



VIA ELECTRONIC MAIL –

June 25, 2021

Jake Janicek
EH&S Specialist
Environmental Health and Safety
Caerus Oil and Gas LLC
143 Diamond Avenue
Parachute, Colorado 81635

**Subject: Report of Work Completed
Dumpline Release – Stockpile Bench Testing
J17E
Garfield County, Colorado**

Dear Mr. Janicek:

WSP USA Inc. (WSP), on behalf of Caerus Oil and Gas LLC (Caerus), collected three composite soil samples of the stockpiled soil, three of the clean stockpile, and three combined composite samples that included both piles at the J17E Facility (Facility ID: 334782) pad location (Site), in order to conduct a bench test for constituents of concern which include: total petroleum hydrocarbons (TPH), 1-methylnaphthalene, 2-methylnaphthalene, and naphthalene of the stockpiled soil at the Site. These activities were completed in response to the Colorado Oil and Gas Conservation Commission (COGCC) denial of Caerus's request to incorporate the impacted stockpile onsite to backfill the open excavation. This bench test was completed to determine if mixing the clean stockpile and impacted stockpile located at the Site would result in favorable results to justify mixing and using as backfill of the open excavation upon approval from the Director of the COGCC. The Site is in Garfield County, Colorado (Figure 1).

SAMPLING ACTIVITIES

On June 7, 2021, WSP personnel, under the direction of Caerus, completed the initial bench testing of the clean and impacted stockpiled soil at the Site. Using a pickaxe to break through the soil and a spade shovel for collection, one five-point composite soil sample was collected from the clean stockpile location, 20210607-J17E(OBSTKP), and one five-point composite soil sample was collected from the historically most impacted cell (Comp01) of the impacted stockpile location, 20210607-J17E(IMSTKP). Each aliquot location was collected at a depth ranging from approximately three to four vertical feet from the top of the stockpile. Following the sample collection, the clean and impacted stockpiled soil was then mixed together in equal volumes. Once the soil was mixed adequately, one sample was collected of the mixed material, 20210607-J17E(COMBSTKP). All soil samples were collected in clean laboratory prepared containers and submitted to Pace Analytical (Pace) of Mount Juliet, Tennessee for analysis of a previously approved reduced analytical as described above. All aliquot locations are depicted on the enclosed Figure 2.

On June 17, 2021, WSP personnel, under the direction of Caerus, completed bench testing of the clean and impacted stockpiled soil at the Site. Using a pickaxe to break through the soil and a spade shovel for collection, one five-point composite soil sample was collected from the clean stockpile location, 20210617-J17E(OBSTKP), and one five-point composite soil sample was collected from the historically most impacted cell (Comp01) of the impacted stockpile location, 20210617-J17E(IMSTKP). Each aliquot location was collected at a depth ranging from approximately three to four vertical feet from the top of the stockpile. Following the sample collection, the clean and impacted stockpiled soil was then mixed together in equal volumes. Once the soil was mixed adequately, one sample was collected of the mixed material, 20210617-J17E(COMBSTKP). A duplicate sample from the original sample material of each location was collected. The duplicate samples are denoted with a '1' at the end of their respective

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sample identification number (Sample ID). All soil samples were collected in clean laboratory prepared containers and submitted to Pace of Mount Juliet, Tennessee for analysis of a previously approved reduced analytical as described above. All aliquot locations are depicted on the enclosed Figure 3.

ANALYTICAL RESULTS

Laboratory analytical results indicate of the three stockpile bench test samples collected on June 7, 2021 one exceeds Table 915-1 Concentration Levels for Protection of Groundwater Soil Screening Level Concentrations (R) for 1-methylnaphthalene with a concentration of 0.00804 milligrams per kilogram (mg/kg). All other samples were either within or below the Table 915-1 Concentration Levels for Protection of Groundwater Soil Screening Level Concentrations (R) or (M) for the contaminants of concern outlined above. All laboratory analytical results are included as Enclosure A and stockpile soil analytical results are summarized in Table 1.

Laboratory analytical results indicate of the samples collected on June 17, 2021 five of the six soil stockpile bench test samples collected indicate exceedances for Table 915-1 Concentration Levels for Protection of Groundwater Soil Screening Level Concentrations (R) or (M) for either 1-methylnaphthalene, 2-methylnaphthalene, and naphthalene. In addition, one of the six stockpile bench test samples exceed the COGCC Table 915-1 Cleanup Levels for total petroleum hydrocarbons (TPH). Five samples exceed the COGCC Table 915-1 for Protection of Groundwater Soil Screening Level Concentrations (R) for 1-methylnaphthalene, 2-methylnaphthalene, and naphthalene with 1-methylnaphthalene concentrations ranging from 0.0256 mg/kg in soil sample 20210617-J17E(OBSTKP) to 0.394 mg/kg in soil sample 20210617-J17E(IMSTKP), 2-methylnaphthalene concentrations ranging from 0.0359 mg/kg in soil sample 20210617-J17E(OBSTKP) to 0.362 mg/kg in soil sample 20210617-J17E(IMSTKP), and naphthalene concentrations ranging from 0.00939 mg/kg in soil sample 20210617-J17E(OBSTKP) to 0.0573 mg/kg in soil sample 20210617-J17E(IMSTKP). One of the samples, 20210617-J17E(IMSTKP), exceeds the COGCC Table 915-1 Cleanup Concentration for TPH, with a concentration of 546.33 mg/kg. All laboratory analytical results are included as Enclosure A and stockpile soil analytical results are summarized in Table 1.

Please contact us at (970) 618-4514 or (303) 548-5097 if you have any questions regarding this report of require additional information.

Kind regards,

A handwritten signature in blue ink, appearing to read 'Dustin Held'.

Dustin Held
Consultant, Environmental Geologist

A handwritten signature in blue ink, appearing to read 'Robert T. Rebel'.

Rob Rebel, P.E.
Technical Principal, Environmental Engineer

Encl.

FIGURES

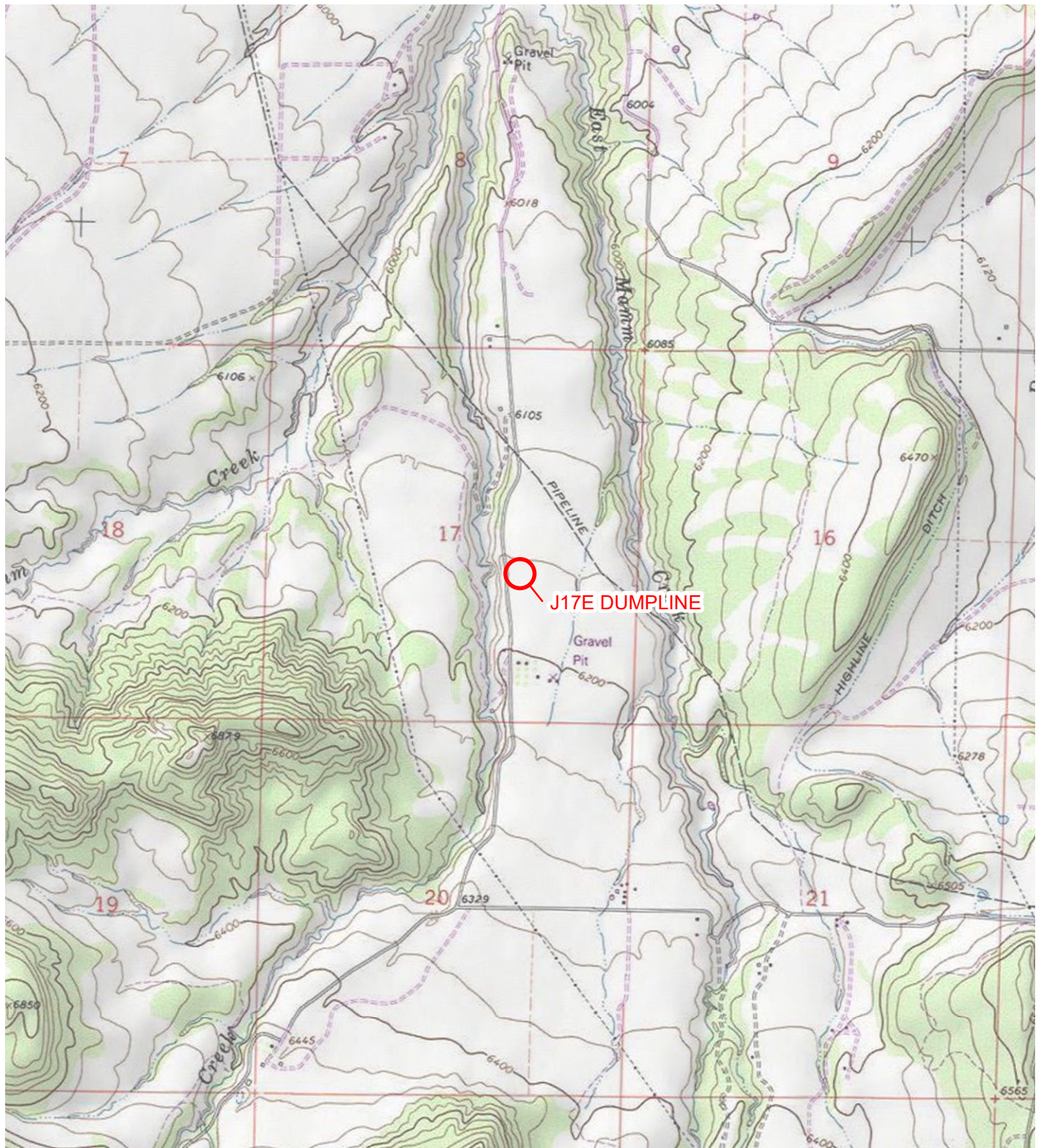


IMAGE COURTESY OF ESRI/USGS

LEGEND

 SITE LOCATION

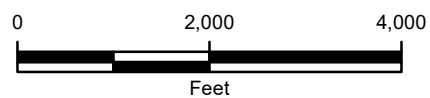


FIGURE 1
SITE LOCATION MAP
J17E DUMPLINE
NWSE SEC 17-T7S-R92W
GARFIELD COUNTY, COLORADO
CAERUS OIL AND GAS LLC



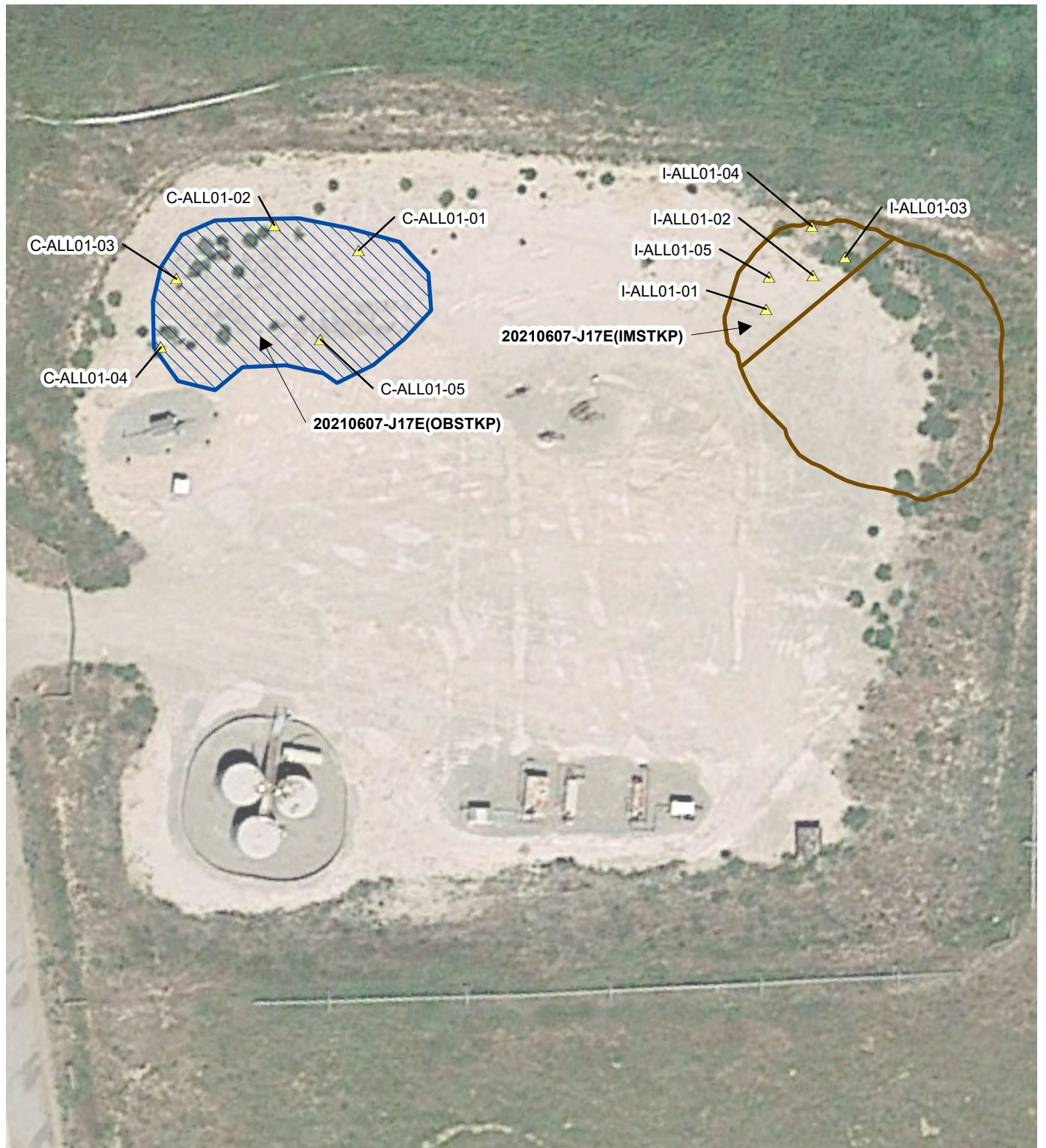


IMAGE COURTESY OF GOOGLE EARTH 2016

LEGEND

- ▲ ALIQUOT SOIL SAMPLE
- SOIL STOCKPILE
- CLEAN STOCKPILE

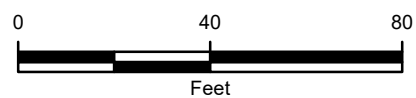


FIGURE 2
ALIQUOT SAMPLE LOCATIONS MAP
J17E DUMPLINE
NWSE SEC 17-T7S-R92W
GARFIELD COUNTY, COLORADO
CAERUS OIL AND GAS LLC



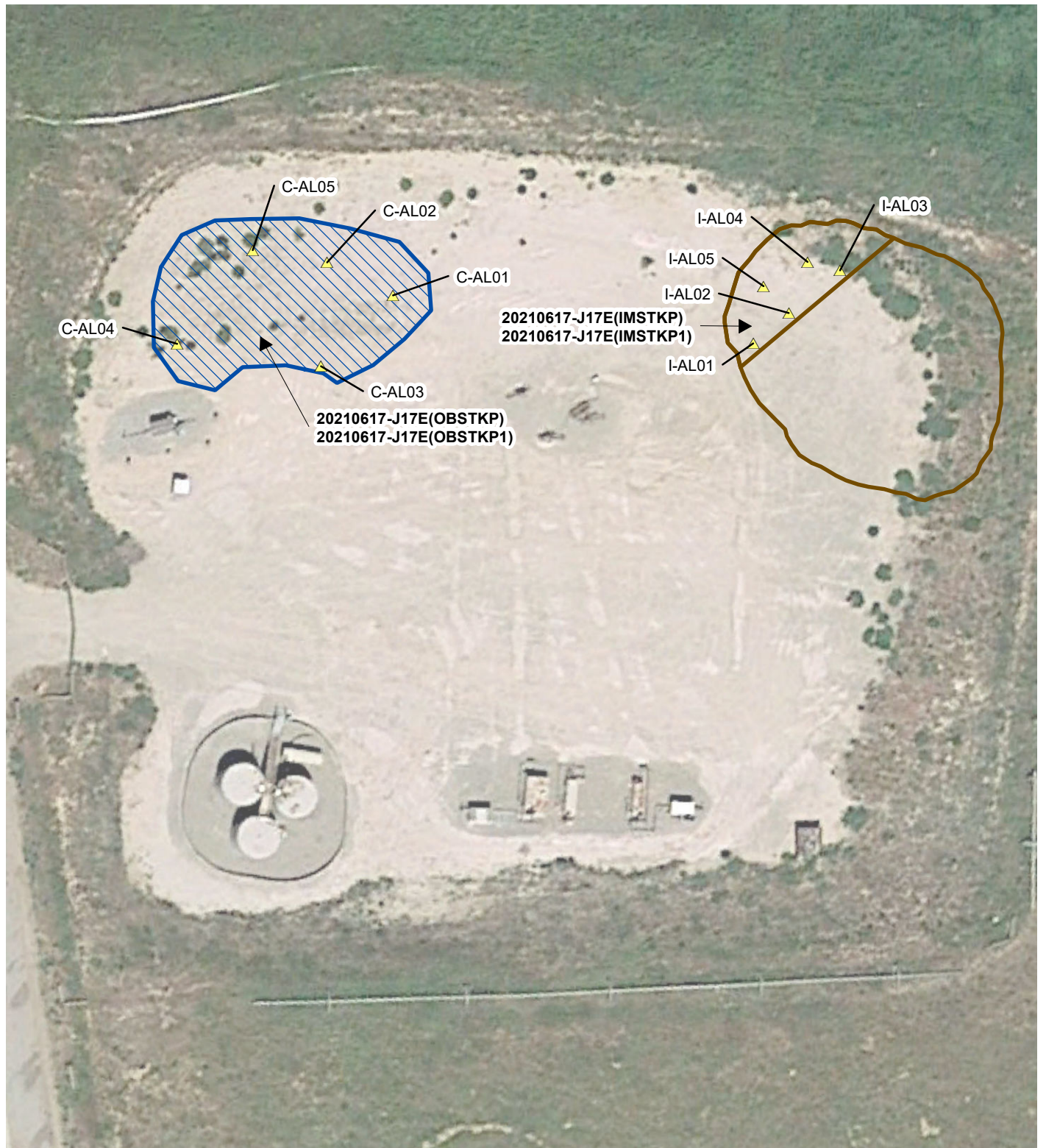





IMAGE COURTESY OF GOOGLE EARTH 2016

LEGEND

-  ALIQUOT SOIL SAMPLE
-  SOIL STOCKPILE
-  CLEAN STOCKPILE

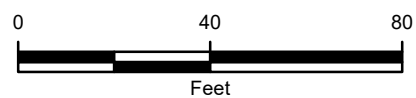


FIGURE 3
ALIQUOT SAMPLE LOCATIONS MAP
J17E DUMPLINE
NWSE SEC 17-T7S-R92W
GARFIELD COUNTY, COLORADO
CAERUS OIL AND GAS LLC



TABLE

TABLE 1

BENCH TEST STOCKPILE SOIL ANALYTICAL RESULTS
J17E DUMPLINE
GARFIELD COUNTY, COLORADO
CAERUS OIL AND GAS LLC

| PARAMETER | COGCC RESIDENTIAL SOIL SCREENING LEVEL CONCENTRATIONS | COGCC PROTECTION OF GROUDN WATER SOIL SCREENING LEVEL CONCENTRATIONS | UNITS | STOCKPILE BENCH TEST SOIL SAMPLES | | | | | |
|-------------------------|---|---|----------|-----------------------------------|-----------------------|-------------------------|-----------------------|-----------------------|-------------------------|
| | | | | 20210607-J17E(OBSTKP) | 20210607-J17E(IMSTKP) | 20210607-J17E(COMBSTKP) | 20210617-J17E(OBSTKP) | 20210617-J17E(IMSTKP) | 20210617-J17E(COMBSTKP) |
| Sample Date | | | | 6/7/2021 | 6/7/2021 | 6/7/2021 | 6/7/2021 | 6/7/2021 | 6/7/2021 |
| Sample Depth (feet) | | | | N/A | N/A | N/A | N/A | N/A | N/A |
| Sample Type | | | | Bench Test | Bench Test | Bench Test | Bench Test | Bench Test | Bench Test |
| Arsenic | 0.68 | 0.29 (M) | mg/kg | NA | NA | NA | NA | NA | NA |
| Barium | 15,000 | 82 (M) | mg/kg | NA | NA | NA | NA | NA | NA |
| Boron | 2 | 2 | mg/l | NA | NA | NA | NA | NA | NA |
| Cadmium | 71 | 0.38 (M) | mg/kg | NA | NA | NA | NA | NA | NA |
| Chromium (VI) | 0.3 | 0.00067 (R) | mg/kg | NA | NA | NA | NA | NA | NA |
| Copper | 3,100 | 46 (M) | mg/kg | NA | NA | NA | NA | NA | NA |
| Lead | 400 | 14 (M) | mg/kg | NA | NA | NA | NA | NA | NA |
| Nickel | 1,500 | 26 (R) | mg/kg | NA | NA | NA | NA | NA | NA |
| Selenium | 390 | 0.26 (M) | mg/kg | NA | NA | NA | NA | NA | NA |
| Silver | 390 | 0.8 (R) | mg/kg | NA | NA | NA | NA | NA | NA |
| Zinc | 23,000 | 370 (R) | mg/kg | NA | NA | NA | NA | NA | NA |
| EC | <4 | <4 | mmhos/cm | NA | NA | NA | NA | NA | NA |
| pH | 6 - 8.3 | 6 - 8.3 | SU | NA | NA | NA | NA | NA | NA |
| SAR | <6 | <6 | unitless | NA | NA | NA | NA | NA | NA |
| TPH-GRO | | | mg/kg | ND | 3.36 | 1.38 | 0.0467 | 7.33 | 2.74 |
| TPH-DRO | | | mg/kg | 8.44 | 23.7 | 26.8 | 35.0 | 403 | 206 |
| TPH-ORO | | | mg/kg | 15.6 | 6.86 | 11.3 | 21.8 | 136 | 80.4 |
| TPH | 500 | 500 | mg/kg | 24.04 | 33.92 | 39.48 | 56.847 | 546.33 | 289.14 |
| Benzene | 1.2 | 0.0026 (M) | mg/kg | NA | NA | NA | NA | NA | NA |
| Toluene | 490 | 0.69 (M) | mg/kg | NA | NA | NA | NA | NA | NA |
| Ethylbenzene | 5.8 | 0.78 (M) | mg/kg | NA | NA | NA | NA | NA | NA |
| Total Xylenes | 58 | 9.9 (M) | mg/kg | NA | NA | NA | NA | NA | NA |
| 1,2,4-trimethylbenzene | 30 | 0.0081 (R) | mg/kg | NA | NA | NA | NA | NA | NA |
| 1,3,5-trimethylbenzene | 27 | 0.0087 (R) | mg/kg | NA | NA | NA | NA | NA | NA |
| Anthracene | 1,800 | 5.8 (R) | mg/kg | NA | NA | NA | NA | NA | NA |
| Acenaphthene | 360 | 0.55 (R) | mg/kg | NA | NA | NA | NA | NA | NA |
| Benzo(A)anthracene | 1.1 | 0.011 (R) | mg/kg | NA | NA | NA | NA | NA | NA |
| Benzo(B)fluoranthene | 1.1 | 0.3 (R) | mg/kg | NA | NA | NA | NA | NA | NA |
| Benzo(K)fluoranthene | 11 | 2.9 (R) | mg/kg | NA | NA | NA | NA | NA | NA |
| Benzo(A)pyrene | 0.11 | 0.24 (M) | mg/kg | NA | NA | NA | NA | NA | NA |
| Chrysene | 110 | 9 (R) | mg/kg | NA | NA | NA | NA | NA | NA |
| Dibenzo(A,H)anthracene | 0.11 | 0.096 (R) | mg/kg | NA | NA | NA | NA | NA | NA |
| Fluoranthene | 240 | 8.9 (R) | mg/kg | NA | NA | NA | NA | NA | NA |
| Fluorene | 240 | 0.54 (R) | mg/kg | NA | NA | NA | NA | NA | NA |
| Indeno(1,2,3,c-d)pyrene | 1.1 | 0.98 (R) | mg/kg | NA | NA | NA | NA | NA | NA |
| 1-methylnaphthalene | 18 | 0.006 (R) | mg/kg | ND | 0.00543 | 0.00804 | 0.0256 | 0.394 | ND |
| 2-methylnaphthalene | 24 | 0.019 (R) | mg/kg | 0.00509 | ND | 0.0101 | 0.0359 | 0.362 | ND |
| Naphthalene | 2 | 0.0038 (R) | mg/kg | ND | ND | ND | 0.00939 | 0.0573 | ND |
| Pyrene | 180 | 1.3 (R) | mg/kg | NA | NA | NA | NA | NA | NA |

NOTES:
BOLD - indicates result exceeds the COGCC concentration level
COGCC - Colorado Oil and Gas Conservation Commission
EC- electrical conductivity
mg/kg - milligrams per kilogram
mmhos/cm - millimhos per centimeter
SAR - sodium adsorption ratio
SU - standard unit
TPH-ORO - total petroleum hydrocarbons- oil range organics
TPH-GRO - total petroleum hydrocarbons-gasoline range organics
TPH-DRO - total petroleum hydrocarbons-diesel range organics
TPH - combination of TPH-GRO, TPH-DRO, and TPH-ORO
N/A - not applicable
NA - analyte not analyzed
ND - analyte not detected
R - risk based
M - maxium containment level

TABLE 1

BENCH TEST STOCKPILE SOIL ANALYTICAL RESULTS
J17E DUMPLINE
GARFIELD COUNTY, COLORADO
CAERUS OIL AND GAS LLC

| PARAMETER | COGCC RESIDENTIAL SOIL SCREENING LEVEL CONCENTRATIONS | COGCC PROTECTION OF GROUDNWATER SOIL SCREENING LEVEL CONCENTRATIONS | UNITS | STOCKPILE BENCH TEST SOIL SAMPLES | | |
|-------------------------|---|--|----------|-----------------------------------|------------------------|--------------------------|
| | | | | 20210617-J17E(OBSTKP1) | 20210617-J17E(IMSTKP1) | 20210617-J17E(COMBSTKP1) |
| Sample Date | | | | 6/17/2021 | 6/17/2021 | 6/17/2021 |
| Sample Depth (feet) | | | | N/A | N/A | N/A |
| Sample Type | | | | Bench Test | Bench Test | Bench Test |
| Arsenic | 0.68 | 0.29 (M) | mg/kg | NA | NA | NA |
| Barium | 15,000 | 82 (M) | mg/kg | NA | NA | NA |
| Boron | 2 | 2 | mg/l | NA | NA | NA |
| Cadmium | 71 | 0.38 (M) | mg/kg | NA | NA | NA |
| Chromium (VI) | 0.3 | 0.00067 (R) | mg/kg | NA | NA | NA |
| Copper | 3,100 | 46 (M) | mg/kg | NA | NA | NA |
| Lead | 400 | 14 (M) | mg/kg | NA | NA | NA |
| Nickel | 1,500 | 26 (R) | mg/kg | NA | NA | NA |
| Selenium | 390 | 0.26 (M) | mg/kg | NA | NA | NA |
| Silver | 390 | 0.8 (R) | mg/kg | NA | NA | NA |
| Zinc | 23,000 | 370 (R) | mg/kg | NA | NA | NA |
| EC | <4 | <4 | mmhos/cm | NA | NA | NA |
| pH | 6 - 8.3 | 6 - 8.3 | SU | NA | NA | NA |
| SAR | <6 | <6 | unitless | NA | NA | NA |
| TPH-GRO | | | mg/kg | ND | 2.77 | 1.32 |
| TPH-DRO | | | mg/kg | 37.2 | 288 | 88.3 |
| TPH-ORO | | | mg/kg | 21.4 | 94.2 | 40.7 |
| TPH | 500 | 500 | mg/kg | 58.6 | 384.97 | 130.32 |
| Benzene | 1.2 | 0.0026 (M) | mg/kg | NA | NA | NA |
| Toluene | 490 | 0.69 (M) | mg/kg | NA | NA | NA |
| Ethylbenzene | 5.8 | 0.78 (M) | mg/kg | NA | NA | NA |
| Total Xylenes | 58 | 9.9 (M) | mg/kg | NA | NA | NA |
| 1,2,4-trimethylbenzene | 30 | 0.0081 (R) | mg/kg | NA | NA | NA |
| 1,3,5-trimethylbenzene | 27 | 0.0087 (R) | mg/kg | NA | NA | NA |
| Anthracene | 1,800 | 5.8 (R) | mg/kg | NA | NA | NA |
| Acenaphthene | 360 | 0.55 (R) | mg/kg | NA | NA | NA |
| Benzo(A)anthracene | 1.1 | 0.011 (R) | mg/kg | NA | NA | NA |
| Benzo(B)fluoranthene | 1.1 | 0.3 (R) | mg/kg | NA | NA | NA |
| Benzo(K)fluoranthene | 11 | 2.9 (R) | mg/kg | NA | NA | NA |
| Benzo(A)pyrene | 0.11 | 0.24 (M) | mg/kg | NA | NA | NA |
| Chrysene | 110 | 9 (R) | mg/kg | NA | NA | NA |
| Dibenzo(A,H)anthracene | 0.11 | 0.096 (R) | mg/kg | NA | NA | NA |
| Fluoranthene | 240 | 8.9 (R) | mg/kg | NA | NA | NA |
| Fluorene | 240 | 0.54 (R) | mg/kg | NA | NA | NA |
| Indeno(1,2,3,c-d)pyrene | 1.1 | 0.98 (R) | mg/kg | NA | NA | NA |
| 1-methylnaphthalene | 18 | 0.006 (R) | mg/kg | 0.221 | 0.268 | 0.176 |
| 2-methylnaphthalene | 24 | 0.019 (R) | mg/kg | 0.197 | 0.198 | 0.171 |
| Naphthalene | 2 | 0.0038 (R) | mg/kg | 0.0284 | 0.0330 | 0.0248 |
| Pyrene | 180 | 1.3 (R) | mg/kg | NA | NA | NA |

NOTES:
BOLD - indicates result exceeds the COGCC concentration level
COGCC - Colorado Oil and Gas Conservation Commission
EC- electrical conductivity
mg/kg - milligrams per kilogram
mmhos/cm - millimhos per centimeter
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TPH-GRO - total petroleum hydrocarbons-gasoline range organics
TPH-DRO - total petroleum hydrocarbons-diesel range organics
TPH - combination of TPH-GRO, TPH-DRO, and TPH-ORO
N/A - not applicable
NA - analyte not analyzed
ND - analyte not detected
R - risk based
M - maxium containment level

ENCLOSURE A – LABORATORY ANALYTICAL REPORTS

Caerus Oil and Gas

Sample Delivery Group: L1362839
Samples Received: 06/08/2021
Project Number: J17E
Description: J17E Dumpline Release
Site: J17E
Report To: Brett Middleton
143 Diamond Avenue
Parachute, CO 81635

Entire Report Reviewed By:



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.

Pace Analytical National12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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

SAMPLE SUMMARY

20210607-J17E(OBSTKP) L1362839-01 Solid

Collected by
Korey Kennedy

Collected date/time
06/07/21 09:45

Received date/time
06/08/21 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|-----------|----------|-----------------------|--------------------|---------|----------------|
| Volatile Organic Compounds (GC) by Method 8015D/GRO | WG1685306 | 1 | 06/08/21 11:35 | 06/09/21 18:24 | BMB | Mt. Juliet, TN |
| Semi-Volatile Organic Compounds (GC) by Method 8015 | WG1684812 | 1 | 06/08/21 20:33 | 06/09/21 18:19 | TJD | Mt. Juliet, TN |

¹ Cp

² Tc

³ Ss

20210607-J17E(IMSTKP) L1362839-02 Solid

Collected by
Korey Kennedy

Collected date/time
06/07/21 10:15

Received date/time
06/08/21 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|-----------|----------|-----------------------|--------------------|---------|----------------|
| Volatile Organic Compounds (GC) by Method 8015D/GRO | WG1685306 | 1 | 06/08/21 11:35 | 06/09/21 18:45 | BMB | Mt. Juliet, TN |
| Semi-Volatile Organic Compounds (GC) by Method 8015 | WG1684812 | 1 | 06/08/21 20:33 | 06/09/21 17:26 | TJD | Mt. Juliet, TN |

⁴ Cn

⁵ Sr

⁶ Qc

20210607-J17E(COMBSTKP) L1362839-03 Solid

Collected by
Korey Kennedy

Collected date/time
06/07/21 10:35

Received date/time
06/08/21 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|-----------|----------|-----------------------|--------------------|---------|----------------|
| Volatile Organic Compounds (GC) by Method 8015D/GRO | WG1685306 | 1 | 06/08/21 11:35 | 06/09/21 19:07 | BMB | Mt. Juliet, TN |
| Semi-Volatile Organic Compounds (GC) by Method 8015 | WG1684812 | 1 | 06/08/21 20:33 | 06/09/21 17:40 | TJD | Mt. Juliet, TN |

⁷ Gl

⁸ Al

⁹ Sc

CASE NARRATIVE

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



Volatile Organic Compounds (GC) by Method 8015D/GRO

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|---|-----------------|-----------|--------------|----------|-------------------------|---------------------------|
| TPH (GC/FID) Low Fraction | ND | | 0.100 | 1 | 06/09/2021 18:24 | WG1685306 |
| (S) <i>a,a,a</i> -Trifluorotoluene(FID) | 103 | | 77.0-120 | | 06/09/2021 18:24 | WG1685306 |

Semi-Volatile Organic Compounds (GC) by Method 8015

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|-------------------------|-----------------|-----------|--------------|----------|-------------------------|---------------------------|
| C10-C28 Diesel Range | 8.44 | | 4.00 | 1 | 06/09/2021 18:19 | WG1684812 |
| C28-C40 Oil Range | 15.6 | | 4.00 | 1 | 06/09/2021 18:19 | WG1684812 |
| (S) <i>o</i> -Terphenyl | 50.8 | | 18.0-148 | | 06/09/2021 18:19 | WG1684812 |

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Volatile Organic Compounds (GC) by Method 8015D/GRO

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|---|-----------------|-----------|--------------|----------|-------------------------|---------------------------|
| TPH (GC/FID) Low Fraction | 3.36 | | 0.100 | 1 | 06/09/2021 18:45 | WG1685306 |
| (S) <i>a,a,a</i> -Trifluorotoluene(FID) | 99.3 | | 77.0-120 | | 06/09/2021 18:45 | WG1685306 |

Semi-Volatile Organic Compounds (GC) by Method 8015

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|-------------------------|-----------------|-----------|--------------|----------|-------------------------|---------------------------|
| C10-C28 Diesel Range | 23.7 | | 4.00 | 1 | 06/09/2021 17:26 | WG1684812 |
| C28-C40 Oil Range | 6.86 | | 4.00 | 1 | 06/09/2021 17:26 | WG1684812 |
| (S) <i>o</i> -Terphenyl | 50.3 | | 18.0-148 | | 06/09/2021 17:26 | WG1684812 |

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Volatile Organic Compounds (GC) by Method 8015D/GRO

| Analyte | Result mg/kg | <u>Qualifier</u> | RDL mg/kg | Dilution | Analysis date / time | <u>Batch</u> |
|---|-----------------|------------------|--------------|----------|-------------------------|---------------------------|
| TPH (GC/FID) Low Fraction | 1.38 | | 0.100 | 1 | 06/09/2021 19:07 | WG1685306 |
| (S) <i>a,a,a</i> -Trifluorotoluene(FID) | 100 | | 77.0-120 | | 06/09/2021 19:07 | WG1685306 |

Semi-Volatile Organic Compounds (GC) by Method 8015

| Analyte | Result mg/kg | <u>Qualifier</u> | RDL mg/kg | Dilution | Analysis date / time | <u>Batch</u> |
|-------------------------|-----------------|------------------|--------------|----------|-------------------------|---------------------------|
| C10-C28 Diesel Range | 26.8 | | 4.00 | 1 | 06/09/2021 17:40 | WG1684812 |
| C28-C40 Oil Range | 11.3 | | 4.00 | 1 | 06/09/2021 17:40 | WG1684812 |
| (S) <i>o</i> -Terphenyl | 36.0 | | 18.0-148 | | 06/09/2021 17:40 | WG1684812 |

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Method Blank (MB)

(MB) R3666127-3 06/09/21 11:42

| Analyte | MB Result mg/kg | MB Qualifier | MB MDL mg/kg | MB RDL mg/kg |
|------------------------------------|--------------------|--------------|-----------------|-----------------|
| TPH (GC/FID) Low Fraction | U | | 0.0217 | 0.100 |
| (S) a,a,a-Trifluorotoluene(FID) | 111 | | | 77.0-120 |

Laboratory Control Sample (LCS)

(LCS) R3666127-2 06/09/21 10:59

| Analyte | Spike Amount mg/kg | LCS Result mg/kg | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|------------------------------------|-----------------------|---------------------|---------------|------------------|---------------|
| TPH (GC/FID) Low Fraction | 5.50 | 5.15 | 93.6 | 72.0-127 | |
| (S) a,a,a-Trifluorotoluene(FID) | | | 101 | 77.0-120 | |

L1362407-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1362407-02 06/09/21 18:02 • (MS) R3666127-6 06/09/21 21:16 • (MSD) R3666127-7 06/09/21 21:38

| 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 | 105 | ND | 82.8 | 76.8 | 78.9 | 73.1 | 25 | 10.0-151 | | | 7.52 | 28 |
| (S) a,a,a-Trifluorotoluene(FID) | | | | | 99.0 | 98.4 | | 77.0-120 | | | | |

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3665261-1 06/09/21 12:11

| Analyte | MB Result mg/kg | MB Qualifier | MB MDL mg/kg | MB RDL mg/kg |
|----------------------|--------------------|--------------|-----------------|-----------------|
| C10-C28 Diesel Range | U | | 1.61 | 4.00 |
| C28-C40 Oil Range | U | | 0.274 | 4.00 |
| (S) o-Terphenyl | 62.3 | | | 18.0-148 |

Laboratory Control Sample (LCS)

(LCS) R3665261-2 06/09/21 12:24

| Analyte | Spike Amount mg/kg | LCS Result mg/kg | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|----------------------|-----------------------|---------------------|---------------|------------------|---------------|
| C10-C28 Diesel Range | 50.0 | 39.8 | 79.6 | 50.0-150 | |
| (S) o-Terphenyl | | | 83.5 | 18.0-148 | |

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

GLOSSARY OF TERMS

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.

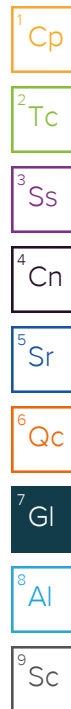
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location.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

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.



ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122



| | | | |
|--------------------------------|-------------|-----------------------------|------------------|
| Alabama | 40660 | Nebraska | NE-OS-15-05 |
| Alaska | 17-026 | Nevada | TN000032021-1 |
| Arizona | AZ0612 | New Hampshire | 2975 |
| Arkansas | 88-0469 | New Jersey--NELAP | TN002 |
| California | 2932 | New Mexico ¹ | TN00003 |
| 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} | KY90010 | South Carolina | 84004002 |
| Kentucky ² | 16 | South Dakota | n/a |
| Louisiana | AI30792 | Tennessee ^{1 4} | 2006 |
| Louisiana | LA018 | Texas | T104704245-20-18 |
| Maine | TN00003 | Texas ⁵ | LAB0152 |
| Maryland | 324 | Utah | TN000032021-11 |
| Massachusetts | M-TN003 | Vermont | VT2006 |
| Michigan | 9958 | Virginia | 110033 |
| Minnesota | 047-999-395 | Washington | C847 |
| Mississippi | TN00003 | West Virginia | 233 |
| Missouri | 340 | Wisconsin | 998093910 |
| Montana | CERT0086 | Wyoming | A2LA |
| 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

* 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 Analytical.



| | | | | | | | | | | | | | |
|--|-----------|--|-------|--|-------|---|---|---|---|--|--|--|--|
| Caerus Oil & Gas LLC 143 Diamond Avenue Parachute, CO 81635 970-285-9606 | | | | Billing Information: | | | | Analysis / Container / Preservative | | | | Chain of Custody Page <u>1</u> of <u>1</u> | |
| | | | | Same as above | | | | | | | |  12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859 | |
| Report to: bmiddleton@caerusoilandgas.com | | | | Email To: bmiddleton@caerusoilandgas.com | | | | <div style="display: flex; justify-content: space-between;"> <div> TPH- GRO,DRO,ORO naphthalene 2-methyl naphthalene 1-methyl naphthalene </div> <div> </div> </div> | | | |  L# <u>1362835</u> Tab <u>J133</u> Acctnum: Template: Prelogin: TSR: PB: Shipped Via: | |
| Project Description: J17E Dumpline Release | | | | City/State Collected: Mamm Creek, CO | | | | | | | | | |
| Phone: | | Client Project # | | Lab Project # | | | | | | | | | |
| Fax: | | J17E | | J17E | | | | | | | | | |
| Collected by (print): KOREY KENNEDY/WSP | | Site/Facility ID # J17E | | P.O. # J17E | | | | | | | | | |
| Collected by (signature): <i>Korey Kennedy</i> | | Rush? (Lab MUST Be Notified) <input type="checkbox"/> Same Day <input type="checkbox"/> Five Day <input type="checkbox"/> Next Day <input type="checkbox"/> 5 Day (Rad Only) <input checked="" type="checkbox"/> Two Day <input type="checkbox"/> 10 Day (Rad Only) <input type="checkbox"/> Three Day | | Quote # | | Date Results Needed | | | | | | | |
| Immediately Packed on Ice - N <input type="checkbox"/> Y <input checked="" type="checkbox"/> | | | | Standard TAT | | No. of Cntrs | | | | | | | |
| Sample ID | Comp/Grab | Matrix * | Depth | Date | Time | | | | | | | | |
| 20210607-J17E (OBSTKP) | COMP | SS | | 6/7/21 | 9:45 | 2 | X | X | X | X | | | |
| 20210607-J17E (IMSTKP) | COMP | SS | | 6/7/21 | 10:15 | 2 | X | X | X | X | | | |
| 20210607-J17E (COMBSTKP) | COMP | SS | | 6/7/21 | 10:35 | 2 | X | X | X | X | | | |
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| | | | | | | | | | | | | | |
| * Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other | | Remarks: | | | | pH _____ Temp _____ Flow _____ Other _____ | | | | Sample Receipt Checklist COC Seal Present/Intact: <input checked="" type="checkbox"/> NP <input type="checkbox"/> Y <input type="checkbox"/> N COC Signed/Accurate: <input checked="" type="checkbox"/> <input type="checkbox"/> Y <input type="checkbox"/> N Bottles arrive intact: <input checked="" type="checkbox"/> <input type="checkbox"/> Y <input type="checkbox"/> N Correct bottles used: <input checked="" type="checkbox"/> <input type="checkbox"/> Y <input type="checkbox"/> N Sufficient volume sent: <input checked="" type="checkbox"/> <input type="checkbox"/> Y <input type="checkbox"/> N If Applicable VOA Zero Headspace: <input type="checkbox"/> Y <input type="checkbox"/> N Preservation Correct/Checked: <input type="checkbox"/> Y <input type="checkbox"/> N | | | |
| Samples returned via: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier | | Tracking # <u>9883 0083 9150</u> | | | | Trip Blank Received: Yes/No HCL/MeOH TBR | | | | If preservation required by Login: Date/Time | | | |
| Relinquished by: (Signature) <i>Korey Kennedy</i> | | Date: <u>6/7/2021</u> | | Time: <u>11:15</u> | | Received by: (Signature) <i>[Signature]</i> | | Temp <u>13.6°C</u> Bottles Received: <u>6</u> | | Hold: | | | |
| Relinquished by: (Signature) <i>[Signature]</i> | | Date: <u>6/7/21</u> | | Time: <u>1700</u> | | Received by: (Signature) <i>[Signature]</i> | | Date: <u>6/8/21</u> Time: <u>800</u> | | Condition: NCF / OK | | | |
| Relinquished by: (Signature) | | Date: | | Time: | | Received for lab by: (Signature) <i>T. Robertson</i> | | Date: | | | | | |

June 14, 2021

Revised Report

Caerus Oil and Gas

Sample Delivery Group: L1365216
Samples Received: 06/08/2021
Project Number: J17E
Description: J17E Dumpline Release
Site: J17E
Report To: Brett Middleton
143 Diamond Avenue
Parachute, CO 81635

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Entire Report Reviewed By:



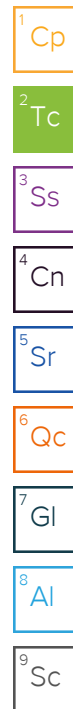
Chris Ward
Project Manager

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.

Pace Analytical National12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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SAMPLE SUMMARY

20210607-J17E(OBSTKP) L1365216-01 Solid

Collected by
Korey Kennedy

Collected date/time
06/07/21 09:45

Received date/time
06/08/21 08:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|-----------|----------|-----------------------|--------------------|---------|----------------|
| Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM | WG1687698 | 1 | 06/13/21 10:02 | 06/14/21 00:03 | AAT | Mt. Juliet, TN |

¹Cp

²Tc

³Ss

20210607-J17E(IMSTKP) L1365216-02 Solid

Collected by
Korey Kennedy

Collected date/time
06/07/21 10:15

Received date/time
06/08/21 08:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|-----------|----------|-----------------------|--------------------|---------|----------------|
| Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM | WG1687698 | 1 | 06/13/21 10:02 | 06/14/21 00:23 | AAT | Mt. Juliet, TN |

⁴Cn

⁵Sr

20210607-J17E(COMBSTKP) L1365216-03 Solid

Collected by
Korey Kennedy

Collected date/time
06/07/21 10:35

Received date/time
06/08/21 08:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|-----------|----------|-----------------------|--------------------|---------|----------------|
| Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM | WG1687698 | 1 | 06/13/21 10:02 | 06/14/21 00:43 | AAT | Mt. Juliet, TN |

⁶Qc

⁷Gl

⁸Al

⁹Sc

CASE NARRATIVE

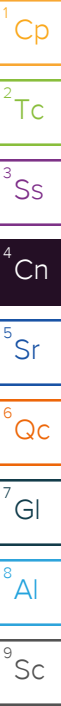
All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples 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

Report Revision History

Level II Report - Version 1: 06/14/21 12:53



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

| Analyte | Result mg/kg | Qualifier | MDL mg/kg | RDL mg/kg | Dilution | Analysis date / time | Batch |
|----------------------|-----------------|-----------|--------------|--------------|----------|-------------------------|---------------------------|
| Naphthalene | U | | 0.00408 | 0.0200 | 1 | 06/14/2021 00:03 | WG1687698 |
| 1-Methylnaphthalene | U | | 0.00449 | 0.0200 | 1 | 06/14/2021 00:03 | WG1687698 |
| 2-Methylnaphthalene | 0.00509 | J | 0.00427 | 0.0200 | 1 | 06/14/2021 00:03 | WG1687698 |
| (S) p-Terphenyl-d14 | 90.1 | | | 23.0-120 | | 06/14/2021 00:03 | WG1687698 |
| (S) Nitrobenzene-d5 | 79.3 | | | 14.0-149 | | 06/14/2021 00:03 | WG1687698 |
| (S) 2-Fluorobiphenyl | 78.6 | | | 34.0-125 | | 06/14/2021 00:03 | WG1687698 |

1
Cp

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Tc

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Ss

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Cn

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Sr

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Qc

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Gl

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Al

9
Sc

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

| Analyte | Result mg/kg | Qualifier | MDL mg/kg | RDL mg/kg | Dilution | Analysis date / time | Batch |
|----------------------|-----------------|-----------|--------------|--------------|----------|-------------------------|---------------------------|
| Naphthalene | U | | 0.00408 | 0.0200 | 1 | 06/14/2021 00:23 | WG1687698 |
| 1-Methylnaphthalene | 0.00543 | J | 0.00449 | 0.0200 | 1 | 06/14/2021 00:23 | WG1687698 |
| 2-Methylnaphthalene | U | | 0.00427 | 0.0200 | 1 | 06/14/2021 00:23 | WG1687698 |
| (S) p-Terphenyl-d14 | 102 | | | 23.0-120 | | 06/14/2021 00:23 | WG1687698 |
| (S) Nitrobenzene-d5 | 88.3 | | | 14.0-149 | | 06/14/2021 00:23 | WG1687698 |
| (S) 2-Fluorobiphenyl | 87.3 | | | 34.0-125 | | 06/14/2021 00:23 | WG1687698 |

1
Cp

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Cn

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Sr

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Qc

7
Gl

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Al

9
Sc

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

| Analyte | Result mg/kg | Qualifier | MDL mg/kg | RDL mg/kg | Dilution | Analysis date / time | Batch |
|----------------------|-----------------|-----------|--------------|--------------|----------|-------------------------|---------------------------|
| Naphthalene | U | | 0.00408 | 0.0200 | 1 | 06/14/2021 00:43 | WG1687698 |
| 1-Methylnaphthalene | 0.00804 | J | 0.00449 | 0.0200 | 1 | 06/14/2021 00:43 | WG1687698 |
| 2-Methylnaphthalene | 0.0101 | J | 0.00427 | 0.0200 | 1 | 06/14/2021 00:43 | WG1687698 |
| (S) p-Terphenyl-d14 | 83.6 | | | 23.0-120 | | 06/14/2021 00:43 | WG1687698 |
| (S) Nitrobenzene-d5 | 68.0 | | | 14.0-149 | | 06/14/2021 00:43 | WG1687698 |
| (S) 2-Fluorobiphenyl | 69.0 | | | 34.0-125 | | 06/14/2021 00:43 | WG1687698 |

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3666804-2 06/13/21 23:43

| Analyte | MB Result mg/kg | MB Qualifier | MB MDL mg/kg | MB RDL mg/kg |
|----------------------|--------------------|--------------|-----------------|-----------------|
| Naphthalene | U | | 0.00408 | 0.0200 |
| 1-Methylnaphthalene | U | | 0.00449 | 0.0200 |
| 2-Methylnaphthalene | U | | 0.00427 | 0.0200 |
| (S) Nitrobenzene-d5 | 80.7 | | | 14.0-149 |
| (S) 2-Fluorobiphenyl | 81.4 | | | 34.0-125 |
| (S) p-Terphenyl-d14 | 98.7 | | | 23.0-120 |

Laboratory Control Sample (LCS)

(LCS) R3666804-1 06/13/21 23:23

| Analyte | Spike Amount mg/kg | LCS Result mg/kg | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|----------------------|-----------------------|---------------------|---------------|------------------|---------------|
| Naphthalene | 0.0800 | 0.0667 | 83.4 | 50.0-120 | |
| 1-Methylnaphthalene | 0.0800 | 0.0714 | 89.3 | 51.0-121 | |
| 2-Methylnaphthalene | 0.0800 | 0.0690 | 86.3 | 50.0-120 | |
| (S) Nitrobenzene-d5 | | | 83.1 | 14.0-149 | |
| (S) 2-Fluorobiphenyl | | | 82.5 | 34.0-125 | |
| (S) p-Terphenyl-d14 | | | 97.7 | 23.0-120 | |

1
Cp

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Cn

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Sr

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Qc

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Gl

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Al

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Sc

GLOSSARY OF TERMS

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.

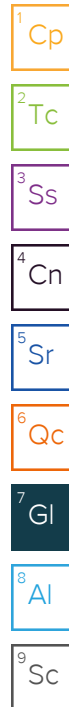
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location.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

Abbreviations and Definitions

| | |
|------------------------------|--|
| MDL | Method Detection Limit. |
| 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. |
| 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

| | |
|---|---|
| J | The identification of the analyte is acceptable; the reported value is an estimate. |
|---|---|



ACCREDITATIONS & LOCATIONS

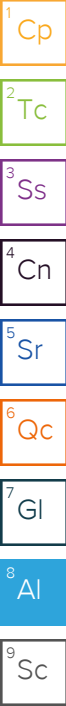
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

| | | | |
|--------------------------------|-------------|-----------------------------|------------------|
| Alabama | 40660 | Nebraska | NE-OS-15-05 |
| Alaska | 17-026 | Nevada | TN000032021-1 |
| Arizona | AZ0612 | New Hampshire | 2975 |
| Arkansas | 88-0469 | New Jersey--NELAP | TN002 |
| California | 2932 | New Mexico ¹ | TN00003 |
| 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} | KY90010 | South Carolina | 84004002 |
| Kentucky ² | 16 | South Dakota | n/a |
| Louisiana | AI30792 | Tennessee ^{1 4} | 2006 |
| Louisiana | LA018 | Texas | T104704245-20-18 |
| Maine | TN00003 | Texas ⁵ | LAB0152 |
| Maryland | 324 | Utah | TN000032021-11 |
| Massachusetts | M-TN003 | Vermont | VT2006 |
| Michigan | 9958 | Virginia | 110033 |
| Minnesota | 047-999-395 | Washington | C847 |
| Mississippi | TN00003 | West Virginia | 233 |
| Missouri | 340 | Wisconsin | 998093910 |
| Montana | CERT0086 | Wyoming | A2LA |
| 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

* 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 Analytical.



[illegible]

L1362839 *CAERUSPCO* Addition

R1/R2

Please relog all three samples for SV8270PAHSIM per COC. Due Monday if at all possible.

Please note that email addresses for staff at the Pace Analytical National Center for Testing & Innovation have changed. My new email address is Chris.Ward@pacelabs.com<mailto:Chris.Ward@pacelabs.com>. Please update your records accordingly.

Thanks,

[Description: ESC Leaf for Email Signature Line] Chris Ward

Project Manager2

Pace Analytical National

12065 Lebanon Road | Mt. Juliet, TN 37122

Chris.ward@pacelabs.com<mailto:Chris.ward@pacelabs.com> |

www.pacenational.com<<http://www.pacenational.com/>>

615.773.9712

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P Please consider the environment before printing this email

Time estimate: oh

Time spent: oh

Members



Chris Ward (responsible)

Caerus Oil and Gas

Sample Delivery Group: L1368081
Samples Received: 06/18/2021
Project Number: J17E
Description: J17E Dumpline Release
Site: J17E
Report To: Brett Middleton
143 Diamond Avenue
Parachute, CO 81635

Entire Report Reviewed By:



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.

Pace Analytical National12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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

SAMPLE SUMMARY

20210617-J17E(OBSTKP) L1368081-01 Solid

Collected by
Kate Moreland

Collected date/time
06/17/21 10:45

Received date/time
06/18/21 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|-----------|----------|-----------------------|--------------------|---------|----------------|
| Volatile Organic Compounds (GC) by Method 8015D/GRO | WG1691796 | 1 | 06/18/21 19:42 | 06/20/21 08:17 | DWR | Mt. Juliet, TN |
| Semi-Volatile Organic Compounds (GC) by Method 8015M | WG1691776 | 1 | 06/20/21 08:37 | 06/21/21 18:51 | TJD | Mt. Juliet, TN |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM | WG1692043 | 1 | 06/21/21 14:11 | 06/21/21 18:30 | LEA | Mt. Juliet, TN |

¹Cp

²Tc

³Ss

⁴Cn

20210617-J17E(IMSTKP) L1368081-02 Solid

Collected by
Kate Moreland

Collected date/time
06/17/21 11:45

Received date/time
06/18/21 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|-----------|----------|-----------------------|--------------------|---------|----------------|
| Volatile Organic Compounds (GC) by Method 8015D/GRO | WG1691796 | 1 | 06/18/21 19:42 | 06/20/21 08:41 | DWR | Mt. Juliet, TN |
| Semi-Volatile Organic Compounds (GC) by Method 8015M | WG1691776 | 1 | 06/20/21 08:37 | 06/21/21 19:04 | TJD | Mt. Juliet, TN |
| Semi-Volatile Organic Compounds (GC) by Method 8015M | WG1691776 | 5 | 06/20/21 08:37 | 06/22/21 01:33 | CAG | Mt. Juliet, TN |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM | WG1692043 | 1 | 06/21/21 14:11 | 06/21/21 18:50 | ADF | Mt. Juliet, TN |

⁵Sr

⁶Qc

⁷Gl

20210617-J17E(COMBSTKP) L1368081-03 Solid

Collected by
Kate Moreland

Collected date/time
06/17/21 12:15

Received date/time
06/18/21 09:00

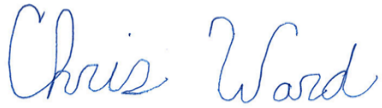
| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|-----------|----------|-----------------------|--------------------|---------|----------------|
| Volatile Organic Compounds (GC) by Method 8015D/GRO | WG1691796 | 1.01 | 06/18/21 19:42 | 06/20/21 09:05 | DWR | Mt. Juliet, TN |
| Semi-Volatile Organic Compounds (GC) by Method 8015M | WG1691776 | 1 | 06/20/21 08:37 | 06/21/21 19:17 | TJD | Mt. Juliet, TN |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM | WG1692043 | 1 | 06/21/21 14:11 | 06/21/21 19:30 | LEA | Mt. Juliet, TN |

⁸Al

⁹Sc

CASE NARRATIVE

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



Volatile Organic Compounds (GC) by Method 8015D/GRO

| Analyte | Result mg/kg | Qualifier | MDL mg/kg | RDL mg/kg | Dilution | Analysis date / time | Batch |
|------------------------------------|-----------------|---------------------|--------------|--------------|----------|-------------------------|---------------------------|
| TPH (GC/FID) Low Fraction | 0.0467 | B J | 0.0217 | 0.100 | 1 | 06/20/2021 08:17 | WG1691796 |
| (S) a,a,a-Trifluorotoluene(FID) | 96.9 | | | 77.0-120 | | 06/20/2021 08:17 | WG1691796 |

Semi-Volatile Organic Compounds (GC) by Method 8015M

| Analyte | Result mg/kg | Qualifier | MDL mg/kg | RDL mg/kg | Dilution | Analysis date / time | Batch |
|-------------------------|-----------------|-----------|--------------|--------------|----------|-------------------------|---------------------------|
| C10-C28 Diesel Range | 35.0 | | 1.61 | 4.00 | 1 | 06/21/2021 18:51 | WG1691776 |
| C28-C36 Motor Oil Range | 21.8 | | 0.274 | 4.00 | 1 | 06/21/2021 18:51 | WG1691776 |
| (S) o-Terphenyl | 47.3 | | | 18.0-148 | | 06/21/2021 18:51 | WG1691776 |

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

| Analyte | Result mg/kg | Qualifier | MDL mg/kg | RDL mg/kg | Dilution | Analysis date / time | Batch |
|----------------------|-----------------|-------------------|--------------|--------------|----------|-------------------------|---------------------------|
| Naphthalene | 0.00939 | J | 0.00408 | 0.0200 | 1 | 06/21/2021 18:30 | WG1692043 |
| 1-Methylnaphthalene | 0.0256 | | 0.00449 | 0.0200 | 1 | 06/21/2021 18:30 | WG1692043 |
| 2-Methylnaphthalene | 0.0359 | | 0.00427 | 0.0200 | 1 | 06/21/2021 18:30 | WG1692043 |
| (S) p-Terphenyl-d14 | 96.6 | | | 23.0-120 | | 06/21/2021 18:30 | WG1692043 |
| (S) Nitrobenzene-d5 | 99.3 | | | 14.0-149 | | 06/21/2021 18:30 | WG1692043 |
| (S) 2-Fluorobiphenyl | 74.4 | | | 34.0-125 | | 06/21/2021 18:30 | WG1692043 |

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method 8015D/GRO

| Analyte | Result mg/kg | Qualifier | MDL mg/kg | RDL mg/kg | Dilution | Analysis date / time | Batch |
|--|-----------------|-----------|--------------|--------------|----------|-------------------------|---------------------------|
| TPH (GC/FID) Low Fraction | 7.33 | | 0.0217 | 0.100 | 1 | 06/20/2021 08:41 | WG1691796 |
| (S) <i>a,a,a</i> -Trifluorotoluene(FID) | 97.2 | | | 77.0-120 | | 06/20/2021 08:41 | WG1691796 |

Semi-Volatile Organic Compounds (GC) by Method 8015M

| Analyte | Result mg/kg | Qualifier | MDL mg/kg | RDL mg/kg | Dilution | Analysis date / time | Batch |
|-------------------------|-----------------|-----------|--------------|--------------|----------|-------------------------|---------------------------|
| C10-C28 Diesel Range | 403 | | 8.05 | 20.0 | 5 | 06/22/2021 01:33 | WG1691776 |
| C28-C36 Motor Oil Range | 136 | | 0.274 | 4.00 | 1 | 06/21/2021 19:04 | WG1691776 |
| (S) <i>o</i> -Terphenyl | 60.7 | | | 18.0-148 | | 06/21/2021 19:04 | WG1691776 |
| (S) <i>o</i> -Terphenyl | 53.0 | | | 18.0-148 | | 06/22/2021 01:33 | WG1691776 |

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

| Analyte | Result mg/kg | Qualifier | MDL mg/kg | RDL mg/kg | Dilution | Analysis date / time | Batch |
|--------------------------------------|-----------------|--------------------|--------------|--------------|----------|-------------------------|---------------------------|
| Naphthalene | 0.0573 | | 0.00408 | 0.0200 | 1 | 06/21/2021 18:50 | WG1692043 |
| 1-Methylnaphthalene | 0.394 | | 0.00449 | 0.0200 | 1 | 06/21/2021 18:50 | WG1692043 |
| 2-Methylnaphthalene | 0.362 | | 0.00427 | 0.0200 | 1 | 06/21/2021 18:50 | WG1692043 |
| (S) <i>p</i> -Terphenyl- <i>d</i> 14 | 89.6 | | | 23.0-120 | | 06/21/2021 18:50 | WG1692043 |
| (S) Nitrobenzene- <i>d</i> 5 | 341 | J1 | | 14.0-149 | | 06/21/2021 18:50 | WG1692043 |
| (S) 2-Fluorobiphenyl | 72.7 | | | 34.0-125 | | 06/21/2021 18:50 | WG1692043 |

Sample Narrative:

L1368081-02 WG1692043: Surrogate failure due to matrix interference

1
Cp2
Tc3
Ss4
Cn5
Sr6
Qc7
Gl8
Al9
Sc

Volatile Organic Compounds (GC) by Method 8015D/GRO

| Analyte | Result mg/kg | Qualifier | MDL mg/kg | RDL mg/kg | Dilution | Analysis date / time | Batch |
|---|-----------------|-----------|--------------|--------------|----------|-------------------------|---------------------------|
| TPH (GC/FID) Low Fraction | 2.74 | | 0.0219 | 0.101 | 1.01 | 06/20/2021 09:05 | WG1691796 |
| (S) <i>a,a,a</i> -Trifluorotoluene(FID) | 98.3 | | | 77.0-120 | | 06/20/2021 09:05 | WG1691796 |

Semi-Volatile Organic Compounds (GC) by Method 8015M

| Analyte | Result mg/kg | Qualifier | MDL mg/kg | RDL mg/kg | Dilution | Analysis date / time | Batch |
|-------------------------|-----------------|--------------------|--------------|--------------|----------|-------------------------|---------------------------|
| C10-C28 Diesel Range | 206 | | 1.61 | 4.00 | 1 | 06/21/2021 19:17 | WG1691776 |
| C28-C36 Motor Oil Range | 80.4 | | 0.274 | 4.00 | 1 | 06/21/2021 19:17 | WG1691776 |
| (S) <i>o</i> -Terphenyl | 0.000 | J2 | | 18.0-148 | | 06/21/2021 19:17 | WG1691776 |

Sample Narrative:

L1368081-03 WG1691776: Surrogate failure due to matrix interference

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

| Analyte | Result mg/kg | Qualifier | MDL mg/kg | RDL mg/kg | Dilution | Analysis date / time | Batch |
|--------------------------------------|-----------------|-----------|--------------|--------------|----------|-------------------------|---------------------------|
| Naphthalene | U | | 0.00408 | 0.0200 | 1 | 06/21/2021 19:30 | WG1692043 |
| 1-Methylnaphthalene | U | | 0.00449 | 0.0200 | 1 | 06/21/2021 19:30 | WG1692043 |
| 2-Methylnaphthalene | U | | 0.00427 | 0.0200 | 1 | 06/21/2021 19:30 | WG1692043 |
| (S) <i>p</i> -Terphenyl- <i>d</i> 14 | 85.6 | | | 23.0-120 | | 06/21/2021 19:30 | WG1692043 |
| (S) Nitrobenzene- <i>d</i> 5 | 87.6 | | | 14.0-149 | | 06/21/2021 19:30 | WG1692043 |
| (S) 2-Fluorobiphenyl | 67.1 | | | 34.0-125 | | 06/21/2021 19:30 | WG1692043 |

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3669818-2 06/20/21 04:19

| Analyte | MB Result mg/kg | MB Qualifier | MB MDL mg/kg | MB RDL mg/kg |
|------------------------------------|--------------------|--------------|-----------------|-----------------|
| TPH (GC/FID) Low Fraction | 0.0365 | ⬇ | 0.0217 | 0.100 |
| (S) a,a,a-Trifluorotoluene(FID) | 101 | | | 77.0-120 |

Laboratory Control Sample (LCS)

(LCS) R3669818-1 06/20/21 03:31

| Analyte | Spike Amount mg/kg | LCS Result mg/kg | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|------------------------------------|-----------------------|---------------------|---------------|------------------|---------------|
| TPH (GC/FID) Low Fraction | 5.50 | 6.02 | 109 | 72.0-127 | |
| (S) a,a,a-Trifluorotoluene(FID) | | | 111 | 77.0-120 | |

L1366418-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1366418-05 06/20/21 10:41 • (MS) R3669818-3 06/20/21 13:04 • (MSD) R3669818-4 06/20/21 14:07

| 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 | 143 | 1.47 | 65.1 | 75.2 | 44.5 | 51.6 | 26 | 10.0-151 | | | 14.4 | 28 |
| (S) a,a,a-Trifluorotoluene(FID) | | | | | 99.4 | 104 | | 77.0-120 | | | | |

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Method Blank (MB)

(MB) R3669857-1 06/21/21 03:43

| Analyte | MB Result mg/kg | MB Qualifier | MB MDL mg/kg | MB RDL mg/kg |
|-------------------------|--------------------|--------------|-----------------|-----------------|
| C10-C28 Diesel Range | U | | 1.61 | 4.00 |
| C28-C36 Motor Oil Range | U | | 0.274 | 4.00 |
| (S) o-Terphenyl | 59.5 | | | 18.0-148 |

Laboratory Control Sample (LCS)

(LCS) R3669857-2 06/21/21 03:56

| Analyte | Spike Amount mg/kg | LCS Result mg/kg | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|----------------------|-----------------------|---------------------|---------------|------------------|---------------|
| C10-C28 Diesel Range | 50.0 | 33.2 | 66.4 | 50.0-150 | |
| (S) o-Terphenyl | | | 67.4 | 18.0-148 | |

L1367553-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1367553-01 06/21/21 19:30 • (MS) R3669857-3 06/21/21 19:43 • (MSD) R3669857-4 06/21/21 19:56

| 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 % |
|----------------------|-----------------------|--------------------------|--------------------|---------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|-----------------|
| C10-C28 Diesel Range | 49.0 | 2.50 | 26.7 | 31.5 | 49.4 | 58.9 | 1 | 50.0-150 | J6 | | 16.5 | 20 |
| (S) o-Terphenyl | | | | | 44.2 | 46.6 | | 18.0-148 | | | | |

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3670032-2 06/21/21 18:10

| Analyte | MB Result mg/kg | MB Qualifier | MB MDL mg/kg | MB RDL mg/kg |
|----------------------|--------------------|--------------|-----------------|-----------------|
| Naphthalene | U | | 0.00408 | 0.0200 |
| 1-Methylnaphthalene | U | | 0.00449 | 0.0200 |
| 2-Methylnaphthalene | U | | 0.00427 | 0.0200 |
| (S) Nitrobenzene-d5 | 83.7 | | | 14.0-149 |
| (S) 2-Fluorobiphenyl | 66.4 | | | 34.0-125 |
| (S) p-Terphenyl-d14 | 88.2 | | | 23.0-120 |

Laboratory Control Sample (LCS)

(LCS) R3670032-1 06/21/21 17:50

| Analyte | Spike Amount mg/kg | LCS Result mg/kg | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|----------------------|-----------------------|---------------------|---------------|------------------|---------------|
| Naphthalene | 0.0800 | 0.0648 | 81.0 | 50.0-120 | |
| 1-Methylnaphthalene | 0.0800 | 0.0633 | 79.1 | 51.0-121 | |
| 2-Methylnaphthalene | 0.0800 | 0.0595 | 74.4 | 50.0-120 | |
| (S) Nitrobenzene-d5 | | | 102 | 14.0-149 | |
| (S) 2-Fluorobiphenyl | | | 79.7 | 34.0-125 | |
| (S) p-Terphenyl-d14 | | | 103 | 23.0-120 | |

L1367618-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1367618-04 06/21/21 22:51 • (MS) R3670032-3 06/21/21 23:11 • (MSD) R3670032-4 06/21/21 23:31

| 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 % |
|----------------------|-----------------------|--------------------------|--------------------|---------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|-----------------|
| Naphthalene | 0.0772 | U | 0.0627 | 0.0610 | 81.2 | 78.2 | 1 | 10.0-135 | | | 2.75 | 27 |
| 1-Methylnaphthalene | 0.0772 | U | 0.0654 | 0.0617 | 84.7 | 79.1 | 1 | 10.0-142 | | | 5.82 | 28 |
| 2-Methylnaphthalene | 0.0772 | U | 0.0589 | 0.0554 | 76.3 | 71.0 | 1 | 10.0-137 | | | 6.12 | 28 |
| (S) Nitrobenzene-d5 | | | | | 97.5 | 96.6 | | 14.0-149 | | | | |
| (S) 2-Fluorobiphenyl | | | | | 78.8 | 74.9 | | 34.0-125 | | | | |
| (S) p-Terphenyl-d14 | | | | | 95.4 | 91.1 | | 23.0-120 | | | | |

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

GLOSSARY OF TERMS

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.

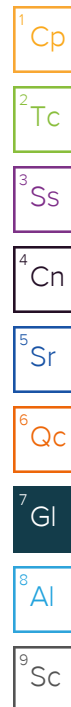
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location.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

Abbreviations and Definitions

| | |
|------------------------------|--|
| MDL | Method Detection Limit. |
| 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

| | |
|----|---|
| B | The same analyte is found in the associated blank. |
| J | The identification of the analyte is acceptable; the reported value is an estimate. |
| J1 | Surrogate recovery limits have been exceeded; values are outside upper control limits. |
| J2 | Surrogate recovery limits have been exceeded; values are outside lower control limits. |
| J6 | The sample matrix interfered with the ability to make any accurate determination; spike value is low. |



ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

| | | | |
|--------------------------------|-------------|-----------------------------|------------------|
| Alabama | 40660 | Nebraska | NE-OS-15-05 |
| Alaska | 17-026 | Nevada | TN000032021-1 |
| Arizona | AZ0612 | New Hampshire | 2975 |
| Arkansas | 88-0469 | New Jersey--NELAP | TN002 |
| California | 2932 | New Mexico ¹ | TN00003 |
| 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} | KY90010 | South Carolina | 84004002 |
| Kentucky ² | 16 | South Dakota | n/a |
| Louisiana | AI30792 | Tennessee ^{1 4} | 2006 |
| Louisiana | LA018 | Texas | T104704245-20-18 |
| Maine | TN00003 | Texas ⁵ | LAB0152 |
| Maryland | 324 | Utah | TN000032021-11 |
| Massachusetts | M-TN003 | Vermont | VT2006 |
| Michigan | 9958 | Virginia | 110033 |
| Minnesota | 047-999-395 | Washington | C847 |
| Mississippi | TN00003 | West Virginia | 233 |
| Missouri | 340 | Wisconsin | 998093910 |
| Montana | CERT0086 | Wyoming | A2LA |
| 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

* 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 Analytical.



Caerus Oil & Gas LLC
143 Diamond Avenue
Parachute, CO 81635
970-285-9606

Billing Information:

Same as above

Pres
Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 1



12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

Report to:
bmiddleton@caerusoilandgas.com

Email To:
bmiddleton@caerusoilandgas.com

Project
Description: J17E Dumpline Release

City/State
Collected: Mamm Creek, CO

Phone:
Fax:
Client Project #
J17E

Lab Project #
J17E

Collected by (print):
KATE MORELAND
Site/Facility ID #
J17E

P.O. #
J17E

Collected by (signature):
K. Moreland
Rush? (Lab MUST Be Notified)
Same Day Five Day
Next Day 5 Day (Rad Only)
☒ Two Day 10 Day (Rad Only)
Three Day
Immediately
Packed on Ice N ☐ Y ☒

Quote #

Date Results Needed
Standard TAT

No.
of
Cnts

TPH- GRO, DRO, ORO

naphthalene

2-methyl naphthalene

1-methyl naphthalene

L # 1368081
F139

Tab

Acctnum:

Template:

Prelogin:

TSR:

PB:

Shipped Via:

Remarks Sample # (lab only)

20210617-J17E (OBSTKP)

COMP

SS

6/17/21

1045

2

X

X

X

X

20210617-J17E (IMSTKP)

↓

↓

↓

1145

↓

↓

↓

↓

20210617-J17E (COMBSTKP)

↓

↓

↓

1215

↓

↓

↓

↓

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - Waste Water
DW - Drinking Water
OT - Other

Remarks:

Samples returned via:

UPS FedEx Courier

Tracking #

Relinquished by: (Signature)

Date:

6/17/21

Time:

1300

Received by: (Signature)

Trip Blank Received: Yes / No
HCL / MeOH
TBR

Relinquished by: (Signature)

Date:

6/17/21

Time:

1500

Received by: (Signature)

Temp: 20.1 °C Bottles Received: 6
3.84-2.40

Relinquished by: (Signature)

Date:

6/18/21

Time:

9:00

Received for lab by: (Signature)

Date: 6-18-21 Time: 9:00

Sample Receipt Checklist

COC Seal Present/Intact: ☒ NP ☐ Y ☐ N
COC Signed/Accurate: ☒ Y ☐ N
Bottles arrive intact: ☒ Y ☐ N
Correct bottles used: ☒ Y ☐ N
Sufficient volume sent: ☒ Y ☐ N
If Applicable
VOA Zero Headspace: ☐ Y ☐ N
Preservation Correct/Checked: ☐ Y ☐ N

If preservation required by Login: Date/Time

Hold:

Condition:
NCF 10k

Caerus Oil and Gas

Sample Delivery Group: L1368084
Samples Received: 06/18/2021
Project Number: J17E
Description: J17E Dumpline Release
Site: J17E
Report To: Brett Middleton
143 Diamond Avenue
Parachute, CO 81635

Entire Report Reviewed By:



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.

Pace Analytical National12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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

SAMPLE SUMMARY

20210617-J17E(OBSTKP1) L1368084-01 Solid

Collected by
Kate Moreland

Collected date/time
06/17/21 10:45

Received date/time
06/18/21 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|-----------|----------|-----------------------|--------------------|---------|----------------|
| Volatile Organic Compounds (GC) by Method 8015D/GRO | WG1691796 | 1.01 | 06/18/21 19:42 | 06/20/21 09:29 | DWR | Mt. Juliet, TN |
| Semi-Volatile Organic Compounds (GC) by Method 8015M | WG1691776 | 1 | 06/20/21 08:37 | 06/21/21 18:12 | TJD | Mt. Juliet, TN |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM | WG1692043 | 1 | 06/21/21 14:11 | 06/21/21 19:10 | ADF | Mt. Juliet, TN |

20210617-J17E(IMSTKP1) L1368084-02 Solid

Collected by
Kate Moreland

Collected date/time
06/17/21 11:45

Received date/time
06/18/21 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|-----------|----------|-----------------------|--------------------|---------|----------------|
| Volatile Organic Compounds (GC) by Method 8015D/GRO | WG1691796 | 1 | 06/18/21 19:42 | 06/20/21 09:53 | DWR | Mt. Juliet, TN |
| Semi-Volatile Organic Compounds (GC) by Method 8015M | WG1691776 | 1 | 06/20/21 08:37 | 06/21/21 18:25 | TJD | Mt. Juliet, TN |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM | WG1692043 | 1 | 06/21/21 14:11 | 06/21/21 19:50 | ADF | Mt. Juliet, TN |

20210617-J17E(COMBSTKP1) L1368084-03 Solid

Collected by
Kate Moreland

Collected date/time
06/17/21 12:15

Received date/time
06/18/21 09:00

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|---|-----------|----------|-----------------------|--------------------|---------|----------------|
| Volatile Organic Compounds (GC) by Method 8015D/GRO | WG1691796 | 1 | 06/18/21 19:42 | 06/20/21 10:17 | DWR | Mt. Juliet, TN |
| Semi-Volatile Organic Compounds (GC) by Method 8015M | WG1691776 | 1 | 06/20/21 08:37 | 06/21/21 18:38 | TJD | Mt. Juliet, TN |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM | WG1692043 | 1 | 06/21/21 14:11 | 06/21/21 20:10 | ADF | Mt. Juliet, TN |



CASE NARRATIVE

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



Volatile Organic Compounds (GC) by Method 8015D/GRO

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|---------------------------------|-----------------|-----------|--------------|----------|-------------------------|---------------------------|
| TPH (GC/FID) Low Fraction | ND | | 0.101 | 1.01 | 06/20/2021 09:29 | WG1691796 |
| (S) a,a,a-Trifluorotoluene(FID) | 97.3 | | 77.0-120 | | 06/20/2021 09:29 | WG1691796 |

1 Cp

2 Tc

3 Ss

Semi-Volatile Organic Compounds (GC) by Method 8015M

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|-------------------------|-----------------|-----------|--------------|----------|-------------------------|---------------------------|
| C10-C28 Diesel Range | 37.2 | | 4.00 | 1 | 06/21/2021 18:12 | WG1691776 |
| C28-C36 Motor Oil Range | 21.4 | | 4.00 | 1 | 06/21/2021 18:12 | WG1691776 |
| (S) o-Terphenyl | 60.1 | | 18.0-148 | | 06/21/2021 18:12 | WG1691776 |

4 Cn

5 Sr

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

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|----------------------|-----------------|--------------------|--------------|----------|-------------------------|---------------------------|
| Naphthalene | 0.0284 | | 0.0200 | 1 | 06/21/2021 19:10 | WG1692043 |
| 1-Methylnaphthalene | 0.221 | | 0.0200 | 1 | 06/21/2021 19:10 | WG1692043 |
| 2-Methylnaphthalene | 0.197 | | 0.0200 | 1 | 06/21/2021 19:10 | WG1692043 |
| (S) p-Terphenyl-d14 | 84.6 | | 23.0-120 | | 06/21/2021 19:10 | WG1692043 |
| (S) Nitrobenzene-d5 | 188 | J1 | 14.0-149 | | 06/21/2021 19:10 | WG1692043 |
| (S) 2-Fluorobiphenyl | 66.0 | | 34.0-125 | | 06/21/2021 19:10 | WG1692043 |

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method 8015D/GRO

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|---------------------------------|-----------------|-----------|--------------|----------|-------------------------|---------------------------|
| TPH (GC/FID) Low Fraction | 2.77 | | 0.100 | 1 | 06/20/2021 09:53 | WG1691796 |
| (S) a,a,a-Trifluorotoluene(FID) | 94.8 | | 77.0-120 | | 06/20/2021 09:53 | WG1691796 |

Semi-Volatile Organic Compounds (GC) by Method 8015M

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|-------------------------|-----------------|--------------------|--------------|----------|-------------------------|---------------------------|
| C10-C28 Diesel Range | 288 | | 4.00 | 1 | 06/21/2021 18:25 | WG1691776 |
| C28-C36 Motor Oil Range | 94.2 | | 4.00 | 1 | 06/21/2021 18:25 | WG1691776 |
| (S) o-Terphenyl | -21.2 | J2 | 18.0-148 | | 06/21/2021 18:25 | WG1691776 |

Sample Narrative:

L1368084-02 WG1691776: Surrogate failure due to matrix interference

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

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|----------------------|-----------------|--------------------|--------------|----------|-------------------------|---------------------------|
| Naphthalene | 0.0330 | | 0.0200 | 1 | 06/21/2021 19:50 | WG1692043 |
| 1-Methylnaphthalene | 0.268 | | 0.0200 | 1 | 06/21/2021 19:50 | WG1692043 |
| 2-Methylnaphthalene | 0.198 | | 0.0200 | 1 | 06/21/2021 19:50 | WG1692043 |
| (S) p-Terphenyl-d14 | 82.4 | | 23.0-120 | | 06/21/2021 19:50 | WG1692043 |
| (S) Nitrobenzene-d5 | 258 | J1 | 14.0-149 | | 06/21/2021 19:50 | WG1692043 |
| (S) 2-Fluorobiphenyl | 64.4 | | 34.0-125 | | 06/21/2021 19:50 | WG1692043 |

Sample Narrative:

L1368084-02 WG1692043: Surrogate failure due to matrix interference

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method 8015D/GRO

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|---------------------------------|-----------------|-----------|--------------|----------|-------------------------|---------------------------|
| TPH (GC/FID) Low Fraction | 1.32 | | 0.100 | 1 | 06/20/2021 10:17 | WG1691796 |
| (S) a,a,a-Trifluorotoluene(FID) | 97.4 | | 77.0-120 | | 06/20/2021 10:17 | WG1691796 |

Semi-Volatile Organic Compounds (GC) by Method 8015M

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|-------------------------|-----------------|--------------------|--------------|----------|-------------------------|---------------------------|
| C10-C28 Diesel Range | 88.3 | | 4.00 | 1 | 06/21/2021 18:38 | WG1691776 |
| C28-C36 Motor Oil Range | 40.7 | | 4.00 | 1 | 06/21/2021 18:38 | WG1691776 |
| (S) o-Terphenyl | 0.994 | J2 | 18.0-148 | | 06/21/2021 18:38 | WG1691776 |

Sample Narrative:

L1368084-03 WG1691776: Surrogate failure due to matrix interference

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

| Analyte | Result mg/kg | Qualifier | RDL mg/kg | Dilution | Analysis date / time | Batch |
|----------------------|-----------------|--------------------|--------------|----------|-------------------------|---------------------------|
| Naphthalene | 0.0248 | | 0.0200 | 1 | 06/21/2021 20:10 | WG1692043 |
| 1-Methylnaphthalene | 0.176 | | 0.0200 | 1 | 06/21/2021 20:10 | WG1692043 |
| 2-Methylnaphthalene | 0.171 | | 0.0200 | 1 | 06/21/2021 20:10 | WG1692043 |
| (S) p-Terphenyl-d14 | 78.0 | | 23.0-120 | | 06/21/2021 20:10 | WG1692043 |
| (S) Nitrobenzene-d5 | 166 | J1 | 14.0-149 | | 06/21/2021 20:10 | WG1692043 |
| (S) 2-Fluorobiphenyl | 62.5 | | 34.0-125 | | 06/21/2021 20:10 | WG1692043 |

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3669818-2 06/20/21 04:19

| Analyte | MB Result mg/kg | MB Qualifier | MB MDL mg/kg | MB RDL mg/kg |
|------------------------------------|--------------------|--------------|-----------------|-----------------|
| TPH (GC/FID) Low Fraction | 0.0365 | ⬇ | 0.0217 | 0.100 |
| (S) a,a,a-Trifluorotoluene(FID) | 101 | | | 77.0-120 |

Laboratory Control Sample (LCS)

(LCS) R3669818-1 06/20/21 03:31

| Analyte | Spike Amount mg/kg | LCS Result mg/kg | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|------------------------------------|-----------------------|---------------------|---------------|------------------|---------------|
| TPH (GC/FID) Low Fraction | 5.50 | 6.02 | 109 | 72.0-127 | |
| (S) a,a,a-Trifluorotoluene(FID) | | | 111 | 77.0-120 | |

L1366418-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1366418-05 06/20/21 10:41 • (MS) R3669818-3 06/20/21 13:04 • (MSD) R3669818-4 06/20/21 14:07

| 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 | 143 | ND | 65.1 | 75.2 | 44.5 | 51.6 | 26 | 10.0-151 | | | 14.4 | 28 |
| (S) a,a,a-Trifluorotoluene(FID) | | | | | 99.4 | 104 | | 77.0-120 | | | | |

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3669857-1 06/21/21 03:43

| Analyte | MB Result mg/kg | MB Qualifier | MB MDL mg/kg | MB RDL mg/kg |
|-------------------------|--------------------|--------------|-----------------|-----------------|
| C10-C28 Diesel Range | U | | 1.61 | 4.00 |
| C28-C36 Motor Oil Range | U | | 0.274 | 4.00 |
| (S) o-Terphenyl | 59.5 | | | 18.0-148 |

Laboratory Control Sample (LCS)

(LCS) R3669857-2 06/21/21 03:56

| Analyte | Spike Amount mg/kg | LCS Result mg/kg | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|----------------------|-----------------------|---------------------|---------------|------------------|---------------|
| C10-C28 Diesel Range | 50.0 | 33.2 | 66.4 | 50.0-150 | |
| (S) o-Terphenyl | | | 67.4 | 18.0-148 | |

L1367553-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1367553-01 06/21/21 19:30 • (MS) R3669857-3 06/21/21 19:43 • (MSD) R3669857-4 06/21/21 19:56

| 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 % |
|----------------------|-----------------------|--------------------------|--------------------|---------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|-----------------|
| C10-C28 Diesel Range | 49.0 | ND | 26.7 | 31.5 | 49.4 | 58.9 | 1 | 50.0-150 | J6 | | 16.5 | 20 |
| (S) o-Terphenyl | | | | | 44.2 | 46.6 | | 18.0-148 | | | | |

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3670032-2 06/21/21 18:10

| Analyte | MB Result mg/kg | MB Qualifier | MB MDL mg/kg | MB RDL mg/kg |
|----------------------|--------------------|--------------|-----------------|-----------------|
| Naphthalene | U | | 0.00408 | 0.0200 |
| 1-Methylnaphthalene | U | | 0.00449 | 0.0200 |
| 2-Methylnaphthalene | U | | 0.00427 | 0.0200 |
| (S) Nitrobenzene-d5 | 83.7 | | | 14.0-149 |
| (S) 2-Fluorobiphenyl | 66.4 | | | 34.0-125 |
| (S) p-Terphenyl-d14 | 88.2 | | | 23.0-120 |

Laboratory Control Sample (LCS)

(LCS) R3670032-1 06/21/21 17:50

| Analyte | Spike Amount mg/kg | LCS Result mg/kg | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|----------------------|-----------------------|---------------------|---------------|------------------|---------------|
| Naphthalene | 0.0800 | 0.0648 | 81.0 | 50.0-120 | |
| 1-Methylnaphthalene | 0.0800 | 0.0633 | 79.1 | 51.0-121 | |
| 2-Methylnaphthalene | 0.0800 | 0.0595 | 74.4 | 50.0-120 | |
| (S) Nitrobenzene-d5 | | | 102 | 14.0-149 | |
| (S) 2-Fluorobiphenyl | | | 79.7 | 34.0-125 | |
| (S) p-Terphenyl-d14 | | | 103 | 23.0-120 | |

L1367618-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1367618-04 06/21/21 22:51 • (MS) R3670032-3 06/21/21 23:11 • (MSD) R3670032-4 06/21/21 23:31

| 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 % |
|----------------------|-----------------------|--------------------------|--------------------|---------------------|--------------|---------------|----------|------------------|--------------|---------------|----------|-----------------|
| Naphthalene | 0.0772 | ND | 0.0627 | 0.0610 | 81.2 | 78.2 | 1 | 10.0-135 | | | 2.75 | 27 |
| 1-Methylnaphthalene | 0.0772 | ND | 0.0654 | 0.0617 | 84.7 | 79.1 | 1 | 10.0-142 | | | 5.82 | 28 |
| 2-Methylnaphthalene | 0.0772 | ND | 0.0589 | 0.0554 | 76.3 | 71.0 | 1 | 10.0-137 | | | 6.12 | 28 |
| (S) Nitrobenzene-d5 | | | | | 97.5 | 96.6 | | 14.0-149 | | | | |
| (S) 2-Fluorobiphenyl | | | | | 78.8 | 74.9 | | 34.0-125 | | | | |
| (S) p-Terphenyl-d14 | | | | | 95.4 | 91.1 | | 23.0-120 | | | | |

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

GLOSSARY OF TERMS

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.

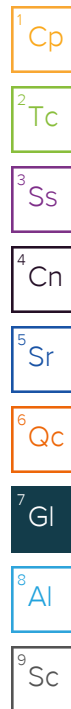
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location.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

| | |
|----|---|
| J | The identification of the analyte is acceptable; the reported value is an estimate. |
| J1 | Surrogate recovery limits have been exceeded; values are outside upper control limits. |
| J2 | Surrogate recovery limits have been exceeded; values are outside lower control limits. |
| J6 | The sample matrix interfered with the ability to make any accurate determination; spike value is low. |



ACCREDITATIONS & LOCATIONS

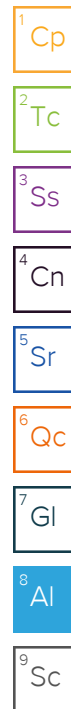
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

| | | | |
|--------------------------------|-------------|-----------------------------|------------------|
| Alabama | 40660 | Nebraska | NE-OS-15-05 |
| Alaska | 17-026 | Nevada | TN000032021-1 |
| Arizona | AZ0612 | New Hampshire | 2975 |
| Arkansas | 88-0469 | New Jersey--NELAP | TN002 |
| California | 2932 | New Mexico ¹ | TN00003 |
| 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} | KY90010 | South Carolina | 84004002 |
| Kentucky ² | 16 | South Dakota | n/a |
| Louisiana | AI30792 | Tennessee ^{1,4} | 2006 |
| Louisiana | LA018 | Texas | T104704245-20-18 |
| Maine | TN00003 | Texas ⁵ | LAB0152 |
| Maryland | 324 | Utah | TN000032021-11 |
| Massachusetts | M-TN003 | Vermont | VT2006 |
| Michigan | 9958 | Virginia | 110033 |
| Minnesota | 047-999-395 | Washington | C847 |
| Mississippi | TN00003 | West Virginia | 233 |
| Missouri | 340 | Wisconsin | 998093910 |
| Montana | CERT0086 | Wyoming | A2LA |
| 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

* 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 Analytical.



Caerus Oil & Gas LLC
143 Diamond Avenue
Parachute, CO 81635
970-285-9606

Billing Information:

Same as above

Pres
Chk

Analysis / Container / Preservative

Chain of Custody Page ____ of ____



1206S Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 1368084

F140

Table

Acctnum:

Template:

Prelogin:

TSR:

PB:

Shipped Via:

Remarks Sample # (lab only)

Report to:

bmiddleton@caerusoilandgas.com

Email To:

bmiddleton@caerusoilandgas.com

Project

Description: J17E Dumpline Release

City/State

Collected: Mamm Creek, CO

Phone:

Client Project #

Lab Project #

Fax:

J17E

J17E

Collected by (print):

KATE MORELAND

Site/Facility ID #

J17E

P.O. #

J17E

Collected by (signature):

K. Moreland

Rush? (Lab MUST Be Notified)

Same Day Five Day

Next Day 5 Day (Rad Only)

Two Day 10 Day (Rad Only)

Three Day

Date Results Needed

Standard TAT

No.
of
Cnts

Immediately

Packed on Ice N ☐ Y ☒ X

Sample ID

Comp/Grab

Matrix *

Depth

Date

Time

20210617-J17E (OBSTK1)

Comp

SS

6/17/21

1045

2

X

X

X

X

20210617-J17E (IMSTR1)

↓

↓

↓

1145

↓

↓

↓

↓

20210617-J17E (COMBSTK1)

↓

↓

↓

1215

↓

↓

↓

↓

* Matrix:

SS - Soil AIR - Air F - Filter

GW - Groundwater B - Bioassay

WW - WasteWater

DW - Drinking Water

OT - Other

Remarks:

Samples returned via:

UPS FedEx Courier

Tracking #

Relinquished by: (Signature)

K. Moreland

Date:

6/17/21

Time:

1300

Received by: (Signature)

[Signature]

Trip Blank Received: Yes / No

HCL / MeOH

TBR

Temp: 20.1°C

Bottles Received: 3.84-240

6-1821 9:00

Sample Receipt Checklist

COC Seal Present/Intact: NP Y N

COC Signed/Accurate: X N

Bottles arrive intact: X N

Correct bottles used: X N

Sufficient volume sent: X N

If Applicable

VOA Zero Headspace: Y N

Preservation Correct/Checked: Y N

If preservation required by Login: Date/Time

Hold:

Condition:

NCF OK