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| Date Prepared/Revised 07/01/2024 |
| 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.

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|---|---|
| General Reference: Act 101 Section 1103 | |
| SECTION A. SITE IDENTIFIER | |
| Applicant/permittee: | Lancaster County Solid Waste Manage |
| Site Name: | Frey Farm Landfill |
| Facility ID (as issued by DEP): | 101389 |
| SECTION B. PRIVATE WATER SUPPLY INFORMATION | |
| INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D ^o MM' SS.S") | |
| Facility Name: | Frey Farm Landfill |
| County: | Lancaster County |
| Township or Municipality: | MANOR TOWNSHIP |
| Landowner Name: | LCSWMA |
| Address: | 3044 RIVER ROAD |
| Phone No.: | |
| Sampling Point: | Latitude: 39 ^o 57' 30.58" Longitude: 76 ^o 26' 11.25" |
| Depth to Water Level: | ft. Measured from: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC |
| Casing Stick Up: | ft. Elevation of Water Level: ft./MSL |
| Total Well Depth: | ft. |
| Sampling Depth: | ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed |
| Well Purged: | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Volumes Purged: |
| Sample Field Filtered (must be 0.45 micron)?: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Sample Date:(mm/dd/yy) | 05/10/2024 Sample Collection Time: 10:10 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 | 06/01/2024 |
| Were any holding times exceeded?: | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field. |
| Comments: | |

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

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS LCSWMA

Sample Date

05/10/2024

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

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|------------------------------|--------|------------------------|
| AMMONIA-NITROGEN | 0.1 ND | SM4500D |
| BICARBONATE ALKALINITY | 8 | SM20-2321 |
| CALCIUM, TOTAL | 13.8 | EPA 200.7 |
| CALCIUM, DISSOLVED | 13.6 | EPA 200.7 |
| COD (CHEMICAL OXYGEN DEMAND) | 44 | EPA 410.2 |
| CHLORIDE | 18.1 | EPA 300 |
| FLUORIDE | 0.2 ND | EPA 300 |
| IRON, TOTAL (ug/l) | 30 ND | EPA 200.7 |
| IRON, DISSOLVED (ug/l) | 60 ND | EPA 200.7 |
| MAGNESIUM, TOTAL | 10.3 | EPA 200.7 |
| MAGNESIUM, DISSOLVED | 10.4 | EPA 200.7 |
| MANGANESE, TOTAL (ug/l) | 20 | EPA 200.7 |
| MANGANESE, DISSOLVED (ug/l) | 18 | EPA 200.7 |
| NITRATE-NITROGEN | 18 | 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

05/10/2024

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

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|-------------------------------|--------|------------------------|
| NITRITE - NITROGEN | 1 ND | EPA 300 |
| pH-FIELD (SU) | 6.95 | FIELD |
| pH-LAB (SU) | 7 | SM4500B |
| POTASSIUM, TOTAL | 1.8 | EPA 200.7 |
| POTASSIUM, DISSOLVED | 1.8 | EPA 200.7 |
| SODIUM, TOTAL | 8.4 | EPA 200.7 |
| SODIUM, DISSOLVED | 8.5 | EPA 200.7 |
| SPEC. COND., FIELD (umhos/cm) | 234 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 224 | EPA 120.1 |
| SULFATE | 2 ND | EPA 300 |
| ALKALINITY | 8 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 188 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.5 ND | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 5 ND | EPA 420.4 |
| TURBIDITY (NTU) | 8.4 | SM 2130B |

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS LCSWMA

Sample Date

05/10/2024

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

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

T Please indicate detection limit if analyte is not detected.



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| Date Prepared/Revised 07/01/2024 |
| 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 (D ^o MM' SS.S") | |
| Facility Name: | Frey Farm Landfill |
| County: | Lancaster County |
| Township or Municipality: | MANOR TOWNSHIP |
| Landowner Name: | MILLER |
| Address: | 3052 RIVER ROAD |
| Phone No.: | |
| Sampling Point: | Latitude: 39 ^o 57' 29.85" Longitude: 76 ^o 26' 11.45" |
| Depth to Water Level: | ft. Measured from: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC |
| Casing Stick Up: | ft. Elevation of Water Level: _____ ft./MSL |
| Total Well Depth: | ft. |
| Sampling Depth: | ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed |
| Well Purged: | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Volumes Purged: _____ |
| Sample Field Filtered (must be 0.45 micron)?: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Sample Date:(mm/dd/yy) | 05/10/2024 Sample Collection Time: 10:28 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 | 06/01/2024 |
| Were any holding times exceeded?: | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field. |
| Comments: | |

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

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS MILLER

Sample Date

05/10/2024

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

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|------------------------------|--------|------------------------|
| AMMONIA-NITROGEN | 0.1 ND | SM4500D |
| BICARBONATE ALKALINITY | 9 | SM20-2321 |
| CALCIUM, TOTAL | 19.5 | EPA 200.7 |
| CALCIUM, DISSOLVED | 19.5 | EPA 200.7 |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.2 |
| CHLORIDE | 19.4 | 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 | 7.9 | EPA 200.7 |
| MAGNESIUM, DISSOLVED | 7.9 | EPA 200.7 |
| MANGANESE, TOTAL (ug/l) | 14 | EPA 200.7 |
| MANGANESE, DISSOLVED (ug/l) | 13 | EPA 200.7 |
| NITRATE-NITROGEN | 17.9 | 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 MILLER

Sample Date

05/10/2024

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

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|-------------------------------|--------|------------------------|
| NITRITE - NITROGEN | 1 ND | EPA 300 |
| pH-FIELD (SU) | 6.61 | FIELD |
| pH-LAB (SU) | 6.64 | SM4500B |
| POTASSIUM, TOTAL | 1.6 | EPA 200.7 |
| POTASSIUM, DISSOLVED | 1.6 | EPA 200.7 |
| SODIUM, TOTAL | 8.3 | EPA 200.7 |
| SODIUM, DISSOLVED | 8.5 | EPA 200.7 |
| SPEC. COND., FIELD (umhos/cm) | 240 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 234 | EPA 120.1 |
| SULFATE | 2.6 | EPA 300 |
| ALKALINITY | 9 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 191 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.5 ND | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 5 ND | EPA 420.4 |
| TURBIDITY (NTU) | 0.6 | 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

05/10/2024

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

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

T Please indicate detection limit if analyte is not detected.



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| Date Prepared/Revised 07/01/2024 |
| 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.

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| General Reference: Act 101 Section 1103 | |
| SECTION A. SITE IDENTIFIER | |
| Applicant/permittee: | Lancaster County Solid Waste Manage |
| Site Name: | Frey Farm Landfill |
| Facility ID (as issued by DEP): | 101389 |
| SECTION B. PRIVATE WATER SUPPLY INFORMATION | |
| INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D ^o MM' SS.S") | |
| Facility Name: | Frey Farm Landfill |
| County: | Lancaster County |
| Township or Municipality: | MANOR TOWNSHIP |
| Landowner Name: | LCSWMA |
| Address: | 3056 RIVER ROAD |
| Phone No.: | |
| Sampling Point: | Latitude: 39 ^o 57' 28.44" Longitude: 76 ^o 26' 10.43" |
| Depth to Water Level: | ft. Measured from: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC |
| Casing Stick Up: | ft. Elevation of Water Level: ft./MSL |
| Total Well Depth: | ft. |
| Sampling Depth: | ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed |
| Well Purged: | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Volumes Purged: |
| Sample Field Filtered (must be 0.45 micron)?: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Sample Date:(mm/dd/yy) | 05/10/2024 Sample Collection Time: 10:44 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 | 06/01/2024 |
| Were any holding times exceeded?: | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field. |
| Comments: | |

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

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS LCSWMA

Sample Date

05/10/2024

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

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|------------------------------|--------|------------------------|
| AMMONIA-NITROGEN | 0.1 ND | SM4500D |
| BICARBONATE ALKALINITY | 6 | SM20-2321 |
| CALCIUM, TOTAL | 11.5 | EPA 200.7 |
| CALCIUM, DISSOLVED | 11.7 | EPA 200.7 |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.2 |
| CHLORIDE | 25.2 | 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 | 12.1 | EPA 200.7 |
| MAGNESIUM, DISSOLVED | 12.7 | EPA 200.7 |
| MANGANESE, TOTAL (ug/l) | 100 | EPA 200.7 |
| MANGANESE, DISSOLVED (ug/l) | 100 | EPA 200.7 |
| NITRATE-NITROGEN | 17.6 | EPA 300 |

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS LCSWMA

Sample Date

05/10/2024

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

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|-------------------------------|--------|------------------------|
| NITRITE - NITROGEN | 1 ND | EPA 300 |
| pH-FIELD (SU) | 6.52 | FIELD |
| pH-LAB (SU) | 6.46 | SM4500B |
| POTASSIUM, TOTAL | 2.1 | EPA 200.7 |
| POTASSIUM, DISSOLVED | 2.2 | EPA 200.7 |
| SODIUM, TOTAL | 8.6 | EPA 200.7 |
| SODIUM, DISSOLVED | 8.9 | EPA 200.7 |
| SPEC. COND., FIELD (umhos/cm) | 249 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 240 | EPA 120.1 |
| SULFATE | 2 ND | EPA 300 |
| ALKALINITY | 6 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 169 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.5 ND | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 5 ND | EPA 420.4 |
| TURBIDITY (NTU) | 0.3 ND | SM 2130B |

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS LCSWMA

Sample Date

05/10/2024

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

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

T Please indicate detection limit if analyte is not detected.



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| Date Prepared/Revised 07/01/2024 |
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**FORM 52
MUNICIPAL WASTE LANDFILL
PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES**

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| General Reference: Act 101 Section 1103 | |
| SECTION A. SITE IDENTIFIER | |
| Applicant/permittee: | Lancaster County Solid Waste Manage |
| Site Name: | Frey Farm Landfill |
| Facility ID (as issued by DEP): | 101389 |
| SECTION B. PRIVATE WATER SUPPLY INFORMATION | |
| INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D ^o MM' SS.S") | |
| Facility Name: | Frey Farm Landfill |
| County: | Lancaster County |
| Township or Municipality: | MANOR TOWNSHIP |
| Landowner Name: | LCSWMA |
| Address: | 3060 RIVER ROAD |
| Phone No.: | |
| Sampling Point: | Latitude: 39 ^o 57' 27.63" Longitude: 76 ^o 26' 10.01" |
| Depth to Water Level: | ft. Measured from: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC |
| Casing Stick Up: | ft. Elevation of Water Level: _____ ft./MSL |
| Total Well Depth: | ft. |
| Sampling Depth: | ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed |
| Well Purged: | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Volumes Purged: _____ |
| Sample Field Filtered (must be 0.45 micron)?: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Sample Date:(mm/dd/yy) | 06/06/2024 Sample Collection Time: 11:43 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 | 06/17/2024 |
| Were any holding times exceeded?: | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field. |
| Comments: | |

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

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS LCSWMA

Sample Date

06/06/2024

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

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

T Please indicate detection limit if analyte is not detected.



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| Date Prepared/Revised 07/01/2024 |
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FORM 52 MUNICIPAL WASTE LANDFILL PRIVATE WATER SUPPLY QUARTERLY WATER QUALITY ANALYSES

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| Site Name: | Frey Farm Landfill |
| Facility ID (as issued by DEP): | 101389 |
| SECTION B. PRIVATE WATER SUPPLY INFORMATION | |
| INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D ^o MM' SS.S") | |
| Facility Name: | Frey Farm Landfill |
| County: | Lancaster County |
| Township or Municipality: | MANOR TOWNSHIP |
| Landowner Name: | LCSWMA |
| Address: | 3060 RIVER ROAD |
| Phone No.: | |
| Sampling Point: | Latitude: 39 ^o 57' 27.63" Longitude: 76 ^o 26' 10.01" |
| Depth to Water Level: | ft. Measured from: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC |
| Casing Stick Up: | ft. Elevation of Water Level: _____ ft./MSL |
| Total Well Depth: | ft. |
| Sampling Depth: | ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed |
| Well Purged: | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Volumes Purged: _____ |
| Sample Field Filtered (must be 0.45 micron)?: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Sample Date:(mm/dd/yy) | 05/10/2024 Sample Collection Time: 11:00 AM |
| Laboratory(ies) Performing Analysis | ALS Environmental |
| (include address and phone number) | 301 Fulling Mill Road Middletown, PA 17057 (717) 944-5541 |
| Lab Accreditation Number(s) | 22-293 |
| Lab Analysis Date | 05/30/2024 |
| Were any holding times exceeded?: | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field. |
| Comments: | |

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

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS LCSWMA

Sample Date

05/10/2024

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

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|------------------------------|--------|------------------------|
| AMMONIA-NITROGEN | 0.1 ND | SM4500D |
| BICARBONATE ALKALINITY | 17 | SM20-2321 |
| CALCIUM, TOTAL | 11.7 | EPA 200.7 |
| CALCIUM, DISSOLVED | 11.5 | EPA 200.7 |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.2 |
| CHLORIDE | 17.7 | EPA 300 |
| FLUORIDE | 0.2 ND | EPA 300 |
| IRON, TOTAL (ug/l) | 70 | EPA 200.7 |
| IRON, DISSOLVED (ug/l) | 60 ND | EPA 200.7 |
| MAGNESIUM, TOTAL | 11.8 | EPA 200.7 |
| MAGNESIUM, DISSOLVED | 12.2 | EPA 200.7 |
| MANGANESE, TOTAL (ug/l) | 110 | EPA 200.7 |
| MANGANESE, DISSOLVED (ug/l) | 110 | EPA 200.7 |
| NITRATE-NITROGEN | 14.3 | 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 LCSWMA

Sample Date

05/10/2024

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

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|-------------------------------|--------|------------------------|
| NITRITE - NITROGEN | 1 ND | EPA 300 |
| pH-FIELD (SU) | 6.71 | FIELD |
| pH-LAB (SU) | 6.75 | SM4500B |
| POTASSIUM, TOTAL | 2.5 | EPA 200.7 |
| POTASSIUM, DISSOLVED | 2.4 | EPA 200.7 |
| SODIUM, TOTAL | 8.2 | EPA 200.7 |
| SODIUM, DISSOLVED | 8.3 | EPA 200.7 |
| SPEC. COND., FIELD (umhos/cm) | 237 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 241 | EPA 120.1 |
| SULFATE | 14 | EPA 300 |
| ALKALINITY | 17 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 162 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.5 ND | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 5 ND | EPA 420.4 |
| TURBIDITY (NTU) | 4.1 | SM 2130B |

T Please indicate detection limit if analyte is not detected.



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| Date Prepared/Revised 07/01/2024 |
| DEP USE ONLY |
| Date Received |

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

All information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 52, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

| | |
|---|---|
| General Reference: Act 101 Section 1103 | |
| SECTION A. SITE IDENTIFIER | |
| Applicant/permittee: | Lancaster County Solid Waste Manage |
| Site Name: | Frey Farm Landfill |
| Facility ID (as issued by DEP): | 101389 |
| SECTION B. PRIVATE WATER SUPPLY INFORMATION | |
| INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D ^o MM' SS.S") | |
| Facility Name: | Frey Farm Landfill |
| County: | Lancaster County |
| Township or Municipality: | MANOR TOWNSHIP |
| Landowner Name: | SENSENICH |
| Address: | 3076 RIVER ROAD |
| Phone No.: | |
| Sampling Point: | Latitude: 39 ^o 57' 28.2" Longitude: 76 ^o 26' 11.1" |
| Depth to Water Level: | ft. Measured from: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC |
| Casing Stick Up: | ft. Elevation of Water Level: ft./MSL |
| Total Well Depth: | ft. |
| Sampling Depth: | ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed |
| Well Purged: | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Volumes Purged: |
| Sample Field Filtered (must be 0.45 micron)?: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Sample Date:(mm/dd/yy) | 05/10/2024 Sample Collection Time: 11:30 AM |
| Laboratory(ies) Performing Analysis | ALS Environmental |
| (include address and phone number) | 301 Fulling Mill Road Middletown, PA 17057 (717) 944-5541 |
| Lab Accreditation Number(s) | 22-293 |
| Lab Analysis Date | 06/01/2024 |
| Were any holding times exceeded?: | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field. |
| Comments: | |

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

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS SENSENICH

Sample Date

05/10/2024

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

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|------------------------------|--------|------------------------|
| AMMONIA-NITROGEN | 0.1 ND | SM4500D |
| BICARBONATE ALKALINITY | 7 | SM20-2321 |
| CALCIUM, TOTAL | 14.9 | EPA 200.7 |
| CALCIUM, DISSOLVED | 14.6 | EPA 200.7 |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.2 |
| CHLORIDE | 55.6 | 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 | 8.8 | EPA 200.7 |
| MAGNESIUM, DISSOLVED | 9.1 | EPA 200.7 |
| MANGANESE, TOTAL (ug/l) | 190 | EPA 200.7 |
| MANGANESE, DISSOLVED (ug/l) | 190 | EPA 200.7 |
| NITRATE-NITROGEN | 10.2 | EPA 300 |

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS SENSENICH

Sample Date

05/10/2024

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

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|-------------------------------|--------|------------------------|
| NITRITE - NITROGEN | 1 ND | EPA 300 |
| pH-FIELD (SU) | 6.48 | FIELD |
| pH-LAB (SU) | 6.52 | SM4500B |
| POTASSIUM, TOTAL | 3.3 | EPA 200.7 |
| POTASSIUM, DISSOLVED | 3.4 | EPA 200.7 |
| SODIUM, TOTAL | 23.1 | EPA 200.7 |
| SODIUM, DISSOLVED | 24 | EPA 200.7 |
| SPEC. COND., FIELD (umhos/cm) | 302 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 311 | EPA 120.1 |
| SULFATE | 13.7 | EPA 300 |
| ALKALINITY | 7 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 208 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.5 ND | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 5 ND | EPA 420.4 |
| TURBIDITY (NTU) | 0.3 ND | SM 2130B |

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS SENSENICH

Sample Date

05/10/2024

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

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

T Please indicate detection limit if analyte is not detected.



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| Date Prepared/Revised 07/01/2024 |
| DEP USE ONLY |
| Date Received |

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

All information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 52, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

| | |
|--|---|
| General Reference: Act 101 Section 1103 | |
| SECTION A. SITE IDENTIFIER | |
| Applicant/permittee: | Lancaster County Solid Waste Manage |
| Site Name: | Frey Farm Landfill |
| Facility ID (as issued by DEP): | 101389 |
| SECTION B. PRIVATE WATER SUPPLY INFORMATION | |
| INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DE° MM' SS.S") | |
| Facility Name: | Frey Farm Landfill |
| County: | Lancaster County |
| Township or Municipality: | MANOR TOWNSHIP |
| Landowner Name: | LCSWMA |
| Address: | 3079 RIVER ROAD |
| Phone No.: | |
| Sampling Point: | Latitude: 39° 57' 21.99" Longitude: 76° 26' 10.58" |
| Depth to Water Level: | ft. Measured from: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC |
| Casing Stick Up: | ft. Elevation of Water Level: _____ ft./MSL |
| Total Well Depth: | ft. |
| Sampling Depth: | ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed |
| Well Purged: | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Volumes Purged: _____ |
| Sample Field Filtered (must be 0.45 micron)?: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Sample Date:(mm/dd/yy) | 05/10/2024 Sample Collection Time: 1:40 PM |
| Laboratory(ies) Performing Analysis | ALS Environmental |
| (include address and phone number) | 301 Fulling Mill Road Middletown, PA 17057 (717) 944-5541 |
| Lab Accreditation Number(s) | 22-293 |
| Lab Analysis Date | 05/31/2024 |
| Were any holding times exceeded?: | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field. |
| Comments: | |

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

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS LCSWMA

Sample Date

05/10/2024

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

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|------------------------------|--------|------------------------|
| AMMONIA-NITROGEN | 0.1 ND | SM4500D |
| BICARBONATE ALKALINITY | 23 | SM20-2321 |
| CALCIUM, TOTAL | 9.9 | EPA 200.7 |
| CALCIUM, DISSOLVED | 8.5 | EPA 200.7 |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.2 |
| CHLORIDE | 29.3 | 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 | 4.9 | EPA 200.7 |
| MAGNESIUM, DISSOLVED | 4.5 | EPA 200.7 |
| MANGANESE, TOTAL (ug/l) | 21 | EPA 200.7 |
| MANGANESE, DISSOLVED (ug/l) | 20 | EPA 200.7 |
| NITRATE-NITROGEN | 1.1 | EPA 300 |

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS LCSWMA

Sample Date

05/10/2024

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

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|-------------------------------|--------|------------------------|
| NITRITE - NITROGEN | 1 ND | EPA 300 |
| pH-FIELD (SU) | 7.08 | FIELD |
| pH-LAB (SU) | 7.11 | SM4500B |
| POTASSIUM, TOTAL | 1.7 | EPA 200.7 |
| POTASSIUM, DISSOLVED | 1.8 | EPA 200.7 |
| SODIUM, TOTAL | 11.3 | EPA 200.7 |
| SODIUM, DISSOLVED | 11.6 | EPA 200.7 |
| SPEC. COND., FIELD (umhos/cm) | 170 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 164 | EPA 120.1 |
| SULFATE | 7.2 | EPA 300 |
| ALKALINITY | 23 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 114 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.5 ND | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 5 ND | EPA 420.4 |
| TURBIDITY (NTU) | 0.3 ND | SM 2130B |

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS LCSWMA

Sample Date

05/10/2024

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

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

T Please indicate detection limit if analyte is not detected.



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| Date Prepared/Revised 07/01/2024 |
| DEP USE ONLY |
| Date Received |

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

All information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 52, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

| | |
|---|---|
| General Reference: Act 101 Section 1103 | |
| SECTION A. SITE IDENTIFIER | |
| Applicant/permittee: | Lancaster County Solid Waste Manage |
| Site Name: | Frey Farm Landfill |
| Facility ID (as issued by DEP): | 101389 |
| SECTION B. PRIVATE WATER SUPPLY INFORMATION | |
| INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D ^o MM' SS.S") | |
| Facility Name: | Frey Farm Landfill |
| County: | Lancaster County |
| Township or Municipality: | MANOR TOWNSHIP |
| Landowner Name: | WEBER |
| Address: | 3088 RIVER ROAD |
| Phone No.: | |
| Sampling Point: | Latitude: 39 ^o 57' 21" Longitude: 76 ^o 26' 7.1" |
| Depth to Water Level: | ft. Measured from: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC |
| Casing Stick Up: | ft. Elevation of Water Level: _____ ft./MSL |
| Total Well Depth: | ft. |
| Sampling Depth: | ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed |
| Well Purged: | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Volumes Purged: _____ |
| Sample Field Filtered (must be 0.45 micron)?: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Sample Date:(mm/dd/yy) | 06/06/2024 Sample Collection Time: 11:50 AM |
| Laboratory(ies) Performing Analysis | ALS Environmental |
| (include address and phone number) | 301 Fulling Mill Road Middletown, PA 17057 (717) 944-5541 |
| Lab Accreditation Number(s) | 22-293 |
| Lab Analysis Date | 06/18/2024 |
| Were any holding times exceeded?: | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field. |
| Comments: | |

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

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS WEBER

Sample Date

06/06/2024

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

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

T Please indicate detection limit if analyte is not detected.



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| Date Prepared/Revised 07/01/2024 |
| DEP USE ONLY |
| Date Received |

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

All information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 52, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

| | |
|---|---|
| General Reference: Act 101 Section 1103 | |
| SECTION A. SITE IDENTIFIER | |
| Applicant/permittee: | Lancaster County Solid Waste Manage |
| Site Name: | Frey Farm Landfill |
| Facility ID (as issued by DEP): | 101389 |
| SECTION B. PRIVATE WATER SUPPLY INFORMATION | |
| INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D ^o MM' SS.S") | |
| Facility Name: | Frey Farm Landfill |
| County: | Lancaster County |
| Township or Municipality: | MANOR TOWNSHIP |
| Landowner Name: | WEBER |
| Address: | 3088 RIVER ROAD |
| Phone No.: | |
| Sampling Point: | Latitude: 39 ^o 57' 21" Longitude: 76 ^o 26' 7.1" |
| Depth to Water Level: | ft. Measured from: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC |
| Casing Stick Up: | ft. Elevation of Water Level: _____ ft./MSL |
| Total Well Depth: | ft. |
| Sampling Depth: | ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed |
| Well Purged: | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Volumes Purged: _____ |
| Sample Field Filtered (must be 0.45 micron)?: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Sample Date:(mm/dd/yy) | 05/10/2024 Sample Collection Time: 12:18 PM |
| Laboratory(ies) Performing Analysis | ALS Environmental |
| (include address and phone number) | 301 Fulling Mill Road Middletown, PA 17057 (717) 944-5541 |
| Lab Accreditation Number(s) | 22-293 |
| Lab Analysis Date | 05/30/2024 |
| Were any holding times exceeded?: | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field. |
| Comments: | |

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

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS WEBER

Sample Date

05/10/2024

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

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|------------------------------|--------|------------------------|
| AMMONIA-NITROGEN | 0.1 ND | SM4500D |
| BICARBONATE ALKALINITY | 203 | SM20-2321 |
| CALCIUM, TOTAL | 9.5 | EPA 200.7 |
| CALCIUM, DISSOLVED | 10.3 | EPA 200.7 |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.2 |
| CHLORIDE | 260 | 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 | 1.9 | EPA 200.7 |
| MAGNESIUM, DISSOLVED | 2.2 | EPA 200.7 |
| MANGANESE, TOTAL (ug/l) | 14 | EPA 200.7 |
| MANGANESE, DISSOLVED (ug/l) | 16 | EPA 200.7 |
| NITRATE-NITROGEN | 6.6 | EPA 300 |

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS WEBER

Sample Date

05/10/2024

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

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|-------------------------------|--------|------------------------|
| NITRITE - NITROGEN | 1 ND | EPA 300 |
| pH-FIELD (SU) | 8.29 | FIELD |
| pH-LAB (SU) | 8.33 | SM4500B |
| POTASSIUM, TOTAL | 0.48 | EPA 200.7 |
| POTASSIUM, DISSOLVED | 0.5 ND | EPA 200.7 |
| SODIUM, TOTAL | 230 | EPA 200.7 |
| SODIUM, DISSOLVED | 243 | EPA 200.7 |
| SPEC. COND., FIELD (umhos/cm) | 1210 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 1220 | EPA 120.1 |
| SULFATE | 2 ND | EPA 300 |
| ALKALINITY | 217 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 658 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.5 ND | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 5 ND | EPA 420.4 |
| TURBIDITY (NTU) | 0.3 ND | SM 2130B |

T Please indicate detection limit if analyte is not detected.



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|-------------------------------------|
| Date Prepared/Revised 07/01/2024 |
| DEP USE ONLY |
| Date Received |

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

All information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 52, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

| | |
|---|---|
| General Reference: Act 101 Section 1103 | |
| SECTION A. SITE IDENTIFIER | |
| Applicant/permittee: | Lancaster County Solid Waste Manage |
| Site Name: | Frey Farm Landfill |
| Facility ID (as issued by DEP): | 101389 |
| SECTION B. PRIVATE WATER SUPPLY INFORMATION | |
| INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D ^o MM' SS.S") | |
| Facility Name: | Frey Farm Landfill |
| County: | Lancaster County |
| Township or Municipality: | MANOR TOWNSHIP |
| Landowner Name: | KIRCHNER |
| Address: | 3100 RIVER ROAD |
| Phone No.: | |
| Sampling Point: | Latitude: 39 ^o 57' 17.9" Longitude: 76 ^o 26' 6.28" |
| Depth to Water Level: | ft. Measured from: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC |
| Casing Stick Up: | ft. Elevation of Water Level: _____ ft./MSL |
| Total Well Depth: | ft. |
| Sampling Depth: | ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed |
| Well Purged: | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Volumes Purged: _____ |
| Sample Field Filtered (must be 0.45 micron)?: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Sample Date:(mm/dd/yy) | 05/10/2024 Sample Collection Time: 12:42 PM |
| Laboratory(ies) Performing Analysis | ALS Environmental |
| (include address and phone number) | 301 Fulling Mill Road Middletown, PA 17057 (717) 944-5541 |
| Lab Accreditation Number(s) | 22-293 |
| Lab Analysis Date | 05/31/2024 |
| Were any holding times exceeded?: | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field. |
| Comments: | |

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

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS KIRCHNER

Sample Date

05/10/2024

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

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|------------------------------|--------|------------------------|
| AMMONIA-NITROGEN | 0.1 ND | SM4500D |
| BICARBONATE ALKALINITY | 21 | SM20-2321 |
| CALCIUM, TOTAL | 13 | EPA 200.7 |
| CALCIUM, DISSOLVED | 11.4 | EPA 200.7 |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.2 |
| CHLORIDE | 40.7 | EPA 300 |
| FLUORIDE | 0.2 ND | EPA 300 |
| IRON, TOTAL (ug/l) | 30 ND | EPA 200.7 |
| IRON, DISSOLVED (ug/l) | 60 ND | EPA 200.7 |
| MAGNESIUM, TOTAL | 6.2 | EPA 200.7 |
| MAGNESIUM, DISSOLVED | 5.9 | EPA 200.7 |
| MANGANESE, TOTAL (ug/l) | 9.4 | EPA 200.7 |
| MANGANESE, DISSOLVED (ug/l) | 9.1 | EPA 200.7 |
| NITRATE-NITROGEN | 3.4 | EPA 300 |

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS KIRCHNER

Sample Date

05/10/2024

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

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|-------------------------------|--------|------------------------|
| NITRITE - NITROGEN | 1 ND | EPA 300 |
| pH-FIELD (SU) | 7.01 | FIELD |
| pH-LAB (SU) | 6.94 | SM4500B |
| POTASSIUM, TOTAL | 1.4 | EPA 200.7 |
| POTASSIUM, DISSOLVED | 1.5 | EPA 200.7 |
| SODIUM, TOTAL | 14.9 | EPA 200.7 |
| SODIUM, DISSOLVED | 15.3 | EPA 200.7 |
| SPEC. COND., FIELD (umhos/cm) | 221 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 214 | EPA 120.1 |
| SULFATE | 5.9 | EPA 300 |
| ALKALINITY | 21 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 161 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.5 ND | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 5 ND | EPA 420.4 |
| TURBIDITY (NTU) | 0.3 ND | SM 2130B |

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS KIRCHNER

Sample Date

05/10/2024

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

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

T Please indicate detection limit if analyte is not detected.



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| Date Prepared/Revised 07/01/2024 |
| DEP USE ONLY |
| Date Received |

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

All information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 52, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

| | |
|--|---|
| General Reference: Act 101 Section 1103 | |
| SECTION A. SITE IDENTIFIER | |
| Applicant/permittee: | Lancaster County Solid Waste Manage |
| Site Name: | Frey Farm Landfill |
| Facility ID (as issued by DEP): | 101389 |
| SECTION B. PRIVATE WATER SUPPLY INFORMATION | |
| INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DE° MM' SS.S") | |
| Facility Name: | Frey Farm Landfill |
| County: | Lancaster County |
| Township or Municipality: | MANOR TOWNSHIP |
| Landowner Name: | FRY |
| Address: | 3106 RIVER ROAD |
| Phone No.: | |
| Sampling Point: | Latitude: 39° 57' 17.27" Longitude: 76° 26' 5.6" |
| Depth to Water Level: | ft. Measured from: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC |
| Casing Stick Up: | ft. Elevation of Water Level: _____ ft./MSL |
| Total Well Depth: | ft. |
| Sampling Depth: | ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed |
| Well Purged: | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Volumes Purged: _____ |
| Sample Field Filtered (must be 0.45 micron)?: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Sample Date:(mm/dd/yy) | 05/10/2024 Sample Collection Time: 1:05 PM |
| Laboratory(ies) Performing Analysis | ALS Environmental |
| (include address and phone number) | 301 Fulling Mill Road Middletown, PA 17057 (717) 944-5541 |
| Lab Accreditation Number(s) | 22-293 |
| Lab Analysis Date | 05/31/2024 |
| Were any holding times exceeded?: | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field. |
| Comments: | |

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

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS FRY

Sample Date

05/10/2024

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

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|------------------------------|--------|------------------------|
| AMMONIA-NITROGEN | 0.1 ND | SM4500D |
| BICARBONATE ALKALINITY | 20 | SM20-2321 |
| CALCIUM, TOTAL | 17.6 | EPA 200.7 |
| CALCIUM, DISSOLVED | 17.4 | EPA 200.7 |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.2 |
| CHLORIDE | 80.8 | EPA 300 |
| FLUORIDE | 0.2 ND | EPA 300 |
| IRON, TOTAL (ug/l) | 30 ND | EPA 200.7 |
| IRON, DISSOLVED (ug/l) | 60 ND | EPA 200.7 |
| MAGNESIUM, TOTAL | 11 | EPA 200.7 |
| MAGNESIUM, DISSOLVED | 11.3 | EPA 200.7 |
| MANGANESE, TOTAL (ug/l) | 32 | EPA 200.7 |
| MANGANESE, DISSOLVED (ug/l) | 33 | EPA 200.7 |
| NITRATE-NITROGEN | 8 | EPA 300 |

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS FRY

Sample Date

05/10/2024

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

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|-------------------------------|--------|------------------------|
| NITRITE - NITROGEN | 1 ND | EPA 300 |
| pH-FIELD (SU) | 6.99 | FIELD |
| pH-LAB (SU) | 7.05 | SM4500B |
| POTASSIUM, TOTAL | 1.7 | EPA 200.7 |
| POTASSIUM, DISSOLVED | 1.7 | EPA 200.7 |
| SODIUM, TOTAL | 32.4 | EPA 200.7 |
| SODIUM, DISSOLVED | 33.1 | EPA 200.7 |
| SPEC. COND., FIELD (umhos/cm) | 380 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 375 | EPA 120.1 |
| SULFATE | 6 | EPA 300 |
| ALKALINITY | 20 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 244 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.5 ND | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 5 ND | EPA 420.4 |
| TURBIDITY (NTU) | 0.35 | 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

05/10/2024

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

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

T Please indicate detection limit if analyte is not detected.



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| Date Prepared/Revised 07/01/2024 |
| DEP USE ONLY |
| Date Received |

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

All information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 52, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

| | |
|---|---|
| General Reference: Act 101 Section 1103 | |
| SECTION A. SITE IDENTIFIER | |
| Applicant/permittee: | Lancaster County Solid Waste Manage |
| Site Name: | Frey Farm Landfill |
| Facility ID (as issued by DEP): | 101389 |
| SECTION B. PRIVATE WATER SUPPLY INFORMATION | |
| INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D ^o MM' SS.S") | |
| Facility Name: | Frey Farm Landfill |
| County: | Lancaster County |
| Township or Municipality: | MANOR TOWNSHIP |
| Landowner Name: | BECK |
| Address: | 3125 RIVER ROAD |
| Phone No.: | |
| Sampling Point: | Latitude: 39 ^o 57' 11.6" Longitude: 76 ^o 26' 5.4" |
| Depth to Water Level: | ft. Measured from: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC |
| Casing Stick Up: | ft. Elevation of Water Level: _____ ft./MSL |
| Total Well Depth: | ft. |
| Sampling Depth: | ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed |
| Well Purged: | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Volumes Purged: _____ |
| Sample Field Filtered (must be 0.45 micron)?: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Sample Date:(mm/dd/yy) | 05/10/2024 Sample Collection Time: 1:30 PM |
| Laboratory(ies) Performing Analysis | ALS Environmental |
| (include address and phone number) | 301 Fulling Mill Road Middletown, PA 17057 (717) 944-5541 |
| Lab Accreditation Number(s) | 22-293 |
| Lab Analysis Date | 05/31/2024 |
| Were any holding times exceeded?: | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field. |
| Comments: | |

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

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS BECK

Sample Date

05/10/2024

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

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|------------------------------|---------|------------------------|
| AMMONIA-NITROGEN | 0.1 ND | SM4500D |
| BICARBONATE ALKALINITY | 179 | SM20-2321 |
| CALCIUM, TOTAL | 0.14 | EPA 200.7 |
| CALCIUM, DISSOLVED | 0.11 | EPA 200.7 |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.2 |
| CHLORIDE | 121 | 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

05/10/2024

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

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|-------------------------------|--------|------------------------|
| NITRITE - NITROGEN | 1 ND | EPA 300 |
| pH-FIELD (SU) | 8.17 | FIELD |
| pH-LAB (SU) | 8.15 | SM4500B |
| POTASSIUM, TOTAL | 0.48 | EPA 200.7 |
| POTASSIUM, DISSOLVED | 0.5 ND | EPA 200.7 |
| SODIUM, TOTAL | 175 | EPA 200.7 |
| SODIUM, DISSOLVED | 186 | EPA 200.7 |
| SPEC. COND., FIELD (umhos/cm) | 782 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 792 | EPA 120.1 |
| SULFATE | 24.8 | EPA 300 |
| ALKALINITY | 179 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 462 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.53 | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 5 ND | EPA 420.4 |
| TURBIDITY (NTU) | 0.3 ND | SM 2130B |

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS BECK

Sample Date

05/10/2024

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

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

T Please indicate detection limit if analyte is not detected.



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

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
 State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343, NJ PA101

Analytical Results Report For **Lancaster County Solid Waste Authority**
 Project 2ND QTR 2024-3060 RIVER RD
 Workorder 3359226
 Report ID 330366 on 6/21/2024

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Jun 06, 2024.

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

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

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

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

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

Susan Scherer

Susan Scherer
 Project Coordinator

(ALS Digital Signature)

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



Sample Summary

| <u>Lab ID</u> | <u>Sample ID</u> | <u>Matrix</u> | <u>Date Collected</u> | <u>Date Received</u> | <u>Collector</u> | <u>Collection Company</u> |
|---------------|------------------|---------------|-----------------------|----------------------|------------------|-------------------------------|
| 3359226001 | 3060RIVERRD | Water | 05/10/2024 11:00 | 05/10/2024 16:20 | BGS | Analytical Laboratory Service |
| 3363146001 | 3060RIVERRD | Water | 06/06/2024 11:43 | 06/06/2024 16:20 | BGS | Analytical Laboratory Service |



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
EPA 300.1 Rev. 1.0-1997
EPA 300.0 Rev. 2.1-1993
EPA 353.2 Rev. 2.0-1993
EPA 410.4 Rev. 1.0-1993
EPA 420.4 Rev. 1.0-1993
EPA 365.1 Rev. 2.0-1993
EPA 200.7 Rev. 4.4-1994
EPA 200.8 Rev. 5.4-1994
EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

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



Project Notations

Sample Notations

| Lab ID | Sample ID | | |
|------------|-------------|----|---|
| 3359226001 | 3060RIVERRD | S1 | Volatile organics EPA 524.2 data was not reported due to suspected laboratory contamination for trans-1,2-Dichloroethene that occurred during sample storage. The client was notified on 05/29/24. The locations were resampled. SJS 06/10/24 |

Result Notations

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



Detected Results Summary

| | | | |
|------------------|-------------|-------------|------------------|
| Client Sample ID | 3060RIVERRD | Collected | 05/10/2024 11:00 |
| Lab Sample ID | 3359226001 | Lab Receipt | 05/10/2024 16:20 |

| Compound | Result | Units | RDL | Method | Flag |
|-----------------------------|--------|----------|--------|--------------|------|
| FIELD PARAMETERS | | | | | |
| pH, Field (SM4500B) | 6.71 | pH_Units | | Field | # |
| Specific Conductance, Field | 237 | umhos/cm | 1 | Field | # |
| Temperature | 15.57 | Deg. C | | Field | # |
| METALS | | | | | |
| Calcium, Dissolved | 11.5 | mg/L | 0.10 | EPA 200.7 | # |
| Calcium, Total | 11.7 | mg/L | 0.050 | EPA 200.7 | # |
| Iron, Total | 0.070 | mg/L | 0.030 | EPA 200.7 | # |
| Magnesium, Dissolved | 12.2 | mg/L | 0.10 | EPA 200.7 | # |
| Magnesium, Total | 11.8 | mg/L | 0.050 | EPA 200.7 | # |
| Manganese, Dissolved | 0.11 | mg/L | 0.0050 | EPA 200.7 | # |
| Manganese, Total | 0.11 | mg/L | 0.0025 | EPA 200.7 | # |
| Potassium, Dissolved | 2.4 | mg/L | 0.50 | EPA 200.7 | # |
| Potassium, Total | 2.5 | mg/L | 0.25 | EPA 200.7 | # |
| Sodium, Dissolved | 8.3 | mg/L | 0.50 | EPA 200.7 | # |
| Sodium, Total | 8.2 | mg/L | 0.25 | EPA 200.7 | # |
| WET CHEMISTRY | | | | | |
| Alkalinity, Bicarbonate | 17 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 17 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 17.7 | mg/L | 2.0 | EPA 300.0 | # |
| Nitrate-N | 14.3 | mg/L | 1.0 | EPA 300.0 | # |
| pH | 6.75 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 241 | umhos/cm | 5 | SM2510B-2011 | # |
| Sulfate | 14.0 | mg/L | 2.0 | EPA 300.0 | # |
| Total Dissolved Solids | 162 | mg/L | 25 | SM2540C-15 | # |
| Turbidity | 4.1 | NTU | 0.30 | SM2130B-2011 | # |



Results

| | | | |
|------------------|-------------|-------------|------------------|
| Client Sample ID | 3060RIVERRD | Collected | 05/10/2024 11:00 |
| Lab Sample ID | 3359226001 | Lab Receipt | 05/10/2024 16:20 |

FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|-----------------------------|--------|------|----------|-----|--------|----------|--------------------|-----|------|
| pH, Field (SM4500B) | 6.71 | S1 | pH_Units | | Field | 1 | 05/10/2024 11:00 | BGS | P |
| Specific Conductance, Field | 237 | S1 | umhos/cm | 1 | Field | 1 | 05/10/2024 11:00 | BGS | P |
| Temperature | 15.57 | S1 | Deg. C | | Field | 1 | 05/10/2024 11:00 | BGS | P |

METALS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|----------------------|--------|-------|-------|--------|-----------|----------|--------------------|-----|------|
| Calcium, Dissolved | 11.5 | S1 | mg/L | 0.10 | EPA 200.7 | 1 | 05/15/2024 10:06 | AXW | F1 |
| Calcium, Total | 11.7 | S1 | mg/L | 0.050 | EPA 200.7 | 1 | 05/18/2024 12:19 | AXW | D1 |
| Iron, Dissolved | ND | ND,S1 | mg/L | 0.060 | EPA 200.7 | 1 | 05/15/2024 10:06 | AXW | F1 |
| Iron, Total | 0.070 | S1 | mg/L | 0.030 | EPA 200.7 | 1 | 05/18/2024 12:19 | AXW | D1 |
| Magnesium, Dissolved | 12.2 | S1 | mg/L | 0.10 | EPA 200.7 | 1 | 05/15/2024 10:06 | AXW | F1 |
| Magnesium, Total | 11.8 | S1 | mg/L | 0.050 | EPA 200.7 | 1 | 05/18/2024 12:19 | AXW | D1 |
| Manganese, Dissolved | 0.11 | S1 | mg/L | 0.0050 | EPA 200.7 | 1 | 05/15/2024 10:06 | AXW | F1 |
| Manganese, Total | 0.11 | S1 | mg/L | 0.0025 | EPA 200.7 | 1 | 05/18/2024 12:19 | AXW | D1 |
| Potassium, Dissolved | 2.4 | S1 | mg/L | 0.50 | EPA 200.7 | 1 | 05/15/2024 10:06 | AXW | F1 |
| Potassium, Total | 2.5 | S1 | mg/L | 0.25 | EPA 200.7 | 1 | 05/18/2024 12:19 | AXW | D1 |
| Sodium, Dissolved | 8.3 | S1 | mg/L | 0.50 | EPA 200.7 | 1 | 05/15/2024 10:06 | AXW | F1 |
| Sodium, Total | 8.2 | S1 | mg/L | 0.25 | EPA 200.7 | 1 | 05/18/2024 12:19 | AXW | D1 |

WET CHEMISTRY

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|------------------------------|--------|-------|----------|-------|-----------------|----------|--------------------|-----|------|
| Alkalinity, Bicarbonate | 17 | S1 | mg/L | 5 | SM2320B-2011 | 1 | 05/16/2024 04:08 | KMV | A |
| Alkalinity, Total | 17 | 1,S1 | mg/L | 5 | SM2320B-2011 | 1 | 05/16/2024 04:08 | KMV | A |
| Ammonia-N, Low Level | ND | ND,S1 | mg/L | 0.10 | SM 4500-NH3G | 1 | 05/14/2024 14:57 | NML | C |
| Chemical Oxygen Demand (COD) | ND | ND,S1 | mg/L | 15 | EPA 410.4 | 1 | 05/13/2024 15:18 | KMS | C |
| Chloride | 17.7 | S1 | mg/L | 2.0 | EPA 300.0 | 2 | 05/11/2024 13:35 | J1W | A |
| Fluoride | ND | ND,S1 | mg/L | 0.20 | EPA 300.0 | 2 | 05/11/2024 13:35 | J1W | A |
| Halogen, Total Organic (TOX) | ND | ND,S1 | ug/L | 20.0 | SW846 9020B | 1 | 05/30/2024 18:00 | PAG | K |
| Nitrate-N | 14.3 | S1 | mg/L | 1.0 | EPA 300.0 | 2 | 05/11/2024 13:35 | J1W | A |
| Nitrite-N | ND | ND,S1 | mg/L | 1.0 | EPA 300.0 | 2 | 05/11/2024 13:35 | J1W | A |
| pH | 6.75 | 2,S1 | pH_Units | | S4500HB-11 | 1 | 05/16/2024 04:08 | KMV | A |
| Phenolics | ND | ND,S1 | mg/L | 0.005 | EPA 420.4 | 1 | 05/15/2024 13:12 | AKH | J |
| Specific Conductance | 241 | S1 | umhos/cm | 5 | SM2510B-2011 | 1 | 05/14/2024 15:05 | BLP | A |
| Sulfate | 14.0 | S1 | mg/L | 2.0 | EPA 300.0 | 2 | 05/11/2024 13:35 | J1W | A |
| Total Dissolved Solids | 162 | S1 | mg/L | 25 | SM2540C-15 | 1 | 05/13/2024 14:50 | RAG | A |
| Total Organic Carbon (TOC) | ND | ND,S1 | mg/L | 0.50 | SM5310B-14 | 1 | 05/13/2024 23:47 | PAG | H |
| Turbidity | 4.1 | S1 | NTU | 0.30 | SM2130B-2011 | 1 | 05/11/2024 14:06 | NPF | A |



Results

| | | | |
|------------------|-------------|-------------|------------------|
| Client Sample ID | 3060RIVERRD | Collected | 06/06/2024 11:43 |
| Lab Sample ID | 3363146001 | Lab Receipt | 06/06/2024 16:20 |

VOLATILE ORGANICS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|--------------------------|--------|------|-------|------|-----------|----------|--------------------|-----|------|
| 1,1,1-Trichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/17/2024 16:33 | ILY | A |
| 1,1-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/17/2024 16:33 | ILY | A |
| 1,1-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/17/2024 16:33 | ILY | A |
| 1,2-Dibromoethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/17/2024 16:33 | ILY | A |
| 1,2-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/17/2024 16:33 | ILY | A |
| Benzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/17/2024 16:33 | ILY | A |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/17/2024 16:33 | ILY | A |
| Ethylbenzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/17/2024 16:33 | ILY | A |
| Methylene Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/17/2024 16:33 | ILY | A |
| Tetrachloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/17/2024 16:33 | ILY | A |
| Toluene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/17/2024 16:33 | ILY | A |
| Total Xylenes | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/17/2024 16:33 | ILY | A |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/17/2024 16:33 | ILY | A |
| Trichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/17/2024 16:33 | ILY | A |
| Trichlorofluoromethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/17/2024 16:33 | ILY | A |
| Vinyl Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/17/2024 16:33 | ILY | A |

SURROGATES

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|----------------------|----------|----------|-----------|--------------------|------------|
| 4-Bromofluorobenzene | 460-00-4 | 96.5% | 70 - 130 | 06/17/2024 16:33 | |



Sample - Method Cross Reference Table

| Lab ID | Sample ID | Analysis Method | Preparation Method | Leachate Method |
|------------|-------------|-----------------|--------------------|-----------------|
| 3359226001 | 3060RIVERRD | Field | N/A | |
| | | EPA 200.7 | EPA ACID | |
| | | EPA 200.7 | EPA TRMD | |
| | | EPA 300.0 | N/A | |
| | | EPA 410.4 | N/A | |
| | | EPA 420.4 | SW846 9066 | |
| | | S4500HB-11 | N/A | |
| | | SM 4500-NH3G | N/A | |
| | | SM2130B-2011 | N/A | |
| | | SM2320B-2011 | N/A | |
| | | SM2510B-2011 | N/A | |
| | | SM2540C-15 | N/A | |
| | | SM5310B-14 | N/A | |
| | | SW846 9020B | N/A | |
| 3363146001 | 3060RIVERRD | EPA 524.2 | N/A | |



QUALITY CONTROL DATA CROSS REFERENCE TABLE

| Lab ID | Sample ID | Preparation Method | Prep Batch | Prep Date/Time | By | Analysis Method | Anly Batch |
|------------|-------------|--------------------|------------|------------------|-----|-----------------|------------|
| 3359226001 | 3060RIVERRD | N/A | N/A | N/A | | Field | 1201211 |
| | | EPA ACID | 1201314 | 05/14/2024 09:52 | AXW | EPA 200.7 | 1202357 |
| | | EPA TRMD | 1202455 | 05/14/2024 21:58 | ANN | EPA 200.7 | 1206074 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1199706 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1200906 |
| | | SW846 9066 | 1202403 | 05/14/2024 07:49 | AKH | EPA 420.4 | 1202906 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1202962 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1201010 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1199711 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1202962 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1202432 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1200631 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1201426 |
| | | N/A | N/A | N/A | | SW846 9020B | 1210439 |
| 3363146001 | 3060RIVERRD | N/A | N/A | N/A | | EPA 524.2 | 1223312 |

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

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

3359226

Logged By: SLS
PH: SJB



1226 of

Client Name: Lancaster County Solid Waste MA
Address: 1299 Harrisburg pike PO Box 4424
Lancaster PA 17604

Contact: Dan Brown
Phone#: 717-735-0193
Project Name#: LCSWMA Quarterly
Bill To: LCSWMA
Purchase Order #:

Normal-Standard TAT is 10-12 business days.
 Rush-Subject to ALS approval and surcharges.
Date Required: Approved?
Email?

| Sample Description/Location (as it will appear on the lab report) | Date Collected mm/dd/yy | Time hh:mm | Container Type | AG | AN | AN | OG | P | P | P | P | P | P | Ter |
|--|----------------------------|---------------|----------------|------|-------|-------|--------|-------|-------|-------|-------|-------|-------|-----|
| 1 3060RIVERRD | 5/10/24 | 1100 | Container | 40ml | 250ml | 125ml | 40ml | 125ml | 125ml | 125ml | 125ml | 125ml | 500ml | Re |
| 2 Trip Blank | 5/10/24 | 1620 | Preservative | HCL | H2SO4 | H2SO4 | ASCHCL | HNO3 | HNO3 | HNO3 | HNO3 | HNO3 | UNP | Ci |
| 3 | | | | | | | | | | | | | UNP | Ci |
| 4 | | | | | | | | | | | | | | Ci |
| 5 | | | | | | | | | | | | | | Ci |
| 6 | | | | | | | | | | | | | | Ci |
| 7 | | | | | | | | | | | | | | Ci |
| 8 | | | | | | | | | | | | | | Ci |
| 9 | | | | | | | | | | | | | | Ci |
| 10 | | | | | | | | | | | | | | Ci |

SDWA Sample Type (see key): G DW 2 2 2 1 3 X 2 2 2 1 1 1 1
 *G or C *Matrix (See bottom of COC)
 TOC TOX OOH EPA 524.2 Form 52 FM NH3-N, COD Dissolved Metals Ca, Fe, Mg, Mn, K, Na Metals Ca, Fe, Mg, Mn, K, Na
 PH, TDS, NO2, NO3, Cl, SO4, F, SPC, TP Alkalinity, HCO3

Orthophosphate Filtered? Yes No Hexavalent Chromium Filtered? Yes No
ANALYSIS / METHOD REQUESTED

Temp By: WO Temp (°C) 3 WO Temp (°C) 3
 Therm ID 571
 Deviations? NO YES IF YES, list below

Receipt Info Completed By:
 Cooler Custody Seal Intact Y N N A
 Sample Custody Seal Intact Y N N A
 Received on Ice Y N N A
 Cooler & Samples Intact Y N N A
 Correct Containers Provided Y N N A
 Sample Label/COC Agree Y N N A
 Adequate Sample Volumes Y N N A
 CR6 Samples Filtered Y N N A
 OP Samples Filtered Y N N A
 VOA Trip Blank Y N N A
 NUs 4 Days? Y N N A
 Rad Screen (uCi) Y N N A
 Courier/Tracking #: _____

Client contact: _____
 (Date/Tech)

SDWA Compliance: Y N
PWSID: Y N
WV Containers 0-6°C: Y N
3d Screen (uCi): Y N
Source?: Y N
Source Contact: _____

PWS Contact: _____ **PWS Phone #:** _____

SDWA Sample Type Key: D=Distribution E=Entry Point
 R=Raw P=Plant C=Check S=Special A=Annual Startup

Sample/COC Remarks:

Contains Short Hold Testing: YES NO
 Internal Use: If less than 48 hours - notify lab upon receipt

State Samples Collected In: NY NJ PA WV FL other _____

Standard Lvl 1: CLP-like HSCA
Standard Lvl 2: DOD Landfill
Standard Lvl 3: NJ RED NJ GW
Standard Lvl 4: NJ Full

Excel Summary: Lab Special
Equis:
Custom:

EDDS: _____
 Formed Type: _____

Circle Sample Collector: ALS Tech / Client
Name: YAG Nader ID: _____
Date: 5-09-2024 1
 Relinquished By: Company Name ALS
 Received By / Company Name D. G. A. S.

Comments:

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



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

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

3146 of

339226

| Client Name: Lancaster County Solid Waste MA | | Container Type: CG | |
|--|----------------------------|---|---|
| Address: 1299 Harrisburg pike PO Box 4424 Lancaster PA 17604 | | Container: 40ml Size: ASCHCL Preservative: | |
| Contact: Dan Brown | | Orthophosphate Filtered? Yes No | |
| Phone#: 717-735-0193 | | Hexavalent Chromium Filtered? Yes No | |
| Project Name#: LCSWMA Quarterly | | ANALYSIS / METHOD REQUESTED | |
| Bill To: LCSWMA | | | |
| Purchase Order #: | | | |
| TAT: <input checked="" type="checkbox"/> Normal-Standard TAT is 10-12 business days. <input type="checkbox"/> Rush-Subject to ALS approval and surcharges. | | | |
| Date Required: Approved? | | | |
| Email? <input type="checkbox"/> | | | |
| Sample Description/Location (as it will appear on the lab report) | Date Collected mm/dd/yy | Time hh:mm | SDWA Sample Type (see key) |
| 1 3060RIVERRD | 6/6/24 | 1143 | G DW 3 |
| 2 Trip Blank | 6/6/24 | 1600 | G DI 2 |
| 3 | | | |
| 4 | | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |
| Circle Sample Collector: ALS Tech / Client | | Comments: | |
| Name: <i>[Signature]</i> | ID: | Relinquished By / Company Name: <i>[Signature]</i> | Received By / Company Name: <i>[Signature]</i> |
| Date: 6/6/24 1600 | 1 | <i>[Signature]</i> | <i>[Signature]</i> |
| | 2 | | |
| | 3 | | |
| | 4 | | |
| | 5 | | |
| | 6 | | |
| | 7 | | |
| | 8 | | |
| | 9 | | |
| | 10 | | |
| Temp By: <i>[Signature]</i> WO Temp (°C) <i>[Signature]</i> Therm ID <i>[Signature]</i> | | Receipt Info Completed By: <i>[Signature]</i> | |
| Sample Custody Seal Intact | | Cooler Custody Seal Intact | |
| Received on Ice | | Correct Containers Provided | |
| Sample Label/COC Agree | | CR6 Samples Filtered | |
| Adequate Sample Volumes | | OP Samples Filtered | |
| VOA Trip Blank | | NJ ≤ 4 Days? | |
| Rad Screen (uCi) | | Rad Screen (uCi) | |
| Courier/Tracking #: | | SDWA State of Origin: | |
| SDWA Compliance | | PWSID # | |
| PWSID | | PWS Contact: | |
| WV Containers 0-6°C | | PWS Phone #: | |
| WV Containers 0-6°C | | SDWA Sample Type Key: D=Distribution E=Entry Point | |
| WV Containers 0-6°C | | R=Raw P=Plant C=Check S=Special A=Annual Startup | |
| WV Containers 0-6°C | | Sample/COC Remarks | |
| WV Containers 0-6°C | | Contains Short Hold Testing YES NO | |
| WV Containers 0-6°C | | Internal Use: If less than 48 hours - notify lab upon receipt | |
| WV Containers 0-6°C | | State Samples Collected In | |
| WV Containers 0-6°C | | Standard Lvl 1 | |
| WV Containers 0-6°C | | Standard Lvl 2 | |
| WV Containers 0-6°C | | Standard Lvl 3 | |
| WV Containers 0-6°C | | Standard Lvl 4 | |
| WV Containers 0-6°C | | Excel Summary | |
| WV Containers 0-6°C | | Equis | |
| WV Containers 0-6°C | | Custom | |
| WV Containers 0-6°C | | EDDS: | |
| WV Containers 0-6°C | | Format Type | |
| WV Containers 0-6°C | | HSCA | |
| WV Containers 0-6°C | | Landfill | |
| WV Containers 0-6°C | | NJ RED | |
| WV Containers 0-6°C | | NJ Full | |
| WV Containers 0-6°C | | Sample Disposal | |
| WV Containers 0-6°C | | Lab | |
| WV Containers 0-6°C | | Special | |
| WV Containers 0-6°C | | Other | |



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

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
 State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343, NJ PA101

Analytical Results Report For **Lancaster County Solid Waste Authority**
 Project 2ND QTR 2024-3079 RIVER RD
 Workorder 3359236
 Report ID 325894 on 5/31/2024

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on May 10, 2024.

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

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

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

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

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

Susan Scherer

Susan Scherer
 Project Coordinator

(ALS Digital Signature)

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



Sample Summary

| <u>Lab ID</u> | <u>Sample ID</u> | <u>Matrix</u> | <u>Date Collected</u> | <u>Date Received</u> | <u>Collector</u> | <u>Collection Company</u> |
|---------------|------------------|---------------|-----------------------|----------------------|------------------|-------------------------------|
| 3359236001 | 3079RIVERRD | Water | 05/10/2024 13:40 | 05/10/2024 16:20 | BGS | Analytical Laboratory Service |



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
 EPA 300.1 Rev. 1.0-1997
 EPA 300.0 Rev. 2.1-1993
 EPA 353.2 Rev. 2.0-1993
 EPA 410.4 Rev. 1.0-1993
 EPA 420.4 Rev. 1.0-1993
 EPA 365.1 Rev. 2.0-1993
 EPA 200.7 Rev. 4.4-1994
 EPA 200.8 Rev. 5.4-1994
 EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

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



Project Notations

Sample Notations

Lab ID **Sample ID**

Result Notations

Notation Ref.

- | | |
|---|---|
| 1 | The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO ₃ /L. |
| 2 | The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory. |



Detected Results Summary

| | | | |
|------------------|-------------|-------------|------------------|
| Client Sample ID | 3079RIVERRD | Collected | 05/10/2024 13:40 |
| Lab Sample ID | 3359236001 | Lab Receipt | 05/10/2024 16:20 |

| Compound | Result | Units | RDL | Method | Flag |
|------------------------------|--------|----------|--------|--------------|------|
| FIELD PARAMETERS | | | | | |
| pH, Field (SM4500B) | 7.08 | pH_Units | | Field | # |
| Specific Conductance, Field | 170 | umhos/cm | 1 | Field | # |
| Temperature | 14.49 | Deg. C | | Field | # |
| METALS | | | | | |
| Calcium, Dissolved | 8.5 | mg/L | 0.10 | EPA 200.7 | # |
| Calcium, Total | 9.9 | mg/L | 0.050 | EPA 200.7 | # |
| Magnesium, Dissolved | 4.5 | mg/L | 0.10 | EPA 200.7 | # |
| Magnesium, Total | 4.9 | mg/L | 0.050 | EPA 200.7 | # |
| Manganese, Dissolved | 0.020 | mg/L | 0.0050 | EPA 200.7 | # |
| Manganese, Total | 0.021 | mg/L | 0.0025 | EPA 200.7 | # |
| Potassium, Dissolved | 1.8 | mg/L | 0.50 | EPA 200.7 | # |
| Potassium, Total | 1.7 | mg/L | 0.25 | EPA 200.7 | # |
| Sodium, Dissolved | 11.6 | mg/L | 0.50 | EPA 200.7 | # |
| Sodium, Total | 11.3 | mg/L | 0.25 | EPA 200.7 | # |
| WET CHEMISTRY | | | | | |
| Alkalinity, Bicarbonate | 23 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 23 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 29.3 | mg/L | 2.0 | EPA 300.0 | # |
| Halogen, Total Organic (TOX) | 34.8 | ug/L | 20.0 | SW846 9020B | # |
| Nitrate-N | 1.1 | mg/L | 1.0 | EPA 300.0 | # |
| pH | 7.11 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 164 | umhos/cm | 5 | SM2510B-2011 | # |
| Sulfate | 7.2 | mg/L | 2.0 | EPA 300.0 | # |
| Total Dissolved Solids | 114 | mg/L | 25 | SM2540C-15 | # |



Results

| | | | |
|------------------|-------------|-------------|------------------|
| Client Sample ID | 3079RIVERRD | Collected | 05/10/2024 13:40 |
| Lab Sample ID | 3359236001 | Lab Receipt | 05/10/2024 16:20 |

FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|-----------------------------|--------|------|----------|-----|--------|----------|--------------------|-----|------|
| pH, Field (SM4500B) | 7.08 | | pH_Units | | Field | 1 | 05/10/2024 13:40 | BGS | P |
| Specific Conductance, Field | 170 | | umhos/cm | 1 | Field | 1 | 05/10/2024 13:40 | BGS | P |
| Temperature | 14.49 | | Deg. C | | Field | 1 | 05/10/2024 13:40 | BGS | P |

METALS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|----------------------|--------|------|-------|--------|-----------|----------|--------------------|-----|------|
| Calcium, Dissolved | 8.5 | | mg/L | 0.10 | EPA 200.7 | 1 | 05/15/2024 10:19 | AXW | F1 |
| Calcium, Total | 9.9 | | mg/L | 0.050 | EPA 200.7 | 1 | 05/18/2024 12:30 | AXW | D1 |
| Iron, Dissolved | ND | ND | mg/L | 0.060 | EPA 200.7 | 1 | 05/15/2024 10:19 | AXW | F1 |
| Iron, Total | ND | ND | mg/L | 0.030 | EPA 200.7 | 1 | 05/18/2024 12:30 | AXW | D1 |
| Magnesium, Dissolved | 4.5 | | mg/L | 0.10 | EPA 200.7 | 1 | 05/15/2024 10:19 | AXW | F1 |
| Magnesium, Total | 4.9 | | mg/L | 0.050 | EPA 200.7 | 1 | 05/18/2024 12:30 | AXW | D1 |
| Manganese, Dissolved | 0.020 | | mg/L | 0.0050 | EPA 200.7 | 1 | 05/15/2024 10:19 | AXW | F1 |
| Manganese, Total | 0.021 | | mg/L | 0.0025 | EPA 200.7 | 1 | 05/18/2024 12:30 | AXW | D1 |
| Potassium, Dissolved | 1.8 | | mg/L | 0.50 | EPA 200.7 | 1 | 05/15/2024 10:19 | AXW | F1 |
| Potassium, Total | 1.7 | | mg/L | 0.25 | EPA 200.7 | 1 | 05/18/2024 12:30 | AXW | D1 |
| Sodium, Dissolved | 11.6 | | mg/L | 0.50 | EPA 200.7 | 1 | 05/15/2024 10:19 | AXW | F1 |
| Sodium, Total | 11.3 | | mg/L | 0.25 | EPA 200.7 | 1 | 05/18/2024 12:30 | AXW | D1 |

VOLATILE ORGANICS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|--------------------------|--------|------|-------|------|-----------|----------|--------------------|-----|------|
| 1,1,1-Trichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/23/2024 17:17 | ILY | M |
| 1,1-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/23/2024 17:17 | ILY | M |
| 1,1-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/23/2024 17:17 | ILY | M |
| 1,2-Dibromoethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/23/2024 17:17 | ILY | M |
| 1,2-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/23/2024 17:17 | ILY | M |
| Benzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/23/2024 17:17 | ILY | M |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/23/2024 17:17 | ILY | M |
| Ethylbenzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/23/2024 17:17 | ILY | M |
| Methylene Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/23/2024 17:17 | ILY | M |
| Tetrachloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/23/2024 17:17 | ILY | M |
| Toluene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/23/2024 17:17 | ILY | M |
| Total Xylenes | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/23/2024 17:17 | ILY | M |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/23/2024 17:17 | ILY | M |
| Trichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/23/2024 17:17 | ILY | M |
| Trichlorofluoromethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/23/2024 17:17 | ILY | M |
| Vinyl Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/23/2024 17:17 | ILY | M |

SURROGATES

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|----------------------|----------|----------|-----------|--------------------|------------|
| 4-Bromofluorobenzene | 460-00-4 | 93.7% | 70 - 130 | 05/23/2024 17:17 | |

WET CHEMISTRY



Results

| | | | |
|------------------|-------------|-------------|------------------|
| Client Sample ID | 3079RIVERRD | Collected | 05/10/2024 13:40 |
| Lab Sample ID | 3359236001 | Lab Receipt | 05/10/2024 16:20 |

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|------------------------------|--------|------|----------|-------|-----------------|----------|--------------------|-----|------|
| Alkalinity, Bicarbonate | 23 | | mg/L | 5 | SM2320B-2011 | 1 | 05/16/2024 05:14 | KMV | A |
| Alkalinity, Total | 23 | 1 | mg/L | 5 | SM2320B-2011 | 1 | 05/16/2024 05:14 | KMV | A |
| Ammonia-N, Low Level | ND | ND | mg/L | 0.10 | SM 4500-NH3G | 1 | 05/20/2024 13:23 | AYS | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 05/13/2024 15:18 | KMS | C |
| Chloride | 29.3 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/11/2024 14:33 | J1W | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 05/11/2024 14:33 | J1W | A |
| Halogen, Total Organic (TOX) | 34.8 | | ug/L | 20.0 | SW846 9020B | 1 | 05/31/2024 16:57 | PAG | K |
| Nitrate-N | 1.1 | | mg/L | 1.0 | EPA 300.0 | 2 | 05/11/2024 14:33 | J1W | A |
| Nitrite-N | ND | ND | mg/L | 1.0 | EPA 300.0 | 2 | 05/11/2024 14:33 | J1W | A |
| pH | 7.11 | 2 | pH_Units | | S4500HB-11 | 1 | 05/16/2024 05:14 | KMV | A |
| Phenolics | ND | ND | mg/L | 0.005 | EPA 420.4 | 1 | 05/15/2024 14:21 | AKH | J |
| Specific Conductance | 164 | | umhos/cm | 5 | SM2510B-2011 | 1 | 05/14/2024 15:05 | BLP | A |
| Sulfate | 7.2 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/11/2024 14:33 | J1W | A |
| Total Dissolved Solids | 114 | | mg/L | 25 | SM2540C-15 | 1 | 05/13/2024 14:50 | RAG | A |
| Total Organic Carbon (TOC) | ND | ND | mg/L | 0.50 | SM5310B-14 | 1 | 05/13/2024 23:47 | PAG | H |
| Turbidity | ND | ND | NTU | 0.30 | SM2130B-2011 | 1 | 05/11/2024 14:06 | NPF | A |



Sample - Method Cross Reference Table

| Lab ID | Sample ID | Analysis Method | Preparation Method | Leachate Method |
|------------|-------------|-----------------|--------------------|-----------------|
| 3359236001 | 3079RIVERRD | Field | N/A | |
| | | EPA 200.7 | EPA ACID | |
| | | EPA 200.7 | EPA TRMD | |
| | | EPA 524.2 | N/A | |
| | | EPA 300.0 | N/A | |
| | | EPA 410.4 | N/A | |
| | | EPA 420.4 | SW846 9066 | |
| | | S4500HB-11 | N/A | |
| | | SM 4500-NH3G | N/A | |
| | | SM2130B-2011 | N/A | |
| | | SM2320B-2011 | N/A | |
| | | SM2510B-2011 | N/A | |
| | | SM2540C-15 | N/A | |
| | | SM5310B-14 | N/A | |
| | | SW846 9020B | N/A | |



QUALITY CONTROL DATA CROSS REFERENCE TABLE

| Lab ID | Sample ID | Preparation Method | Prep Batch | Prep Date/Time | By | Analysis Method | Anly Batch |
|------------|-------------|--------------------|------------|------------------|-----|-----------------|------------|
| 3359236001 | 3079RIVERRD | N/A | N/A | N/A | | Field | 1201211 |
| | | EPA ACID | 1201314 | 05/14/2024 09:52 | AXW | EPA 200.7 | 1202357 |
| | | EPA TRMD | 1202455 | 05/14/2024 21:58 | ANN | EPA 200.7 | 1206074 |
| | | N/A | N/A | N/A | | EPA 524.2 | 1208586 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1199706 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1200906 |
| | | SW846 9066 | 1202403 | 05/14/2024 07:49 | AKH | EPA 420.4 | 1202906 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1202962 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1205502 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1199711 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1202962 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1202432 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1200631 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1201426 |
| | | N/A | N/A | N/A | | SW846 9020B | 1210659 |

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

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

33592336

Logged By: SLS
PM: SJB



Client Name: Lancaster County Solid Waste MA
Address: 1299 Harrisburg Pike PO Box 4424
Lancaster Pa 17604

Contact: Dan Brown
Phone#: 717-735-0193
Project Name#: LCSWMA Quarterly
Bill To: LCSWMA
Purchase Order #:

Normal-Standard TAT is 10-12 business days.
 Rush-Subject to ALS approval and surcharges.
Date Required: Approved?
Email?

Temp. Taken By: WLB WO Temp (°C) 4.0
Therm. ID: 571
WO Temp (°C) 4.0

Receipt Info Completed By: WLB
Cooler Custody Seal Intact: Y
Sample Custody Seal Intact: Y
Received on Ice: Y
Cooler & Samples Intact: Y
Correct Containers Provided: Y
Sample Label/COC Agree: Y
Adequate Sample Volumes: Y
CR6 Samples Filtered: Y
OP Samples Filtered: Y
VOA Trip Blank: Y
NIS: 4 Days? Y
Rad Screen (uCi): Y
Courier/Tracking#: Y

Client contact:
ad Screen (uCi): Y
ew Source? Y
ew Source Contact: Y

Temp. Taken By: WLB WO Temp (°C) 4.0
Therm. ID: 571
WO Temp (°C) 4.0

Receipt Info Completed By: WLB
Cooler Custody Seal Intact: Y
Sample Custody Seal Intact: Y
Received on Ice: Y
Cooler & Samples Intact: Y
Correct Containers Provided: Y
Sample Label/COC Agree: Y
Adequate Sample Volumes: Y
CR6 Samples Filtered: Y
OP Samples Filtered: Y
VOA Trip Blank: Y
NIS: 4 Days? Y
Rad Screen (uCi): Y
Courier/Tracking#: Y

Client contact:
ad Screen (uCi): Y
ew Source? Y
ew Source Contact: Y

| Temp. Taken By: | WO Temp (°C) | Therm. ID: | WO Temp (°C) |
|-----------------|--------------|------------|--------------|
| <u>WLB</u> | <u>4.0</u> | <u>571</u> | <u>4.0</u> |

SDWA Sample Type Key: D=Distribution E=Entry Point
R=Raw P=Plant C=Check S=Special A=Annual Startup

Sample/COC Remarks

Contains Short Hold Testing YES NO

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

| Standard Lvl 1 | CLP-like | HSCA | State Samples Collected In |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | NY <input type="checkbox"/> |
| Standard Lvl 2 | DOD | Landfill | NJ <input type="checkbox"/> |
| Standard Lvl 3 | NJ RED | NJ GW | PA <input checked="" type="checkbox"/> |
| Standard Lvl 4 | NJ Full | | WV <input type="checkbox"/> |
| Excel Summary | | | FL <input type="checkbox"/> |
| Equis | Lab | Special | other <input type="checkbox"/> |
| Custom | | | |

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

| ANALYSIS / METHOD REQUESTED | | | | | | | | | |
|-----------------------------|-----|----|---|-----|----|----|------------|-----------------------------------|-------------------------|
| Orthophosphate Filtered? | Yes | No | Hexavalent Chromium Filtered? | Yes | No | | | | |
| TOC | 2 | 2 | TOX | 1 | 1 | FM | NH3-N, COD | Dissolved Metals Ca,Fe,Mg,Mn,K,Na | Metals Ca,Fe,Mg,Mn,K,Na |
| *G or C | G | DW | EPA 52.2 Form 52 | 3 | x | 1 | 2 | 2 | 1 |
| SDWA Sample Type (see key) | G | DW | Enter Number of Containers Per Sample or Field Results Below. | | | | | | |

| Sample Description/Location | Date Collected | Time |
|-----------------------------|----------------|-------------|
| 1 3079RIVERRD | 5/10/24 | 1340 |
| 2 Trip Blank | 5/10/24 | <u>1330</u> |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |

| Circle Sample Collector: (ALS Tech) | Client ID: |
|-------------------------------------|---------------|
| <u>XXXXXX</u> | <u>XXXXXX</u> |

| Time | Relinquished By / Company Name | Received By / Company Name | Data Deliverables | EDDS | Format Type |
|------|--------------------------------|----------------------------|-------------------|------|-------------|
| 1 | <u>XXXXXX</u> | <u>XXXXXX</u> | | | |
| 2 | | <u>DAG/AS</u> | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |

Comments:
*G=Grab; C=Composite **Matrix - A=Air; D=Drinking Water; GW=Groundwater; O=Oil; LW=Liquid Waste; S=Solid/Soil/Sludge; SW=Surface Water; WP=Wipe; WW=Wastewater

ALS SHIPPING ADDRESS: 301 Fulling Mill Road, Suite A, Middletown, PA 17057

5/31/2024 5:33 PM

10 of 10

Rev 07.06.2023



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

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
 State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343, NJ PA101

Analytical Results Report For **Lancaster County Solid Waste Authority**
 Project 2ND QTR 2024-3076 RIVER RD
 Workorder 3359220
 Report ID 326092 on 6/4/2024

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on May 10, 2024.

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

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

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

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

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

Susan Scherer

Susan Scherer
 Project Coordinator

(ALS Digital Signature)

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



Sample Summary

| <u>Lab ID</u> | <u>Sample ID</u> | <u>Matrix</u> | <u>Date Collected</u> | <u>Date Received</u> | <u>Collector</u> | <u>Collection Company</u> |
|---------------|--------------------------------|---------------|-----------------------|----------------------|------------------|-------------------------------|
| 3359220001 | 3076 River Road, Conestoga, PA | Water | 05/10/2024 11:30 | 05/10/2024 16:20 | BGS | Analytical Laboratory Service |



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
 EPA 300.1 Rev. 1.0-1997
 EPA 300.0 Rev. 2.1-1993
 EPA 353.2 Rev. 2.0-1993
 EPA 410.4 Rev. 1.0-1993
 EPA 420.4 Rev. 1.0-1993
 EPA 365.1 Rev. 2.0-1993
 EPA 200.7 Rev. 4.4-1994
 EPA 200.8 Rev. 5.4-1994
 EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

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



Project Notations

Sample Notations

Lab ID **Sample ID**

Result Notations

Notation Ref.

- | | |
|---|---|
| 1 | The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO ₃ /L. |
| 2 | The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory. |
| 3 | The concentration of this analyte was greater than 4 times the concentration of the spike added to the matrix spike. According to protocol, the calculation for percent recovery of the matrix spike is not valid. |



Detected Results Summary

| | | | |
|------------------|--------------------------------|-------------|------------------|
| Client Sample ID | 3076 River Road, Conestoga, PA | Collected | 05/10/2024 11:30 |
| Lab Sample ID | 3359220001 | Lab Receipt | 05/10/2024 16:20 |

| Compound | Result | Units | RDL | Method | Flag |
|-----------------------------|--------|----------|--------|--------------|------|
| FIELD PARAMETERS | | | | | |
| pH, Field (SM4500B) | 6.48 | pH_Units | | Field | # |
| Specific Conductance, Field | 302 | umhos/cm | 1 | Field | # |
| Temperature | 14.15 | Deg. C | | Field | # |
| METALS | | | | | |
| Calcium, Dissolved | 14.6 | mg/L | 0.10 | EPA 200.7 | # |
| Calcium, Total | 14.9 | mg/L | 0.050 | EPA 200.7 | # |
| Magnesium, Dissolved | 9.1 | mg/L | 0.10 | EPA 200.7 | # |
| Magnesium, Total | 8.8 | mg/L | 0.050 | EPA 200.7 | # |
| Manganese, Dissolved | 0.19 | mg/L | 0.0050 | EPA 200.7 | # |
| Manganese, Total | 0.19 | mg/L | 0.0025 | EPA 200.7 | # |
| Potassium, Dissolved | 3.4 | mg/L | 0.50 | EPA 200.7 | # |
| Potassium, Total | 3.3 | mg/L | 0.25 | EPA 200.7 | # |
| Sodium, Dissolved | 24.0 | mg/L | 0.50 | EPA 200.7 | # |
| Sodium, Total | 23.1 | mg/L | 0.25 | EPA 200.7 | # |
| WET CHEMISTRY | | | | | |
| Alkalinity, Bicarbonate | 7 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 7 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 55.6 | mg/L | 2.0 | EPA 300.0 | # |
| Nitrate-N | 10.2 | mg/L | 1.0 | EPA 300.0 | # |
| pH | 6.52 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 311 | umhos/cm | 5 | SM2510B-2011 | # |
| Sulfate | 13.7 | mg/L | 2.0 | EPA 300.0 | # |
| Total Dissolved Solids | 208 | mg/L | 25 | SM2540C-15 | # |



Results

| | | | |
|------------------|--------------------------------|-------------|------------------|
| Client Sample ID | 3076 River Road, Conestoga, PA | Collected | 05/10/2024 11:30 |
| Lab Sample ID | 3359220001 | Lab Receipt | 05/10/2024 16:20 |

FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|-----------------------------|--------|------|----------|-----|--------|----------|--------------------|-----|------|
| pH, Field (SM4500B) | 6.48 | | pH_Units | | Field | 1 | 05/10/2024 11:30 | BGS | P |
| Specific Conductance, Field | 302 | | umhos/cm | 1 | Field | 1 | 05/10/2024 11:30 | BGS | P |
| Temperature | 14.15 | | Deg. C | | Field | 1 | 05/10/2024 11:30 | BGS | P |

METALS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|----------------------|--------|------|-------|--------|-----------|----------|--------------------|-----|------|
| Calcium, Dissolved | 14.6 | 3 | mg/L | 0.10 | EPA 200.7 | 1 | 05/15/2024 10:20 | AXW | F1 |
| Calcium, Total | 14.9 | | mg/L | 0.050 | EPA 200.7 | 1 | 05/18/2024 12:13 | AXW | D1 |
| Iron, Dissolved | ND | ND | mg/L | 0.060 | EPA 200.7 | 1 | 05/15/2024 10:20 | AXW | F1 |
| Iron, Total | ND | ND | mg/L | 0.030 | EPA 200.7 | 1 | 05/18/2024 12:13 | AXW | D1 |
| Magnesium, Dissolved | 9.1 | | mg/L | 0.10 | EPA 200.7 | 1 | 05/15/2024 10:20 | AXW | F1 |
| Magnesium, Total | 8.8 | | mg/L | 0.050 | EPA 200.7 | 1 | 05/18/2024 12:13 | AXW | D1 |
| Manganese, Dissolved | 0.19 | | mg/L | 0.0050 | EPA 200.7 | 1 | 05/15/2024 10:20 | AXW | F1 |
| Manganese, Total | 0.19 | | mg/L | 0.0025 | EPA 200.7 | 1 | 05/18/2024 12:13 | AXW | D1 |
| Potassium, Dissolved | 3.4 | | mg/L | 0.50 | EPA 200.7 | 1 | 05/15/2024 10:20 | AXW | F1 |
| Potassium, Total | 3.3 | | mg/L | 0.25 | EPA 200.7 | 1 | 05/18/2024 12:13 | AXW | D1 |
| Sodium, Dissolved | 24.0 | | mg/L | 0.50 | EPA 200.7 | 1 | 05/15/2024 10:20 | AXW | F1 |
| Sodium, Total | 23.1 | | mg/L | 0.25 | EPA 200.7 | 1 | 05/18/2024 12:13 | AXW | D1 |

VOLATILE ORGANICS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|--------------------------|--------|------|-------|------|-----------|----------|--------------------|-----|------|
| 1,1,1-Trichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 13:52 | ILY | M |
| 1,1-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 13:52 | ILY | M |
| 1,1-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 13:52 | ILY | M |
| 1,2-Dibromoethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 13:52 | ILY | M |
| 1,2-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 13:52 | ILY | M |
| Benzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 13:52 | ILY | M |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 13:52 | ILY | M |
| Ethylbenzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 13:52 | ILY | M |
| Methylene Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 13:52 | ILY | M |
| Tetrachloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 13:52 | ILY | M |
| Toluene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 13:52 | ILY | M |
| Total Xylenes | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 13:52 | ILY | M |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 13:52 | ILY | M |
| Trichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 13:52 | ILY | M |
| Trichlorofluoromethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 13:52 | ILY | M |
| Vinyl Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 13:52 | ILY | M |

SURROGATES

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|----------------------|----------|----------|-----------|--------------------|------------|
| 4-Bromofluorobenzene | 460-00-4 | 93.8% | 70 - 130 | 05/22/2024 13:52 | |

WET CHEMISTRY



Results

| | | | |
|------------------|--------------------------------|-------------|------------------|
| Client Sample ID | 3076 River Road, Conestoga, PA | Collected | 05/10/2024 11:30 |
| Lab Sample ID | 3359220001 | Lab Receipt | 05/10/2024 16:20 |

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|------------------------------|--------|------|----------|-------|-----------------|----------|--------------------|-----|------|
| Alkalinity, Bicarbonate | 7 | | mg/L | 5 | SM2320B-2011 | 1 | 05/16/2024 03:44 | KMV | A |
| Alkalinity, Total | 7 | 1 | mg/L | 5 | SM2320B-2011 | 1 | 05/16/2024 03:44 | KMV | A |
| Ammonia-N, Low Level | ND | ND | mg/L | 0.10 | SM 4500-NH3G | 1 | 05/14/2024 14:45 | NML | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 05/13/2024 11:30 | KMS | C |
| Chloride | 55.6 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/11/2024 12:49 | J1W | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 05/11/2024 12:49 | J1W | A |
| Halogen, Total Organic (TOX) | ND | ND | ug/L | 20.0 | SW846 9020B | 1 | 06/01/2024 18:21 | NPF | K |
| Nitrate-N | 10.2 | | mg/L | 1.0 | EPA 300.0 | 2 | 05/11/2024 12:49 | J1W | A |
| Nitrite-N | ND | ND | mg/L | 1.0 | EPA 300.0 | 2 | 05/11/2024 12:49 | J1W | A |
| pH | 6.52 | 2 | pH_Units | | S4500HB-11 | 1 | 05/16/2024 03:44 | KMV | A |
| Phenolics | ND | ND | mg/L | 0.005 | EPA 420.4 | 1 | 05/15/2024 13:08 | AKH | J |
| Specific Conductance | 311 | | umhos/cm | 5 | SM2510B-2011 | 1 | 05/14/2024 15:05 | BLP | A |
| Sulfate | 13.7 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/11/2024 12:49 | J1W | A |
| Total Dissolved Solids | 208 | | mg/L | 25 | SM2540C-15 | 1 | 05/13/2024 14:50 | RAG | A |
| Total Organic Carbon (TOC) | ND | ND | mg/L | 0.50 | SM5310B-14 | 1 | 05/13/2024 23:47 | PAG | H |
| Turbidity | ND | ND | NTU | 0.30 | SM2130B-2011 | 1 | 05/11/2024 14:06 | NPF | A |



Sample - Method Cross Reference Table

| Lab ID | Sample ID | Analysis Method | Preparation Method | Leachate Method |
|------------|--------------------------------|-----------------|--------------------|-----------------|
| 3359220001 | 3076 River Road, Conestoga, PA | Field | N/A | |
| | | EPA 200.7 | EPA TRMD | |
| | | EPA 200.7 | EPA ACID | |
| | | EPA 524.2 | N/A | |
| | | EPA 300.0 | N/A | |
| | | EPA 410.4 | N/A | |
| | | EPA 420.4 | SW846 9066 | |
| | | S4500HB-11 | N/A | |
| | | SM 4500-NH3G | N/A | |
| | | SM2130B-2011 | N/A | |
| | | SM2320B-2011 | N/A | |
| | | SM2510B-2011 | N/A | |
| | | SM2540C-15 | N/A | |
| | | SM5310B-14 | N/A | |
| | | SW846 9020B | N/A | |



QUALITY CONTROL DATA CROSS REFERENCE TABLE

| Lab ID | Sample ID | Preparation Method | Prep Batch | Prep Date/Time | By | Analysis Method | Anly Batch |
|------------|--------------------------------|--------------------|------------|------------------|---------|-----------------|------------|
| 3359220001 | 3076 River Road, Conestoga, PA | N/A | N/A | N/A | | Field | 1201211 |
| | | EPA TRMD | 1202455 | 05/14/2024 21:58 | ANN | EPA 200.7 | 1206074 |
| | | EPA ACID | 1201314 | 05/14/2024 09:52 | AXW | EPA 200.7 | 1202357 |
| | | N/A | N/A | N/A | | EPA 524.2 | 1207811 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1199706 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1200621 |
| | | SW846 9066 | 1202403 | 05/14/2024 07:49 | AKH | EPA 420.4 | 1202906 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1202962 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1201010 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1199711 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1202962 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1202432 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1200631 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1201426 |
| N/A | N/A | N/A | | SW846 9020B | 1210456 | | |



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

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

3359220

Logged By: SLS
 PM: SJB



Client Name: LCSWMA Brian Sensenich
Address: 3076 River Rd
 Conestoga PA 17516

Contact: Brian Sensenich
Phone#: 717-676-5779
Project Name#: LCSWMA Quarterly
Bill To: LCSWMA Brian Sensenich
Purchase Order #:

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

Date Required: _____ **Approved?** _____
Email?

Temp Taken By: _____ **Temp By:** MS **Temp (°C):** 2 **WO Temp (°C):** _____

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

Orthophosphate Filtered? Yes No **Hexavalent Chromium Filtered?** Yes No

ANALYSIS / METHOD REQUESTED

| | | | | | | | | | |
|-----|-----|------|-------------------|----|------------|--|------------------------------|--|------------------|
| TOC | TOX | O-OH | EPA 524.2 Form 52 | FM | NH3-N, COD | Dissolved Metals Ca, Fe, Mg, Mn, K, Na | Metals Ca, Fe, Mg, Mn, K, Na | PH, TDS, NO2, NO3, Cl, SO4, F, SPC, TP | Alkalinity, HCO3 |
|-----|-----|------|-------------------|----|------------|--|------------------------------|--|------------------|

SDWA Sample Type (see key)
 *G or C
 **Matrix (See bottom of COC)

Enter Number of Containers Per Sample or Field Results Below.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 2 | 1 | 3 | 1 | 2 | 2 | 1 | 1 |
| 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 1 |

Receipt Info Completed By:
 Cooler Custody Seal Intact
 Sample Custody Seal Intact
 Received on Ice
 Cooler & Samples Intact
 Correct Containers Provided
 Sample Label/COC Agree
 Adequate Sample Volumes
 CR6 Samples Filtered
 OP Samples Filtered
 VOA Trip Blank
 NUS 4 Days?
 Rad Screen (uCi)
 Courier/Tracking #:

Client contact: _____
 Deter/Tech: _____

Therm ID: _____ **WO Temp (°C):** _____

Deviations? NO YES
 IF YES, list below:

Temp Taken By: _____ **Temp By:** _____ **Temp (°C):** _____ **WO Temp (°C):** _____

SDWA Compliance: _____ **PWSID:** _____ **WV Containers 0-6°C:** _____

Rad Screen (uCi): _____ **New Source?** Y N **New Source Contact:** _____

PWS Contact: _____ **Phone #:** _____

SDWA Sample Type Key: D=Distribution E=Entry Point
 R=Raw P=Plant C=Check S=Special A=Annual Startup

Sample/COC Remarks:

| | | | | | | | | | | | | | | |
|----|-------------|---------|------|------|---|---|---|---|---|---|---|---|---|---|
| 1 | 3076RIVERRD | 5/10/24 | 1130 | G DW | 2 | 2 | 1 | 3 | X | 1 | 2 | 2 | 1 | 1 |
| 2 | Trip Blank | 5/10/24 | 1500 | G DI | | | | 2 | | | | | | |
| 3 | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | |

Contains Short Hold Testing YES NO
Internal Use: If less than 48 hours - notify lab upon receipt

State Samples Collected In: NY NJ PA WV FL other _____

Standard Lvl 1: **CLP-like:** **HSCA:**
Standard Lvl 2: **DOD:** **Landfill:**
Standard Lvl 3: **NJ RED:** **NJ GW:**
Standard Lvl 4: **NJ Full:**

Sample Disposal: Lab Special

Excel Summary: **Equis:** **Custom:**

Format Type: _____

Circle Sample Collector/ALS Tech/Client Name: MS **ID:** _____

Date: 5-10-24 **Time:** 1620

Relinquished By / Company Name: MS **ALS**

Received By / Company Name: DAGS **ALS**

Comments:

* G=Grab; C=Composite **Matrix - A=Air; D=Drinking Water; GW=Groundwater; O=Oil; LW=Liquid Waste; S=Solid/Solid/Sediment; SW=Surface Water; WPF=Wipe; WW=Wastewater



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

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
 State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343, NJ PA101

Analytical Results Report For **Lancaster County Solid Waste Authority**
 Project 2ND QTR 2024-3088 RIVER RD
 Workorder 3359229
 Report ID 329840 on 6/20/2024

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on May 10, 2024.

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

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

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

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

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

Susan Scherer

Susan Scherer
 Project Coordinator

(ALS Digital Signature)

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



Sample Summary

| <u>Lab ID</u> | <u>Sample ID</u> | <u>Matrix</u> | <u>Date Collected</u> | <u>Date Received</u> | <u>Collector</u> | <u>Collection Company</u> |
|---------------|-------------------------------|---------------|-----------------------|----------------------|------------------|-------------------------------|
| 3359229001 | 3088 River Road, Conestoga PA | Water | 05/10/2024 12:18 | 05/10/2024 16:20 | BGS | Analytical Laboratory Service |
| 3363154001 | 3088 River Road, Conestoga PA | Water | 06/06/2024 11:50 | 06/06/2024 16:20 | BGS | Analytical Laboratory Service |
| 3363154002 | Field Blank | Water | 06/06/2024 11:55 | 06/06/2024 16:20 | BGS | Analytical Laboratory Service |
| 3363154003 | Trip Blank | Water | 06/06/2024 16:20 | 06/06/2024 16:20 | BGS | Analytical Laboratory Service |



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
EPA 300.1 Rev. 1.0-1997
EPA 300.0 Rev. 2.1-1993
EPA 353.2 Rev. 2.0-1993
EPA 410.4 Rev. 1.0-1993
EPA 420.4 Rev. 1.0-1993
EPA 365.1 Rev. 2.0-1993
EPA 200.7 Rev. 4.4-1994
EPA 200.8 Rev. 5.4-1994
EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

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



Project Notations

Sample Notations

| Lab ID | Sample ID | | |
|------------|-------------------------------|----|---|
| 3359229001 | 3088 River Road, Conestoga PA | S1 | Volatile organics EPA 524.2 data was not reported due to suspected laboratory contamination for trans-1,2-Dichloroethene that occurred during sample storage. The client was notified on 05/29/24. The locations were resampled. SJS 06/10/24 |

Result Notations

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



Detected Results Summary

| | | | |
|------------------|-------------------------------|-------------|------------------|
| Client Sample ID | 3088 River Road, Conestoga PA | Collected | 05/10/2024 12:18 |
| Lab Sample ID | 3359229001 | Lab Receipt | 05/10/2024 16:20 |

| Compound | Result | Units | RDL | Method | Flag |
|------------------------------|--------|----------|--------|--------------|------|
| FIELD PARAMETERS | | | | | |
| pH, Field (SM4500B) | 8.29 | pH_Units | | Field | # |
| Specific Conductance, Field | 1210 | umhos/cm | 1 | Field | # |
| Temperature | 15.73 | Deg. C | | Field | # |
| METALS | | | | | |
| Calcium, Dissolved | 10.3 | mg/L | 0.10 | EPA 200.7 | # |
| Calcium, Total | 9.5 | mg/L | 0.050 | EPA 200.7 | # |
| Magnesium, Dissolved | 2.2 | mg/L | 0.10 | EPA 200.7 | # |
| Magnesium, Total | 1.9 | mg/L | 0.050 | EPA 200.7 | # |
| Manganese, Dissolved | 0.016 | mg/L | 0.0050 | EPA 200.7 | # |
| Manganese, Total | 0.014 | mg/L | 0.0025 | EPA 200.7 | # |
| Potassium, Total | 0.48 | mg/L | 0.25 | EPA 200.7 | # |
| Sodium, Dissolved | 243 | mg/L | 0.50 | EPA 200.7 | # |
| Sodium, Total | 230 | mg/L | 0.25 | EPA 200.7 | # |
| WET CHEMISTRY | | | | | |
| Alkalinity, Bicarbonate | 203 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 217 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 260 | mg/L | 5.0 | EPA 300.0 | # |
| Halogen, Total Organic (TOX) | 135 | ug/L | 20.0 | SW846 9020B | # |
| Nitrate-N | 6.6 | mg/L | 1.0 | EPA 300.0 | # |
| pH | 8.33 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 1220 | umhos/cm | 5 | SM2510B-2011 | # |
| Total Dissolved Solids | 658 | mg/L | 25 | SM2540C-15 | # |



Results

| | | | |
|------------------|-------------------------------|-------------|------------------|
| Client Sample ID | 3088 River Road, Conestoga PA | Collected | 05/10/2024 12:18 |
| Lab Sample ID | 3359229001 | Lab Receipt | 05/10/2024 16:20 |

FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|-----------------------------|--------|------|----------|-----|--------|----------|--------------------|-----|------|
| pH, Field (SM4500B) | 8.29 | S1 | pH_Units | | Field | 1 | 05/10/2024 12:18 | BGS | P |
| Specific Conductance, Field | 1210 | S1 | umhos/cm | 1 | Field | 1 | 05/10/2024 12:18 | BGS | P |
| Temperature | 15.73 | S1 | Deg. C | | Field | 1 | 05/10/2024 12:18 | BGS | P |

METALS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|----------------------|--------|-------|-------|--------|-----------|----------|--------------------|-----|------|
| Calcium, Dissolved | 10.3 | S1 | mg/L | 0.10 | EPA 200.7 | 1 | 05/15/2024 10:11 | AXW | F1 |
| Calcium, Total | 9.5 | S1 | mg/L | 0.050 | EPA 200.7 | 1 | 05/18/2024 12:21 | AXW | D1 |
| Iron, Dissolved | ND | ND,S1 | mg/L | 0.060 | EPA 200.7 | 1 | 05/15/2024 10:11 | AXW | F1 |
| Iron, Total | ND | ND,S1 | mg/L | 0.030 | EPA 200.7 | 1 | 05/18/2024 12:21 | AXW | D1 |
| Magnesium, Dissolved | 2.2 | S1 | mg/L | 0.10 | EPA 200.7 | 1 | 05/15/2024 10:11 | AXW | F1 |
| Magnesium, Total | 1.9 | S1 | mg/L | 0.050 | EPA 200.7 | 1 | 05/18/2024 12:21 | AXW | D1 |
| Manganese, Dissolved | 0.016 | S1 | mg/L | 0.0050 | EPA 200.7 | 1 | 05/15/2024 10:11 | AXW | F1 |
| Manganese, Total | 0.014 | S1 | mg/L | 0.0025 | EPA 200.7 | 1 | 05/18/2024 12:21 | AXW | D1 |
| Potassium, Dissolved | ND | ND,S1 | mg/L | 0.50 | EPA 200.7 | 1 | 05/15/2024 10:11 | AXW | F1 |
| Potassium, Total | 0.48 | S1 | mg/L | 0.25 | EPA 200.7 | 1 | 05/18/2024 12:21 | AXW | D1 |
| Sodium, Dissolved | 243 | S1 | mg/L | 0.50 | EPA 200.7 | 1 | 05/15/2024 10:11 | AXW | F1 |
| Sodium, Total | 230 | S1 | mg/L | 0.25 | EPA 200.7 | 1 | 05/18/2024 12:21 | AXW | D1 |

WET CHEMISTRY

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|------------------------------|--------|-------|----------|-------|-----------------|----------|--------------------|-----|------|
| Alkalinity, Bicarbonate | 203 | S1 | mg/L | 5 | SM2320B-2011 | 1 | 05/16/2024 04:24 | KMV | A |
| Alkalinity, Total | 217 | 1,S1 | mg/L | 5 | SM2320B-2011 | 1 | 05/16/2024 04:24 | KMV | A |
| Ammonia-N, Low Level | ND | ND,S1 | mg/L | 0.10 | SM 4500-NH3G | 1 | 05/14/2024 14:06 | NML | C |
| Chemical Oxygen Demand (COD) | ND | ND,S1 | mg/L | 15 | EPA 410.4 | 1 | 05/13/2024 15:18 | KMS | C |
| Chloride | 260 | S1 | mg/L | 5.0 | EPA 300.0 | 5 | 05/15/2024 18:52 | J1W | A |
| Fluoride | ND | ND,S1 | mg/L | 0.20 | EPA 300.0 | 2 | 05/11/2024 13:47 | J1W | A |
| Halogen, Total Organic (TOX) | 135 | S1 | ug/L | 20.0 | SW846 9020B | 1 | 05/30/2024 18:00 | PAG | K |
| Nitrate-N | 6.6 | S1 | mg/L | 1.0 | EPA 300.0 | 2 | 05/11/2024 13:47 | J1W | A |
| Nitrite-N | ND | ND,S1 | mg/L | 1.0 | EPA 300.0 | 2 | 05/11/2024 13:47 | J1W | A |
| pH | 8.33 | 2,S1 | pH_Units | | S4500HB-11 | 1 | 05/16/2024 04:24 | KMV | A |
| Phenolics | ND | ND,S1 | mg/L | 0.005 | EPA 420.4 | 1 | 05/15/2024 13:39 | AKH | J |
| Specific Conductance | 1220 | S1 | umhos/cm | 5 | SM2510B-2011 | 1 | 05/14/2024 15:05 | BLP | A |
| Sulfate | ND | ND,S1 | mg/L | 2.0 | EPA 300.0 | 2 | 05/11/2024 13:47 | J1W | A |
| Total Dissolved Solids | 658 | S1 | mg/L | 25 | SM2540C-15 | 1 | 05/13/2024 14:50 | RAG | A |
| Total Organic Carbon (TOC) | ND | ND,S1 | mg/L | 0.50 | SM5310B-14 | 1 | 05/13/2024 23:47 | PAG | H |
| Turbidity | ND | ND,S1 | NTU | 0.30 | SM2130B-2011 | 1 | 05/11/2024 14:06 | NPF | A |



Results

| | | | |
|------------------|-------------------------------|-------------|------------------|
| Client Sample ID | 3088 River Road, Conestoga PA | Collected | 06/06/2024 11:50 |
| Lab Sample ID | 3363154001 | Lab Receipt | 06/06/2024 16:20 |

VOLATILE ORGANICS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|--------------------------|--------|------|-------|------|-----------|----------|--------------------|-----|------|
| 1,1,1-Trichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 17:27 | ILY | L |
| 1,1-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 17:27 | ILY | L |
| 1,1-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 17:27 | ILY | L |
| 1,2-Dibromoethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 17:27 | ILY | L |
| 1,2-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 17:27 | ILY | L |
| Benzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 17:27 | ILY | L |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 17:27 | ILY | L |
| Ethylbenzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 17:27 | ILY | L |
| Methylene Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 17:27 | ILY | L |
| Tetrachloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 17:27 | ILY | L |
| Toluene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 17:27 | ILY | L |
| Total Xylenes | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 17:27 | ILY | L |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 17:27 | ILY | L |
| Trichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 17:27 | ILY | L |
| Trichlorofluoromethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 17:27 | ILY | L |
| Vinyl Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 17:27 | ILY | L |

SURROGATES

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|----------------------|----------|----------|-----------|--------------------|------------|
| 4-Bromofluorobenzene | 460-00-4 | 95.8% | 70 - 130 | 06/18/2024 17:27 | |



Results

| | | | |
|------------------|-------------|-------------|------------------|
| Client Sample ID | Field Blank | Collected | 06/06/2024 11:55 |
| Lab Sample ID | 3363154002 | Lab Receipt | 06/06/2024 16:20 |

VOLATILE ORGANICS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|--------------------------|--------|------|-------|------|-----------|----------|--------------------|-----|------|
| 1,1,1-Trichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 13:08 | ILY | A |
| 1,1-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 13:08 | ILY | A |
| 1,1-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 13:08 | ILY | A |
| 1,2-Dibromoethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 13:08 | ILY | A |
| 1,2-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 13:08 | ILY | A |
| Benzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 13:08 | ILY | A |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 13:08 | ILY | A |
| Ethylbenzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 13:08 | ILY | A |
| Methylene Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 13:08 | ILY | A |
| Tetrachloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 13:08 | ILY | A |
| Toluene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 13:08 | ILY | A |
| Total Xylenes | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 13:08 | ILY | A |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 13:08 | ILY | A |
| Trichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 13:08 | ILY | A |
| Trichlorofluoromethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 13:08 | ILY | A |
| Vinyl Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 13:08 | ILY | A |

SURROGATES

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|----------------------|----------|----------|-----------|--------------------|------------|
| 4-Bromofluorobenzene | 460-00-4 | 98.7% | 70 - 130 | 06/18/2024 13:08 | |



Results

| | | | |
|------------------|------------|-------------|------------------|
| Client Sample ID | Trip Blank | Collected | 06/06/2024 16:20 |
| Lab Sample ID | 3363154003 | Lab Receipt | 06/06/2024 16:20 |

VOLATILE ORGANICS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|--------------------------|--------|------|-------|------|-----------|----------|--------------------|-----|------|
| 1,1,1-Trichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 13:34 | ILY | A |
| 1,1-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 13:34 | ILY | A |
| 1,1-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 13:34 | ILY | A |
| 1,2-Dibromoethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 13:34 | ILY | A |
| 1,2-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 13:34 | ILY | A |
| Benzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 13:34 | ILY | A |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 13:34 | ILY | A |
| Ethylbenzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 13:34 | ILY | A |
| Methylene Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 13:34 | ILY | A |
| Tetrachloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 13:34 | ILY | A |
| Toluene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 13:34 | ILY | A |
| Total Xylenes | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 13:34 | ILY | A |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 13:34 | ILY | A |
| Trichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 13:34 | ILY | A |
| Trichlorofluoromethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 13:34 | ILY | A |
| Vinyl Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 06/18/2024 13:34 | ILY | A |

SURROGATES

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|----------------------|----------|----------|-----------|--------------------|------------|
| 4-Bromofluorobenzene | 460-00-4 | 95.5% | 70 - 130 | 06/18/2024 13:34 | |



Sample - Method Cross Reference Table

| Lab ID | Sample ID | Analysis Method | Preparation Method | Leachate Method |
|------------|-------------------------------|-----------------|--------------------|-----------------|
| 3359229001 | 3088 River Road, Conestoga PA | Field | N/A | |
| | | EPA 200.7 | EPA ACID | |
| | | EPA 200.7 | EPA TRMD | |
| | | EPA 300.0 | N/A | |
| | | EPA 300.0 | N/A | |
| | | EPA 410.4 | N/A | |
| | | EPA 420.4 | SW846 9066 | |
| | | S4500HB-11 | N/A | |
| | | SM 4500-NH3G | N/A | |
| | | SM2130B-2011 | N/A | |
| | | SM2320B-2011 | N/A | |
| | | SM2510B-2011 | N/A | |
| | | SM2540C-15 | N/A | |
| | | SM5310B-14 | N/A | |
| | | SW846 9020B | N/A | |
| 3363154001 | 3088 River Road, Conestoga PA | EPA 524.2 | N/A | |
| 3363154002 | Field Blank | EPA 524.2 | N/A | |
| 3363154003 | Trip Blank | EPA 524.2 | N/A | |



QUALITY CONTROL DATA CROSS REFERENCE TABLE

| Lab ID | Sample ID | Preparation Method | Prep Batch | Prep Date/Time | By | Analysis Method | Anly Batch |
|------------|-------------------------------|--------------------|------------|------------------|---------|-----------------|------------|
| 3359229001 | 3088 River Road, Conestoga PA | N/A | N/A | N/A | | Field | 1201211 |
| | | EPA ACID | 1201314 | 05/14/2024 09:52 | AXW | EPA 200.7 | 1202357 |
| | | EPA TRMD | 1202455 | 05/14/2024 21:58 | ANN | EPA 200.7 | 1206074 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1199706 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1202808 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1200906 |
| | | SW846 9066 | 1202403 | 05/14/2024 07:49 | AKH | EPA 420.4 | 1202906 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1202962 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1201010 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1199711 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1202962 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1202432 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1200631 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1201426 |
| N/A | N/A | N/A | | SW846 9020B | 1210439 | | |
| 3363154001 | 3088 River Road, Conestoga PA | N/A | N/A | N/A | | EPA 524.2 | 1223592 |
| 3363154002 | Field Blank | N/A | N/A | N/A | | EPA 524.2 | 1223592 |
| 3363154003 | Trip Blank | N/A | N/A | N/A | | EPA 524.2 | 1223592 |

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

**CHAIN OF CUSTODY/
REQUEST FOR ANALYSIS**

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

3359229

Logged By: SLS
PM: SJB



1229 of

Client Name: LCSWMA Hans Weber and Deb Kalbach
Address: 3088 River Rd
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
Purchase Order #:
 Normal-Standard TAT is 10-12 business days.
 Rush-Subject to ALS approval and surcharges.
Date Required: _____ **Approved?** _____
Email?

| Sample Description/Location (as it will appear on the lab report) | Date Collected mm/dd/yy | Time hh:mm | Container Type | AG | AN | AN | CG | P | P | P | P | P | P | P |
|--|----------------------------|---------------|----------------|------|-------|-------|--------|-------|-------|-------|------|-------|-----|-----|
| 1 3088RIVERRD | 5/10/24 | 1218 | G DW | 40ml | 250ml | 125ml | 40ml | 250ml | 125ml | 125ml | 1L | 500ml | UNP | UNP |
| 2 Trip Blank | 5/10/24 | 1620 | G DI | HCL | H2SO4 | H2SO4 | ASCHCL | H2SO4 | HNO3 | HNO3 | HNO3 | UNP | UNP | UNP |
| 3 | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | |

Circle Sample Collector/ALS Tech / Client Name: Deb Kalbach ID: _____
Date: 5-10-24 1620
Relinquished By / Company Name: Deb Kalbach
Received By / Company Name: DAG/ALS

Comments: _____

SDWA Sample Type (see key): _____
***G or C:** _____
****Matrix (See bottom of COC):** _____

Orthophosphate Filtered? Yes No Hexavalent Chromium Filtered? Yes No
ANALYSIS / METHOD REQUESTED

| | | | | | | | | |
|-----|-----|------|----|------------|--|------------------------------|--|------------------|
| TOC | TOX | O-OH | 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, SPC, TP | Alkalinity, HCO3 |
|-----|-----|------|----|------------|--|------------------------------|--|------------------|

Temp Taken By: _____ **Temp BY:** MS **WO Temp (°C):** 3
Therm ID: 571 **WO Temp (°C):** _____
Deviations? NO YES _____
Receipt Info Completed By: _____
Cooler Custody Seal Intact _____
Sample Custody Seal Intact _____
Received on Ice _____
Cooler & Samples Intact _____
Correct Containers Provided _____
Sample Label/COC Agree _____
Adequate Sample Volumes _____
CR6 Samples Filtered _____
OP Samples Filtered _____
VOA Trip Blank _____
NUS 4 Days? _____
Rad Screen (uCi) _____
Courier/Tracking #: _____
SDWA Compliance _____
PWSID _____
WV Containers 0-6°C _____
PWS Contact: _____ **PWS Phone #:** _____
SDWA Sample Type Key: D=Distribution E=Entry Point
R=Raw P=Plant C=Check S=Special A=Annual Startup

Client contact: _____ **Date/Tech:** _____
ad Screen (uCi) _____
HW Source? Y N
HW Source Contact: _____

Contains Short Hold Testing YES NO
Internal Use: If less than 48 hours - notify lab upon receipt

Standard Lvl 1 _____ **CLP-like** _____ **HSCA** _____
Standard Lvl 2 _____ **DOD** _____ **Landfill** _____
Standard Lvl 3 _____ **NU RED** _____ **NU GW** _____
Standard Lvl 4 _____ **NU Full** _____

Excel Summary _____ **Sample Disposal** _____
Equis _____ **Lab** _____ **Special** _____
Custom _____

Data Deliverables _____
EDS: _____
EDDS: _____

State Samples Collected in _____
NY _____ **PA** _____
NJ _____ **WV** _____
FL _____

Formet Type: _____

G=Grab; C=Composite** *Matrix - A=Air; D=Drinking Water; GW=Groundwater; O=Oil; LW=Liquid Waste; S=Solid/Soil/Sludge; SW=Surface Water; WP=Wipe; WW=Wastewater**

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

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

3359229
154 of

| | | | | | | | | | | | | | | |
|---|--|---|--------|-------|-------------------------------|--------|-------|-----------------------------|-------|-----|--------------------|----------------------------------|-----------|--------------|
| Client Name: LCSWMA Hans Weber and Deb Kalbach | | Container Type | CG | AN | AN | CG | P | P | P | P | P | Temp Taken By: | Therm ID: | WO Temp (°C) |
| Address: 3088 River Rd | | Container Size | 40ml | 250ml | 125ml | 40ml | 250ml | 125ml | 125ml | 1L | 500ml | Receipt Info completed by: _____ | | |
| Conestoga Pa 17516 | | Preservative | ASCHCL | H2SO4 | H2SO4 | ASCHCL | H2SO4 | HNO3 | HNO3 | UNP | UNP | WV Containers 0-6°C Y N NA | | |
| | | Orthophosphate Filtered? | Yes | No | Hexavalent Chromium Filtered? | Yes | No | Cooler Custody Seals Intact | | | Deviations? NO YES | | | |
| | | ANALYSIS / METHOD REQUESTED | | | | | | | | | | | | |
| Contact: Hans Weber and Deb Kalbach | | SDWA Sample Type (see key) | G | DW | 3 | 1 | 2 | 1 | 1 | 2 | 2 | Temp By: LZO G | | |
| Phone#: 717-419-7982 | | Enter Number of Containers Per Sample or Field Results Below. | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | Therm ID: 522 | | |
| Project Name#: LCSWMA Quarterly | | Matrix (See bottom of COC) | G | DW | 3 | 1 | 2 | 1 | 1 | 2 | 2 | Receipt Info Completed By: LZO G | | |
| Bill To: LCSWMA Hans Weber and Deb Kalbach | | FM | | | | | | | | | | Cooler Custody Seal Intact | | |
| Purchase Order #: | | EPA 524.2 Form 52 | | | | | | | | | | Sample Custody Seal Intact | | |
| TAT <input checked="" type="checkbox"/> Normal-Standard TAT is 10-12 business days. | | TOX | | | | | | | | | | Received on Ice | | |
| Rush-Subject to ALS approval and surcharges. | | O-H | | | | | | | | | | Cooler & Samples Intact | | |
| Date Required: _____ | | PH-TDS, NO2, NO3, Cl, SO4, F, SpG, Tp | | | | | | | | | | Correct Containers Provided | | |
| Approved? <input type="checkbox"/> | | Metals Ca, Fe, Mg, Mn, K, Na | | | | | | | | | | Sample Label/COC Agree | | |
| Email? <input type="checkbox"/> | | Disolved Metals Ca, Fe, Mg, Mn, K, Na | | | | | | | | | | Adequate Sample | | |
| Sample Description/Location | | Alkalinity, HCO3 | | | | | | | | | | VOA only: Trip Bla | | |
| 1 3088RIVERRD | | Enter Number of Containers Per Sample or Field Results Below. | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | NJ ≤ 4 days? | | |
| 2 Field Blank | | Matrix (See bottom of COC) | G | DW | 3 | 1 | 2 | 1 | 1 | 2 | 2 | Courier/Tracking # | | |
| 3 Trip Blank | | FM | | | | | | | | | | Sample(s) for Radi | | |
| 4 | | EPA 524.2 Form 52 | | | | | | | | | | Reportable SDWA | | |
| 5 | | TOX | | | | | | | | | | SDWA State of Ori | | |
| 6 | | O-H | | | | | | | | | | PWSID # | | |
| 7 | | PH-TDS, NO2, NO3, Cl, SO4, F, SpG, Tp | | | | | | | | | | PWS Contact: | | |
| 8 | | Metals Ca, Fe, Mg, Mn, K, Na | | | | | | | | | | SDWA Sample T | | |
| 9 | | Disolved Metals Ca, Fe, Mg, Mn, K, Na | | | | | | | | | | R=Raw f | | |
| 10 | | Alkalinity, HCO3 | | | | | | | | | | NIS: 4 Days? | | |
| | | Enter Number of Containers Per Sample or Field Results Below. | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | Rad Screen (uCi) | | |
| | | Matrix (See bottom of COC) | G | DW | 3 | 1 | 2 | 1 | 1 | 2 | 2 | Courier/Tracking #: | | |
| | | FM | | | | | | | | | | SDWA Compliance | | |
| | | EPA 524.2 Form 52 | | | | | | | | | | PWSID | | |
| | | TOX | | | | | | | | | | WV Containers 0-6°C | | |
| | | O-H | | | | | | | | | | | | |
| | | PH-TDS, NO2, NO3, Cl, SO4, F, SpG, Tp | | | | | | | | | | | | |
| | | Metals Ca, Fe, Mg, Mn, K, Na | | | | | | | | | | | | |
| | | Disolved Metals Ca, Fe, Mg, Mn, K, Na | | | | | | | | | | | | |
| | | Alkalinity, HCO3 | | | | | | | | | | | | |

Contains Short Hold Testing YES NO

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

| | | | | | | | | |
|---|--|----------------|--------------------------|-----------------|-------------------------------------|----------|----------------------------|----|
| Circle Sample Collector: ALS Tech / Client Name: <i>[Signature]</i> | Received By / Company Name: <i>[Signature]</i> | Standard Lvl 1 | <input type="checkbox"/> | CLP-like | <input type="checkbox"/> | HSCA | State Samples Collected In | NY |
| Date: 6/6/24 | 1 | Standard Lvl 2 | <input type="checkbox"/> | DOD | <input type="checkbox"/> | Landfill | NJ | |
| 2 | 3 | Standard Lvl 3 | <input type="checkbox"/> | NJ RED | <input type="checkbox"/> | NJ GW | PA | x |
| 3 | 4 | Standard Lvl 4 | <input type="checkbox"/> | NJ Full | <input type="checkbox"/> | | WV | |
| 4 | 5 | Excel Summary | <input type="checkbox"/> | Sample Disposal | | | FL | |
| 5 | 6 | Equis | <input type="checkbox"/> | Lab | <input checked="" type="checkbox"/> | | other | |
| 6 | 7 | Custom | <input type="checkbox"/> | Special | <input type="checkbox"/> | | | |
| 7 | 8 | EDDS: | <input type="checkbox"/> | Format Type | | | | |
| 8 | 9 | | <input type="checkbox"/> | | | | | |
| 9 | 10 | | <input type="checkbox"/> | | | | | |



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

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
 State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343, NJ PA101

Analytical Results Report For **Lancaster County Solid Waste Authority**
 Project 2ND QTR-2024 3100 RIVER RD
 Workorder 3359230
 Report ID 325891 on 5/31/2024

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on May 10, 2024.

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

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

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

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

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

Susan Scherer

Susan Scherer
 Project Coordinator

(ALS Digital Signature)

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



Sample Summary

| <u>Lab ID</u> | <u>Sample ID</u> | <u>Matrix</u> | <u>Date Collected</u> | <u>Date Received</u> | <u>Collector</u> | <u>Collection Company</u> |
|---------------|--------------------------------|---------------|-----------------------|----------------------|------------------|-------------------------------|
| 3359230001 | 3100 River Road, Conestoga, PA | Water | 05/10/2024 12:42 | 05/10/2024 16:20 | BGS | Analytical Laboratory Service |



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
 EPA 300.1 Rev. 1.0-1997
 EPA 300.0 Rev. 2.1-1993
 EPA 353.2 Rev. 2.0-1993
 EPA 410.4 Rev. 1.0-1993
 EPA 420.4 Rev. 1.0-1993
 EPA 365.1 Rev. 2.0-1993
 EPA 200.7 Rev. 4.4-1994
 EPA 200.8 Rev. 5.4-1994
 EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

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



Project Notations

Sample Notations

Lab ID **Sample ID**

Result Notations

Notation Ref.

- | | |
|---|---|
| 1 | The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO ₃ /L. |
| 2 | The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory. |



Detected Results Summary

| | | | |
|------------------|--------------------------------|-------------|------------------|
| Client Sample ID | 3100 River Road, Conestoga, PA | Collected | 05/10/2024 12:42 |
| Lab Sample ID | 3359230001 | Lab Receipt | 05/10/2024 16:20 |

| Compound | Result | Units | RDL | Method | Flag |
|-----------------------------|--------|----------|--------|--------------|------|
| FIELD PARAMETERS | | | | | |
| pH, Field (SM4500B) | 7.01 | pH_Units | | Field | # |
| Specific Conductance, Field | 221 | umhos/cm | 1 | Field | # |
| Temperature | 15.61 | Deg. C | | Field | # |
| METALS | | | | | |
| Calcium, Dissolved | 11.4 | mg/L | 0.10 | EPA 200.7 | # |
| Calcium, Total | 13.0 | mg/L | 0.050 | EPA 200.7 | # |
| Magnesium, Dissolved | 5.9 | mg/L | 0.10 | EPA 200.7 | # |
| Magnesium, Total | 6.2 | mg/L | 0.050 | EPA 200.7 | # |
| Manganese, Dissolved | 0.0091 | mg/L | 0.0050 | EPA 200.7 | # |
| Manganese, Total | 0.0094 | mg/L | 0.0025 | EPA 200.7 | # |
| Potassium, Dissolved | 1.5 | mg/L | 0.50 | EPA 200.7 | # |
| Potassium, Total | 1.4 | mg/L | 0.25 | EPA 200.7 | # |
| Sodium, Dissolved | 15.3 | mg/L | 0.50 | EPA 200.7 | # |
| Sodium, Total | 14.9 | mg/L | 0.25 | EPA 200.7 | # |
| WET CHEMISTRY | | | | | |
| Alkalinity, Bicarbonate | 21 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 21 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 40.7 | mg/L | 2.0 | EPA 300.0 | # |
| Nitrate-N | 3.4 | mg/L | 1.0 | EPA 300.0 | # |
| pH | 6.94 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 214 | umhos/cm | 5 | SM2510B-2011 | # |
| Sulfate | 5.9 | mg/L | 2.0 | EPA 300.0 | # |
| Total Dissolved Solids | 161 | mg/L | 25 | SM2540C-15 | # |



Results

| | | | |
|------------------|--------------------------------|-------------|------------------|
| Client Sample ID | 3100 River Road, Conestoga, PA | Collected | 05/10/2024 12:42 |
| Lab Sample ID | 3359230001 | Lab Receipt | 05/10/2024 16:20 |

FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|-----------------------------|--------|------|----------|-----|--------|----------|--------------------|-----|------|
| pH, Field (SM4500B) | 7.01 | | pH_Units | | Field | 1 | 05/10/2024 12:42 | BGS | P |
| Specific Conductance, Field | 221 | | umhos/cm | 1 | Field | 1 | 05/10/2024 12:42 | BGS | P |
| Temperature | 15.61 | | Deg. C | | Field | 1 | 05/10/2024 12:42 | BGS | P |

METALS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|----------------------|--------|------|-------|--------|-----------|----------|--------------------|-----|------|
| Calcium, Dissolved | 11.4 | | mg/L | 0.10 | EPA 200.7 | 1 | 05/15/2024 10:12 | AXW | F1 |
| Calcium, Total | 13.0 | | mg/L | 0.050 | EPA 200.7 | 1 | 05/18/2024 12:22 | AXW | D1 |
| Iron, Dissolved | ND | ND | mg/L | 0.060 | EPA 200.7 | 1 | 05/15/2024 10:12 | AXW | F1 |
| Iron, Total | ND | ND | mg/L | 0.030 | EPA 200.7 | 1 | 05/18/2024 12:22 | AXW | D1 |
| Magnesium, Dissolved | 5.9 | | mg/L | 0.10 | EPA 200.7 | 1 | 05/15/2024 10:12 | AXW | F1 |
| Magnesium, Total | 6.2 | | mg/L | 0.050 | EPA 200.7 | 1 | 05/18/2024 12:22 | AXW | D1 |
| Manganese, Dissolved | 0.0091 | | mg/L | 0.0050 | EPA 200.7 | 1 | 05/15/2024 10:12 | AXW | F1 |
| Manganese, Total | 0.0094 | | mg/L | 0.0025 | EPA 200.7 | 1 | 05/18/2024 12:22 | AXW | D1 |
| Potassium, Dissolved | 1.5 | | mg/L | 0.50 | EPA 200.7 | 1 | 05/15/2024 10:12 | AXW | F1 |
| Potassium, Total | 1.4 | | mg/L | 0.25 | EPA 200.7 | 1 | 05/18/2024 12:22 | AXW | D1 |
| Sodium, Dissolved | 15.3 | | mg/L | 0.50 | EPA 200.7 | 1 | 05/15/2024 10:12 | AXW | F1 |
| Sodium, Total | 14.9 | | mg/L | 0.25 | EPA 200.7 | 1 | 05/18/2024 12:22 | AXW | D1 |

VOLATILE ORGANICS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|--------------------------|--------|------|-------|------|-----------|----------|--------------------|-----|------|
| 1,1,1-Trichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 18:37 | ILY | M |
| 1,1-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 18:37 | ILY | M |
| 1,1-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 18:37 | ILY | M |
| 1,2-Dibromoethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 18:37 | ILY | M |
| 1,2-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 18:37 | ILY | M |
| Benzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 18:37 | ILY | M |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 18:37 | ILY | M |
| Ethylbenzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 18:37 | ILY | M |
| Methylene Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 18:37 | ILY | M |
| Tetrachloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 18:37 | ILY | M |
| Toluene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 18:37 | ILY | M |
| Total Xylenes | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 18:37 | ILY | M |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 18:37 | ILY | M |
| Trichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 18:37 | ILY | M |
| Trichlorofluoromethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 18:37 | ILY | M |
| Vinyl Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 18:37 | ILY | M |

SURROGATES

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|----------------------|----------|----------|-----------|--------------------|------------|
| 4-Bromofluorobenzene | 460-00-4 | 92% | 70 - 130 | 05/22/2024 18:37 | |

WET CHEMISTRY



Results

| | | | |
|------------------|--------------------------------|-------------|------------------|
| Client Sample ID | 3100 River Road, Conestoga, PA | Collected | 05/10/2024 12:42 |
| Lab Sample ID | 3359230001 | Lab Receipt | 05/10/2024 16:20 |

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|------------------------------|--------|------|----------|-------|-----------------|----------|--------------------|-----|------|
| Alkalinity, Bicarbonate | 21 | | mg/L | 5 | SM2320B-2011 | 1 | 05/16/2024 04:37 | KMV | A |
| Alkalinity, Total | 21 | 1 | mg/L | 5 | SM2320B-2011 | 1 | 05/16/2024 04:37 | KMV | A |
| Ammonia-N, Low Level | ND | ND | mg/L | 0.10 | SM 4500-NH3G | 1 | 05/14/2024 13:18 | NML | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 05/13/2024 15:18 | KMS | C |
| Chloride | 40.7 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/11/2024 13:58 | J1W | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 05/11/2024 13:58 | J1W | A |
| Halogen, Total Organic (TOX) | ND | ND | ug/L | 20.0 | SW846 9020B | 1 | 05/31/2024 16:57 | PAG | K |
| Nitrate-N | 3.4 | | mg/L | 1.0 | EPA 300.0 | 2 | 05/11/2024 13:58 | J1W | A |
| Nitrite-N | ND | ND | mg/L | 1.0 | EPA 300.0 | 2 | 05/11/2024 13:58 | J1W | A |
| pH | 6.94 | 2 | pH_Units | | S4500HB-11 | 1 | 05/16/2024 04:37 | KMV | A |
| Phenolics | ND | ND | mg/L | 0.005 | EPA 420.4 | 1 | 05/15/2024 14:13 | AKH | J |
| Specific Conductance | 214 | | umhos/cm | 5 | SM2510B-2011 | 1 | 05/14/2024 15:05 | BLP | A |
| Sulfate | 5.9 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/11/2024 13:58 | J1W | A |
| Total Dissolved Solids | 161 | | mg/L | 25 | SM2540C-15 | 1 | 05/13/2024 14:50 | RAG | A |
| Total Organic Carbon (TOC) | ND | ND | mg/L | 0.50 | SM5310B-14 | 1 | 05/13/2024 23:47 | PAG | H |
| Turbidity | ND | ND | NTU | 0.30 | SM2130B-2011 | 1 | 05/11/2024 14:06 | NPF | A |



Sample - Method Cross Reference Table

| Lab ID | Sample ID | Analysis Method | Preparation Method | Leachate Method |
|------------|--------------------------------|-----------------|--------------------|-----------------|
| 3359230001 | 3100 River Road, Conestoga, PA | Field | N/A | |
| | | EPA 200.7 | EPA TRMD | |
| | | EPA 200.7 | EPA ACID | |
| | | EPA 524.2 | N/A | |
| | | EPA 300.0 | N/A | |
| | | EPA 410.4 | N/A | |
| | | EPA 420.4 | SW846 9066 | |
| | | S4500HB-11 | N/A | |
| | | SM 4500-NH3G | N/A | |
| | | SM2130B-2011 | N/A | |
| | | SM2320B-2011 | N/A | |
| | | SM2510B-2011 | N/A | |
| | | SM2540C-15 | N/A | |
| | | SM5310B-14 | N/A | |
| | | SW846 9020B | N/A | |



QUALITY CONTROL DATA CROSS REFERENCE TABLE

| Lab ID | Sample ID | Preparation Method | Prep Batch | Prep Date/Time | By | Analysis Method | Anly Batch |
|------------|--------------------------------|--------------------|------------|------------------|---------|-----------------|------------|
| 3359230001 | 3100 River Road, Conestoga, PA | N/A | N/A | N/A | | Field | 1201211 |
| | | EPA TRMD | 1202455 | 05/14/2024 21:58 | ANN | EPA 200.7 | 1206074 |
| | | EPA ACID | 1201314 | 05/14/2024 09:52 | AXW | EPA 200.7 | 1202357 |
| | | N/A | N/A | N/A | | EPA 524.2 | 1207811 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1199706 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1200906 |
| | | SW846 9066 | 1202403 | 05/14/2024 07:49 | AKH | EPA 420.4 | 1202906 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1202962 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1201010 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1199711 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1202962 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1202432 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1200631 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1201426 |
| N/A | N/A | N/A | | SW846 9020B | 1210659 | | |



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

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

3359230

Logged By: SLS
PM: SJB



Client Name: LCSWMA Larry Kirchner
Address: 3100 River Rd
Conestoga Pa 17516
Contact: Larry Kirchner
Phone#: 717-584-0030
Project Name#: LCSWMA Quarterly
Bill To: LCSWMA
Purchase Order #:
TAT Normal-Standard TAT is 10-12 business days.
 Rush-Subject to ALS approval and surcharges.
Date Required: _____ Approved?
Email?

Temp Taken By: _____
Temp By: *MS* WO Temp (°C) *48*
Therm ID: *571*
WO Temp (°C) _____
Deviations? NO YES
If YES, list below.

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

Client contact:
Date/Fac: _____
Screen (uCi) _____
Source? Y N
Source Contact

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

| Orthophosphate Filtered? | Yes | No | Hexavalent Chromium Filtered? | Yes | No |
|--------------------------|-----|----|-------------------------------|-----|----|
| | | | | | |

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

| Sample Description/Location | Date Collected | Time |
|-----------------------------|----------------|------|
| 1 3100RIVERRD | 5/10/24 | 1242 |
| 2 Trip Blank | 5/10/24 | 1610 |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |

| SDWA Sample Type (see key) | *G or C | **Matrix (See bottom of COC) | TOC | TOX | O-OH | EPA 524.2 Form 52 | FM | NH3-N, COD | Dissolved Metals Ca, Fe, Mg, Mn, K, Na | Metals Ca, Fe, Mg, Mn, K, Na | PH, TDS, NO2, NO3, Cl, SO4, F, Sp, C, T, B | Alkalinity, HCO3 |
|----------------------------|---------|------------------------------|-----|-----|------|-------------------|----|------------|--|------------------------------|--|------------------|
| | G | DW | 2 | 2 | 1 | 3 | X | 1 | 2 | 2 | 1 | 1 |
| | G | DI | | | | 2 | | | | | | |
| | | | | | | | | | | | | |
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| | | | | | | | | | | | | |

Enter Number of Containers Per Sample or Field Results Below.

SDWA Sample Type Key: D=Distribution E=Entry Point
R=Raw P=Plant C=Check S=Special A=Annual Startup

Sample/COC Remarks

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

Contains Short Hold Testing YES NO

| Circle Sample Collector: ALS Tech / Client Name: | Time | Relinquished By / Company Name | Received By / Company Name |
|--|--------------|--------------------------------|----------------------------|
| <i>MS</i> | <i>16:00</i> | <i>ALS</i> | <i>DAGLAS</i> |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |



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

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
 State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343, NJ PA101

Analytical Results Report For **Lancaster County Solid Waste Authority**
 Project 2ND QTR 2024-3106 RIVER RD
 Workorder 3359231
 Report ID 325892 on 5/31/2024

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on May 10, 2024.

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

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

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

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

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

Susan Scherer

Susan Scherer
 Project Coordinator

(ALS Digital Signature)

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



Sample Summary

| <u>Lab ID</u> | <u>Sample ID</u> | <u>Matrix</u> | <u>Date Collected</u> | <u>Date Received</u> | <u>Collector</u> | <u>Collection Company</u> |
|---------------|--------------------------------|---------------|-----------------------|----------------------|------------------|-------------------------------|
| 3359231001 | 3106 River Road, Conestoga, PA | Water | 05/10/2024 13:05 | 05/10/2024 16:20 | BGS | Analytical Laboratory Service |



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
EPA 300.1 Rev. 1.0-1997
EPA 300.0 Rev. 2.1-1993
EPA 353.2 Rev. 2.0-1993
EPA 410.4 Rev. 1.0-1993
EPA 420.4 Rev. 1.0-1993
EPA 365.1 Rev. 2.0-1993
EPA 200.7 Rev. 4.4-1994
EPA 200.8 Rev. 5.4-1994
EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

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



Project Notations

Sample Notations

Lab ID **Sample ID**

Result Notations

Notation Ref.

- | | |
|---|---|
| 1 | The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO ₃ /L. |
| 2 | The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory. |



Detected Results Summary

| | | | |
|------------------|--------------------------------|-------------|------------------|
| Client Sample ID | 3106 River Road, Conestoga, PA | Collected | 05/10/2024 13:05 |
| Lab Sample ID | 3359231001 | Lab Receipt | 05/10/2024 16:20 |

| Compound | Result | Units | RDL | Method | Flag |
|-----------------------------|--------|----------|--------|--------------|------|
| FIELD PARAMETERS | | | | | |
| pH, Field (SM4500B) | 6.99 | pH_Units | | Field | # |
| Specific Conductance, Field | 380 | umhos/cm | 1 | Field | # |
| Temperature | 14.27 | Deg. C | | Field | # |
| METALS | | | | | |
| Calcium, Dissolved | 17.4 | mg/L | 0.10 | EPA 200.7 | # |
| Calcium, Total | 17.6 | mg/L | 0.050 | EPA 200.7 | # |
| Magnesium, Dissolved | 11.3 | mg/L | 0.10 | EPA 200.7 | # |
| Magnesium, Total | 11.0 | mg/L | 0.050 | EPA 200.7 | # |
| Manganese, Dissolved | 0.033 | mg/L | 0.0050 | EPA 200.7 | # |
| Manganese, Total | 0.032 | mg/L | 0.0025 | EPA 200.7 | # |
| Potassium, Dissolved | 1.7 | mg/L | 0.50 | EPA 200.7 | # |
| Potassium, Total | 1.7 | mg/L | 0.25 | EPA 200.7 | # |
| Sodium, Dissolved | 33.1 | mg/L | 0.50 | EPA 200.7 | # |
| Sodium, Total | 32.4 | mg/L | 0.25 | EPA 200.7 | # |
| WET CHEMISTRY | | | | | |
| Alkalinity, Bicarbonate | 20 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 20 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 80.8 | mg/L | 2.0 | EPA 300.0 | # |
| Nitrate-N | 8.0 | mg/L | 1.0 | EPA 300.0 | # |
| pH | 7.05 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 375 | umhos/cm | 5 | SM2510B-2011 | # |
| Sulfate | 6.0 | mg/L | 2.0 | EPA 300.0 | # |
| Total Dissolved Solids | 244 | mg/L | 25 | SM2540C-15 | # |
| Turbidity | 0.35 | NTU | 0.30 | SM2130B-2011 | # |



Results

| | | | |
|------------------|--------------------------------|-------------|------------------|
| Client Sample ID | 3106 River Road, Conestoga, PA | Collected | 05/10/2024 13:05 |
| Lab Sample ID | 3359231001 | Lab Receipt | 05/10/2024 16:20 |

FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|-----------------------------|--------|------|----------|-----|--------|----------|--------------------|-----|------|
| pH, Field (SM4500B) | 6.99 | | pH_Units | | Field | 1 | 05/10/2024 13:05 | BGS | P |
| Specific Conductance, Field | 380 | | umhos/cm | 1 | Field | 1 | 05/10/2024 13:05 | BGS | P |
| Temperature | 14.27 | | Deg. C | | Field | 1 | 05/10/2024 13:05 | BGS | P |

METALS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|----------------------|--------|------|-------|--------|-----------|----------|--------------------|-----|------|
| Calcium, Dissolved | 17.4 | | mg/L | 0.10 | EPA 200.7 | 1 | 05/15/2024 10:18 | AXW | F1 |
| Calcium, Total | 17.6 | | mg/L | 0.050 | EPA 200.7 | 1 | 05/18/2024 12:26 | AXW | D1 |
| Iron, Dissolved | ND | ND | mg/L | 0.060 | EPA 200.7 | 1 | 05/15/2024 10:18 | AXW | F1 |
| Iron, Total | ND | ND | mg/L | 0.030 | EPA 200.7 | 1 | 05/18/2024 12:26 | AXW | D1 |
| Magnesium, Dissolved | 11.3 | | mg/L | 0.10 | EPA 200.7 | 1 | 05/15/2024 10:18 | AXW | F1 |
| Magnesium, Total | 11.0 | | mg/L | 0.050 | EPA 200.7 | 1 | 05/18/2024 12:26 | AXW | D1 |
| Manganese, Dissolved | 0.033 | | mg/L | 0.0050 | EPA 200.7 | 1 | 05/15/2024 10:18 | AXW | F1 |
| Manganese, Total | 0.032 | | mg/L | 0.0025 | EPA 200.7 | 1 | 05/18/2024 12:26 | AXW | D1 |
| Potassium, Dissolved | 1.7 | | mg/L | 0.50 | EPA 200.7 | 1 | 05/15/2024 10:18 | AXW | F1 |
| Potassium, Total | 1.7 | | mg/L | 0.25 | EPA 200.7 | 1 | 05/18/2024 12:26 | AXW | D1 |
| Sodium, Dissolved | 33.1 | | mg/L | 0.50 | EPA 200.7 | 1 | 05/15/2024 10:18 | AXW | F1 |
| Sodium, Total | 32.4 | | mg/L | 0.25 | EPA 200.7 | 1 | 05/18/2024 12:26 | AXW | D1 |

VOLATILE ORGANICS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|--------------------------|--------|------|-------|------|-----------|----------|--------------------|-----|------|
| 1,1,1-Trichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 19:02 | ILY | M |
| 1,1-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 19:02 | ILY | M |
| 1,1-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 19:02 | ILY | M |
| 1,2-Dibromoethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 19:02 | ILY | M |
| 1,2-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 19:02 | ILY | M |
| Benzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 19:02 | ILY | M |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 19:02 | ILY | M |
| Ethylbenzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 19:02 | ILY | M |
| Methylene Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 19:02 | ILY | M |
| Tetrachloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 19:02 | ILY | M |
| Toluene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 19:02 | ILY | M |
| Total Xylenes | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 19:02 | ILY | M |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 19:02 | ILY | M |
| Trichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 19:02 | ILY | M |
| Trichlorofluoromethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 19:02 | ILY | M |
| Vinyl Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 19:02 | ILY | M |

SURROGATES

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|----------------------|----------|----------|-----------|--------------------|------------|
| 4-Bromofluorobenzene | 460-00-4 | 94.3% | 70 - 130 | 05/22/2024 19:02 | |

WET CHEMISTRY



Results

| | | | |
|------------------|--------------------------------|-------------|------------------|
| Client Sample ID | 3106 River Road, Conestoga, PA | Collected | 05/10/2024 13:05 |
| Lab Sample ID | 3359231001 | Lab Receipt | 05/10/2024 16:20 |

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|------------------------------|--------|------|----------|-------|-----------------|----------|--------------------|-----|------|
| Alkalinity, Bicarbonate | 20 | | mg/L | 5 | SM2320B-2011 | 1 | 05/16/2024 04:51 | KMV | A |
| Alkalinity, Total | 20 | 1 | mg/L | 5 | SM2320B-2011 | 1 | 05/16/2024 04:51 | KMV | A |
| Ammonia-N, Low Level | ND | ND | mg/L | 0.10 | SM 4500-NH3G | 1 | 05/14/2024 14:03 | NML | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 05/13/2024 15:18 | KMS | C |
| Chloride | 80.8 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/11/2024 14:10 | J1W | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 05/11/2024 14:10 | J1W | A |
| Halogen, Total Organic (TOX) | ND | ND | ug/L | 20.0 | SW846 9020B | 1 | 05/31/2024 16:57 | PAG | K |
| Nitrate-N | 8.0 | | mg/L | 1.0 | EPA 300.0 | 2 | 05/11/2024 14:10 | J1W | A |
| Nitrite-N | ND | ND | mg/L | 1.0 | EPA 300.0 | 2 | 05/11/2024 14:10 | J1W | A |
| pH | 7.05 | 2 | pH_Units | | S4500HB-11 | 1 | 05/16/2024 04:51 | KMV | A |
| Phenolics | ND | ND | mg/L | 0.005 | EPA 420.4 | 1 | 05/15/2024 14:02 | AKH | J |
| Specific Conductance | 375 | | umhos/cm | 5 | SM2510B-2011 | 1 | 05/14/2024 15:05 | BLP | A |
| Sulfate | 6.0 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/11/2024 14:10 | J1W | A |
| Total Dissolved Solids | 244 | | mg/L | 25 | SM2540C-15 | 1 | 05/13/2024 14:50 | RAG | A |
| Total Organic Carbon (TOC) | ND | ND | mg/L | 0.50 | SM5310B-14 | 1 | 05/13/2024 23:47 | PAG | H |
| Turbidity | 0.35 | | NTU | 0.30 | SM2130B-2011 | 1 | 05/11/2024 14:06 | NPF | A |



Sample - Method Cross Reference Table

| Lab ID | Sample ID | Analysis Method | Preparation Method | Leachate Method |
|------------|--------------------------------|-----------------|--------------------|-----------------|
| 3359231001 | 3106 River Road, Conestoga, PA | Field | N/A | |
| | | EPA 200.7 | EPA TRMD | |
| | | EPA 200.7 | EPA ACID | |
| | | EPA 524.2 | N/A | |
| | | EPA 300.0 | N/A | |
| | | EPA 410.4 | N/A | |
| | | EPA 420.4 | SW846 9066 | |
| | | S4500HB-11 | N/A | |
| | | SM 4500-NH3G | N/A | |
| | | SM2130B-2011 | N/A | |
| | | SM2320B-2011 | N/A | |
| | | SM2510B-2011 | N/A | |
| | | SM2540C-15 | N/A | |
| | | SM5310B-14 | N/A | |
| | | SW846 9020B | N/A | |



QUALITY CONTROL DATA CROSS REFERENCE TABLE

| Lab ID | Sample ID | Preparation Method | Prep Batch | Prep Date/Time | By | Analysis Method | Anly Batch |
|------------|--------------------------------|--------------------|------------|------------------|---------|-----------------|------------|
| 3359231001 | 3106 River Road, Conestoga, PA | N/A | N/A | N/A | | Field | 1201211 |
| | | EPA TRMD | 1202455 | 05/14/2024 21:58 | ANN | EPA 200.7 | 1206074 |
| | | EPA ACID | 1201314 | 05/14/2024 09:52 | AXW | EPA 200.7 | 1202357 |
| | | N/A | N/A | N/A | | EPA 524.2 | 1207811 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1199706 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1200906 |
| | | SW846 9066 | 1202403 | 05/14/2024 07:49 | AKH | EPA 420.4 | 1202906 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1202962 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1201010 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1199711 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1202962 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1202432 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1200631 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1201426 |
| N/A | N/A | N/A | | SW846 9020B | 1210659 | | |

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

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

3359231

Logged By: SLS
PH: SJB



of

| | | | | | | | | | | | | | | |
|--|-------------|---|---------|-------|-------------------------------|--------|-------|-------------------------------|-------|------|-------|----------------------|--------------------|--------------------|
| Client Name: LCSWMA Aaron Fry | | Container Type | AG | AN | OG | P | P | P | P | P | P | Temp By: WAB | Temp (°C) | WO Temp (°C) |
| Address: 3106 River Rd | | Container Size | 40ml | 250ml | 125ml | 40ml | 250ml | 125ml | 125ml | 1L | 500ml | WO Temp (°C) | WO Temp (°C) | WO Temp (°C) |
| Conestoga Pa 17516 | | Preservative | HCL | H2SO4 | H2SO4 | ASCHCL | H2SO4 | HNO3 | HNO3 | HNO3 | UNP | Therm ID: 571 | Deviations? NO YES | Deviations? NO YES |
| Contact: Aaron Fry | | Orthophosphate Filtered? | Yes | No | Hexavalent Chromium Filtered? | Yes | No | Hexavalent Chromium Filtered? | Yes | No | UNP | DPB | Y N NA | Y N NA |
| Phone#: 717-669-6831 | | ANALYSIS / METHOD REQUESTED | | | | | | | | | | | | |
| Project Name#: LCSWMA Quarterly | | Enter Number of Containers Per Sample or Field Results Below. | | | | | | | | | | | | |
| Bill To: LCSWMA Aaron Fry | | SDWA Sample Type (see key) | G | DW | 2 | 1 | 3 | X | 1 | 2 | 2 | 1 | 1 | 1 |
| Purchase Order #: | | **Matrix (See bottom of COC) | G | DW | 2 | 1 | 3 | X | 1 | 2 | 2 | 1 | 1 | 1 |
| TAT <input checked="" type="checkbox"/> Normal-Standard TAT is 10-12 business days. | | TOC | | | | | | | | | | | | |
| Date Required: <input type="checkbox"/> Rush-Subject to ALS approval and surcharges. | | TOX | | | | | | | | | | | | |
| Approved? <input type="checkbox"/> | | O-OH | | | | | | | | | | | | |
| Email? <input type="checkbox"/> | | EPA 524.2 Form 52 | | | | | | | | | | | | |
| Sample Description/Location (as it will appear on the lab report) | | FM | | | | | | | | | | | | |
| 1 | 3106RIVERRD | Date Collected | 5/10/24 | Time | 1305 | | | | | | | | | |
| 2 | Trip Blank | Date Collected | 5/10/24 | Time | 1600 | | | | | | | | | |
| 3 | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | |
| Circle Sample Collector/ALS Tech / Client Name: AS Shack | | Received By / Company Name: AS Shack | | | | | | | | | | | | |
| Date: 5-10-24 | | Date: 5-10-24 | | | | | | | | | | | | |
| Time: 6:20 | | Time: 6:20 | | | | | | | | | | | | |
| ID: 1 | | ID: 1 | | | | | | | | | | | | |
| Time: 3 | | Time: 3 | | | | | | | | | | | | |
| Time: 5 | | Time: 5 | | | | | | | | | | | | |
| Time: 7 | | Time: 7 | | | | | | | | | | | | |
| Time: 9 | | Time: 9 | | | | | | | | | | | | |
| Time: 10 | | Time: 10 | | | | | | | | | | | | |
| Comments: | | Comments: | | | | | | | | | | | | |
| State Samples Collected In | | State Samples Collected In | | | | | | | | | | | | |
| Standard Lvl 1 | | Standard Lvl 1 | | | | | | | | | | | | |
| Standard Lvl 2 | | Standard Lvl 2 | | | | | | | | | | | | |
| Standard Lvl 3 | | Standard Lvl 3 | | | | | | | | | | | | |
| Standard Lvl 4 | | Standard Lvl 4 | | | | | | | | | | | | |
| Excel Summary | | Excel Summary | | | | | | | | | | | | |
| Equis | | Equis | | | | | | | | | | | | |
| Custom | | Custom | | | | | | | | | | | | |
| Format Type | | Format Type | | | | | | | | | | | | |
| EDDS: | | EDDS: | | | | | | | | | | | | |
| Data Deliverables | | Data Deliverables | | | | | | | | | | | | |
| Sample Disposal | | Sample Disposal | | | | | | | | | | | | |
| Lab | | Lab | | | | | | | | | | | | |
| Special | | Special | | | | | | | | | | | | |
| HSCA | | HSCA | | | | | | | | | | | | |
| Landfill | | Landfill | | | | | | | | | | | | |
| NJ RED | | NJ RED | | | | | | | | | | | | |
| NJ Full | | NJ Full | | | | | | | | | | | | |
| NY | | NY | | | | | | | | | | | | |
| NJ | | NJ | | | | | | | | | | | | |
| PA | | PA | | | | | | | | | | | | |
| WV | | WV | | | | | | | | | | | | |
| FL | | FL | | | | | | | | | | | | |
| other | | other | | | | | | | | | | | | |



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

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
 State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343, NJ PA101

Analytical Results Report For **Lancaster County Solid Waste Authority**
 Project 2ND QTR 2024-3125 RIVER RD
 Workorder 3359232
 Report ID 325893 on 5/31/2024

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on May 10, 2024.

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

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

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

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

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

Susan Scherer

Susan Scherer
 Project Coordinator

(ALS Digital Signature)

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



Sample Summary

| <u>Lab ID</u> | <u>Sample ID</u> | <u>Matrix</u> | <u>Date Collected</u> | <u>Date Received</u> | <u>Collector</u> | <u>Collection Company</u> |
|---------------|--------------------------------|---------------|-----------------------|----------------------|------------------|-------------------------------|
| 3359232001 | 3125 River Road, Conestoga, PA | Water | 05/10/2024 13:30 | 05/10/2024 16:20 | BGS | Analytical Laboratory Service |
| 3359232002 | Field Blank | Water | 05/10/2024 14:00 | 05/10/2024 16:20 | BGS | Analytical Laboratory Service |
| 3359232003 | Trip Blank | Water | 05/10/2024 16:20 | 05/10/2024 16:20 | BGS | Analytical Laboratory Service |



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
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EPA 353.2 Rev. 2.0-1993
EPA 410.4 Rev. 1.0-1993
EPA 420.4 Rev. 1.0-1993
EPA 365.1 Rev. 2.0-1993
EPA 200.7 Rev. 4.4-1994
EPA 200.8 Rev. 5.4-1994
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- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

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



Project 2ND QTR 2024-3125 RIVER RD
Workorder 3359232

Project Notations

Sample Notations

Lab ID **Sample ID**

Result Notations

Notation Ref.

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



Detected Results Summary

| | | | |
|------------------|--------------------------------|-------------|------------------|
| Client Sample ID | 3125 River Road, Conestoga, PA | Collected | 05/10/2024 13:30 |
| Lab Sample ID | 3359232001 | Lab Receipt | 05/10/2024 16:20 |

| Compound | Result | Units | RDL | Method | Flag |
|------------------------------|--------|----------|-------|--------------|------|
| FIELD PARAMETERS | | | | | |
| pH, Field (SM4500B) | 8.17 | pH_Units | | Field | # |
| Specific Conductance, Field | 782 | umhos/cm | 1 | Field | # |
| Temperature | 14.76 | Deg. C | | Field | # |
| METALS | | | | | |
| Calcium, Dissolved | 0.11 | mg/L | 0.10 | EPA 200.7 | # |
| Calcium, Total | 0.14 | mg/L | 0.050 | EPA 200.7 | # |
| Potassium, Total | 0.48 | mg/L | 0.25 | EPA 200.7 | # |
| Sodium, Dissolved | 186 | mg/L | 0.50 | EPA 200.7 | # |
| Sodium, Total | 175 | mg/L | 0.25 | EPA 200.7 | # |
| WET CHEMISTRY | | | | | |
| Alkalinity, Bicarbonate | 179 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 179 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 121 | mg/L | 2.0 | EPA 300.0 | # |
| Halogen, Total Organic (TOX) | 76.8 | ug/L | 20.0 | SW846 9020B | # |
| Nitrate-N | 5.7 | mg/L | 1.0 | EPA 300.0 | # |
| pH | 8.15 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 792 | umhos/cm | 5 | SM2510B-2011 | # |
| Sulfate | 24.8 | mg/L | 2.0 | EPA 300.0 | # |
| Total Dissolved Solids | 462 | mg/L | 25 | SM2540C-15 | # |
| Total Organic Carbon (TOC) | 0.53 | mg/L | 0.50 | SM5310B-14 | # |



Results

| | | | |
|------------------|--------------------------------|-------------|------------------|
| Client Sample ID | 3125 River Road, Conestoga, PA | Collected | 05/10/2024 13:30 |
| Lab Sample ID | 3359232001 | Lab Receipt | 05/10/2024 16:20 |

FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|-----------------------------|--------|------|----------|-----|--------|----------|--------------------|-----|------|
| pH, Field (SM4500B) | 8.17 | | pH_Units | | Field | 1 | 05/10/2024 13:30 | BGS | P |
| Specific Conductance, Field | 782 | | umhos/cm | 1 | Field | 1 | 05/10/2024 13:30 | BGS | P |
| Temperature | 14.76 | | Deg. C | | Field | 1 | 05/10/2024 13:30 | BGS | P |

METALS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|----------------------|--------|------|-------|--------|-----------|----------|--------------------|-----|------|
| Calcium, Dissolved | 0.11 | | mg/L | 0.10 | EPA 200.7 | 1 | 05/15/2024 10:09 | AXW | F1 |
| Calcium, Total | 0.14 | | mg/L | 0.050 | EPA 200.7 | 1 | 05/18/2024 12:27 | AXW | D1 |
| Iron, Dissolved | ND | ND | mg/L | 0.060 | EPA 200.7 | 1 | 05/15/2024 10:09 | AXW | F1 |
| Iron, Total | ND | ND | mg/L | 0.030 | EPA 200.7 | 1 | 05/18/2024 12:27 | AXW | D1 |
| Magnesium, Dissolved | ND | ND | mg/L | 0.10 | EPA 200.7 | 1 | 05/15/2024 10:09 | AXW | F1 |
| Magnesium, Total | ND | ND | mg/L | 0.050 | EPA 200.7 | 1 | 05/18/2024 12:27 | AXW | D1 |
| Manganese, Dissolved | ND | ND | mg/L | 0.0050 | EPA 200.7 | 1 | 05/15/2024 10:09 | AXW | F1 |
| Manganese, Total | ND | ND | mg/L | 0.0025 | EPA 200.7 | 1 | 05/18/2024 12:27 | AXW | D1 |
| Potassium, Dissolved | ND | ND | mg/L | 0.50 | EPA 200.7 | 1 | 05/15/2024 10:09 | AXW | F1 |
| Potassium, Total | 0.48 | | mg/L | 0.25 | EPA 200.7 | 1 | 05/18/2024 12:27 | AXW | D1 |
| Sodium, Dissolved | 186 | | mg/L | 0.50 | EPA 200.7 | 1 | 05/15/2024 10:09 | AXW | F1 |
| Sodium, Total | 175 | | mg/L | 0.25 | EPA 200.7 | 1 | 05/18/2024 12:27 | AXW | D1 |

VOLATILE ORGANICS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|--------------------------|--------|------|-------|------|-----------|----------|--------------------|-----|------|
| 1,1,1-Trichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 19:28 | ILY | M |
| 1,1-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 19:28 | ILY | M |
| 1,1-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 19:28 | ILY | M |
| 1,2-Dibromoethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 19:28 | ILY | M |
| 1,2-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 19:28 | ILY | M |
| Benzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 19:28 | ILY | M |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 19:28 | ILY | M |
| Ethylbenzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 19:28 | ILY | M |
| Methylene Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 19:28 | ILY | M |
| Tetrachloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 19:28 | ILY | M |
| Toluene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 19:28 | ILY | M |
| Total Xylenes | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 19:28 | ILY | M |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 19:28 | ILY | M |
| Trichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 19:28 | ILY | M |
| Trichlorofluoromethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 19:28 | ILY | M |
| Vinyl Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 19:28 | ILY | M |

SURROGATES

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|----------------------|----------|----------|-----------|--------------------|------------|
| 4-Bromofluorobenzene | 460-00-4 | 93.6% | 70 - 130 | 05/22/2024 19:28 | |

WET CHEMISTRY



Results

| | | | |
|------------------|--------------------------------|-------------|------------------|
| Client Sample ID | 3125 River Road, Conestoga, PA | Collected | 05/10/2024 13:30 |
| Lab Sample ID | 3359232001 | Lab Receipt | 05/10/2024 16:20 |

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|------------------------------|--------|------|----------|-------|-----------------|----------|--------------------|-----|------|
| Alkalinity, Bicarbonate | 179 | | mg/L | 5 | SM2320B-2011 | 1 | 05/16/2024 05:02 | KMV | A |
| Alkalinity, Total | 179 | 1 | mg/L | 5 | SM2320B-2011 | 1 | 05/16/2024 05:02 | KMV | A |
| Ammonia-N, Low Level | ND | ND | mg/L | 0.10 | SM 4500-NH3G | 1 | 05/14/2024 13:21 | NML | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 05/13/2024 15:18 | KMS | C |
| Chloride | 121 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/11/2024 14:21 | J1W | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 05/11/2024 14:21 | J1W | A |
| Halogen, Total Organic (TOX) | 76.8 | | ug/L | 20.0 | SW846 9020B | 1 | 05/31/2024 16:57 | PAG | K |
| Nitrate-N | 5.7 | | mg/L | 1.0 | EPA 300.0 | 2 | 05/11/2024 14:21 | J1W | A |
| Nitrite-N | ND | ND | mg/L | 1.0 | EPA 300.0 | 2 | 05/11/2024 14:21 | J1W | A |
| pH | 8.15 | 2 | pH_Units | | S4500HB-11 | 1 | 05/16/2024 05:02 | KMV | A |
| Phenolics | ND | ND | mg/L | 0.005 | EPA 420.4 | 1 | 05/15/2024 12:37 | AKH | J |
| Specific Conductance | 792 | | umhos/cm | 5 | SM2510B-2011 | 1 | 05/14/2024 15:05 | BLP | A |
| Sulfate | 24.8 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/11/2024 14:21 | J1W | A |
| Total Dissolved Solids | 462 | | mg/L | 25 | SM2540C-15 | 1 | 05/13/2024 14:50 | RAG | A |
| Total Organic Carbon (TOC) | 0.53 | | mg/L | 0.50 | SM5310B-14 | 1 | 05/13/2024 23:47 | PAG | H |
| Turbidity | ND | ND | NTU | 0.30 | SM2130B-2011 | 1 | 05/11/2024 14:06 | NPF | A |



Results

| | | | |
|------------------|-------------|-------------|------------------|
| Client Sample ID | Field Blank | Collected | 05/10/2024 14:00 |
| Lab Sample ID | 3359232002 | Lab Receipt | 05/10/2024 16:20 |

VOLATILE ORGANICS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|--------------------------|--------|------|-------|------|-----------|----------|--------------------|-----|------|
| 1,1,1-Trichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 12:34 | ILY | A |
| 1,1-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 12:34 | ILY | A |
| 1,1-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 12:34 | ILY | A |
| 1,2-Dibromoethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 12:34 | ILY | A |
| 1,2-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 12:34 | ILY | A |
| Benzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 12:34 | ILY | A |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 12:34 | ILY | A |
| Ethylbenzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 12:34 | ILY | A |
| Methylene Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 12:34 | ILY | A |
| Tetrachloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 12:34 | ILY | A |
| Toluene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 12:34 | ILY | A |
| Total Xylenes | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 12:34 | ILY | A |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 12:34 | ILY | A |
| Trichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 12:34 | ILY | A |
| Trichlorofluoromethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 12:34 | ILY | A |
| Vinyl Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 12:34 | ILY | A |

SURROGATES

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|----------------------|----------|----------|-----------|--------------------|------------|
| 4-Bromofluorobenzene | 460-00-4 | 94.7% | 70 - 130 | 05/22/2024 12:34 | |



Results

| | | | |
|------------------|------------|-------------|------------------|
| Client Sample ID | Trip Blank | Collected | 05/10/2024 16:20 |
| Lab Sample ID | 3359232003 | Lab Receipt | 05/10/2024 16:20 |

VOLATILE ORGANICS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|--------------------------|--------|------|-------|------|-----------|----------|--------------------|-----|------|
| 1,1,1-Trichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 13:00 | ILY | A |
| 1,1-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 13:00 | ILY | A |
| 1,1-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 13:00 | ILY | A |
| 1,2-Dibromoethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 13:00 | ILY | A |
| 1,2-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 13:00 | ILY | A |
| Benzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 13:00 | ILY | A |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 13:00 | ILY | A |
| Ethylbenzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 13:00 | ILY | A |
| Methylene Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 13:00 | ILY | A |
| Tetrachloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 13:00 | ILY | A |
| Toluene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 13:00 | ILY | A |
| Total Xylenes | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 13:00 | ILY | A |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 13:00 | ILY | A |
| Trichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 13:00 | ILY | A |
| Trichlorofluoromethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 13:00 | ILY | A |
| Vinyl Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 13:00 | ILY | A |

SURROGATES

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|----------------------|----------|----------|-----------|--------------------|------------|
| 4-Bromofluorobenzene | 460-00-4 | 95.3% | 70 - 130 | 05/22/2024 13:00 | |



Sample - Method Cross Reference Table

| Lab ID | Sample ID | Analysis Method | Preparation Method | Leachate Method |
|-------------|--------------------------------|-----------------|--------------------|-----------------|
| 3359232001 | 3125 River Road, Conestoga, PA | Field | N/A | |
| | | EPA 200.7 | EPA TRMD | |
| | | EPA 200.7 | EPA ACID | |
| | | EPA 524.2 | N/A | |
| | | EPA 300.0 | N/A | |
| | | EPA 410.4 | N/A | |
| | | EPA 420.4 | SW846 9066 | |
| | | S4500HB-11 | N/A | |
| | | SM 4500-NH3G | N/A | |
| | | SM2130B-2011 | N/A | |
| | | SM2320B-2011 | N/A | |
| | | SM2510B-2011 | N/A | |
| | | SM2540C-15 | N/A | |
| | | SM5310B-14 | N/A | |
| SW846 9020B | N/A | | | |
| 3359232002 | Field Blank | EPA 524.2 | N/A | |
| 3359232003 | Trip Blank | EPA 524.2 | N/A | |



QUALITY CONTROL DATA CROSS REFERENCE TABLE

| Lab ID | Sample ID | Preparation Method | Prep Batch | Prep Date/Time | By | Analysis Method | Anly Batch |
|------------|--------------------------------|--------------------|------------|------------------|---------|-----------------|------------|
| 3359232001 | 3125 River Road, Conestoga, PA | N/A | N/A | N/A | | Field | 1201211 |
| | | EPA TRMD | 1202455 | 05/14/2024 21:58 | ANN | EPA 200.7 | 1206074 |
| | | EPA ACID | 1201314 | 05/14/2024 09:52 | AXW | EPA 200.7 | 1202357 |
| | | N/A | N/A | N/A | | EPA 524.2 | 1207811 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1199706 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1200906 |
| | | SW846 9066 | 1202403 | 05/14/2024 07:49 | AKH | EPA 420.4 | 1202906 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1202962 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1201010 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1199711 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1202962 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1202432 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1200631 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1201426 |
| N/A | N/A | N/A | | SW846 9020B | 1210659 | | |
| 3359232002 | Field Blank | N/A | N/A | N/A | | EPA 524.2 | 1207811 |
| 3359232003 | Trip Blank | N/A | N/A | N/A | | EPA 524.2 | 1207811 |



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

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
 State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343, NJ PA101

Analytical Results Report For **Lancaster County Solid Waste Authority**
 Project 2ND QTR 2024 3052 RIVER RD
 Workorder 3359219
 Report ID 326093 on 6/4/2024

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on May 10, 2024.

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

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

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

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

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

Susan Scherer

Susan Scherer
 Project Coordinator

(ALS Digital Signature)

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



Sample Summary

| <u>Lab ID</u> | <u>Sample ID</u> | <u>Matrix</u> | <u>Date Collected</u> | <u>Date Received</u> | <u>Collector</u> | <u>Collection Company</u> |
|---------------|--------------------------------|---------------|-----------------------|----------------------|------------------|-------------------------------|
| 3359219001 | 3052 River Road, Conestoga, PA | Water | 05/10/2024 10:28 | 05/10/2024 16:20 | BGS | Analytical Laboratory Service |



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
EPA 300.1 Rev. 1.0-1997
EPA 300.0 Rev. 2.1-1993
EPA 353.2 Rev. 2.0-1993
EPA 410.4 Rev. 1.0-1993
EPA 420.4 Rev. 1.0-1993
EPA 365.1 Rev. 2.0-1993
EPA 200.7 Rev. 4.4-1994
EPA 200.8 Rev. 5.4-1994
EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

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



Project Notations

Sample Notations

Lab ID **Sample ID**

Result Notations

Notation Ref.

- | | |
|---|---|
| 1 | The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO ₃ /L. |
| 2 | The QC sample type MS for method EPA 300.0 was outside the control limits for the analyte Nitrate-N. The % Recovery was reported as 62.1 and the control limits were 80 to 120. |
| 3 | The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory. |



Detected Results Summary

| | | | |
|------------------|--------------------------------|-------------|------------------|
| Client Sample ID | 3052 River Road, Conestoga, PA | Collected | 05/10/2024 10:28 |
| Lab Sample ID | 3359219001 | Lab Receipt | 05/10/2024 16:20 |

| Compound | Result | Units | RDL | Method | Flag |
|-----------------------------|--------|----------|--------|--------------|------|
| FIELD PARAMETERS | | | | | |
| pH, Field (SM4500B) | 6.61 | pH_Units | | Field | # |
| Specific Conductance, Field | 240 | umhos/cm | 1 | Field | # |
| Temperature | 14.32 | Deg. C | | Field | # |
| METALS | | | | | |
| Calcium, Dissolved | 19.5 | mg/L | 0.10 | EPA 200.7 | # |
| Calcium, Total | 19.5 | mg/L | 0.050 | EPA 200.7 | # |
| Magnesium, Dissolved | 7.9 | mg/L | 0.10 | EPA 200.7 | # |
| Magnesium, Total | 7.9 | mg/L | 0.050 | EPA 200.7 | # |
| Manganese, Dissolved | 0.013 | mg/L | 0.0050 | EPA 200.7 | # |
| Manganese, Total | 0.014 | mg/L | 0.0025 | EPA 200.7 | # |
| Potassium, Dissolved | 1.6 | mg/L | 0.50 | EPA 200.7 | # |
| Potassium, Total | 1.6 | mg/L | 0.25 | EPA 200.7 | # |
| Sodium, Dissolved | 8.5 | mg/L | 0.50 | EPA 200.7 | # |
| Sodium, Total | 8.3 | mg/L | 0.25 | EPA 200.7 | # |
| WET CHEMISTRY | | | | | |
| Alkalinity, Bicarbonate | 9 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 9 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 19.4 | mg/L | 2.0 | EPA 300.0 | # |
| Nitrate-N | 17.9 | mg/L | 1.0 | EPA 300.0 | # |
| pH | 6.64 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 234 | umhos/cm | 5 | SM2510B-2011 | # |
| Sulfate | 2.6 | mg/L | 2.0 | EPA 300.0 | # |
| Total Dissolved Solids | 191 | mg/L | 25 | SM2540C-15 | # |
| Turbidity | 0.60 | NTU | 0.30 | SM2130B-2011 | # |



Results

| | | | |
|------------------|--------------------------------|-------------|------------------|
| Client Sample ID | 3052 River Road, Conestoga, PA | Collected | 05/10/2024 10:28 |
| Lab Sample ID | 3359219001 | Lab Receipt | 05/10/2024 16:20 |

FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|-----------------------------|--------|------|----------|-----|--------|----------|--------------------|-----|------|
| pH, Field (SM4500B) | 6.61 | | pH_Units | | Field | 1 | 05/10/2024 10:28 | BGS | P |
| Specific Conductance, Field | 240 | | umhos/cm | 1 | Field | 1 | 05/10/2024 10:28 | BGS | P |
| Temperature | 14.32 | | Deg. C | | Field | 1 | 05/10/2024 10:28 | BGS | P |

METALS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|----------------------|--------|------|-------|--------|-----------|----------|--------------------|-----|------|
| Calcium, Dissolved | 19.5 | | mg/L | 0.10 | EPA 200.7 | 1 | 05/15/2024 10:07 | AXW | F1 |
| Calcium, Total | 19.5 | | mg/L | 0.050 | EPA 200.7 | 1 | 05/18/2024 12:12 | AXW | D1 |
| Iron, Dissolved | ND | ND | mg/L | 0.060 | EPA 200.7 | 1 | 05/15/2024 10:07 | AXW | F1 |
| Iron, Total | ND | ND | mg/L | 0.030 | EPA 200.7 | 1 | 05/18/2024 12:12 | AXW | D1 |
| Magnesium, Dissolved | 7.9 | | mg/L | 0.10 | EPA 200.7 | 1 | 05/15/2024 10:07 | AXW | F1 |
| Magnesium, Total | 7.9 | | mg/L | 0.050 | EPA 200.7 | 1 | 05/18/2024 12:12 | AXW | D1 |
| Manganese, Dissolved | 0.013 | | mg/L | 0.0050 | EPA 200.7 | 1 | 05/15/2024 10:07 | AXW | F1 |
| Manganese, Total | 0.014 | | mg/L | 0.0025 | EPA 200.7 | 1 | 05/18/2024 12:12 | AXW | D1 |
| Potassium, Dissolved | 1.6 | | mg/L | 0.50 | EPA 200.7 | 1 | 05/15/2024 10:07 | AXW | F1 |
| Potassium, Total | 1.6 | | mg/L | 0.25 | EPA 200.7 | 1 | 05/18/2024 12:12 | AXW | D1 |
| Sodium, Dissolved | 8.5 | | mg/L | 0.50 | EPA 200.7 | 1 | 05/15/2024 10:07 | AXW | F1 |
| Sodium, Total | 8.3 | | mg/L | 0.25 | EPA 200.7 | 1 | 05/18/2024 12:12 | AXW | D1 |

VOLATILE ORGANICS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|--------------------------|--------|------|-------|------|-----------|----------|--------------------|-----|------|
| 1,1,1-Trichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/21/2024 19:19 | ILY | M |
| 1,1-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/21/2024 19:19 | ILY | M |
| 1,1-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/21/2024 19:19 | ILY | M |
| 1,2-Dibromoethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/21/2024 19:19 | ILY | M |
| 1,2-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/21/2024 19:19 | ILY | M |
| Benzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/21/2024 19:19 | ILY | M |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/21/2024 19:19 | ILY | M |
| Ethylbenzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/21/2024 19:19 | ILY | M |
| Methylene Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/21/2024 19:19 | ILY | M |
| Tetrachloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/21/2024 19:19 | ILY | M |
| Toluene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/21/2024 19:19 | ILY | M |
| Total Xylenes | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/21/2024 19:19 | ILY | M |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/21/2024 19:19 | ILY | M |
| Trichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/21/2024 19:19 | ILY | M |
| Trichlorofluoromethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/21/2024 19:19 | ILY | M |
| Vinyl Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/21/2024 19:19 | ILY | M |

SURROGATES

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|----------------------|----------|----------|-----------|--------------------|------------|
| 4-Bromofluorobenzene | 460-00-4 | 88.4% | 70 - 130 | 05/21/2024 19:19 | |

WET CHEMISTRY



Results

| | | | |
|------------------|--------------------------------|-------------|------------------|
| Client Sample ID | 3052 River Road, Conestoga, PA | Collected | 05/10/2024 10:28 |
| Lab Sample ID | 3359219001 | Lab Receipt | 05/10/2024 16:20 |

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|------------------------------|--------|------|----------|-------|-----------------|----------|--------------------|-----|------|
| Alkalinity, Bicarbonate | 9 | | mg/L | 5 | SM2320B-2011 | 1 | 05/16/2024 03:32 | KMV | A |
| Alkalinity, Total | 9 | 1 | mg/L | 5 | SM2320B-2011 | 1 | 05/16/2024 03:32 | KMV | A |
| Ammonia-N, Low Level | ND | ND | mg/L | 0.10 | SM 4500-NH3G | 1 | 05/14/2024 13:54 | NML | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 05/13/2024 11:30 | KMS | C |
| Chloride | 19.4 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/11/2024 12:04 | J1W | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 05/11/2024 12:04 | J1W | A |
| Halogen, Total Organic (TOX) | ND | ND | ug/L | 20.0 | SW846 9020B | 1 | 06/01/2024 18:21 | NPF | K |
| Nitrate-N | 17.9 | 2 | mg/L | 1.0 | EPA 300.0 | 2 | 05/11/2024 12:04 | J1W | A |
| Nitrite-N | ND | ND | mg/L | 1.0 | EPA 300.0 | 2 | 05/11/2024 12:04 | J1W | A |
| pH | 6.64 | 3 | pH_Units | | S4500HB-11 | 1 | 05/16/2024 03:32 | KMV | A |
| Phenolics | ND | ND | mg/L | 0.005 | EPA 420.4 | 1 | 05/15/2024 13:04 | AKH | J |
| Specific Conductance | 234 | | umhos/cm | 5 | SM2510B-2011 | 1 | 05/14/2024 15:05 | BLP | A |
| Sulfate | 2.6 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/11/2024 12:04 | J1W | A |
| Total Dissolved Solids | 191 | | mg/L | 25 | SM2540C-15 | 1 | 05/13/2024 14:50 | RAG | A |
| Total Organic Carbon (TOC) | ND | ND | mg/L | 0.50 | SM5310B-14 | 1 | 05/13/2024 23:47 | PAG | H |
| Turbidity | 0.60 | | NTU | 0.30 | SM2130B-2011 | 1 | 05/11/2024 14:06 | NPF | A |



Sample - Method Cross Reference Table

| Lab ID | Sample ID | Analysis Method | Preparation Method | Leachate Method |
|------------|--------------------------------|-----------------|--------------------|-----------------|
| 3359219001 | 3052 River Road, Conestoga, PA | Field | N/A | |
| | | EPA 200.7 | EPA TRMD | |
| | | EPA 200.7 | EPA ACID | |
| | | EPA 524.2 | N/A | |
| | | EPA 300.0 | N/A | |
| | | EPA 410.4 | N/A | |
| | | EPA 420.4 | SW846 9066 | |
| | | S4500HB-11 | N/A | |
| | | SM 4500-NH3G | N/A | |
| | | SM2130B-2011 | N/A | |
| | | SM2320B-2011 | N/A | |
| | | SM2510B-2011 | N/A | |
| | | SM2540C-15 | N/A | |
| | | SM5310B-14 | N/A | |
| | | SW846 9020B | N/A | |



QUALITY CONTROL DATA CROSS REFERENCE TABLE

| Lab ID | Sample ID | Preparation Method | Prep Batch | Prep Date/Time | By | Analysis Method | Anly Batch |
|------------|--------------------------------|--------------------|------------|------------------|---------|-----------------|------------|
| 3359219001 | 3052 River Road, Conestoga, PA | N/A | N/A | N/A | | Field | 1201211 |
| | | EPA TRMD | 1202455 | 05/14/2024 21:58 | ANN | EPA 200.7 | 1206074 |
| | | EPA ACID | 1201314 | 05/14/2024 09:52 | AXW | EPA 200.7 | 1202357 |
| | | N/A | N/A | N/A | | EPA 524.2 | 1206509 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1199706 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1200621 |
| | | SW846 9066 | 1202403 | 05/14/2024 07:49 | AKH | EPA 420.4 | 1202906 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1202962 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1201010 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1199711 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1202962 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1202432 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1200631 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1201426 |
| N/A | N/A | N/A | | SW846 9020B | 1210456 | | |

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

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

3359219

Logged By: SLS
PM: SJB



of

| | | | | | | | | | | | | | |
|---|-------------|--|-------------|-------|-------|--------|-------------------------------|-------|-------|-------|-----|-------|---|
| Client Name: LCSWMA Gerald E Miller Sr | | Container Type | AG | AN | AN | CG | | P | P | P | P | P | P |
| Address: 3052 River Rd Conestoga PA 17516 | | Container Size | 40ml | 250ml | 125ml | 40ml | 250ml | 125ml | 125ml | 125ml | 1L | 500ml | |
| | | Preservative | HCL | H2SO4 | H2SO4 | ASCHCL | H2SO4 | HNO3 | HNO3 | HNO3 | UNP | UNP | |
| Contact: Gerald E Miller Sr | | Orthophosphate Filtered? | Yes | No | Yes | No | Hexavalent Chromium Filtered? | Yes | No | Yes | No | | |
| Phone#: 717-872-5117 | | ANALYSIS / METHOD REQUESTED | | | | | | | | | | | |
| Project Name#: LCSWMA Quarterly | | | | | | | | | | | | | |
| Bill To: LCSWMA | | | | | | | | | | | | | |
| Purchase Order #: | | | | | | | | | | | | | |
| TAT <input checked="" type="checkbox"/> Normal-Standard TAT is 10-12 business days. Rush-Subject to ALS approval and surcharges. | | | | | | | | | | | | | |
| Date Required: | | | | | | | | | | | | | |
| Email? <input type="checkbox"/> | | | | | | | | | | | | | |
| Sample Description/Location | | Date Collected | Time | | | | | | | | | | |
| (as it will appear on the lab report) | | mm/dd/yy | hh:mm | | | | | | | | | | |
| 1 | 3052RIVERRD | 5/10/24 | 1028 | | | | | | | | | | |
| 2 | Trip Blank | 5/10/24 | 1028 | | | | | | | | | | |
| 3 | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | |
| Circle Sample Collector: ALS Tech/Client | | Comments: | | | | | | | | | | | |
| Name: <i>NO SHOOT</i> | | Received By / Company Name: <i>DAVID ALS</i> | | | | | | | | | | | |
| Date: <i>5/10/24</i> | | Relinquished By / Company Name: <i>DAVID ALS</i> | | | | | | | | | | | |
| 1 | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | |
| | | EDDS: Format Type | | | | | | | | | | | |

Temp By: *2.0* WO Temp (°C)
 Temp: *2.0* WO Temp (°C)
 Therm ID: *571*
 Deviations? NO YES
 If YES, list below

Receipt Info Completed By: *[Signature]*
 Cooler Custody Seal Intact
 Sample Custody Seal Intact
 Received on Ice
 Cooler & Samples Intact
 Correct Containers Provided
 Sample Label/COC Agree
 Adequate Sample Volumes
 CR6 Samples Filtered
 OP Samples Filtered
 VOA Trip Blank
 NUS 4 Days?
 Rad Screen (uCi)
 Courier/Tracking#:

SDWA Compliance PWSID *N*
 WV Containers 0-6°C *N/A*

Rad Screen (uCi) *Y N*
 New Source? *Y N*
 New Source Contact:

Client contact:
 Date/Time: *[Blank]*

SDWA Sample Type Key: D=Distribution E=Entry Point
 R=Raw P=Plant C=Check S=Special A=Annual Startup

Standard Lvl 1 CLP-like HSCA State Samples Collected In NY
 Standard Lvl 2 DOD Landfill NJ
 Standard Lvl 3 NJ RED NJ GW PA
 Standard Lvl 4 NJ Full Other FL

Excel Summary Lab
 Equis Special
 Custom

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

Contains Short Hold Testing YES NO

Sample/COC Remarks



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

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
 State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343, NJ PA101

Analytical Results Report For **Lancaster County Solid Waste Authority**
 Project 2ND QTR 2024-3056 RIVER RD
 Workorder 3359224
 Report ID 326090 on 6/4/2024

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on May 10, 2024.

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

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

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

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

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

Susan Scherer

Susan Scherer
 Project Coordinator

(ALS Digital Signature)

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



Sample Summary

| <u>Lab ID</u> | <u>Sample ID</u> | <u>Matrix</u> | <u>Date Collected</u> | <u>Date Received</u> | <u>Collector</u> | <u>Collection Company</u> |
|---------------|------------------|---------------|-----------------------|----------------------|------------------|-------------------------------|
| 3359224001 | 3056RIVERRD | Water | 05/10/2024 10:44 | 05/10/2024 16:20 | BGS | Analytical Laboratory Service |



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
EPA 300.1 Rev. 1.0-1997
EPA 300.0 Rev. 2.1-1993
EPA 353.2 Rev. 2.0-1993
EPA 410.4 Rev. 1.0-1993
EPA 420.4 Rev. 1.0-1993
EPA 365.1 Rev. 2.0-1993
EPA 200.7 Rev. 4.4-1994
EPA 200.8 Rev. 5.4-1994
EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

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



Project Notations

Sample Notations

Lab ID **Sample ID**

Result Notations

Notation Ref.

- | | |
|---|---|
| 1 | The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO ₃ /L. |
| 2 | The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory. |



Detected Results Summary

| | | | |
|------------------|-------------|-------------|------------------|
| Client Sample ID | 3056RIVERRD | Collected | 05/10/2024 10:44 |
| Lab Sample ID | 3359224001 | Lab Receipt | 05/10/2024 16:20 |

| Compound | Result | Units | RDL | Method | Flag |
|-----------------------------|--------|----------|--------|--------------|------|
| FIELD PARAMETERS | | | | | |
| pH, Field (SM4500B) | 6.52 | pH_Units | | Field | # |
| Specific Conductance, Field | 249 | umhos/cm | 1 | Field | # |
| Temperature | 15.68 | Deg. C | | Field | # |
| METALS | | | | | |
| Calcium, Dissolved | 11.7 | mg/L | 0.10 | EPA 200.7 | # |
| Calcium, Total | 11.5 | mg/L | 0.050 | EPA 200.7 | # |
| Magnesium, Dissolved | 12.7 | mg/L | 0.10 | EPA 200.7 | # |
| Magnesium, Total | 12.1 | mg/L | 0.050 | EPA 200.7 | # |
| Manganese, Dissolved | 0.10 | mg/L | 0.0050 | EPA 200.7 | # |
| Manganese, Total | 0.10 | mg/L | 0.0025 | EPA 200.7 | # |
| Potassium, Dissolved | 2.2 | mg/L | 0.50 | EPA 200.7 | # |
| Potassium, Total | 2.1 | mg/L | 0.25 | EPA 200.7 | # |
| Sodium, Dissolved | 8.9 | mg/L | 0.50 | EPA 200.7 | # |
| Sodium, Total | 8.6 | mg/L | 0.25 | EPA 200.7 | # |
| WET CHEMISTRY | | | | | |
| Alkalinity, Bicarbonate | 6 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 6 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 25.2 | mg/L | 2.0 | EPA 300.0 | # |
| Nitrate-N | 17.6 | mg/L | 1.0 | EPA 300.0 | # |
| pH | 6.46 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 240 | umhos/cm | 5 | SM2510B-2011 | # |
| Total Dissolved Solids | 169 | mg/L | 25 | SM2540C-15 | # |



Results

| | | | |
|------------------|-------------|-------------|------------------|
| Client Sample ID | 3056RIVERRD | Collected | 05/10/2024 10:44 |
| Lab Sample ID | 3359224001 | Lab Receipt | 05/10/2024 16:20 |

FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|-----------------------------|--------|------|----------|-----|--------|----------|--------------------|-----|------|
| pH, Field (SM4500B) | 6.52 | | pH_Units | | Field | 1 | 05/10/2024 10:44 | BGS | P |
| Specific Conductance, Field | 249 | | umhos/cm | 1 | Field | 1 | 05/10/2024 10:44 | BGS | P |
| Temperature | 15.68 | | Deg. C | | Field | 1 | 05/10/2024 10:44 | BGS | P |

METALS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|----------------------|--------|------|-------|--------|-----------|----------|--------------------|-----|------|
| Calcium, Dissolved | 11.7 | | mg/L | 0.10 | EPA 200.7 | 1 | 05/15/2024 10:05 | AXW | F1 |
| Calcium, Total | 11.5 | | mg/L | 0.050 | EPA 200.7 | 1 | 05/18/2024 12:17 | AXW | D1 |
| Iron, Dissolved | ND | ND | mg/L | 0.060 | EPA 200.7 | 1 | 05/15/2024 10:05 | AXW | F1 |
| Iron, Total | ND | ND | mg/L | 0.030 | EPA 200.7 | 1 | 05/18/2024 12:17 | AXW | D1 |
| Magnesium, Dissolved | 12.7 | | mg/L | 0.10 | EPA 200.7 | 1 | 05/15/2024 10:05 | AXW | F1 |
| Magnesium, Total | 12.1 | | mg/L | 0.050 | EPA 200.7 | 1 | 05/18/2024 12:17 | AXW | D1 |
| Manganese, Dissolved | 0.10 | | mg/L | 0.0050 | EPA 200.7 | 1 | 05/15/2024 10:05 | AXW | F1 |
| Manganese, Total | 0.10 | | mg/L | 0.0025 | EPA 200.7 | 1 | 05/18/2024 12:17 | AXW | D1 |
| Potassium, Dissolved | 2.2 | | mg/L | 0.50 | EPA 200.7 | 1 | 05/15/2024 10:05 | AXW | F1 |
| Potassium, Total | 2.1 | | mg/L | 0.25 | EPA 200.7 | 1 | 05/18/2024 12:17 | AXW | D1 |
| Sodium, Dissolved | 8.9 | | mg/L | 0.50 | EPA 200.7 | 1 | 05/15/2024 10:05 | AXW | F1 |
| Sodium, Total | 8.6 | | mg/L | 0.25 | EPA 200.7 | 1 | 05/18/2024 12:17 | AXW | D1 |

VOLATILE ORGANICS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|--------------------------|--------|------|-------|------|-----------|----------|--------------------|-----|------|
| 1,1,1-Trichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 15:10 | ILY | M |
| 1,1-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 15:10 | ILY | M |
| 1,1-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 15:10 | ILY | M |
| 1,2-Dibromoethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 15:10 | ILY | M |
| 1,2-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 15:10 | ILY | M |
| Benzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 15:10 | ILY | M |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 15:10 | ILY | M |
| Ethylbenzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 15:10 | ILY | M |
| Methylene Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 15:10 | ILY | M |
| Tetrachloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 15:10 | ILY | M |
| Toluene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 15:10 | ILY | M |
| Total Xylenes | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 15:10 | ILY | M |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 15:10 | ILY | M |
| Trichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 15:10 | ILY | M |
| Trichlorofluoromethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 15:10 | ILY | M |
| Vinyl Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/22/2024 15:10 | ILY | M |

SURROGATES

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|----------------------|----------|----------|-----------|--------------------|------------|
| 4-Bromofluorobenzene | 460-00-4 | 91.4% | 70 - 130 | 05/22/2024 15:10 | |

WET CHEMISTRY



Results

| | | | |
|------------------|-------------|-------------|------------------|
| Client Sample ID | 3056RIVERRD | Collected | 05/10/2024 10:44 |
| Lab Sample ID | 3359224001 | Lab Receipt | 05/10/2024 16:20 |

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|------------------------------|--------|------|----------|-------|-----------------|----------|--------------------|-----|------|
| Alkalinity, Bicarbonate | 6 | | mg/L | 5 | SM2320B-2011 | 1 | 05/16/2024 03:55 | KMV | A |
| Alkalinity, Total | 6 | 1 | mg/L | 5 | SM2320B-2011 | 1 | 05/16/2024 03:55 | KMV | A |
| Ammonia-N, Low Level | ND | ND | mg/L | 0.10 | SM 4500-NH3G | 1 | 05/14/2024 14:51 | NML | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 05/13/2024 15:18 | KMS | C |
| Chloride | 25.2 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/11/2024 13:24 | J1W | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 05/11/2024 13:24 | J1W | A |
| Halogen, Total Organic (TOX) | ND | ND | ug/L | 20.0 | SW846 9020B | 1 | 06/01/2024 18:21 | NPF | K |
| Nitrate-N | 17.6 | | mg/L | 1.0 | EPA 300.0 | 2 | 05/11/2024 13:24 | J1W | A |
| Nitrite-N | ND | ND | mg/L | 1.0 | EPA 300.0 | 2 | 05/11/2024 13:24 | J1W | A |
| pH | 6.46 | 2 | pH_Units | | S4500HB-11 | 1 | 05/16/2024 03:55 | KMV | A |
| Phenolics | ND | ND | mg/L | 0.005 | EPA 420.4 | 1 | 05/15/2024 13:16 | AKH | J |
| Specific Conductance | 240 | | umhos/cm | 5 | SM2510B-2011 | 1 | 05/14/2024 15:05 | BLP | A |
| Sulfate | ND | ND | mg/L | 2.0 | EPA 300.0 | 2 | 05/11/2024 13:24 | J1W | A |
| Total Dissolved Solids | 169 | | mg/L | 25 | SM2540C-15 | 1 | 05/13/2024 14:50 | RAG | A |
| Total Organic Carbon (TOC) | ND | ND | mg/L | 0.50 | SM5310B-14 | 1 | 05/13/2024 23:47 | PAG | H |
| Turbidity | ND | ND | NTU | 0.30 | SM2130B-2011 | 1 | 05/11/2024 14:06 | NPF | A |



Sample - Method Cross Reference Table

| Lab ID | Sample ID | Analysis Method | Preparation Method | Leachate Method |
|------------|-------------|-----------------|--------------------|-----------------|
| 3359224001 | 3056RIVERRD | Field | N/A | |
| | | EPA 200.7 | EPA TRMD | |
| | | EPA 200.7 | EPA ACID | |
| | | EPA 524.2 | N/A | |
| | | EPA 300.0 | N/A | |
| | | EPA 410.4 | N/A | |
| | | EPA 420.4 | SW846 9066 | |
| | | S4500HB-11 | N/A | |
| | | SM 4500-NH3G | N/A | |
| | | SM2130B-2011 | N/A | |
| | | SM2320B-2011 | N/A | |
| | | SM2510B-2011 | N/A | |
| | | SM2540C-15 | N/A | |
| | | SM5310B-14 | N/A | |
| | | SW846 9020B | N/A | |



QUALITY CONTROL DATA CROSS REFERENCE TABLE

| Lab ID | Sample ID | Preparation Method | Prep Batch | Prep Date/Time | By | Analysis Method | Anly Batch |
|------------|-------------|--------------------|------------|------------------|-----|-----------------|------------|
| 3359224001 | 3056RIVERRD | N/A | N/A | N/A | | Field | 1201211 |
| | | EPA TRMD | 1202455 | 05/14/2024 21:58 | ANN | EPA 200.7 | 1206074 |
| | | EPA ACID | 1201314 | 05/14/2024 09:52 | AXW | EPA 200.7 | 1202357 |
| | | N/A | N/A | N/A | | EPA 524.2 | 1207811 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1199706 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1200906 |
| | | SW846 9066 | 1202403 | 05/14/2024 07:49 | AKH | EPA 420.4 | 1202906 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1202962 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1201010 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1199711 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1202962 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1202432 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1200631 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1201426 |
| | | N/A | N/A | N/A | | SW846 9020B | 1210456 |

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

**CHAIN OF CUSTODY/
REQUEST FOR ANALYSIS**

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

Client Name: Lancaster County Solid Waste MA
Address: 1299 Harrisburg pike PO Box 4424
Lancaster PA 17604

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

Orthophosphate Filtered? Yes No **Hexavalent Chromium Filtered?** Yes No

ANALYSIS / METHOD REQUESTED

| SDWA Sample Type (see key) | *G or C | **Matrix (See bottom of COC) | TOC | TOX | O-OH | EPA 524.2 Form 52 | FM | NH3-N, COD | Dissolved Metals Ca, Fe, Mg, Mn, K, Na | Metals Ca, Fe, Mg, Mn, K, Na | PH, TDS, NO2, NO3, Cl, SO4, F, SPC, TP | Alkalinity, HCO3 |
|----------------------------|---------|------------------------------|-----|-----|------|-------------------|----|------------|--|------------------------------|--|------------------|
| 1 | G | DW | 2 | 2 | 1 | 3 | X | 1 | 2 | 2 | 1 | 1 |
| 2 | G | DI | | | | 2 | | | | | | |

| Sample Description/Location (as it will appear on the lab report) | Date Collected mm/dd/yy | Time hh:mm |
|--|----------------------------|---------------|
| 1 3056RIVERRD | 5/10/24 | 1044 |
| 2 Trip Blank | 5/10/24 | 1600 |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |

Circle Sample Collector: ALS Tech/ Client ID: *[Signature]*

Date: 5-10-24 16:00

Received By / Company Name: *[Signature]* DAG/ALS

Comments:

Requisitioned By / Company Name: *[Signature]* DAG/ALS

SDWA Sample Type Key: D=Distribution E=Entry Point
R=Raw P=Plant C=Check S=Special A=Annual Startup

Contains Short Hold Testing: YES NO
Internal Use: if less than 48 hours - notify lab upon receipt

Data Deliverables:

| | | | |
|----------------|-----------------|----------|----------------------------|
| Standard Lvl 1 | CLP-like | HSCA | State Samples Collected in |
| Standard Lvl 2 | DOD | Landfill | NY |
| Standard Lvl 3 | NU RED | NJ GW | NU |
| Standard Lvl 4 | NU Full | | PA |
| Excel Summary | Sample Disposal | | WV |
| Equis | Lab | X | FL |
| Custom | Special | | other |

EDDS: Format Type

33592224
Logged By: SLS
PH: SJB

of

Temp By: WO Temp (°C) 3
Temp: WO Temp (°C) 3

Receipt Info Completed By: *[Signature]*
Cooler Custody Seal Intact: Y N NA
Sample Custody Seal Intact: Y N NA
Received on Ice: Y N NA
Cooler & Samples Intact: Y N NA
Correct Containers Provided: Y N NA
Sample Label/COC Agree: Y N NA
Adequate Sample Volumes: Y N NA
CR6 Samples Filtered: Y N NA
OP Samples Filtered: Y N NA
VOA Trip Blank: Y N NA
NJ: 4 Days? Y N NA
Rad Screen (uCi): Y N NA
Courier/Tracking #:

Client contact: _____
Date/Tech: _____

Rad Screen (uCi): _____
New Source? Y N
New Source Contact: _____

PWS Contact: _____ **PWS Phone #:** _____

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

SDWA Sample Type Key: D=Distribution E=Entry Point
R=Raw P=Plant C=Check S=Special A=Annual Startup

Sample/COC Remarks:





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

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
 State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343, NJ PA101

Analytical Results Report For **Lancaster County Solid Waste Authority**
 Project 2ND QTR 2024 3044 RIVER RD
 Workorder 3359218
 Report ID 326094 on 6/4/2024

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on May 10, 2024.

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

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

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

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

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

Susan Scherer

Susan Scherer
 Project Coordinator

(ALS Digital Signature)

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



Sample Summary

| <u>Lab ID</u> | <u>Sample ID</u> | <u>Matrix</u> | <u>Date Collected</u> | <u>Date Received</u> | <u>Collector</u> | <u>Collection Company</u> |
|---------------|--------------------------------|---------------|-----------------------|----------------------|------------------|-------------------------------|
| 3359218001 | 3044 River Road, Conestoga, PA | Water | 05/10/2024 10:10 | 05/10/2024 16:20 | BGS | Analytical Laboratory Service |



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
 EPA 300.1 Rev. 1.0-1997
 EPA 300.0 Rev. 2.1-1993
 EPA 353.2 Rev. 2.0-1993
 EPA 410.4 Rev. 1.0-1993
 EPA 420.4 Rev. 1.0-1993
 EPA 365.1 Rev. 2.0-1993
 EPA 200.7 Rev. 4.4-1994
 EPA 200.8 Rev. 5.4-1994
 EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

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



Project Notations

Sample Notations

Lab ID **Sample ID**

Result Notations

Notation Ref.

- | | |
|---|---|
| 1 | The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO ₃ /L. |
| 2 | The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory. |



Detected Results Summary

| | | | |
|------------------|--------------------------------|-------------|------------------|
| Client Sample ID | 3044 River Road, Conestoga, PA | Collected | 05/10/2024 10:10 |
| Lab Sample ID | 3359218001 | Lab Receipt | 05/10/2024 16:20 |

| Compound | Result | Units | RDL | Method | Flag |
|------------------------------|--------|----------|--------|--------------|------|
| FIELD PARAMETERS | | | | | |
| pH, Field (SM4500B) | 6.95 | pH_Units | | Field | # |
| Specific Conductance, Field | 234 | umhos/cm | 1 | Field | # |
| Temperature | 14.66 | Deg. C | | Field | # |
| METALS | | | | | |
| Calcium, Dissolved | 13.6 | mg/L | 0.10 | EPA 200.7 | # |
| Calcium, Total | 13.8 | mg/L | 0.050 | EPA 200.7 | # |
| Magnesium, Dissolved | 10.4 | mg/L | 0.10 | EPA 200.7 | # |
| Magnesium, Total | 10.3 | mg/L | 0.050 | EPA 200.7 | # |
| Manganese, Dissolved | 0.018 | mg/L | 0.0050 | EPA 200.7 | # |
| Manganese, Total | 0.020 | mg/L | 0.0025 | EPA 200.7 | # |
| Potassium, Dissolved | 1.8 | mg/L | 0.50 | EPA 200.7 | # |
| Potassium, Total | 1.8 | mg/L | 0.25 | EPA 200.7 | # |
| Sodium, Dissolved | 8.5 | mg/L | 0.50 | EPA 200.7 | # |
| Sodium, Total | 8.4 | mg/L | 0.25 | EPA 200.7 | # |
| WET CHEMISTRY | | | | | |
| Alkalinity, Bicarbonate | 8 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 8 | mg/L | 5 | SM2320B-2011 | # |
| Chemical Oxygen Demand (COD) | 44 | mg/L | 15 | EPA 410.4 | # |
| Chloride | 18.1 | mg/L | 2.0 | EPA 300.0 | # |
| Nitrate-N | 18.0 | mg/L | 1.0 | EPA 300.0 | # |
| pH | 7.00 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 224 | umhos/cm | 5 | SM2510B-2011 | # |
| Total Dissolved Solids | 188 | mg/L | 25 | SM2540C-15 | # |
| Turbidity | 8.4 | NTU | 0.30 | SM2130B-2011 | # |



Results

| | | | |
|------------------|--------------------------------|-------------|------------------|
| Client Sample ID | 3044 River Road, Conestoga, PA | Collected | 05/10/2024 10:10 |
| Lab Sample ID | 3359218001 | Lab Receipt | 05/10/2024 16:20 |

FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|-----------------------------|--------|------|----------|-----|--------|----------|--------------------|-----|------|
| pH, Field (SM4500B) | 6.95 | | pH_Units | | Field | 1 | 05/10/2024 10:10 | BGS | P |
| Specific Conductance, Field | 234 | | umhos/cm | 1 | Field | 1 | 05/10/2024 10:10 | BGS | P |
| Temperature | 14.66 | | Deg. C | | Field | 1 | 05/10/2024 10:10 | BGS | P |

METALS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|----------------------|--------|------|-------|--------|-----------|----------|--------------------|-----|------|
| Calcium, Dissolved | 13.6 | | mg/L | 0.10 | EPA 200.7 | 1 | 05/15/2024 10:08 | AXW | F1 |
| Calcium, Total | 13.8 | | mg/L | 0.050 | EPA 200.7 | 1 | 05/18/2024 12:07 | AXW | D1 |
| Iron, Dissolved | ND | ND | mg/L | 0.060 | EPA 200.7 | 1 | 05/15/2024 10:08 | AXW | F1 |
| Iron, Total | ND | ND | mg/L | 0.030 | EPA 200.7 | 1 | 05/18/2024 12:07 | AXW | D1 |
| Magnesium, Dissolved | 10.4 | | mg/L | 0.10 | EPA 200.7 | 1 | 05/15/2024 10:08 | AXW | F1 |
| Magnesium, Total | 10.3 | | mg/L | 0.050 | EPA 200.7 | 1 | 05/18/2024 12:07 | AXW | D1 |
| Manganese, Dissolved | 0.018 | | mg/L | 0.0050 | EPA 200.7 | 1 | 05/15/2024 10:08 | AXW | F1 |
| Manganese, Total | 0.020 | | mg/L | 0.0025 | EPA 200.7 | 1 | 05/18/2024 12:07 | AXW | D1 |
| Potassium, Dissolved | 1.8 | | mg/L | 0.50 | EPA 200.7 | 1 | 05/15/2024 10:08 | AXW | F1 |
| Potassium, Total | 1.8 | | mg/L | 0.25 | EPA 200.7 | 1 | 05/18/2024 12:07 | AXW | D1 |
| Sodium, Dissolved | 8.5 | | mg/L | 0.50 | EPA 200.7 | 1 | 05/15/2024 10:08 | AXW | F1 |
| Sodium, Total | 8.4 | | mg/L | 0.25 | EPA 200.7 | 1 | 05/18/2024 12:07 | AXW | D1 |

VOLATILE ORGANICS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|--------------------------|--------|------|-------|------|-----------|----------|--------------------|-----|------|
| 1,1,1-Trichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/21/2024 18:54 | ILY | M |
| 1,1-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/21/2024 18:54 | ILY | M |
| 1,1-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/21/2024 18:54 | ILY | M |
| 1,2-Dibromoethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/21/2024 18:54 | ILY | M |
| 1,2-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/21/2024 18:54 | ILY | M |
| Benzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/21/2024 18:54 | ILY | M |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/21/2024 18:54 | ILY | M |
| Ethylbenzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/21/2024 18:54 | ILY | M |
| Methylene Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/21/2024 18:54 | ILY | M |
| Tetrachloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/21/2024 18:54 | ILY | M |
| Toluene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/21/2024 18:54 | ILY | M |
| Total Xylenes | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/21/2024 18:54 | ILY | M |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/21/2024 18:54 | ILY | M |
| Trichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/21/2024 18:54 | ILY | M |
| Trichlorofluoromethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/21/2024 18:54 | ILY | M |
| Vinyl Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 05/21/2024 18:54 | ILY | M |

SURROGATES

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|----------------------|----------|----------|-----------|--------------------|------------|
| 4-Bromofluorobenzene | 460-00-4 | 91.1% | 70 - 130 | 05/21/2024 18:54 | |

WET CHEMISTRY



Results

| | | | |
|------------------|--------------------------------|-------------|------------------|
| Client Sample ID | 3044 River Road, Conestoga, PA | Collected | 05/10/2024 10:10 |
| Lab Sample ID | 3359218001 | Lab Receipt | 05/10/2024 16:20 |

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|------------------------------|--------|------|----------|-------|-----------------|----------|--------------------|-----|------|
| Alkalinity, Bicarbonate | 8 | | mg/L | 5 | SM2320B-2011 | 1 | 05/16/2024 02:45 | KMV | A |
| Alkalinity, Total | 8 | 1 | mg/L | 5 | SM2320B-2011 | 1 | 05/16/2024 02:45 | KMV | A |
| Ammonia-N, Low Level | ND | ND | mg/L | 0.10 | SM 4500-NH3G | 1 | 05/14/2024 14:42 | NML | C |
| Chemical Oxygen Demand (COD) | 44 | | mg/L | 15 | EPA 410.4 | 1 | 05/13/2024 11:30 | KMS | C |
| Chloride | 18.1 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/11/2024 11:52 | J1W | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 05/11/2024 11:52 | J1W | A |
| Halogen, Total Organic (TOX) | ND | ND | ug/L | 20.0 | SW846 9020B | 1 | 06/01/2024 18:21 | NPF | K |
| Nitrate-N | 18.0 | | mg/L | 1.0 | EPA 300.0 | 2 | 05/11/2024 11:52 | J1W | A |
| Nitrite-N | ND | ND | mg/L | 1.0 | EPA 300.0 | 2 | 05/11/2024 11:52 | J1W | A |
| pH | 7.00 | 2 | pH_Units | | S4500HB-11 | 1 | 05/16/2024 02:45 | KMV | A |
| Phenolics | ND | ND | mg/L | 0.005 | EPA 420.4 | 1 | 05/15/2024 13:19 | AKH | J |
| Specific Conductance | 224 | | umhos/cm | 5 | SM2510B-2011 | 1 | 05/14/2024 15:05 | BLP | A |
| Sulfate | ND | ND | mg/L | 2.0 | EPA 300.0 | 2 | 05/11/2024 11:52 | J1W | A |
| Total Dissolved Solids | 188 | | mg/L | 25 | SM2540C-15 | 1 | 05/13/2024 14:50 | RAG | A |
| Total Organic Carbon (TOC) | ND | ND | mg/L | 0.50 | SM5310B-14 | 1 | 05/13/2024 23:47 | PAG | H |
| Turbidity | 8.4 | | NTU | 0.30 | SM2130B-2011 | 1 | 05/11/2024 14:06 | NPF | A |



Sample - Method Cross Reference Table

| Lab ID | Sample ID | Analysis Method | Preparation Method | Leachate Method |
|------------|--------------------------------|-----------------|--------------------|-----------------|
| 3359218001 | 3044 River Road, Conestoga, PA | Field | N/A | |
| | | EPA 200.7 | EPA TRMD | |
| | | EPA 200.7 | EPA ACID | |
| | | EPA 524.2 | N/A | |
| | | EPA 300.0 | N/A | |
| | | EPA 410.4 | N/A | |
| | | EPA 420.4 | SW846 9066 | |
| | | S4500HB-11 | N/A | |
| | | SM 4500-NH3G | N/A | |
| | | SM2130B-2011 | N/A | |
| | | SM2320B-2011 | N/A | |
| | | SM2510B-2011 | N/A | |
| | | SM2540C-15 | N/A | |
| | | SM5310B-14 | N/A | |
| | | SW846 9020B | N/A | |



QUALITY CONTROL DATA CROSS REFERENCE TABLE

| Lab ID | Sample ID | Preparation Method | Prep Batch | Prep Date/Time | By | Analysis Method | Anly Batch |
|------------|--------------------------------|--------------------|------------|------------------|---------|-----------------|------------|
| 3359218001 | 3044 River Road, Conestoga, PA | N/A | N/A | N/A | | Field | 1201211 |
| | | EPA TRMD | 1202455 | 05/14/2024 21:58 | ANN | EPA 200.7 | 1206074 |
| | | EPA ACID | 1201314 | 05/14/2024 09:52 | AXW | EPA 200.7 | 1202357 |
| | | N/A | N/A | N/A | | EPA 524.2 | 1206509 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1199706 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1200621 |
| | | SW846 9066 | 1202403 | 05/14/2024 07:49 | AKH | EPA 420.4 | 1202906 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1202962 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1201010 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1199711 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1202962 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1202432 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1200631 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1201426 |
| N/A | N/A | N/A | | SW846 9020B | 1210456 | | |



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

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

3359218
Logged By: SLS
PH: SJB



18

| | | | | | | | | | | | |
|--|--|------------------------------------|------|----------------------------|-------------------------------|---|-------|------------------------------|-------|--|-----|
| Client Name: Lancaster County Solid Waste MA | | Container Type | AG | AN | AN | CG | P | P | P | P | |
| Address: 1299 Harrisburg Pike PO Box 4424 Lancaster Pa 17604 | | Container Size | 40ml | 250ml | 125ml | 40ml | 250ml | 125ml | 125ml | 1L | |
| Contact: Dan Brown Phone#: 717-735-0193 Project Name#: LCSWMA Quarterly Bill To: LCSWMA Purchase Order #: TAT <input checked="" type="checkbox"/> Normal-Standard TAT is 10-12 business days. Date Required: <input type="checkbox"/> Rush-Subject to ALS approval and surcharges. Approved? Email? <input type="checkbox"/> | | Preservative | HCL | H2SO4 | H2SO4 | ASCHL | H2SO4 | HNO3 | HNO3 | UNP | UNP |
| Temp By: <u>ORB</u> WO Temp (°C) <u>3°</u> | | Orthophosphate Filtered? | Yes | No | Hexavalent Chromium Filtered? | Yes | No | Yes | No | Yes | No |
| Receipt Info Completed By: <u>ORB</u> | | ANALYSIS / METHOD REQUESTED | | | | | | | | | |
| Cooler Custody Seal Intact <u>Y</u> | | *G or C | | SDWA Sample Type (see key) | | Enter Number of Containers Per Sample or Field Results Below. | | Alkalinity, HCO3 | | PWS Contact: <u>Y</u> <u>W</u> | |
| Sample Custody Seal Intact <u>Y</u> | | G | | DW | | 2 1 3 x | | EPA 524.2 Form 52 | | SDWA Compliance <u>Y</u> | |
| Received on Ice <u>Y</u> | | G | | DI | | 2 | | NH3-N, COD | | PWSID <u>Y</u> | |
| Cooler & Samples Intact <u>Y</u> | | | | | | | | FM | | WV Containers 0-6°C <u>Y</u> | |
| Correct Containers Provided <u>Y</u> | | | | | | | | O-OH | | New Source? <u>Y</u> <u>N</u> | |
| Sample Label/COC Agree <u>Y</u> | | | | | | | | TOX | | New Source Contact: <u>Y</u> <u>N</u> | |
| Adequate Sample Volumes <u>Y</u> | | | | | | | | TOC | | Client contact: <u>Y</u> <u>N</u> | |
| CRG Samples Filtered <u>Y</u> | | | | | | | | **Matrix (See bottom of COC) | | Date/Tech: <u>Y</u> <u>N</u> | |
| OP Samples Filtered <u>Y</u> | | | | | | | | *G or C | | Rad Screen (uCi) <u>Y</u> <u>N</u> | |
| VOA Trip Blank <u>Y</u> | | | | | | | | SDWA Sample Type (see key) | | New Source? <u>Y</u> <u>N</u> | |
| NJS 4 Days? <u>Y</u> | | | | | | | | G | | New Source Contact: <u>Y</u> <u>N</u> | |
| Rad Screen (uCi) <u>Y</u> | | | | | | | | G | | SDWA Sample Type Key: D=Distribution E=Entry Point R=Raw P=Plant C=Check S=Special A=Annual Startup | |
| Courier/Tracking #: <u>Y</u> | | | | | | | | G | | Sample/COC Remarks | |
| Therm ID: <u>571</u> | | | | | | | | G | | Contains Short Hold Testing YES NO | |
| WO Temp (°C) <u>3°</u> | | | | | | | | G | | Internal Use: If less than 48 hours - notify lab upon receipt | |
| Deviations? NO YES <u>NA</u> | | | | | | | | G | | State Samples Collected In <u>NY</u> | |
| If YES, list below <u>NA</u> | | | | | | | | G | | Standard Lvl 1 <u>NY</u> | |
| | | | | | | | | G | | Standard Lvl 2 <u>NY</u> | |
| | | | | | | | | G | | Standard Lvl 3 <u>NY</u> | |
| | | | | | | | | G | | Standard Lvl 4 <u>NY</u> | |
| | | | | | | | | G | | Excel Summary <u>NY</u> | |
| | | | | | | | | G | | Equis <u>NY</u> | |
| | | | | | | | | G | | Custom <u>NY</u> | |
| | | | | | | | | G | | Sample Disposal <u>NY</u> | |
| | | | | | | | | G | | Lab <u>NY</u> | |
| | | | | | | | | G | | Special <u>NY</u> | |
| | | | | | | | | G | | Other <u>NY</u> | |