for analysis such as volatiles, microbiology, and oil and grease is made in the analytical department at the time of or following the analysis.

Rev 1/20/2020

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June 8, 2021

Ms. Jordan Gallagher
Lancaster County Solid Waste Authority
1299 Hbg Pike, P.O. Box 4425
Lancaster, PA 17604

Certificate of Analysis

Project Name:	**CONTIGUOUS LANDOWNER-3044 RIVER RD**	Workorder:	**3177526**
Purchase Order:	**PO-1000371**	Workorder ID:	**2ND QTR 2021-3044 RIVER RD**

Dear Ms. Gallagher:

Enclosed are the analytical results for samples received by the laboratory on Friday, May 21, 2021.

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 Ms. Susan J Scherer (Project Coordinator) at (717) 944-5541.

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

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Ms. Ashley Gichuki , Mr. Daniel Brown , Mr. Jeff Musser

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

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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SAMPLE SUMMARY

Workorder: 3177526 2ND QTR 2021-3044 RIVER RD

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3177526001	3044 River Road, Conestoga, PA	Water	5/21/2021 10:10	5/21/2021 15:35	Mr. Brian G Shade

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SAMPLE SUMMARY

Workorder: 3177526 2ND QTR 2021-3044 RIVER RD

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

Standard Acronyms/Flags

C	Please reference the Project Summary section of this Certificate of Analysis for case narrative comments.
J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
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

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PROJECT SUMMARY

Workorder: 3177526 2ND QTR 2021-3044 RIVER RD

Workorder Comments

Temperature of sample taken at time of sample receipt in the laboratory. See chain of custody for actual temperature.

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ANALYTICAL RESULTS

Workorder: 3177526 2ND QTR 2021-3044 RIVER RD

Lab ID: **3177526001** Date Collected: 5/21/2021 10:10 Matrix: Water

Sample ID: **3044 River Road, Conestoga, PA** Date Received: 5/21/2021 15:35

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
WET CHEMISTRY										
Alkalinity, Bicarbonate	18	C	mg/L	5	SM2320B-2011			5/29/21 10:52	MBS	C
Alkalinity, Total	18	C,1	mg/L	5	SM2320B-2011			5/29/21 10:52	MBS	A
Ammonia-N	ND	C	mg/L	0.100	ASTM D6919-09			5/28/21 12:18	ALK	B
Chemical Oxygen Demand (COD)	ND	C	mg/L	15	EPA 410.4			5/25/21 15:02	ALK	B
Chloride	21.5	C	mg/L	2.0	EPA 300.0			5/22/21 12:40	MBW	C
Fluoride	ND	C	mg/L	0.20	EPA 300.0			5/22/21 12:40	MBW	C
Halogen, Total Organic (TOX)	38.0	C	ug/L	20.0	SW846 9020B			6/1/21 15:12	PAG	I
Nitrate-N	19.8	C	mg/L	0.20	EPA 300.0			5/22/21 12:40	MBW	C
Nitrite-N	ND	C	mg/L	0.20	EPA 300.0			5/22/21 12:40	MBW	C
pH	6.67	C,2	pH_Units		S4500HB-11			5/29/21 10:52	MBS	C
Phenolics	ND	C	mg/L	0.005	EPA 420.4	5/25/21 17:16	MXF	5/26/21 09:24	MXF	H
Specific Conductance	201	C	umhos/cm	1	SM2510B-2011			5/26/21 14:47	MBS	C
Sulfate	ND	C	mg/L	2.0	EPA 300.0			5/22/21 12:40	MBW	C
Total Dissolved Solids	170	C	mg/L	25	S2540C-11			5/27/21 12:17	BBD	C
Total Organic Carbon (TOC)	ND	C	mg/L	0.50	SM5310B-2011			5/27/21 09:38	PAG	F
Turbidity	0.12	C	NTU	0.10	SM2130B-2011			5/22/21 08:31	LXZ	C
VOLATILE ORGANICS										
Benzene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:34	VLM	K
1,1-Dichloroethane	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:34	VLM	K
1,2-Dichloroethane	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:34	VLM	K
1,1-Dichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:34	VLM	K
cis-1,2-Dichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:34	VLM	K
trans-1,2-Dichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:34	VLM	K
Ethylbenzene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:34	VLM	K
Methylene Chloride	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:34	VLM	K
Tetrachloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:34	VLM	K
Toluene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:34	VLM	K
Total Xylenes	ND	C	ug/L	3.0	SW846 8260B			5/25/21 04:34	VLM	K
1,1,1-Trichloroethane	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:34	VLM	K
Trichloroethene	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:34	VLM	K
Trichlorofluoromethane	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:34	VLM	K
Vinyl Chloride	ND	C	ug/L	1.0	SW846 8260B			5/25/21 04:34	VLM	K
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	81.9	C	%	62 - 133	SW846 8260B			5/25/21 04:34	VLM	K

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ANALYTICAL RESULTS

Workorder: 3177526 2ND QTR 2021-3044 RIVER RD

Lab ID: **3177526001** Date Collected: 5/21/2021 10:10 Matrix: Water

Sample ID: **3044 River Road, Conestoga, PA** Date Received: 5/21/2021 15:35

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
4-Bromofluorobenzene (S)	101	C	%	79 - 114	SW846 8260B			5/25/21 04:34	VLM	K
Dibromofluoromethane (S)	98.5	C	%	78 - 116	SW846 8260B			5/25/21 04:34	VLM	K
Toluene-d8 (S)	89.4	C	%	76 - 127	SW846 8260B			5/25/21 04:34	VLM	K
METALS										
Calcium, Total	15.7	C	mg/L	0.050	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:12	SRT	D1
Calcium, Dissolved	14.9	C	mg/L	0.10	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:55	SRT	E
Iron, Total	ND	C	mg/L	0.030	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:12	SRT	D1
Iron, Dissolved	ND	C	mg/L	0.060	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:55	SRT	E
Magnesium, Total	10.7	C	mg/L	0.050	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:12	SRT	D1
Magnesium, Dissolved	9.8	C	mg/L	0.10	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:55	SRT	E
Manganese, Total	0.019	C	mg/L	0.0025	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:12	SRT	D1
Manganese, Dissolved	0.013	C	mg/L	0.0050	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:55	SRT	E
Potassium, Total	2.4	C	mg/L	0.25	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:12	SRT	D1
Potassium, Dissolved	2.3	C	mg/L	0.50	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:55	SRT	E
Sodium, Total	9.1	C	mg/L	0.25	EPA 200.7	5/25/21 17:28	SXC	5/26/21 15:12	SRT	D1
Sodium, Dissolved	8.8	C	mg/L	0.50	EPA 200.7	5/25/21 07:27	SRT	5/25/21 14:55	SRT	E
FIELD PARAMETERS										
pH, Field (SM4500B)	5.81	C	pH_Units		Field			5/21/21 10:10	BGS	M
Specific Conductance, Field	192	C	umhos/cm	1	Field			5/21/21 10:10	BGS	M
Temperature	15.70	C	Deg. C		Field			5/21/21 10:10	BGS	M

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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ANALYTICAL RESULTS

Workorder: 3177526 2ND QTR 2021-3044 RIVER RD

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
3177526001	1	3044 River Road, Conestoga, PA	SM2320B-2011	Alkalinity, Total
The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L.				
3177526001	2	3044 River Road, Conestoga, PA	S4500HB-11	pH
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.				

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ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 3177526 2ND QTR 2021-3044 RIVER RD

Lab ID	Sample ID	Analysis Method	Prep Method	Leachate Method
3177526001	3044 River Road, Conestoga, PA	ASTM D6919-09		
3177526001	3044 River Road, Conestoga, PA	EPA 200.7	EPA ACID	
3177526001	3044 River Road, Conestoga, PA	EPA 200.7	EPA TRMD	
3177526001	3044 River Road, Conestoga, PA	EPA 300.0		
3177526001	3044 River Road, Conestoga, PA	EPA 410.4		
3177526001	3044 River Road, Conestoga, PA	EPA 420.4	420.4/9066	
3177526001	3044 River Road, Conestoga, PA	Field		
3177526001	3044 River Road, Conestoga, PA	S2540C-11		
3177526001	3044 River Road, Conestoga, PA	S4500HB-11		
3177526001	3044 River Road, Conestoga, PA	SM2130B-2011		
3177526001	3044 River Road, Conestoga, PA	SM2320B-2011		
3177526001	3044 River Road, Conestoga, PA	SM2510B-2011		
3177526001	3044 River Road, Conestoga, PA	SM5310B-2011		
3177526001	3044 River Road, Conestoga, PA	SW846 8260B		
3177526001	3044 River Road, Conestoga, PA	SW846 9020B		

ALS Environmental

34 Dogwood Lane • Middletown, PA 17057 • Phone: 717-944-5541 • Fax: 717-944-1430 • www.alsglobal.com

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALS

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

3177526

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 [X] 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	PL
Container Size	40 ml	125 ml	250 ml	40 ml	---	250 ml	125 ml	125 ml	500 ml	500 ml
Preservative	HCl	H2SO4	H2SO4	HCl	---	H2SO4	HNO3	HNO3	None	None

ANALYSES/METHOD REQUESTED

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	TOC	O-OH	TOX	SW846-8260 VOCs	FM	NH3-N, COD	Dissolved Metals: Ca, Fe, Mg, Mn, K, Na	Metals: Ca, Fe, Mg, Mn, K, Na	pH, TDS, NO2, NO3, Cl, SO4, F, Tb, SpC	Alkalinity, HCO3
			Enter Number of Containers Per Sample or Field Results Below.											
1 3044RIVERRD	05/21/21	1010	G	DW	2	1	2	~~2~~ received 3	X RAC 5/22/21	1	1	1	1	1
2														
3														
4														
5														
6														
7														
8														
9														
10														

(Receiving Lab)

Cooler Temp: 6 Therm ID: 574

No. of Coolers: _____

	Y	N	Initial
Custody Seals Present?			
(if present) Seals Intact?			
Received on Ice?			
COC/Labels Complete/Accurate?			
Cont. in Good Cond.?			
Correct Containers?			
Correct Sample Volumes?			
Correct Preservation?			
Headspace/Volatiles?			

Courier/Tracking #:

Sample/COC Comments

ALS Field Services: ☐Pickup ☐Labor ☐Composite_Sampling ☐Rental_Equipment ☐Other: _____

Project Comments:

LOGGED BY(signature): DATE TIME

REVIEWED BY(signature): DATE TIME

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 DG Nicole ALS	5-21-21	1535	2 ALS	5/21/21	1535
3			4		
5			6		
7			8		
9			10		

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

Special Processing: USACE [ ] Navy [ ]

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

Reportable to PADEP? Yes [ ] PWSID # _____

Sample Disposal: Lab [X] Special [ ]

EDDS: Format Type- _____

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

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

Rev 8/04

ALS

301 Fulling Mill Road
M

3177526

Lancaster County Solid Waste Authority

Condition of Sample Receipt Form

Client:

Initials: AS Date: 5/21/21

1. Were airbills / tracking numbers present and recorded?	(NONE)	YES	NO
Tracking number: _____			
2. Are Custody Seals on shipping containers intact?	(NONE)	YES	NO
3. Are Custody Seals on sample containers intact?	(NONE)	YES	NO
4. Is there a COC (Chain-of-Custody) present?		(YES)	NO
5. Are the COC and bottle labels complete, legible and in agreement?		(YES)	NO
5a. Does the COC contain sample locations?		(YES)	NO
5b. Does the COC contain date and time of sample collection for all samples?		(YES)	NO
5c. Does the COC contain sample collectors name?		(YES)	NO
5d. Does the COC note the type(s) of preservation for all bottles?		(YES)	NO
5e. Does the COC note the number of bottles submitted for each sample?		(YES)	NO
5f. Does the COC note the type of sample, composite or grab?		(YES)	NO
5g. Does the COC note the matrix of the sample(s)?		(YES)	NO
6. Are all aqueous samples requiring preservation preserved correctly?[1]	N/A	(YES)	NO
7. Were all samples placed in the proper containers for the requested analyses, with sufficient volume?		(YES)	NO
8. Are all samples within holding times for the requested analyses?		(YES)	NO
9. Were all sample containers received intact and headspace free when required? (not broken, leaking, frozen, etc.)		(YES)	NO
10. Did we receive trip blanks (applies only for methods EPA 504, EPA 524.2 and 1631E (LL Hg)?	(N/A)	YES	NO
11. Were the samples received on ice?		(YES)	NO
12. Were sample temperatures measured at 0.0-6.0°C		(YES)	NO
13. Are the samples DW matrix ? If YES, fill out Reportable Drinking Water questions below		(YES)	NO
13a. Are the samples required for SDWA compliance reporting?	N/A	YES	(NO)
13b. Did the client provide a SDWA PWS ID#?	(N/A)	YES	NO
13c. Are all aqueous unpreserved SDWA samples pH 5-9?	(N/A)	YES	NO
13d. Did the client provide the SDWA sample location ID/Description?	(N/A)	YES	NO
13e. Did the client provide the SDWA sample type (D, E, R, C, P, S)?	(N/A)	YES	NO

Cooler #: _____

Temperature (°C): ~~4~~ 6 AS 5/21/21

Thermometer ID: 574

Radiological (µCi): _____

COMMENTS (Required for all NO responses above and any sample non-conformance):

[1]Final determination of correct preservation for analysis such as volatiles, microbiology, and oil and grease is made in the analytical department at the time of or following the analysis.

Rev 1/20/2020