

Entrada Consulting Group

Sample Delivery Group: L1282863
Samples Received: 11/06/2020
Project Number:
Description: 797-09a Mud Tanks

Report To: Stuart Hall
240 Mesa Avenue
Grand Junction, CO 81501

Entire Report Reviewed By:

Chris Ward

Chris Ward
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



797-09AMT SS1 L1282863-01 Solid

Collected by R. Johnson
Collected date/time 11/05/20 10:35
Received date/time 11/06/20 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|-----------|----------|-----------------------|--------------------|---------|----------------|
| Calculated Results | WG1573800 | 1 | 11/12/20 23:02 | 11/12/20 23:02 | CCE | Mt. Juliet, TN |
| Calculated Results | WG1573568 | 1 | 11/09/20 16:11 | 11/11/20 14:40 | KEG | Mt. Juliet, TN |
| Wet Chemistry by Method 3060A/7196A | WG1572843 | 1 | 11/10/20 21:20 | 11/11/20 14:40 | KEG | Mt. Juliet, TN |
| Wet Chemistry by Method 9045D | WG1575659 | 1 | 11/12/20 19:16 | 11/13/20 00:39 | WOS | Mt. Juliet, TN |
| Wet Chemistry by Method 9050AMod | WG1574511 | 1 | 11/11/20 09:07 | 11/11/20 16:00 | SRG | Mt. Juliet, TN |
| Mercury by Method 7471A | WG1573312 | 1 | 11/09/20 09:51 | 11/10/20 11:44 | BMF | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B | WG1573568 | 1 | 11/09/20 16:11 | 11/10/20 17:49 | EL | Mt. Juliet, TN |
| Volatile Organic Compounds (GC) by Method 8015/8021 | WG1574377 | 1 | 11/10/20 17:06 | 11/11/20 02:43 | JAH | Mt. Juliet, TN |
| Semi-Volatile Organic Compounds (GC) by Method 8015 | WG1573489 | 1 | 11/09/20 11:25 | 11/10/20 03:21 | TJD | Mt. Juliet, TN |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM | WG1575550 | 1 | 11/12/20 16:20 | 11/13/20 01:14 | ADF | Mt. Juliet, TN |

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

797-09AMT SS2 L1282863-02 Solid

Collected by R. Johnson
Collected date/time 11/05/20 10:45
Received date/time 11/06/20 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|-----------|----------|-----------------------|--------------------|---------|----------------|
| Calculated Results | WG1573800 | 1 | 11/12/20 23:04 | 11/12/20 23:04 | CCE | Mt. Juliet, TN |
| Calculated Results | WG1573568 | 1 | 11/09/20 16:11 | 11/11/20 14:44 | KEG | Mt. Juliet, TN |
| Wet Chemistry by Method 3060A/7196A | WG1572843 | 1 | 11/10/20 21:20 | 11/11/20 14:44 | KEG | Mt. Juliet, TN |
| Wet Chemistry by Method 9045D | WG1575659 | 1 | 11/12/20 19:16 | 11/13/20 00:39 | WOS | Mt. Juliet, TN |
| Wet Chemistry by Method 9050AMod | WG1574511 | 1 | 11/11/20 09:07 | 11/11/20 16:00 | SRG | Mt. Juliet, TN |
| Mercury by Method 7471A | WG1573312 | 1 | 11/09/20 09:51 | 11/10/20 11:46 | BMF | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B | WG1573568 | 1 | 11/09/20 16:11 | 11/10/20 17:52 | EL | Mt. Juliet, TN |
| Volatile Organic Compounds (GC) by Method 8015/8021 | WG1574377 | 1 | 11/10/20 17:06 | 11/11/20 03:06 | JAH | Mt. Juliet, TN |
| Semi-Volatile Organic Compounds (GC) by Method 8015 | WG1573489 | 1 | 11/09/20 11:25 | 11/10/20 03:34 | TJD | Mt. Juliet, TN |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM | WG1575550 | 1 | 11/12/20 16:20 | 11/13/20 01:35 | ADF | Mt. Juliet, TN |

797-09AMT SS3 L1282863-03 Solid

Collected by R. Johnson
Collected date/time 11/05/20 10:50
Received date/time 11/06/20 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|-----------|----------|-----------------------|--------------------|---------|----------------|
| Calculated Results | WG1573800 | 1 | 11/12/20 23:07 | 11/12/20 23:07 | CCE | Mt. Juliet, TN |
| Calculated Results | WG1573568 | 1 | 11/09/20 16:11 | 11/11/20 14:44 | KEG | Mt. Juliet, TN |
| Wet Chemistry by Method 3060A/7196A | WG1572843 | 1 | 11/10/20 21:20 | 11/11/20 14:44 | KEG | Mt. Juliet, TN |
| Wet Chemistry by Method 9045D | WG1575659 | 1 | 11/12/20 19:16 | 11/13/20 00:39 | WOS | Mt. Juliet, TN |
| Wet Chemistry by Method 9050AMod | WG1574511 | 1 | 11/11/20 09:07 | 11/11/20 16:00 | SRG | Mt. Juliet, TN |
| Mercury by Method 7471A | WG1573312 | 1 | 11/09/20 09:51 | 11/10/20 11:48 | BMF | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B | WG1573568 | 1 | 11/09/20 16:11 | 11/10/20 17:55 | EL | Mt. Juliet, TN |
| Volatile Organic Compounds (GC) by Method 8015/8021 | WG1574377 | 1 | 11/10/20 17:06 | 11/11/20 03:44 | JAH | Mt. Juliet, TN |
| Semi-Volatile Organic Compounds (GC) by Method 8015 | WG1573489 | 1 | 11/09/20 11:25 | 11/10/20 03:47 | TJD | Mt. Juliet, TN |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM | WG1575550 | 1 | 11/12/20 16:20 | 11/13/20 01:57 | ADF | Mt. Juliet, TN |

797-09AMT SS4 L1282863-04 Solid

Collected by R. Johnson
Collected date/time 11/05/20 10:55
Received date/time 11/06/20 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|-----------|----------|-----------------------|--------------------|---------|----------------|
| Calculated Results | WG1573800 | 1 | 11/12/20 23:10 | 11/12/20 23:10 | CCE | Mt. Juliet, TN |
| Calculated Results | WG1573568 | 1 | 11/09/20 16:11 | 11/11/20 14:44 | KEG | Mt. Juliet, TN |
| Wet Chemistry by Method 3060A/7196A | WG1572843 | 1 | 11/10/20 21:20 | 11/11/20 14:44 | KEG | Mt. Juliet, TN |
| Wet Chemistry by Method 9045D | WG1575659 | 1 | 11/12/20 19:16 | 11/13/20 00:39 | WOS | Mt. Juliet, TN |
| Wet Chemistry by Method 9050AMod | WG1574511 | 1 | 11/11/20 09:07 | 11/11/20 16:00 | SRG | Mt. Juliet, TN |
| Mercury by Method 7471A | WG1573312 | 1 | 11/09/20 09:51 | 11/10/20 11:50 | BMF | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B | WG1573568 | 1 | 11/09/20 16:11 | 11/10/20 18:03 | EL | Mt. Juliet, TN |
| Volatile Organic Compounds (GC) by Method 8015/8021 | WG1574377 | 1 | 11/10/20 17:06 | 11/11/20 04:07 | JAH | Mt. Juliet, TN |

ACCOUNT:

Entrada Consulting Group

PROJECT:

SDG:

L1282863

DATE/TIME:

11/16/20 13:14

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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



797-09AMT SS4 L1282863-04 Solid

Collected by
R. Johnson

Collected date/time
11/05/20 10:55

Received date/time
11/06/20 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|-----------|----------|-----------------------|--------------------|---------|----------------|
| Semi-Volatile Organic Compounds (GC) by Method 8015 | WG1573489 | 1 | 11/09/20 11:25 | 11/10/20 04:06 | TJD | Mt. Juliet, TN |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM | WG1575550 | 1 | 11/12/20 16:20 | 11/13/20 03:22 | ADF | Mt. Juliet, TN |

¹Cp

²Tc

³Ss

797-09AMT SS5 L1282863-05 Solid

Collected by
R. Johnson

Collected date/time
11/05/20 11:05

Received date/time
11/06/20 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|-----------|----------|-----------------------|--------------------|---------|----------------|
| Calculated Results | WG1573800 | 1 | 11/12/20 23:13 | 11/12/20 23:13 | CCE | Mt. Juliet, TN |
| Calculated Results | WG1573568 | 1 | 11/09/20 16:11 | 11/11/20 14:45 | KEG | Mt. Juliet, TN |
| Wet Chemistry by Method 3060A/7196A | WG1572843 | 1 | 11/10/20 21:20 | 11/11/20 14:45 | KEG | Mt. Juliet, TN |
| Wet Chemistry by Method 9045D | WG1575659 | 1 | 11/12/20 19:16 | 11/13/20 00:39 | WOS | Mt. Juliet, TN |
| Wet Chemistry by Method 9050AMod | WG1574511 | 1 | 11/11/20 09:07 | 11/11/20 16:00 | SRG | Mt. Juliet, TN |
| Mercury by Method 7471A | WG1573312 | 1 | 11/09/20 09:51 | 11/10/20 11:52 | BMF | Mt. Juliet, TN |
| Metals (ICP) by Method 6010B | WG1573568 | 1 | 11/09/20 16:11 | 11/10/20 17:35 | EL | Mt. Juliet, TN |
| Volatile Organic Compounds (GC) by Method 8015/8021 | WG1574377 | 1 | 11/10/20 17:06 | 11/11/20 04:29 | JAH | Mt. Juliet, TN |
| Semi-Volatile Organic Compounds (GC) by Method 8015 | WG1573489 | 1 | 11/09/20 11:25 | 11/10/20 05:35 | TJD | Mt. Juliet, TN |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM | WG1575550 | 1 | 11/12/20 16:20 | 11/13/20 03:44 | ADF | Mt. Juliet, TN |

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

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All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Chris Ward
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Calculated Results

| Analyte | Result | Qualifier | Dilution | Analysis date / time | Batch |
|-------------------------|--------|-----------|----------|----------------------|-----------|
| Sodium Adsorption Ratio | 8.57 | | 1 | 11/12/2020 23:02 | WG1573800 |

¹ Cp² Tc

Calculated Results

| Analyte | Result | Qualifier | RDL | Dilution | Analysis date / time | Batch |
|---------------------|--------|-----------|------|----------|----------------------|---------------------------|
| Chromium, Trivalent | 15.2 | | 1.00 | 1 | 11/11/2020 14:40 | WG1573568 |

³ Ss⁴ Cn

Wet Chemistry by Method 3060A/7196A

| Analyte | Result | Qualifier | RDL | Dilution | Analysis date / time | Batch |
|----------------------|--------|-----------------------|------|----------|----------------------|---------------------------|
| Chromium, Hexavalent | ND | J6 O1 | 2.00 | 1 | 11/11/2020 14:40 | WG1572843 |

⁵ Sr⁶ Qc

Sample Narrative:

L1282863-01 WG1572843: sample is a reducer

⁷ Gl

Wet Chemistry by Method 9045D

| Analyte | Result | Qualifier | Dilution | Analysis date / time | Batch |
|---------|--------|--------------------|----------|----------------------|---------------------------|
| pH | 7.82 | T8 | 1 | 11/13/2020 00:39 | WG1575659 |

⁸ Al

Sample Narrative:

L1282863-01 WG1575659: 7.82 at 21.3C

⁹ Sc

Wet Chemistry by Method 9050AMod

| Analyte | Result | Qualifier | RDL | Dilution | Analysis date / time | Batch |
|----------------------|--------|-----------|------|----------|----------------------|---------------------------|
| Specific Conductance | 4170 | | 10.0 | 1 | 11/11/2020 16:00 | WG1574511 |

Mercury by Method 7471A

| Analyte | Result | Qualifier | RDL | Dilution | Analysis date / time | Batch |
|---------|--------|-----------|--------|----------|----------------------|---------------------------|
| Mercury | ND | | 0.0400 | 1 | 11/10/2020 11:44 | WG1573312 |

Metals (ICP) by Method 6010B

| Analyte | Result | Qualifier | RDL | Dilution | Analysis date / time | Batch |
|----------|--------|-----------|-------|----------|----------------------|---------------------------|
| Arsenic | 6.04 | | 2.00 | 1 | 11/10/2020 17:49 | WG1573568 |
| Barium | 823 | | 0.500 | 1 | 11/10/2020 17:49 | WG1573568 |
| Cadmium | ND | | 0.500 | 1 | 11/10/2020 17:49 | WG1573568 |
| Chromium | 15.2 | | 1.00 | 1 | 11/10/2020 17:49 | WG1573568 |
| Copper | 19.2 | | 2.00 | 1 | 11/10/2020 17:49 | WG1573568 |
| Lead | 10.9 | | 0.500 | 1 | 11/10/2020 17:49 | WG1573568 |
| Nickel | 15.6 | | 2.00 | 1 | 11/10/2020 17:49 | WG1573568 |
| Selenium | ND | | 2.00 | 1 | 11/10/2020 17:49 | WG1573568 |
| Silver | ND | | 1.00 | 1 | 11/10/2020 17:49 | WG1573568 |
| Zinc | 54.0 | | 5.00 | 1 | 11/10/2020 17:49 | WG1573568 |



Volatile Organic Compounds (GC) by Method 8015/8021

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|---------------------------------|-----------------|-----------|--------------|----------|-------------------------|---------------------------|
| Benzene | 0.00566 | | 0.000500 | 1 | 11/11/2020 02:43 | WG1574377 |
| Toluene | 0.0183 | | 0.00500 | 1 | 11/11/2020 02:43 | WG1574377 |
| Ethylbenzene | 0.00845 | | 0.000500 | 1 | 11/11/2020 02:43 | WG1574377 |
| Total Xylene | 0.00772 | | 0.00150 | 1 | 11/11/2020 02:43 | WG1574377 |
| TPH (GC/FID) Low Fraction | 0.414 | | 0.100 | 1 | 11/11/2020 02:43 | WG1574377 |
| (S) a,a,a-Trifluorotoluene(FID) | 90.0 | | 77.0-120 | | 11/11/2020 02:43 | WG1574377 |
| (S) a,a,a-Trifluorotoluene(PID) | 96.5 | | 72.0-128 | | 11/11/2020 02:43 | WG1574377 |

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method 8015

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|----------------------------|-----------------|-----------|--------------|----------|-------------------------|---------------------------|
| TPH (GC/FID) High Fraction | 37.3 | | 4.00 | 1 | 11/10/2020 03:21 | WG1573489 |
| (S) o-Terphenyl | 73.4 | | 18.0-148 | | 11/10/2020 03:21 | WG1573489 |

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|------------------------|-----------------|-----------|--------------|----------|-------------------------|---------------------------|
| Anthracene | ND | | 0.00600 | 1 | 11/13/2020 01:14 | WG1575550 |
| Acenaphthene | ND | | 0.00600 | 1 | 11/13/2020 01:14 | WG1575550 |
| Acenaphthylene | ND | | 0.00600 | 1 | 11/13/2020 01:14 | WG1575550 |
| Benzo(a)anthracene | ND | | 0.00600 | 1 | 11/13/2020 01:14 | WG1575550 |
| Benzo(a)pyrene | ND | | 0.00600 | 1 | 11/13/2020 01:14 | WG1575550 |
| Benzo(b)fluoranthene | ND | | 0.00600 | 1 | 11/13/2020 01:14 | WG1575550 |
| Benzo(g,h,i)perylene | ND | | 0.00600 | 1 | 11/13/2020 01:14 | WG1575550 |
| Benzo(k)fluoranthene | ND | | 0.00600 | 1 | 11/13/2020 01:14 | WG1575550 |
| Chrysene | ND | | 0.00600 | 1 | 11/13/2020 01:14 | WG1575550 |
| Dibenz(a,h)anthracene | ND | | 0.00600 | 1 | 11/13/2020 01:14 | WG1575550 |
| Fluoranthene | ND | | 0.00600 | 1 | 11/13/2020 01:14 | WG1575550 |
| Fluorene | ND | | 0.00600 | 1 | 11/13/2020 01:14 | WG1575550 |
| Indeno(1,2,3-cd)pyrene | ND | | 0.00600 | 1 | 11/13/2020 01:14 | WG1575550 |
| Naphthalene | ND | | 0.0200 | 1 | 11/13/2020 01:14 | WG1575550 |
| Phenanthrene | ND | | 0.00600 | 1 | 11/13/2020 01:14 | WG1575550 |
| Pyrene | ND | | 0.00600 | 1 | 11/13/2020 01:14 | WG1575550 |
| 1-Methylnaphthalene | ND | | 0.0200 | 1 | 11/13/2020 01:14 | WG1575550 |
| 2-Methylnaphthalene | ND | | 0.0200 | 1 | 11/13/2020 01:14 | WG1575550 |
| 2-Chloronaphthalene | ND | | 0.0200 | 1 | 11/13/2020 01:14 | WG1575550 |
| (S) p-Terphenyl-d14 | 83.1 | | 23.0-120 | | 11/13/2020 01:14 | WG1575550 |
| (S) Nitrobenzene-d5 | 75.7 | | 14.0-149 | | 11/13/2020 01:14 | WG1575550 |
| (S) 2-Fluorobiphenyl | 72.8 | | 34.0-125 | | 11/13/2020 01:14 | WG1575550 |



Calculated Results

| Analyte | Result | Qualifier | Dilution | Analysis date / time | Batch |
|-------------------------|--------|-----------|----------|----------------------|-----------|
| Sodium Adsorption Ratio | 16.0 | | 1 | 11/12/2020 23:04 | WG1573800 |

Calculated Results

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|---------------------|--------------|-----------|-----------|----------|----------------------|---------------------------|
| Chromium, Trivalent | 16.3 | | 1.00 | 1 | 11/11/2020 14:44 | WG1573568 |

Wet Chemistry by Method 3060A/7196A

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|----------------------|--------------|-----------|-----------|----------|----------------------|---------------------------|
| Chromium, Hexavalent | ND | | 2.00 | 1 | 11/11/2020 14:44 | WG1572843 |

Wet Chemistry by Method 9045D

| Analyte | Result su | Qualifier | Dilution | Analysis date / time | Batch |
|---------|-----------|--------------------|----------|----------------------|---------------------------|
| pH | 7.94 | T8 | 1 | 11/13/2020 00:39 | WG1575659 |

Sample Narrative:

L1282863-02 WG1575659: 7.94 at 20.9C

Wet Chemistry by Method 9050AMod

| Analyte | Result umhos/cm | Qualifier | RDL umhos/cm | Dilution | Analysis date / time | Batch |
|----------------------|-----------------|-----------|--------------|----------|----------------------|---------------------------|
| Specific Conductance | 6890 | | 10.0 | 1 | 11/11/2020 16:00 | WG1574511 |

Mercury by Method 7471A

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|---------|--------------|-----------|-----------|----------|----------------------|---------------------------|
| Mercury | ND | | 0.0400 | 1 | 11/10/2020 11:46 | WG1573312 |

Metals (ICP) by Method 6010B

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|----------|--------------|-----------|-----------|----------|----------------------|---------------------------|
| Arsenic | 6.49 | | 2.00 | 1 | 11/10/2020 17:52 | WG1573568 |
| Barium | 994 | | 0.500 | 1 | 11/10/2020 17:52 | WG1573568 |
| Cadmium | 1.68 | | 0.500 | 1 | 11/10/2020 17:52 | WG1573568 |
| Chromium | 16.3 | | 1.00 | 1 | 11/10/2020 17:52 | WG1573568 |
| Copper | 19.0 | | 2.00 | 1 | 11/10/2020 17:52 | WG1573568 |
| Lead | 11.4 | | 0.500 | 1 | 11/10/2020 17:52 | WG1573568 |
| Nickel | 16.6 | | 2.00 | 1 | 11/10/2020 17:52 | WG1573568 |
| Selenium | ND | | 2.00 | 1 | 11/10/2020 17:52 | WG1573568 |
| Silver | ND | | 1.00 | 1 | 11/10/2020 17:52 | WG1573568 |
| Zinc | 55.2 | | 5.00 | 1 | 11/10/2020 17:52 | WG1573568 |

Volatile Organic Compounds (GC) by Method 8015/8021

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|---------------------------|--------------|-----------|-----------|----------|----------------------|---------------------------|
| Benzene | 0.00538 | | 0.000500 | 1 | 11/11/2020 03:06 | WG1574377 |
| Toluene | 0.0149 | | 0.00500 | 1 | 11/11/2020 03:06 | WG1574377 |
| Ethylbenzene | 0.00665 | | 0.000500 | 1 | 11/11/2020 03:06 | WG1574377 |
| Total Xylene | 0.00613 | | 0.00150 | 1 | 11/11/2020 03:06 | WG1574377 |
| TPH (GC/FID) Low Fraction | 0.397 | | 0.100 | 1 | 11/11/2020 03:06 | WG1574377 |

| |
|-----------------|
| ¹ Cp |
| ² Tc |
| ³ Ss |
| ⁴ Cn |
| ⁵ Sr |
| ⁶ Qc |
| ⁷ Gl |
| ⁸ Al |
| ⁹ Sc |



Volatile Organic Compounds (GC) by Method 8015/8021

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|---------------------------------|-----------------|-----------|--------------|----------|-------------------------|---------------------------|
| (S) a,a,a-Trifluorotoluene(FID) | 89.6 | | 77.0-120 | | 11/11/2020 03:06 | WG1574377 |
| (S) a,a,a-Trifluorotoluene(PID) | 96.1 | | 72.0-128 | | 11/11/2020 03:06 | WG1574377 |

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

Semi-Volatile Organic Compounds (GC) by Method 8015

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|----------------------------|-----------------|-----------|--------------|----------|-------------------------|---------------------------|
| TPH (GC/FID) High Fraction | 37.4 | | 4.00 | 1 | 11/10/2020 03:34 | WG1573489 |
| (S) o-Terphenyl | 64.9 | | 18.0-148 | | 11/10/2020 03:34 | WG1573489 |

6 Qc

7 Gl

8 Al

9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|------------------------|-----------------|-----------|--------------|----------|-------------------------|---------------------------|
| Anthracene | ND | | 0.00600 | 1 | 11/13/2020 01:35 | WG1575550 |
| Acenaphthene | ND | | 0.00600 | 1 | 11/13/2020 01:35 | WG1575550 |
| Acenaphthylene | ND | | 0.00600 | 1 | 11/13/2020 01:35 | WG1575550 |
| Benzo(a)anthracene | ND | | 0.00600 | 1 | 11/13/2020 01:35 | WG1575550 |
| Benzo(a)pyrene | ND | | 0.00600 | 1 | 11/13/2020 01:35 | WG1575550 |
| Benzo(b)fluoranthene | ND | | 0.00600 | 1 | 11/13/2020 01:35 | WG1575550 |
| Benzo(g,h,i)perylene | ND | | 0.00600 | 1 | 11/13/2020 01:35 | WG1575550 |
| Benzo(k)fluoranthene | ND | | 0.00600 | 1 | 11/13/2020 01:35 | WG1575550 |
| Chrysene | ND | | 0.00600 | 1 | 11/13/2020 01:35 | WG1575550 |
| Dibenz(a,h)anthracene | ND | | 0.00600 | 1 | 11/13/2020 01:35 | WG1575550 |
| Fluoranthene | ND | | 0.00600 | 1 | 11/13/2020 01:35 | WG1575550 |
| Fluorene | ND | | 0.00600 | 1 | 11/13/2020 01:35 | WG1575550 |
| Indeno(1,2,3-cd)pyrene | ND | | 0.00600 | 1 | 11/13/2020 01:35 | WG1575550 |
| Naphthalene | ND | | 0.0200 | 1 | 11/13/2020 01:35 | WG1575550 |
| Phenanthrene | ND | | 0.00600 | 1 | 11/13/2020 01:35 | WG1575550 |
| Pyrene | ND | | 0.00600 | 1 | 11/13/2020 01:35 | WG1575550 |
| 1-Methylnaphthalene | ND | | 0.0200 | 1 | 11/13/2020 01:35 | WG1575550 |
| 2-Methylnaphthalene | ND | | 0.0200 | 1 | 11/13/2020 01:35 | WG1575550 |
| 2-Chloronaphthalene | ND | | 0.0200 | 1 | 11/13/2020 01:35 | WG1575550 |
| (S) p-Terphenyl-d14 | 77.1 | | 23.0-120 | | 11/13/2020 01:35 | WG1575550 |
| (S) Nitrobenzene-d5 | 61.4 | | 14.0-149 | | 11/13/2020 01:35 | WG1575550 |
| (S) 2-Fluorobiphenyl | 64.9 | | 34.0-125 | | 11/13/2020 01:35 | WG1575550 |



Calculated Results

| Analyte | Result | Qualifier | Dilution | Analysis date / time | Batch |
|-------------------------|--------|-----------|----------|----------------------|-----------|
| Sodium Adsorption Ratio | 7.36 | | 1 | 11/12/2020 23:07 | WG1573800 |

Calculated Results

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|---------------------|--------------|-----------|-----------|----------|----------------------|---------------------------|
| Chromium, Trivalent | 15.8 | | 1.00 | 1 | 11/11/2020 14:44 | WG1573568 |

Wet Chemistry by Method 3060A/7196A

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|----------------------|--------------|-----------|-----------|----------|----------------------|---------------------------|
| Chromium, Hexavalent | ND | | 2.00 | 1 | 11/11/2020 14:44 | WG1572843 |

Wet Chemistry by Method 9045D

| Analyte | Result su | Qualifier | Dilution | Analysis date / time | Batch |
|---------|-----------|--------------------|----------|----------------------|---------------------------|
| pH | 8.15 | T8 | 1 | 11/13/2020 00:39 | WG1575659 |

Sample Narrative:

L1282863-03 WG1575659: 8.15 at 20.9C

Wet Chemistry by Method 9050AMod

| Analyte | Result umhos/cm | Qualifier | RDL umhos/cm | Dilution | Analysis date / time | Batch |
|----------------------|-----------------|-----------|--------------|----------|----------------------|---------------------------|
| Specific Conductance | 2250 | | 10.0 | 1 | 11/11/2020 16:00 | WG1574511 |

Mercury by Method 7471A

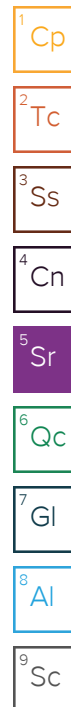
| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|---------|--------------|-----------|-----------|----------|----------------------|---------------------------|
| Mercury | ND | | 0.0400 | 1 | 11/10/2020 11:48 | WG1573312 |

Metals (ICP) by Method 6010B

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|----------|--------------|-----------|-----------|----------|----------------------|---------------------------|
| Arsenic | 5.58 | | 2.00 | 1 | 11/10/2020 17:55 | WG1573568 |
| Barium | 856 | | 0.500 | 1 | 11/10/2020 17:55 | WG1573568 |
| Cadmium | ND | | 0.500 | 1 | 11/10/2020 17:55 | WG1573568 |
| Chromium | 15.8 | | 1.00 | 1 | 11/10/2020 17:55 | WG1573568 |
| Copper | 17.9 | | 2.00 | 1 | 11/10/2020 17:55 | WG1573568 |
| Lead | 10.4 | | 0.500 | 1 | 11/10/2020 17:55 | WG1573568 |
| Nickel | 14.7 | | 2.00 | 1 | 11/10/2020 17:55 | WG1573568 |
| Selenium | ND | | 2.00 | 1 | 11/10/2020 17:55 | WG1573568 |
| Silver | ND | | 1.00 | 1 | 11/10/2020 17:55 | WG1573568 |
| Zinc | 51.2 | | 5.00 | 1 | 11/10/2020 17:55 | WG1573568 |

Volatile Organic Compounds (GC) by Method 8015/8021

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|---------------------------|--------------|-----------|-----------|----------|----------------------|---------------------------|
| Benzene | 0.00341 | | 0.000500 | 1 | 11/11/2020 03:44 | WG1574377 |
| Toluene | 0.0127 | | 0.00500 | 1 | 11/11/2020 03:44 | WG1574377 |
| Ethylbenzene | 0.00636 | | 0.000500 | 1 | 11/11/2020 03:44 | WG1574377 |
| Total Xylene | 0.00665 | | 0.00150 | 1 | 11/11/2020 03:44 | WG1574377 |
| TPH (GC/FID) Low Fraction | 0.269 | | 0.100 | 1 | 11/11/2020 03:44 | WG1574377 |





Volatile Organic Compounds (GC) by Method 8015/8021

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|---------------------------------|-----------------|-----------|--------------|----------|-------------------------|---------------------------|
| (S) a,a,a-Trifluorotoluene(FID) | 87.9 | | 77.0-120 | | 11/11/2020 03:44 | WG1574377 |
| (S) a,a,a-Trifluorotoluene(PID) | 92.7 | | 72.0-128 | | 11/11/2020 03:44 | WG1574377 |

Semi-Volatile Organic Compounds (GC) by Method 8015

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|----------------------------|-----------------|-----------|--------------|----------|-------------------------|---------------------------|
| TPH (GC/FID) High Fraction | 55.6 | | 4.00 | 1 | 11/10/2020 03:47 | WG1573489 |
| (S) o-Terphenyl | 70.8 | | 18.0-148 | | 11/10/2020 03:47 | WG1573489 |

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|------------------------|-----------------|-----------|--------------|----------|-------------------------|---------------------------|
| Anthracene | ND | | 0.00600 | 1 | 11/13/2020 01:57 | WG1575550 |
| Acenaphthene | ND | | 0.00600 | 1 | 11/13/2020 01:57 | WG1575550 |
| Acenaphthylene | ND | | 0.00600 | 1 | 11/13/2020 01:57 | WG1575550 |
| Benzo(a)anthracene | ND | | 0.00600 | 1 | 11/13/2020 01:57 | WG1575550 |
| Benzo(a)pyrene | ND | | 0.00600 | 1 | 11/13/2020 01:57 | WG1575550 |
| Benzo(b)fluoranthene | ND | | 0.00600 | 1 | 11/13/2020 01:57 | WG1575550 |
| Benzo(g,h,i)perylene | ND | | 0.00600 | 1 | 11/13/2020 01:57 | WG1575550 |
| Benzo(k)fluoranthene | ND | | 0.00600 | 1 | 11/13/2020 01:57 | WG1575550 |
| Chrysene | ND | | 0.00600 | 1 | 11/13/2020 01:57 | WG1575550 |
| Dibenz(a,h)anthracene | ND | | 0.00600 | 1 | 11/13/2020 01:57 | WG1575550 |
| Fluoranthene | ND | | 0.00600 | 1 | 11/13/2020 01:57 | WG1575550 |
| Fluorene | ND | | 0.00600 | 1 | 11/13/2020 01:57 | WG1575550 |
| Indeno(1,2,3-cd)pyrene | ND | | 0.00600 | 1 | 11/13/2020 01:57 | WG1575550 |
| Naphthalene | ND | | 0.0200 | 1 | 11/13/2020 01:57 | WG1575550 |
| Phenanthrene | ND | | 0.00600 | 1 | 11/13/2020 01:57 | WG1575550 |
| Pyrene | ND | | 0.00600 | 1 | 11/13/2020 01:57 | WG1575550 |
| 1-Methylnaphthalene | ND | | 0.0200 | 1 | 11/13/2020 01:57 | WG1575550 |
| 2-Methylnaphthalene | ND | | 0.0200 | 1 | 11/13/2020 01:57 | WG1575550 |
| 2-Chloronaphthalene | ND | | 0.0200 | 1 | 11/13/2020 01:57 | WG1575550 |
| (S) p-Terphenyl-d14 | 85.7 | | 23.0-120 | | 11/13/2020 01:57 | WG1575550 |
| (S) Nitrobenzene-d5 | 69.6 | | 14.0-149 | | 11/13/2020 01:57 | WG1575550 |
| (S) 2-Fluorobiphenyl | 71.6 | | 34.0-125 | | 11/13/2020 01:57 | WG1575550 |

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Calculated Results

| Analyte | Result | Qualifier | Dilution | Analysis date / time | Batch |
|-------------------------|--------|-----------|----------|----------------------|-----------|
| Sodium Adsorption Ratio | 13.6 | | 1 | 11/12/2020 23:10 | WG1573800 |

Calculated Results

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|---------------------|--------------|-----------|-----------|----------|----------------------|---------------------------|
| Chromium, Trivalent | 15.6 | | 1.00 | 1 | 11/11/2020 14:44 | WG1573568 |

Wet Chemistry by Method 3060A/7196A

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|----------------------|--------------|-----------|-----------|----------|----------------------|---------------------------|
| Chromium, Hexavalent | ND | | 2.00 | 1 | 11/11/2020 14:44 | WG1572843 |

Wet Chemistry by Method 9045D

| Analyte | Result su | Qualifier | Dilution | Analysis date / time | Batch |
|---------|-----------|--------------------|----------|----------------------|---------------------------|
| pH | 8.07 | T8 | 1 | 11/13/2020 00:39 | WG1575659 |

Sample Narrative:

L1282863-04 WG1575659: 8.07 at 20.5C

Wet Chemistry by Method 9050AMod

| Analyte | Result umhos/cm | Qualifier | RDL umhos/cm | Dilution | Analysis date / time | Batch |
|----------------------|-----------------|-----------|--------------|----------|----------------------|---------------------------|
| Specific Conductance | 4770 | | 10.0 | 1 | 11/11/2020 16:00 | WG1574511 |

Mercury by Method 7471A

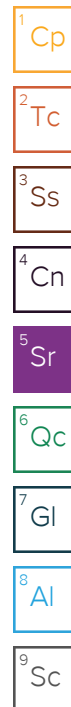
| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|---------|--------------|-----------|-----------|----------|----------------------|---------------------------|
| Mercury | ND | | 0.0400 | 1 | 11/10/2020 11:50 | WG1573312 |

Metals (ICP) by Method 6010B

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|----------|--------------|-----------|-----------|----------|----------------------|---------------------------|
| Arsenic | 6.38 | | 2.00 | 1 | 11/10/2020 18:03 | WG1573568 |
| Barium | 827 | | 0.500 | 1 | 11/10/2020 18:03 | WG1573568 |
| Cadmium | ND | | 0.500 | 1 | 11/10/2020 18:03 | WG1573568 |
| Chromium | 15.6 | | 1.00 | 1 | 11/10/2020 18:03 | WG1573568 |
| Copper | 20.9 | | 2.00 | 1 | 11/10/2020 18:03 | WG1573568 |
| Lead | 11.5 | | 0.500 | 1 | 11/10/2020 18:03 | WG1573568 |
| Nickel | 15.7 | | 2.00 | 1 | 11/10/2020 18:03 | WG1573568 |
| Selenium | ND | | 2.00 | 1 | 11/10/2020 18:03 | WG1573568 |
| Silver | ND | | 1.00 | 1 | 11/10/2020 18:03 | WG1573568 |
| Zinc | 52.8 | | 5.00 | 1 | 11/10/2020 18:03 | WG1573568 |

Volatile Organic Compounds (GC) by Method 8015/8021

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|---------------------------|--------------|-----------|-----------|----------|----------------------|---------------------------|
| Benzene | 0.00660 | | 0.000500 | 1 | 11/11/2020 04:07 | WG1574377 |
| Toluene | 0.0188 | | 0.00500 | 1 | 11/11/2020 04:07 | WG1574377 |
| Ethylbenzene | 0.00816 | | 0.000500 | 1 | 11/11/2020 04:07 | WG1574377 |
| Total Xylene | 0.00771 | | 0.00150 | 1 | 11/11/2020 04:07 | WG1574377 |
| TPH (GC/FID) Low Fraction | 0.444 | | 0.100 | 1 | 11/11/2020 04:07 | WG1574377 |





Volatile Organic Compounds (GC) by Method 8015/8021

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|---------------------------------|-----------------|-----------|--------------|----------|-------------------------|---------------------------|
| (S) a,a,a-Trifluorotoluene(FID) | 89.8 | | 77.0-120 | | 11/11/2020 04:07 | WG1574377 |
| (S) a,a,a-Trifluorotoluene(PID) | 97.1 | | 72.0-128 | | 11/11/2020 04:07 | WG1574377 |

Semi-Volatile Organic Compounds (GC) by Method 8015

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|----------------------------|-----------------|-----------|--------------|----------|-------------------------|---------------------------|
| TPH (GC/FID) High Fraction | 47.2 | | 4.00 | 1 | 11/10/2020 04:06 | WG1573489 |
| (S) o-Terphenyl | 79.8 | | 18.0-148 | | 11/10/2020 04:06 | WG1573489 |

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|------------------------|-----------------|-----------|--------------|----------|-------------------------|---------------------------|
| Anthracene | ND | | 0.00600 | 1 | 11/13/2020 03:22 | WG1575550 |
| Acenaphthene | ND | | 0.00600 | 1 | 11/13/2020 03:22 | WG1575550 |
| Acenaphthylene | ND | | 0.00600 | 1 | 11/13/2020 03:22 | WG1575550 |
| Benzo(a)anthracene | ND | | 0.00600 | 1 | 11/13/2020 03:22 | WG1575550 |
| Benzo(a)pyrene | ND | | 0.00600 | 1 | 11/13/2020 03:22 | WG1575550 |
| Benzo(b)fluoranthene | ND | | 0.00600 | 1 | 11/13/2020 03:22 | WG1575550 |
| Benzo(g,h,i)perylene | ND | | 0.00600 | 1 | 11/13/2020 03:22 | WG1575550 |
| Benzo(k)fluoranthene | ND | | 0.00600 | 1 | 11/13/2020 03:22 | WG1575550 |
| Chrysene | ND | | 0.00600 | 1 | 11/13/2020 03:22 | WG1575550 |
| Dibenz(a,h)anthracene | ND | | 0.00600 | 1 | 11/13/2020 03:22 | WG1575550 |
| Fluoranthene | ND | | 0.00600 | 1 | 11/13/2020 03:22 | WG1575550 |
| Fluorene | ND | | 0.00600 | 1 | 11/13/2020 03:22 | WG1575550 |
| Indeno(1,2,3-cd)pyrene | ND | | 0.00600 | 1 | 11/13/2020 03:22 | WG1575550 |
| Naphthalene | ND | | 0.0200 | 1 | 11/13/2020 03:22 | WG1575550 |
| Phenanthrene | ND | | 0.00600 | 1 | 11/13/2020 03:22 | WG1575550 |
| Pyrene | 0.00633 | | 0.00600 | 1 | 11/13/2020 03:22 | WG1575550 |
| 1-Methylnaphthalene | ND | | 0.0200 | 1 | 11/13/2020 03:22 | WG1575550 |
| 2-Methylnaphthalene | ND | | 0.0200 | 1 | 11/13/2020 03:22 | WG1575550 |
| 2-Chloronaphthalene | ND | | 0.0200 | 1 | 11/13/2020 03:22 | WG1575550 |
| (S) p-Terphenyl-d14 | 83.7 | | 23.0-120 | | 11/13/2020 03:22 | WG1575550 |
| (S) Nitrobenzene-d5 | 80.7 | | 14.0-149 | | 11/13/2020 03:22 | WG1575550 |
| (S) 2-Fluorobiphenyl | 71.6 | | 34.0-125 | | 11/13/2020 03:22 | WG1575550 |

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Calculated Results

| Analyte | Result | Qualifier | Dilution | Analysis date / time | Batch |
|-------------------------|--------|-----------|----------|----------------------|-----------|
| Sodium Adsorption Ratio | 9.17 | | 1 | 11/12/2020 23:13 | WG1573800 |

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Calculated Results

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|---------------------|--------------|-----------|-----------|----------|----------------------|---------------------------|
| Chromium, Trivalent | 16.1 | | 1.00 | 1 | 11/11/2020 14:45 | WG1573568 |

Wet Chemistry by Method 3060A/7196A

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|----------------------|--------------|-----------|-----------|----------|----------------------|---------------------------|
| Chromium, Hexavalent | ND | | 2.00 | 1 | 11/11/2020 14:45 | WG1572843 |

Wet Chemistry by Method 9045D

| Analyte | Result su | Qualifier | Dilution | Analysis date / time | Batch |
|---------|-----------|--------------------|----------|----------------------|---------------------------|
| pH | 7.90 | T8 | 1 | 11/13/2020 00:39 | WG1575659 |

Sample Narrative:

L1282863-05 WG1575659: 7.9 at 19.8C

Wet Chemistry by Method 9050AMod

| Analyte | Result umhos/cm | Qualifier | RDL umhos/cm | Dilution | Analysis date / time | Batch |
|----------------------|-----------------|-----------|--------------|----------|----------------------|---------------------------|
| Specific Conductance | 5180 | | 10.0 | 1 | 11/11/2020 16:00 | WG1574511 |

Mercury by Method 7471A

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|---------|--------------|-----------|-----------|----------|----------------------|---------------------------|
| Mercury | ND | | 0.0400 | 1 | 11/10/2020 11:52 | WG1573312 |

Metals (ICP) by Method 6010B

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|----------|--------------|----------------------|-----------|----------|----------------------|---------------------------|
| Arsenic | 6.78 | | 2.00 | 1 | 11/10/2020 17:35 | WG1573568 |
| Barium | 857 | Q1 V | 0.500 | 1 | 11/10/2020 17:35 | WG1573568 |
| Cadmium | ND | | 0.500 | 1 | 11/10/2020 17:35 | WG1573568 |
| Chromium | 16.1 | | 1.00 | 1 | 11/10/2020 17:35 | WG1573568 |
| Copper | 19.7 | | 2.00 | 1 | 11/10/2020 17:35 | WG1573568 |
| Lead | 11.2 | | 0.500 | 1 | 11/10/2020 17:35 | WG1573568 |
| Nickel | 16.6 | | 2.00 | 1 | 11/10/2020 17:35 | WG1573568 |
| Selenium | ND | | 2.00 | 1 | 11/10/2020 17:35 | WG1573568 |
| Silver | ND | | 1.00 | 1 | 11/10/2020 17:35 | WG1573568 |
| Zinc | 55.5 | | 5.00 | 1 | 11/10/2020 17:35 | WG1573568 |

Volatile Organic Compounds (GC) by Method 8015/8021

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|---------------------------|--------------|-----------|-----------|----------|----------------------|---------------------------|
| Benzene | 0.00982 | | 0.000500 | 1 | 11/11/2020 04:29 | WG1574377 |
| Toluene | 0.0276 | | 0.00500 | 1 | 11/11/2020 04:29 | WG1574377 |
| Ethylbenzene | 0.0117 | | 0.000500 | 1 | 11/11/2020 04:29 | WG1574377 |
| Total Xylene | 0.0108 | | 0.00150 | 1 | 11/11/2020 04:29 | WG1574377 |
| TPH (GC/FID) Low Fraction | 0.698 | | 0.100 | 1 | 11/11/2020 04:29 | WG1574377 |



Volatile Organic Compounds (GC) by Method 8015/8021

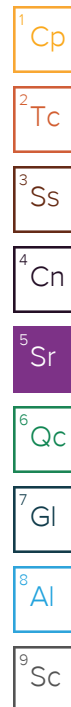
| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|---------------------------------|-----------------|-----------|--------------|----------|-------------------------|---------------------------|
| (S) a,a,a-Trifluorotoluene(FID) | 86.8 | | 77.0-120 | | 11/11/2020 04:29 | WG1574377 |
| (S) a,a,a-Trifluorotoluene(PID) | 96.9 | | 72.0-128 | | 11/11/2020 04:29 | WG1574377 |

Semi-Volatile Organic Compounds (GC) by Method 8015

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|----------------------------|-----------------|-----------|--------------|----------|-------------------------|---------------------------|
| TPH (GC/FID) High Fraction | 34.3 | | 4.00 | 1 | 11/10/2020 05:35 | WG1573489 |
| (S) o-Terphenyl | 69.9 | | 18.0-148 | | 11/10/2020 05:35 | WG1573489 |

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|------------------------|-----------------|-----------|--------------|----------|-------------------------|---------------------------|
| Anthracene | ND | | 0.00600 | 1 | 11/13/2020 03:44 | WG1575550 |
| Acenaphthene | ND | | 0.00600 | 1 | 11/13/2020 03:44 | WG1575550 |
| Acenaphthylene | ND | | 0.00600 | 1 | 11/13/2020 03:44 | WG1575550 |
| Benzo(a)anthracene | ND | | 0.00600 | 1 | 11/13/2020 03:44 | WG1575550 |
| Benzo(a)pyrene | ND | | 0.00600 | 1 | 11/13/2020 03:44 | WG1575550 |
| Benzo(b)fluoranthene | ND | | 0.00600 | 1 | 11/13/2020 03:44 | WG1575550 |
| Benzo(g,h,i)perylene | ND | | 0.00600 | 1 | 11/13/2020 03:44 | WG1575550 |
| Benzo(k)fluoranthene | ND | | 0.00600 | 1 | 11/13/2020 03:44 | WG1575550 |
| Chrysene | ND | | 0.00600 | 1 | 11/13/2020 03:44 | WG1575550 |
| Dibenz(a,h)anthracene | ND | | 0.00600 | 1 | 11/13/2020 03:44 | WG1575550 |
| Fluoranthene | ND | | 0.00600 | 1 | 11/13/2020 03:44 | WG1575550 |
| Fluorene | ND | | 0.00600 | 1 | 11/13/2020 03:44 | WG1575550 |
| Indeno(1,2,3-cd)pyrene | ND | | 0.00600 | 1 | 11/13/2020 03:44 | WG1575550 |
| Naphthalene | ND | | 0.0200 | 1 | 11/13/2020 03:44 | WG1575550 |
| Phenanthrene | ND | | 0.00600 | 1 | 11/13/2020 03:44 | WG1575550 |
| Pyrene | 0.00736 | | 0.00600 | 1 | 11/13/2020 03:44 | WG1575550 |
| 1-Methylnaphthalene | ND | | 0.0200 | 1 | 11/13/2020 03:44 | WG1575550 |
| 2-Methylnaphthalene | ND | | 0.0200 | 1 | 11/13/2020 03:44 | WG1575550 |
| 2-Chloronaphthalene | ND | | 0.0200 | 1 | 11/13/2020 03:44 | WG1575550 |
| (S) p-Terphenyl-d14 | 90.4 | | 23.0-120 | | 11/13/2020 03:44 | WG1575550 |
| (S) Nitrobenzene-d5 | 76.0 | | 14.0-149 | | 11/13/2020 03:44 | WG1575550 |
| (S) 2-Fluorobiphenyl | 76.8 | | 34.0-125 | | 11/13/2020 03:44 | WG1575550 |



Method Blank (MB)

(MB) R3591922-1 11/11/20 14:36

| | MB Result | MB Qualifier | MB MDL | MB RDL |
|---------------------|-----------|--------------|--------|--------|
| Analyte | mg/kg | | mg/kg | mg/kg |
| Chromium,Hexavalent | U | | 0.640 | 2.00 |

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1282744-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1282744-01 11/11/20 14:39 • (DUP) R3591922-3 11/11/20 14:39

| | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---------------------|-----------------|------------|----------|---------|---------------|----------------|
| Analyte | mg/kg | mg/kg | | % | | % |
| Chromium,Hexavalent | ND | ND | 1 | 0.000 | | 20 |

L1282928-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1282928-01 11/11/20 14:48 • (DUP) R3591922-8 11/11/20 14:48

| | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---------------------|-----------------|------------|----------|---------|---------------|----------------|
| Analyte | mg/kg | mg/kg | | % | | % |
| Chromium,Hexavalent | ND | ND | 1 | 0.000 | | 20 |

Laboratory Control Sample (LCS)

(LCS) R3591922-2 11/11/20 14:38

| | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---------------------|--------------|------------|----------|-------------|---------------|
| Analyte | mg/kg | mg/kg | % | % | |
| Chromium,Hexavalent | 24.0 | 23.0 | 95.7 | 80.0-120 | |

L1282863-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1282863-01 11/11/20 14:40 • (MS) R3591922-4 11/11/20 14:41 • (MSD) R3591922-5 11/11/20 14:41

| | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD | RPD Limits |
|---------------------|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|-------|------------|
| Analyte | mg/kg | mg/kg | mg/kg | mg/kg | % | % | | % | | | % | % |
| Chromium,Hexavalent | 20.0 | ND | 13.3 | 13.3 | 66.4 | 66.4 | 1 | 75.0-125 | J6 | J6 | 0.000 | 20 |

Sample Narrative:

OS: sample is a reducer

L1282863-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1282863-01 11/11/20 14:40 • (MS) R3591922-6 11/11/20 14:42

| Analyte | Spike Amount mg/kg | Original Result mg/kg | MS Result mg/kg | MS Rec. % | Dilution | Rec. Limits % | <u>MS Qualifier</u> |
|---------------------|-----------------------|--------------------------|--------------------|--------------|----------|------------------|---------------------|
| Chromium,Hexavalent | 643 | ND | 684 | 106 | 50 | 75.0-125 | |

Sample Narrative:
OS: sample is a reducer

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1282827-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1282827-01 11/13/20 00:39 • (DUP) R3592584-2 11/13/20 00:39

| | Original Result | DUP Result | Dilution | DUP RPD | <u>DUP Qualifier</u> | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|----------------------|----------------|
| Analyte | su | su | | % | | % |
| pH | 7.89 | 7.93 | 1 | 0.506 | | 1 |

Sample Narrative:
OS: 7.89 at 22C
DUP: 7.93 at 20.7C

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1282863-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1282863-01 11/13/20 00:39 • (DUP) R3592584-3 11/13/20 00:39

| | Original Result | DUP Result | Dilution | DUP RPD | <u>DUP Qualifier</u> | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|----------------------|----------------|
| Analyte | su | su | | % | | % |
| pH | 7.82 | 7.82 | 1 | 0.000 | | 1 |

Sample Narrative:
OS: 7.82 at 21.3C
DUP: 7.82 at 20.9C

Laboratory Control Sample (LCS)

(LCS) R3592584-1 11/13/20 00:39

| | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | <u>LCS Qualifier</u> |
|---------|--------------|------------|----------|-------------|----------------------|
| Analyte | su | su | % | % | |
| pH | 10.0 | 10.1 | 101 | 99.0-101 | |

Sample Narrative:
LCS: 10.05 at 19.6C

Method Blank (MB)

(MB) R3591986-1 11/11/20 16:00

| Analyte | MB Result umhos/cm | MB Qualifier | MB MDL umhos/cm | MB RDL umhos/cm |
|----------------------|-----------------------|--------------|--------------------|--------------------|
| Specific Conductance | U | | 10.0 | 10.0 |

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

L1282863-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1282863-02 11/11/20 16:00 • (DUP) R3591986-3 11/11/20 16:00

| Analyte | Original Result umhos/cm | DUP Result umhos/cm | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|----------------------|-----------------------------|------------------------|----------|--------------|---------------|------------------------|
| Specific Conductance | 6890 | 6750 | 1 | 2.05 | | 20 |

L1282864-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1282864-02 11/11/20 16:00 • (DUP) R3591986-4 11/11/20 16:00

| Analyte | Original Result umhos/cm | DUP Result umhos/cm | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|----------------------|-----------------------------|------------------------|----------|--------------|---------------|------------------------|
| Specific Conductance | 734 | 738 | 1 | 0.543 | | 20 |

Laboratory Control Sample (LCS)

(LCS) R3591986-2 11/11/20 16:00

| Analyte | Spike Amount umhos/cm | LCS Result umhos/cm | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|----------------------|--------------------------|------------------------|---------------|------------------|---------------|
| Specific Conductance | 483 | 488 | 101 | 85.0-115 | |

Method Blank (MB)

| | | | | |
|--------------------------------|-----------|--------------|--------|--------|
| (MB) R3591400-1 11/10/20 11:30 | | | | |
| | MB Result | MB Qualifier | MB MDL | MB RDL |
| Analyte | mg/kg | | mg/kg | mg/kg |
| Mercury | U | | 0.0180 | 0.0400 |

Laboratory Control Sample (LCS)

| | | | | | |
|---------------------------------|--------------|------------|----------|-------------|---------------|
| (LCS) R3591400-2 11/10/20 11:32 | | | | | |
| | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
| Analyte | mg/kg | mg/kg | % | % | |
| Mercury | 0.500 | 0.498 | 99.6 | 80.0-120 | |

L1282881-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

| | | | | | | | | | | | | |
|--|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|---------------------|----------------------|------|------------|
| (OS) L1282881-09 11/10/20 11:34 • (MS) R3591400-3 11/10/20 11:36 • (MSD) R3591400-4 11/10/20 11:42 | | | | | | | | | | | | |
| | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | <u>MS Qualifier</u> | <u>MSD Qualifier</u> | RPD | RPD Limits |
| Analyte | mg/kg | mg/kg | mg/kg | mg/kg | % | % | | % | | | % | % |
| Mercury | 0.500 | ND | 0.444 | 0.466 | 88.8 | 93.2 | 1 | 75.0-125 | | | 4.88 | 20 |

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc



Method Blank (MB)

(MB) R3591620-1 11/10/20 17:30

| Analyte | MB Result mg/kg | MB Qualifier | MB MDL mg/kg | MB RDL mg/kg |
|----------|--------------------|--------------|-----------------|-----------------|
| Arsenic | U | | 0.518 | 2.00 |
| Barium | U | | 0.0852 | 0.500 |
| Cadmium | U | | 0.0471 | 0.500 |
| Chromium | U | | 0.133 | 1.00 |
| Copper | U | | 0.400 | 2.00 |
| Lead | U | | 0.208 | 0.500 |
| Nickel | U | | 0.132 | 2.00 |
| Selenium | U | | 0.764 | 2.00 |
| Silver | U | | 0.127 | 1.00 |
| Zinc | U | | 0.832 | 5.00 |

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS)

(LCS) R3591620-2 11/10/20 17:32

| Analyte | Spike Amount mg/kg | LCS Result mg/kg | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|----------|-----------------------|---------------------|---------------|------------------|---------------|
| Arsenic | 100 | 92.3 | 92.3 | 80.0-120 | |
| Barium | 100 | 100 | 100 | 80.0-120 | |
| Cadmium | 100 | 94.5 | 94.5 | 80.0-120 | |
| Chromium | 100 | 97.3 | 97.3 | 80.0-120 | |
| Copper | 100 | 96.4 | 96.4 | 80.0-120 | |
| Lead | 100 | 96.2 | 96.2 | 80.0-120 | |
| Nickel | 100 | 97.7 | 97.7 | 80.0-120 | |
| Selenium | 100 | 93.4 | 93.4 | 80.0-120 | |
| Silver | 20.0 | 17.5 | 87.7 | 80.0-120 | |
| Zinc | 100 | 94.0 | 94.0 | 80.0-120 | |

L1282863-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1282863-05 11/10/20 17:35 • (MS) R3591620-5 11/10/20 17:43 • (MSD) R3591620-6 11/10/20 17:46

| Analyte | Spike Amount mg/kg | Original Result mg/kg | MS Result mg/kg | MSD Result mg/kg | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|----------|-----------------------|--------------------------|--------------------|---------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|-----------------|
| Arsenic | 100 | 6.78 | 95.2 | 98.2 | 88.4 | 91.4 | 1 | 75.0-125 | | | 3.12 | 20 |
| Barium | 100 | 857 | 832 | 1000 | 0.000 | 143 | 1 | 75.0-125 | V | V | 18.4 | 20 |
| Cadmium | 100 | ND | 92.1 | 94.9 | 92.1 | 94.9 | 1 | 75.0-125 | | | 2.96 | 20 |
| Chromium | 100 | 16.1 | 104 | 106 | 87.6 | 89.4 | 1 | 75.0-125 | | | 1.80 | 20 |
| Copper | 100 | 19.7 | 111 | 116 | 91.1 | 96.1 | 1 | 75.0-125 | | | 4.44 | 20 |
| Lead | 100 | 11.2 | 104 | 106 | 92.8 | 95.2 | 1 | 75.0-125 | | | 2.31 | 20 |
| Nickel | 100 | 16.6 | 110 | 113 | 93.1 | 96.3 | 1 | 75.0-125 | | | 2.81 | 20 |



L1282863-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1282863-05 11/10/20 17:35 • (MS) R3591620-5 11/10/20 17:43 • (MSD) R3591620-6 11/10/20 17:46

| Analyte | Spike Amount mg/kg | Original Result mg/kg | MS Result mg/kg | MSD Result mg/kg | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | <u>MS Qualifier</u> | <u>MSD Qualifier</u> | RPD % | RPD Limits % |
|----------|-----------------------|--------------------------|--------------------|---------------------|--------------|---------------|----------|------------------|---------------------|----------------------|----------|-----------------|
| Selenium | 100 | ND | 92.0 | 94.2 | 92.0 | 94.2 | 1 | 75.0-125 | | | 2.43 | 20 |
| Silver | 20.0 | ND | 16.9 | 17.4 | 84.5 | 87.0 | 1 | 75.0-125 | | | 2.98 | 20 |
| Zinc | 100 | 55.5 | 138 | 138 | 83.0 | 82.3 | 1 | 75.0-125 | | | 0.491 | 20 |

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



Method Blank (MB)

(MB) R3593170-3 11/11/20 01:42

| Analyte | MB Result mg/kg | MB Qualifier | MB MDL mg/kg | MB RDL mg/kg |
|------------------------------------|--------------------|--------------|-----------------|-----------------|
| Benzene | U | | 0.000120 | 0.000500 |
| Toluene | U | | 0.000150 | 0.00500 |
| Ethylbenzene | U | | 0.000110 | 0.000500 |
| Total Xylene | U | | 0.000460 | 0.00150 |
| TPH (GC/FID) Low Fraction | U | | 0.0217 | 0.100 |
| (S) a,a,a-Trifluorotoluene(FID) | 98.6 | | | 77.0-120 |
| (S) a,a,a-Trifluorotoluene(PID) | 100 | | | 72.0-128 |

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Laboratory Control Sample (LCS)

(LCS) R3593170-1 11/11/20 00:36

| Analyte | Spike Amount mg/kg | LCS Result mg/kg | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|------------------------------------|-----------------------|---------------------|---------------|------------------|---------------|
| Benzene | 0.0500 | 0.0502 | 100 | 76.0-121 | |
| Toluene | 0.0500 | 0.0509 | 102 | 80.0-120 | |
| Ethylbenzene | 0.0500 | 0.0513 | 103 | 80.0-124 | |
| Total Xylene | 0.150 | 0.155 | 103 | 37.0-160 | |
| (S) a,a,a-Trifluorotoluene(FID) | | | 97.9 | 77.0-120 | |
| (S) a,a,a-Trifluorotoluene(PID) | | | 101 | 72.0-128 | |

Laboratory Control Sample (LCS)

(LCS) R3593170-2 11/11/20 00:58

| Analyte | Spike Amount mg/kg | LCS Result mg/kg | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|------------------------------------|-----------------------|---------------------|---------------|------------------|---------------|
| TPH (GC/FID) Low Fraction | 5.50 | 5.64 | 103 | 72.0-127 | |
| (S) a,a,a-Trifluorotoluene(FID) | | | 98.5 | 77.0-120 | |
| (S) a,a,a-Trifluorotoluene(PID) | | | 106 | 72.0-128 | |



L1282963-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1282963-01 11/11/20 07:40 • (MS) R3593170-4 11/11/20 12:50 • (MSD) R3593170-5 11/11/20 13:12

| Analyte | Spike Amount mg/kg | Original Result mg/kg | MS Result mg/kg | MSD Result mg/kg | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|------------------------------------|-----------------------|--------------------------|--------------------|---------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|-----------------|
| TPH (GC/FID) Low Fraction | 119 | ND | 42.5 | 37.9 | 44.1 | 39.4 | 25 | 10.0-151 | | | 11.4 | 28 |
| (S) a,a,a-Trifluorotoluene(FID) | | | | | 84.6 | 85.7 | | 77.0-120 | | | | |
| (S) a,a,a-Trifluorotoluene(PID) | | | | | 103 | 103 | | 72.0-128 | | | | |

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3591173-1 11/09/20 21:17

| Analyte | MB Result mg/kg | MB Qualifier | MB MDL mg/kg | MB RDL mg/kg |
|----------------------------|--------------------|--------------|-----------------|-----------------|
| TPH (GC/FID) High Fraction | U | | 0.769 | 4.00 |
| (S) o-Terphenyl | 72.4 | | | 18.0-148 |

Laboratory Control Sample (LCS)

(LCS) R3591173-2 11/09/20 21:30

| Analyte | Spike Amount mg/kg | LCS Result mg/kg | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|----------------------------|-----------------------|---------------------|---------------|------------------|---------------|
| TPH (GC/FID) High Fraction | 50.0 | 42.2 | 84.4 | 50.0-150 | |
| (S) o-Terphenyl | | | 103 | 18.0-148 | |

L1283391-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1283391-01 11/09/20 21:44 • (MS) R3591173-3 11/09/20 21:57 • (MSD) R3591173-4 11/09/20 22:09

| Analyte | Spike Amount mg/kg | Original Result mg/kg | MS Result mg/kg | MSD Result mg/kg | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|----------------------------|-----------------------|--------------------------|--------------------|---------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|-----------------|
| TPH (GC/FID) High Fraction | 49.2 | ND | 44.3 | 42.1 | 90.0 | 85.2 | 1 | 50.0-150 | | | 5.09 | 20 |
| (S) o-Terphenyl | | | | | 108 | 99.1 | | 18.0-148 | | | | |

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

Method Blank (MB)

(MB) R3592862-2 11/12/20 21:40

| Analyte | MB Result mg/kg | MB Qualifier | MB MDL mg/kg | MB RDL mg/kg |
|------------------------|--------------------|--------------|-----------------|-----------------|
| Anthracene | U | | 0.00230 | 0.00600 |
| Acenaphthene | U | | 0.00209 | 0.00600 |
| Acenaphthylene | U | | 0.00216 | 0.00600 |
| Benzo(a)anthracene | U | | 0.00173 | 0.00600 |
| Benzo(a)pyrene | U | | 0.00179 | 0.00600 |
| Benzo(b)fluoranthene | U | | 0.00153 | 0.00600 |
| Benzo(g,h,i)perylene | U | | 0.00177 | 0.00600 |
| Benzo(k)fluoranthene | U | | 0.00215 | 0.00600 |
| Chrysene | U | | 0.00232 | 0.00600 |
| Dibenz(a,h)anthracene | U | | 0.00172 | 0.00600 |
| Fluoranthene | U | | 0.00227 | 0.00600 |
| Fluorene | U | | 0.00205 | 0.00600 |
| Indeno(1,2,3-cd)pyrene | U | | 0.00181 | 0.00600 |
| Naphthalene | U | | 0.00408 | 0.0200 |
| Phenanthrene | U | | 0.00231 | 0.00600 |
| Pyrene | U | | 0.00200 | 0.00600 |
| 1-Methylnaphthalene | U | | 0.00449 | 0.0200 |
| 2-Methylnaphthalene | U | | 0.00427 | 0.0200 |
| 2-Chloronaphthalene | U | | 0.00466 | 0.0200 |
| (S) Nitrobenzene-d5 | 54.1 | | | 14.0-149 |
| (S) 2-Fluorobiphenyl | 58.9 | | | 34.0-125 |
| (S) p-Terphenyl-d14 | 88.5 | | | 23.0-120 |

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS)

(LCS) R3592862-1 11/12/20 21:18

| Analyte | Spike Amount mg/kg | LCS Result mg/kg | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|-----------------------|-----------------------|---------------------|---------------|------------------|---------------|
| Anthracene | 0.0800 | 0.0830 | 104 | 50.0-126 | |
| Acenaphthene | 0.0800 | 0.0809 | 101 | 50.0-120 | |
| Acenaphthylene | 0.0800 | 0.0893 | 112 | 50.0-120 | |
| Benzo(a)anthracene | 0.0800 | 0.0820 | 103 | 45.0-120 | |
| Benzo(a)pyrene | 0.0800 | 0.0692 | 86.5 | 42.0-120 | |
| Benzo(b)fluoranthene | 0.0800 | 0.0671 | 83.9 | 42.0-121 | |
| Benzo(g,h,i)perylene | 0.0800 | 0.0828 | 104 | 45.0-125 | |
| Benzo(k)fluoranthene | 0.0800 | 0.0709 | 88.6 | 49.0-125 | |
| Chrysene | 0.0800 | 0.0876 | 110 | 49.0-122 | |
| Dibenz(a,h)anthracene | 0.0800 | 0.0795 | 99.4 | 47.0-125 | |
| Fluoranthene | 0.0800 | 0.0926 | 116 | 49.0-129 | |

Laboratory Control Sample (LCS)

(LCS) R3592862-1 11/12/20 21:18

| Analyte | Spike Amount mg/kg | LCS Result mg/kg | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|------------------------|-----------------------|---------------------|---------------|------------------|---------------|
| Fluorene | 0.0800 | 0.0841 | 105 | 49.0-120 | |
| Indeno(1,2,3-cd)pyrene | 0.0800 | 0.0788 | 98.5 | 46.0-125 | |
| Naphthalene | 0.0800 | 0.0773 | 96.6 | 50.0-120 | |
| Phenanthrene | 0.0800 | 0.0765 | 95.6 | 47.0-120 | |
| Pyrene | 0.0800 | 0.0824 | 103 | 43.0-123 | |
| 1-Methylnaphthalene | 0.0800 | 0.0861 | 108 | 51.0-121 | |
| 2-Methylnaphthalene | 0.0800 | 0.0800 | 100 | 50.0-120 | |
| 2-Chloronaphthalene | 0.0800 | 0.0751 | 93.9 | 50.0-120 | |
| (S) Nitrobenzene-d5 | | | 68.6 | 14.0-149 | |
| (S) 2-Fluorobiphenyl | | | 68.5 | 34.0-125 | |
| (S) p-Terphenyl-d14 | | | 78.8 | 23.0-120 | |

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

L1282863-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1282863-03 11/13/20 01:57 • (MS) R3592862-3 11/13/20 02:18 • (MSD) R3592862-4 11/13/20 02:39

| Analyte | Spike Amount mg/kg | Original Result mg/kg | MS Result mg/kg | MSD Result mg/kg | MS Rec. % | MSD Rec. % | Dilution | Rec. Limits % | MS Qualifier | MSD Qualifier | RPD % | RPD Limits % |
|------------------------|-----------------------|--------------------------|--------------------|---------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|-----------------|
| Anthracene | 0.0788 | ND | 0.0814 | 0.0831 | 103 | 106 | 1 | 10.0-145 | | | 2.07 | 30 |
| Acenaphthene | 0.0788 | ND | 0.0736 | 0.0747 | 93.4 | 95.3 | 1 | 14.0-127 | | | 1.48 | 27 |
| Acenaphthylene | 0.0788 | ND | 0.0843 | 0.0862 | 107 | 110 | 1 | 21.0-124 | | | 2.23 | 25 |
| Benzo(a)anthracene | 0.0788 | ND | 0.0912 | 0.0938 | 116 | 120 | 1 | 10.0-139 | | | 2.81 | 30 |
| Benzo(a)pyrene | 0.0788 | ND | 0.0718 | 0.0717 | 91.1 | 91.5 | 1 | 10.0-141 | | | 0.139 | 31 |
| Benzo(b)fluoranthene | 0.0788 | ND | 0.0622 | 0.0626 | 78.9 | 79.8 | 1 | 10.0-140 | | | 0.641 | 36 |
| Benzo(g,h,i)perylene | 0.0788 | ND | 0.0730 | 0.0735 | 92.6 | 93.8 | 1 | 10.0-140 | | | 0.683 | 33 |
| Benzo(k)fluoranthene | 0.0788 | ND | 0.0620 | 0.0616 | 78.7 | 78.6 | 1 | 10.0-137 | | | 0.647 | 31 |
| Chrysene | 0.0788 | ND | 0.0775 | 0.0779 | 98.4 | 99.4 | 1 | 10.0-145 | | | 0.515 | 30 |
| Dibenz(a,h)anthracene | 0.0788 | ND | 0.0750 | 0.0735 | 95.2 | 93.8 | 1 | 10.0-132 | | | 2.02 | 31 |
| Fluoranthene | 0.0788 | ND | 0.0857 | 0.0873 | 109 | 111 | 1 | 10.0-153 | | | 1.85 | 33 |
| Fluorene | 0.0788 | ND | 0.0787 | 0.0803 | 99.9 | 102 | 1 | 11.0-130 | | | 2.01 | 29 |
| Indeno(1,2,3-cd)pyrene | 0.0788 | ND | 0.0786 | 0.0777 | 99.7 | 99.1 | 1 | 10.0-137 | | | 1.15 | 32 |
| Naphthalene | 0.0788 | ND | 0.0716 | 0.0735 | 90.9 | 93.8 | 1 | 10.0-135 | | | 2.62 | 27 |
| Phenanthrene | 0.0788 | ND | 0.0733 | 0.0748 | 93.0 | 95.4 | 1 | 10.0-144 | | | 2.03 | 31 |
| Pyrene | 0.0788 | ND | 0.0748 | 0.0760 | 94.9 | 96.9 | 1 | 10.0-148 | | | 1.59 | 35 |
| 1-Methylnaphthalene | 0.0788 | ND | 0.0812 | 0.0823 | 103 | 105 | 1 | 10.0-142 | | | 1.35 | 28 |
| 2-Methylnaphthalene | 0.0788 | ND | 0.0821 | 0.0827 | 104 | 105 | 1 | 10.0-137 | | | 0.728 | 28 |
| 2-Chloronaphthalene | 0.0788 | ND | 0.0695 | 0.0709 | 88.2 | 90.4 | 1 | 29.0-120 | | | 1.99 | 24 |
| (S) Nitrobenzene-d5 | | | | | 75.2 | 92.3 | | 14.0-149 | | | | |
| (S) 2-Fluorobiphenyl | | | | | 68.3 | 77.4 | | 34.0-125 | | | | |
| (S) p-Terphenyl-d14 | | | | | 76.2 | 87.4 | | 23.0-120 | | | | |



Guide to Reading and Understanding Your Laboratory Report

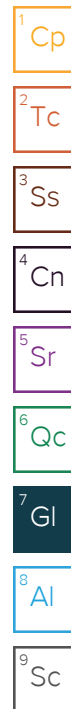
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

| | |
|------------------------------|--|
| MDL | Method Detection Limit. |
| ND | Not detected at the Reporting Limit (or MDL where applicable). |
| RDL | Reported Detection Limit. |
| Rec. | Recovery. |
| RPD | Relative Percent Difference. |
| SDG | Sample Delivery Group. |
| (S) | Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media. |
| U | Not detected at the Reporting Limit (or MDL where applicable). |
| Analyte | The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported. |
| Dilution | If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor. |
| Limits | These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges. |
| Original Sample | The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG. |
| Qualifier | This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable. |
| Result | The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte. |
| Uncertainty (Radiochemistry) | Confidence level of 2 sigma. |
| Case Narrative (Cn) | A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report. |
| Quality Control Summary (Qc) | This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material. |
| Sample Chain of Custody (Sc) | This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis. |
| Sample Results (Sr) | This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported. |
| Sample Summary (Ss) | This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis. |

| Qualifier | Description |
|-----------|---|
| J6 | The sample matrix interfered with the ability to make any accurate determination; spike value is low. |
| O1 | The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference. |
| T8 | Sample(s) received past/too close to holding time expiration. |
| V | The sample concentration is too high to evaluate accurate spike recoveries. |





Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

| | | | |
|-------------------------|-------------|-----------------------------|------------------|
| Alabama | 40660 | Nebraska | NE-OS-15-05 |
| Alaska | 17-026 | Nevada | TN-03-2002-34 |
| Arizona | AZ0612 | New Hampshire | 2975 |
| Arkansas | 88-0469 | New Jersey–NELAP | TN002 |
| California | 2932 | New Mexico ¹ | n/a |
| Colorado | TN00003 | New York | 11742 |
| Connecticut | PH-0197 | North Carolina | Env375 |
| Florida | E87487 | North Carolina ¹ | DW21704 |
| Georgia | NELAP | North Carolina ³ | 41 |
| Georgia ¹ | 923 | North Dakota | R-140 |
| Idaho | TN00003 | Ohio–VAP | CL0069 |
| Illinois | 200008 | Oklahoma | 9915 |
| Indiana | C-TN-01 | Oregon | TN200002 |
| Iowa | 364 | Pennsylvania | 68-02979 |
| Kansas | E-10277 | Rhode Island | LA000356 |
| Kentucky ^{1 6} | 90010 | South Carolina | 84004 |
| Kentucky ² | 16 | South Dakota | n/a |
| Louisiana | AI30792 | Tennessee ^{1 4} | 2006 |
| Louisiana ¹ | LA180010 | Texas | T104704245-18-15 |
| Maine | TN0002 | Texas ⁵ | LAB0152 |
| Maryland | 324 | Utah | TN00003 |
| Massachusetts | M-TN003 | Vermont | VT2006 |
| Michigan | 9958 | Virginia | 460132 |
| Minnesota | 047-999-395 | Washington | C847 |
| Mississippi | TN00003 | West Virginia | 233 |
| Missouri | 340 | Wisconsin | 9980939910 |
| Montana | CERT0086 | Wyoming | A2LA |

Third Party Federal Accreditations

| | | | |
|-------------------------------|---------|---------------------|---------------|
| A2LA – ISO 17025 | 1461.01 | AIHA-LAP, LLC EMLAP | 100789 |
| A2LA – ISO 17025 ⁵ | 1461.02 | DOD | 1461.01 |
| Canada | 1461.01 | USDA | P330-15-00234 |
| EPA–Crypto | TN00003 | | |

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



