



September 14, 2022

Mr. Blair Rollins
Caerus Oil and Gas
143 Diamond Avenue
Parachute, CO 81635

**RE: Report of Work Completed
KE Road –Soil Sampling
COGCC Remediation Number 15310
Mesa County, Colorado**

Mr. Rollins,

Entrada Consulting Group (Entrada) has prepared this Report of Work Completed (ROWC) for Caerus Oil and Gas (Caerus) related to the Plateau Pipeline site (Site) located in Mesa County, Colorado. The Site is located on Caerus's Plateau operating area and near KE road east of the town of Mesa, Colorado. The center location coordinates of the release area are approximately 39.174425 latitude, and -108.100587 longitude.

Entrada was contracted to collect native subsurface soil samples to characterize the site-specific root zone soil suitability chemistry in response to the Colorado Oil and Gas Conservation Commission (COGCC) Form 27 Document Number 402875116. Entrada was also contracted to collect surface samples within the perimeter of the historic excavation/source area to monitor natural attenuation of inorganic contaminants.

SUBSURFACE SOIL SAMPLING ACTIVITIES

On July 7th, 2022, an Entrada Environmental Scientist collected soil samples from five borings using a hand auger. Sample depths were 10 inches below ground surface (in-bgs) and 36 in-bgs in all borings. The background sample locations were in vegetated areas outside of the spill area and the spill sample locations were located along the perimeter of the historic excavation. Soil sample locations are illustrated on **Figure 1**.

SOIL ANALYSIS

Soil samples were collected in sample containers appropriate for the specified analyses, sealed, labeled, and placed into an ice filled cooler for preservation. Soil samples were submitted to Pace Analytical in Mt. Juliet, Tennessee following chain of custody procedures and analyzed for:

- EC and SAR by U.S. Environmental Protection Agency Method 9050A Modified; and
- pH by EPA Method 9045D.

In total, ten samples were collected and submitted for laboratory analysis.

SOIL ANALYTICAL RESULTS

The laboratory soil analytical results were compared to the COGCC Table 915-1 Cleanup Concentrations. The soil analytical results reported above the COGCC Table 915-1 are summarized below.

- SAR levels in 20220707-KEROAD-SWBG-10"-1215, 20220707-KEROAD-SWBG-36"-1230, and 20220831-KEROAD-SEBG-10"-1145 were reported above the applicable COGCC Table 915-1 Cleanup Concentration.
- EC levels in 20220707-KEROAD-SWBG-10"-1215 and 20220707-KEROAD-SWBG-36"-1230 were reported above the applicable COGCC Table 915-1 Cleanup Concentration.
- pH levels in 20220707-KEROAD-SEBG-10"-1145, 20220707-KEROAD-SEBG-36"-1200, 20220707-KEROAD-SWBG-10"-1215, 20220707-KEROAD-E-36"-900, 20220707-KEROAD-N-36"-1000, and 20220707-KEROAD-W-36"-930 were reported above the applicable COGCC Table 915-1 Cleanup Concentration.

The soil analytical results are summarized in **Table 1** and the laboratory analytical report is included as **Attachment 1**.

CONCLUSIONS

Soil results from the background soil samples clearly indicate that naturally elevated SAR, EC, and pH are present at root zone depths in established and healthy areas of vegetation. Furthermore, the historic KE Road Center 18-24" sample had a SAR value of 35.8 and the recent adjacent samples 20220707-KEROAD-E-10" and 20220707-KEROAD-E-36" had values of 5.82 and 5.1 respectively. This indicates that in-situ remediation is occurring.

Additionally, over the life of this project, the average SAR for all spill samples collected is 17.8 while the average SAR for all background samples collected is 23.3 indicating that elevated SAR is a naturally occurring phenomenon in this area. Soil amendments are not recommended at this time as current vegetation in the historic spill area is established, healthy and not effected by the naturally high conditions of inorganics present in native soils. Previous site characterizations displayed inorganics exceeding table 915 in source area and native soils with lack of evidence provided within root zone (0 – 3 feet bgs). With the new data presented herein, Entrada recommends that Caerus pursue closure with the COGCC regarding REM# 15310.

We appreciate the opportunity to assist Caerus Oil and Gas. Please contact me (720) 253-2940 if you have any questions.

Sincerely,

ENTRADA CONSULTING GROUP



Reed Johnson, PG
Senior Project Geologist



Matt Kasten
Project Manager

Attachments:

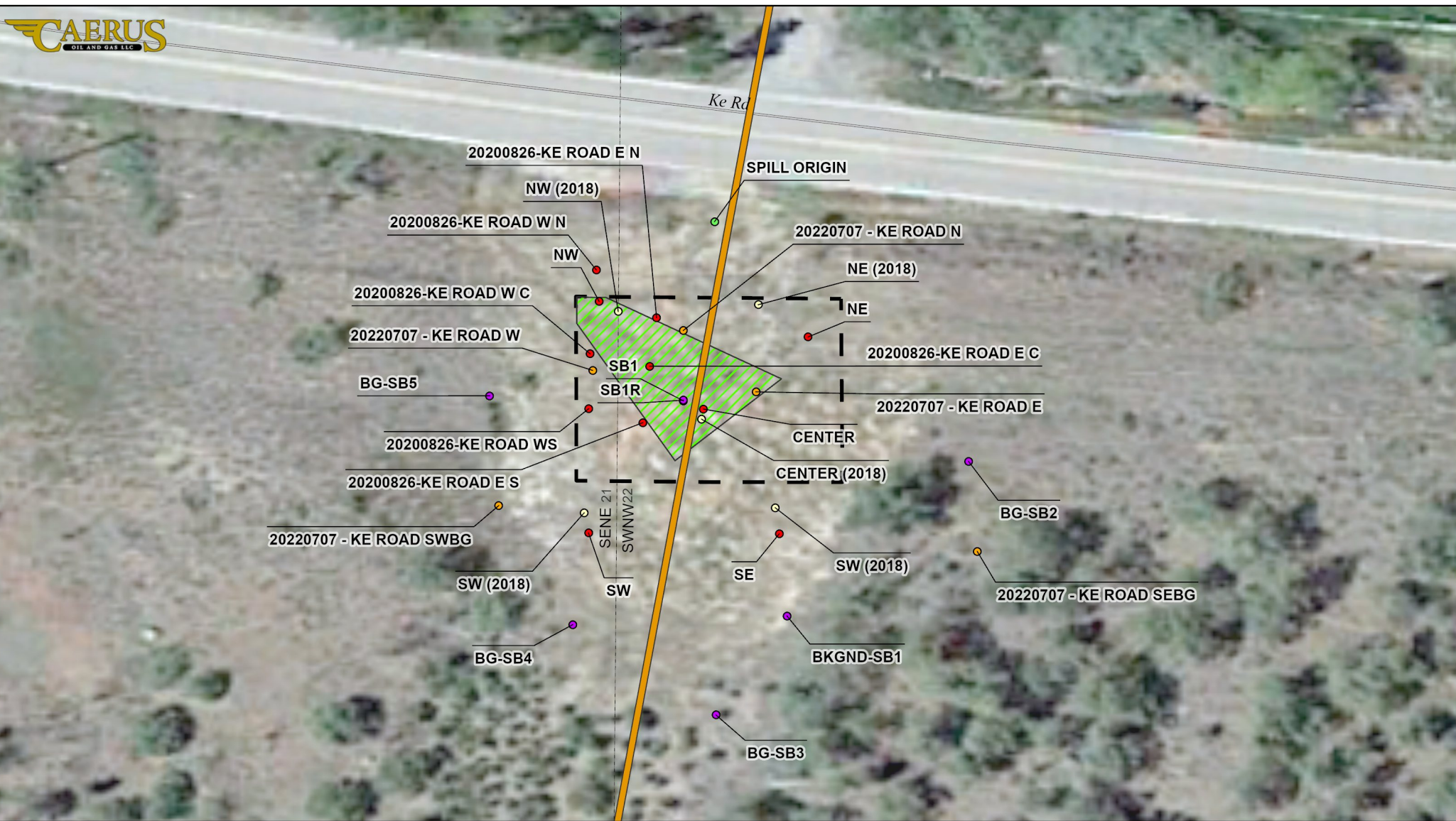
Figure 1 – Sample Location Map
Table 1 – Soil Data Summary
Laboratory Analytical Reports

TABLES

TABLE 1
CAERUS OPERATING LLC
KE ROAD INVESTIGATION
SOIL ANALYTICAL RESULTS
MESA COUNTY, COLORADO

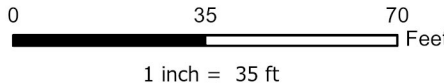
| PROTECTION OF GROUNDWATER SOIL SCREENING LEVEL CONCENTRATION (mg/Kg) | | | | | | Soil Suitability for Reclamation | | |
|--|--------------|---------|-------------|---------------|-------------------------------|---|--|-----------------------------------|
| RESIDENTIAL SOIL SCREENING LEVEL CONCENTRATION (mg/Kg) | | | | | | <4.0 mmhos/cm | <6 | 6 - 8.3 |
| Location | Lab Report # | Sampler | Sample Date | Sample Matrix | Matrix Notes | Electrical Conductivity (EC) (by saturated paste method) | Sodium Adsorption Ratio (SAR) by saturated paste method) | pH (by saturated paste method) |
| KE Road | L1512960 | CH | 07/07/22 | Background | 20220707-KEROAD-SWBG-10"-1215 | 5.040 | 30.2 | 8.42 |
| KE Road | L1512960 | CH | 07/07/22 | Background | 20220707-KEROAD-SWBG-36"-1230 | 6.630 | 21.3 | 8.17 |
| KE Road | L1512960 | CH | 07/07/22 | Background | 20220707-KEROAD-SEBG-10"-1145 | 0.815 | 7.95 | 9.37 |
| KE Road | L1512960 | CH | 07/07/22 | Background | 20220707-KEROAD-SEBG-36"-1200 | 0.913 | 3.97 | 8.85 |
| KE Road | L1512950 | CH | 07/07/22 | SPILL | 20220707-KEROAD-E-10"-845 | 0.585 | 5.82 | 8.22 |
| KE Road | L1512950 | CH | 07/07/22 | SPILL | 20220707-KEROAD-E-36"-900 | 0.48 | 5.10 | 8.60 |
| KE Road | L1512950 | CH | 07/07/22 | SPILL | 20220707-KEROAD-N-10"-945 | 0.452 | 4.67 | 8.27 |
| KE Road | L1512950 | CH | 07/07/22 | SPILL | 20220707-KEROAD-N-36"-1000 | 0.274 | 4.65 | 8.31 |
| KE Road | L1512950 | CH | 07/07/22 | SPILL | 20220707-KRROAD-N-10"-915 | 0.185 | 1.17 | 8.11 |
| KE Road | L1512950 | CH | 07/07/22 | SPILL | 20220707-KEROAD-W-36"-930 | 0.179 | 1.22 | 8.36 |

FIGURES



LEGEND

- 2018 Soil Sample Location
- 2020 Soil Sample Location
- 2021 Soil Sample Location
- 2022 Soil Sample Location
- Spill Origin
- Pipeline
- Soil Amendment Area 0-6" (51 cubic yards)
- Soil Amendment Area 6-36" (96 cubic yards)



Project No: 020-024

Map By: NDB

Date: 8/5/2022

KE Road Site Diagram
Caerus Oil and Gas, LLC
SENE, Section 21, T10S R96W, 6th PM
SWNW, Section 22, T10S R96W, 6th PM
Mesa County, Colorado



330 Grand Avenue, Unit C
Grand Junction, CO 81501
970-579-1015

Figure

1

SOIL ANALYTICAL REPORTS

Caerus Oil and Gas

Sample Delivery Group: L1512950
Samples Received: 07/08/2022
Project Number: KE ROAD
Description: KE ROAD CLEARANCE

Report To: Blair Rollins
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 National

12065 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

20220707-KEROAD-E-10"-845 L1512950-01 Solid

Collected by
Chance Holder

Collected date/time
07/07/22 08:45

Received date/time
07/08/22 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|----------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Calculated Results | WG1897998 | 1 | 07/26/22 21:34 | 07/26/22 21:34 | CCE | Mt. Juliet, TN |
| Wet Chemistry by Method 9045D | WG1893469 | 1 | 07/12/22 13:00 | 07/12/22 15:00 | NTG | Mt. Juliet, TN |
| Wet Chemistry by Method 9050AMod | WG1897843 | 1 | 07/21/22 03:31 | 07/21/22 07:51 | ARD | Mt. Juliet, TN |

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

20220707-KEROAD-E-36"-900 L1512950-02 Solid

Collected by
Chance Holder

Collected date/time
07/07/22 09:00

Received date/time
07/08/22 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|----------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Calculated Results | WG1897998 | 1 | 07/26/22 21:37 | 07/26/22 21:37 | CCE | Mt. Juliet, TN |
| Wet Chemistry by Method 9045D | WG1893495 | 1 | 07/12/22 10:00 | 07/12/22 12:12 | NTG | Mt. Juliet, TN |
| Wet Chemistry by Method 9050AMod | WG1897844 | 1 | 07/21/22 03:26 | 07/21/22 07:16 | ARD | Mt. Juliet, TN |

20220707-KEROAD-W-10"-915 L1512950-03 Solid

Collected by
Chance Holder

Collected date/time
07/07/22 09:15

Received date/time
07/08/22 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|----------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Calculated Results | WG1897998 | 1 | 07/26/22 21:40 | 07/26/22 21:40 | CCE | Mt. Juliet, TN |
| Wet Chemistry by Method 9045D | WG1893495 | 1 | 07/12/22 10:00 | 07/12/22 12:12 | NTG | Mt. Juliet, TN |
| Wet Chemistry by Method 9050AMod | WG1897844 | 1 | 07/21/22 03:26 | 07/21/22 07:16 | ARD | Mt. Juliet, TN |

20220707-KEROAD-W-36"-930 L1512950-04 Solid

Collected by
Chance Holder

Collected date/time
07/07/22 09:30

Received date/time
07/08/22 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|----------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Calculated Results | WG1897998 | 1 | 07/26/22 21:43 | 07/26/22 21:43 | CCE | Mt. Juliet, TN |
| Wet Chemistry by Method 9045D | WG1893469 | 1 | 07/12/22 13:00 | 07/12/22 15:00 | NTG | Mt. Juliet, TN |
| Wet Chemistry by Method 9050AMod | WG1897844 | 1 | 07/21/22 03:26 | 07/21/22 07:16 | ARD | Mt. Juliet, TN |

20220707-KEROAD-N-10"-945 L1512950-05 Solid

Collected by
Chance Holder

Collected date/time
07/07/22 09:45

Received date/time
07/08/22 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|----------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Calculated Results | WG1897998 | 1 | 07/26/22 21:46 | 07/26/22 21:46 | CCE | Mt. Juliet, TN |
| Wet Chemistry by Method 9045D | WG1893469 | 1 | 07/12/22 13:00 | 07/12/22 15:00 | NTG | Mt. Juliet, TN |
| Wet Chemistry by Method 9050AMod | WG1897844 | 1 | 07/21/22 03:26 | 07/21/22 07:16 | ARD | Mt. Juliet, TN |

20220707-KEROAD-N-36"-1000 L1512950-06 Solid

Collected by
Chance Holder

Collected date/time
07/07/22 10:00

Received date/time
07/08/22 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|----------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Calculated Results | WG1897998 | 1 | 07/26/22 21:49 | 07/26/22 21:49 | CCE | Mt. Juliet, TN |
| Wet Chemistry by Method 9045D | WG1893495 | 1 | 07/12/22 10:00 | 07/12/22 12:12 | NTG | Mt. Juliet, TN |
| Wet Chemistry by Method 9050AMod | WG1897844 | 1 | 07/21/22 03:26 | 07/21/22 07:16 | ARD | 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



Calculated Results

| Analyte | Result | Qualifier | Dilution | Analysis date / time | Batch |
|-------------------------|--------|-----------|----------|----------------------|-----------|
| Sodium Adsorption Ratio | 5.82 | | 1 | 07/26/2022 21:34 | WG1897998 |

¹ Cp

² Tc

Wet Chemistry by Method 9045D

| Analyte | Result | Qualifier | Dilution | Analysis date / time | Batch |
|---------|--------|-----------|----------|----------------------|---------------------------|
| pH | 8.22 | T8 | 1 | 07/12/2022 15:00 | WG1893469 |

³ Ss

⁴ Cn

Sample Narrative:
L1512950-01 WG1893469: 8.22 at 23.5C

⁵ Sr

Wet Chemistry by Method 9050AMod

| Analyte | Result | Qualifier | RDL | Dilution | Analysis date / time | Batch |
|----------------------|--------|-----------|------|----------|----------------------|---------------------------|
| Specific Conductance | 585 | | 10.0 | 1 | 07/21/2022 07:51 | WG1897843 |

⁶ Qc

⁷ Gl

Sample Narrative:
L1512950-01 WG1897843: at 25C

⁸ Al

⁹ Sc

Calculated Results

| Analyte | Result | Qualifier | Dilution | Analysis date / time | Batch |
|-------------------------|--------|-----------|----------|----------------------|-----------|
| Sodium Adsorption Ratio | 5.10 | | 1 | 07/26/2022 21:37 | WG1897998 |

¹ Cp

² Tc

Wet Chemistry by Method 9045D

| Analyte | Result | Qualifier | Dilution | Analysis date / time | Batch |
|---------|--------|-----------|----------|----------------------|---------------------------|
| pH | 8.60 | T8 | 1 | 07/12/2022 12:12 | WG1893495 |

³ Ss

⁴ Cn

Sample Narrative:

L1512950-02 WG1893495: 8.6 at 24.1C

⁵ Sr

Wet Chemistry by Method 9050AMod

| Analyte | Result | Qualifier | RDL | Dilution | Analysis date / time | Batch |
|----------------------|--------|-----------|------|----------|----------------------|---------------------------|
| Specific Conductance | 480 | | 10.0 | 1 | 07/21/2022 07:16 | WG1897844 |

⁶ Qc

⁷ Gl

Sample Narrative:

L1512950-02 WG1897844: at 25C

⁸ Al

⁹ Sc

Calculated Results

| Analyte | Result | Qualifier | Dilution | Analysis date / time | Batch |
|-------------------------|--------|-----------|----------|----------------------|-----------|
| Sodium Adsorption Ratio | 1.17 | | 1 | 07/26/2022 21:40 | WG1897998 |

¹ Cp

² Tc

Wet Chemistry by Method 9045D

| Analyte | Result | Qualifier | Dilution | Analysis date / time | Batch |
|---------|--------|-----------|----------|----------------------|---------------------------|
| pH | 8.11 | T8 | 1 | 07/12/2022 12:12 | WG1893495 |

³ Ss

⁴ Cn

Sample Narrative:
L1512950-03 WG1893495: 8.11 at 23.8C

⁵ Sr

Wet Chemistry by Method 9050AMod

| Analyte | Result | Qualifier | RDL | Dilution | Analysis date / time | Batch |
|----------------------|--------|-----------|------|----------|----------------------|---------------------------|
| Specific Conductance | 185 | | 10.0 | 1 | 07/21/2022 07:16 | WG1897844 |

⁶ Qc

⁷ Gl

⁸ Al

Sample Narrative:
L1512950-03 WG1897844: at 25C

⁹ Sc

Calculated Results

| Analyte | Result | Qualifier | Dilution | Analysis date / time | Batch |
|-------------------------|--------|-----------|----------|----------------------|-----------|
| Sodium Adsorption Ratio | 1.22 | | 1 | 07/26/2022 21:43 | WG1897998 |

¹Cp

²Tc

Wet Chemistry by Method 9045D

| Analyte | Result | Qualifier | Dilution | Analysis date / time | Batch |
|---------|--------|--------------------|----------|----------------------|---------------------------|
| pH | 8.36 | T8 | 1 | 07/12/2022 15:00 | WG1893469 |

³Ss

⁴Cn

Sample Narrative:

L1512950-04 WG1893469: 8.36 at 23.4C

⁵Sr

Wet Chemistry by Method 9050AMod

| Analyte | Result | Qualifier | RDL | Dilution | Analysis date / time | Batch |
|----------------------|--------|-----------|------|----------|----------------------|---------------------------|
| Specific Conductance | 179 | | 10.0 | 1 | 07/21/2022 07:16 | WG1897844 |

⁶Qc

⁷Gl

Sample Narrative:

L1512950-04 WG1897844: at 25C

⁸Al

⁹Sc

Calculated Results

| Analyte | Result | Qualifier | Dilution | Analysis date / time | Batch |
|-------------------------|--------|-----------|----------|----------------------|-----------|
| Sodium Adsorption Ratio | 4.67 | | 1 | 07/26/2022 21:46 | WG1897998 |

¹Cp

²Tc

Wet Chemistry by Method 9045D

| Analyte | Result | Qualifier | Dilution | Analysis date / time | Batch |
|---------|--------|--------------------|----------|----------------------|---------------------------|
| pH | 8.27 | T8 | 1 | 07/12/2022 15:00 | WG1893469 |

³Ss

⁴Cn

Sample Narrative:

L1512950-05 WG1893469: 8.27 at 23.4C

⁵Sr

Wet Chemistry by Method 9050AMod

| Analyte | Result | Qualifier | RDL | Dilution | Analysis date / time | Batch |
|----------------------|--------|-----------|------|----------|----------------------|---------------------------|
| Specific Conductance | 452 | | 10.0 | 1 | 07/21/2022 07:16 | WG1897844 |

⁶Qc

⁷Gl

Sample Narrative:

L1512950-05 WG1897844: at 25C

⁸Al

⁹Sc

Calculated Results

| Analyte | Result | Qualifier | Dilution | Analysis date / time | Batch |
|-------------------------|--------|-----------|----------|----------------------|-----------|
| Sodium Adsorption Ratio | 4.65 | | 1 | 07/26/2022 21:49 | WG1897998 |

¹Cp

²Tc

Wet Chemistry by Method 9045D

| Analyte | Result | Qualifier | Dilution | Analysis date / time | Batch |
|---------|--------|-----------|----------|----------------------|---------------------------|
| pH | 8.31 | T8 | 1 | 07/12/2022 12:12 | WG1893495 |

³Ss

⁴Cn

Sample Narrative:

L1512950-06 WG1893495: 8.31 at 24.2C

⁵Sr

Wet Chemistry by Method 9050AMod

| Analyte | Result | Qualifier | RDL | Dilution | Analysis date / time | Batch |
|----------------------|--------|-----------|------|----------|----------------------|---------------------------|
| Specific Conductance | 274 | | 10.0 | 1 | 07/21/2022 07:16 | WG1897844 |

⁶Qc

⁷Gl

Sample Narrative:

L1512950-06 WG1897844: at 25C

⁸Al

⁹Sc

L1511319-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1511319-02 07/12/22 15:00 • (DUP) R3813760-2 07/12/22 15:00

| | Original Result | DUP Result | Dilution | DUP RPD | <u>DUP Qualifier</u> | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|----------------------|----------------|
| Analyte | su | su | | % | | % |
| pH | 7.99 | 7.98 | 1 | 0.125 | | 1 |

Sample Narrative:

OS: 7.99 at 24.1C

DUP: 7.98 at 24.2C

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1511718-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1511718-01 07/12/22 15:00 • (DUP) R3813760-3 07/12/22 15:00

| | Original Result | DUP Result | Dilution | DUP RPD | <u>DUP Qualifier</u> | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|----------------------|----------------|
| Analyte | su | su | | % | | % |
| pH | 8.11 | 8.12 | 1 | 0.123 | | 1 |

Sample Narrative:

OS: 8.11 at 24.1C

DUP: 8.12 at 23.6C

Laboratory Control Sample (LCS)

(LCS) R3813760-1 07/12/22 15:00

| | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | <u>LCS Qualifier</u> |
|---------|--------------|------------|----------|-------------|----------------------|
| Analyte | su | su | % | % | |
| pH | 10.0 | 9.90 | 99.0 | 99.0-101 | |

Sample Narrative:

LCS: 9.9 at 23.6C

L1512950-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1512950-03 07/12/22 12:12 • (DUP) R3813609-2 07/12/22 12:12

| | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|---------------|----------------|
| Analyte | pH | su | | % | | % |
| pH | 8.11 | 8.13 | 1 | 0.246 | | 1 |

Sample Narrative:

OS: 8.11 at 23.8C

DUP: 8.13 at 24C

Laboratory Control Sample (LCS)

(LCS) R3813609-1 07/12/22 12:12

| | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---------|--------------|------------|----------|-------------|---------------|
| Analyte | su | su | % | % | |
| pH | 10.0 | 9.91 | 99.1 | 99.0-101 | |

Sample Narrative:

LCS: 9.91 at 24C

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3817496-1 07/21/22 07:51

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

Sample Narrative:

BLANK: at 25C

L1512916-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1512916-01 07/21/22 07:51 • (DUP) R3817496-3 07/21/22 07:51

| Analyte | Original Result umhos/cm | DUP Result umhos/cm | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|----------------------|-----------------------------|------------------------|----------|--------------|---------------|------------------------|
| Specific Conductance | 523 | 563 | 1 | 7.37 | | 20 |

Sample Narrative:

OS: at 25C

DUP: at 25C

L1512920-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1512920-03 07/21/22 07:51 • (DUP) R3817496-4 07/21/22 07:51

| Analyte | Original Result umhos/cm | DUP Result umhos/cm | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|----------------------|-----------------------------|------------------------|----------|--------------|---------------|------------------------|
| Specific Conductance | 390 | 435 | 1 | 10.9 | | 20 |

Sample Narrative:

OS: at 25C

DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R3817496-2 07/21/22 07:51

| Analyte | Spike Amount umhos/cm | LCS Result umhos/cm | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|----------------------|--------------------------|------------------------|---------------|------------------|---------------|
| Specific Conductance | 286 | 282 | 98.6 | 85.0-115 | |

Sample Narrative:

LCS: at 25C



Method Blank (MB)

(MB) R3817489-1 07/21/22 07:16

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

Sample Narrative:

BLANK: at 25C

L1512956-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1512956-02 07/21/22 07:16 • (DUP) R3817489-3 07/21/22 07:16

| Analyte | Original Result umhos/cm | DUP Result umhos/cm | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|----------------------|-----------------------------|------------------------|----------|--------------|---------------|------------------------|
| Specific Conductance | 48.6 | 45.7 | 1 | 6.15 | | 20 |

Sample Narrative:

OS: at 25C

DUP: at 25C

L1513292-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1513292-01 07/21/22 07:16 • (DUP) R3817489-4 07/21/22 07:16

| Analyte | Original Result umhos/cm | DUP Result umhos/cm | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|----------------------|-----------------------------|------------------------|----------|--------------|---------------|------------------------|
| Specific Conductance | 1080 | 1180 | 1 | 8.93 | | 20 |

Sample Narrative:

OS: at 25C

DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R3817489-2 07/21/22 07:16

| Analyte | Spike Amount umhos/cm | LCS Result umhos/cm | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|----------------------|--------------------------|------------------------|---------------|------------------|---------------|
| Specific Conductance | 286 | 277 | 96.8 | 85.0-115 | |

Sample Narrative:

LCS: at 25C

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. |
| RDL | Reported Detection Limit. |
| Rec. | Recovery. |
| RPD | Relative Percent Difference. |
| SDG | Sample Delivery Group. |
| 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

| | |
|----|---|
| T8 | Sample(s) received past/too close to holding time expiration. |
|----|---|

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

ACCREDITATIONS & LOCATIONS

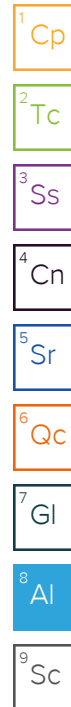
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122



| | | | |
|--------------------------------|-------------|-----------------------------|------------------|
| 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.



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|--|--|---|----------|--|--------|-------------------------------|---|------------------------------------|-------------------------------------|-----------------------------|-----------------------------|------------------------------------|----|----|-----|--|--|--|--|--|--|
| Caerus Oil and Gas 143 Diamond Ave Parachute, Co 81635 | | | | Billing Information: | | | | Pres Chk | Analysis / Container / Preservative | | | | | | | | | | Chain of Custody Page <u>1</u> of <u>1</u> | | |
| | | | | Caerus Oil and Gas | | | | | | | | | | | | | | |  12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859 | | |
| Report to: Blair Rollins | | | | Email To: brollins@caerusoilandgas.com; jjanicek@caerusoilandgas.com; bmiddleton@caerusoilandgas.com | | | | | | | | | | | | | | | | | |
| Project Description: KE ROAD CLEARANCE | | | | City/State Collected: | | Please Circle: PT MT CT ET | | | | | | | | | | | | | | | |
| Phone: 970-640-6919 | | Client Project # KE ROAD | | Lab Project # | | | | | | | | | | | | | | | | | |
| Collected by (print): CHANCE HOLDER | | Site/Facility ID # | | P.O. # | | | | | | | | | | | | | | | | | |
| Collected by (signature):  | | Rush? (Lab MUST Be Notified) ___ Same Day ___ Five Day ___ Next Day ___ 5 Day (Rad Only) ___ Two Day ___ 10 Day (Rad Only) ___ Three Day | | Quote # | | | | | | | | | | | | | | | | | |
| Immediately Packed on Ice N ___ Y <u>T</u> | | | | Date Results Needed | | No. of Cntrs | | | | | | | | | | | | | | | |
| Sample ID | | Comp/Grab | Matrix * | Depth | Date | Time | | Table915 GRO/DRO/ORO 4ozClr-NoPres | Table915 Metals 4ozClr-NoPres | Table915 PAHs 4ozClr-NoPres | Table915 VOCs 4ozClr-NoPres | Table915 pH SPCONSAR 4ozClr-NoPres | EC | PH | SAR | | | | | | |
| 20220707- KE ROAD-E-10"-845 | | GRAB | SS | 10" | 7/7/22 | 845 | 2 | | | | | | X | X | X | | | | | | |
| 20220707- KE ROAD-E-36"-900 | | | | 36" | | 900 | 2 | | | | | | X | X | X | | | | | | |
| 20220707- KE ROAD-W-10"-915 | | | | 10" | | 915 | 2 | | | | | | X | X | X | | | | | | |
| 20220707- KE ROAD-W-36"-930 | | | | 36" | | 930 | 2 | | | | | | X | X | X | | | | | | |
| 20220707- KE ROAD-N-10"-945 | | | | 10" | | 945 | 2 | | | | | | X | X | X | | | | | | |
| 20220707- KE ROAD-N-36"-1000 | | | | 36" | | 1000 | 2 | | | | | | X | X | X | | | | | | |
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Caerus Oil and Gas

Sample Delivery Group: L1512960
Samples Received: 07/08/2022
Project Number: KE ROAD BG
Description: KE ROAD CLEARANCE

Report To: Blair Rollins
143 Diamond Avenue
Parachute, CO 81635

Entire Report Reviewed By:



Kelly Mercer
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

20220707-KEROAD-SEBG-10"-1145 L1512960-01 Solid

Collected by
Chance Holder

Collected date/time
07/07/22 11:45

Received date/time
07/08/22 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|----------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Calculated Results | WG1898962 | 1 | 07/28/22 22:13 | 07/28/22 22:13 | CCE | Mt. Juliet, TN |
| Wet Chemistry by Method 9045D | WG1893065 | 1 | 07/11/22 14:00 | 07/11/22 16:53 | NTG | Mt. Juliet, TN |
| Wet Chemistry by Method 9050AMod | WG1897844 | 1 | 07/21/22 03:26 | 07/21/22 07:16 | ARD | Mt. Juliet, TN |

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

20220707-KEROAD-SEBG-36"-1200 L1512960-02 Solid

Collected by
Chance Holder

Collected date/time
07/07/22 12:00

Received date/time
07/08/22 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|----------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Calculated Results | WG1898962 | 1 | 07/28/22 22:16 | 07/28/22 22:16 | CCE | Mt. Juliet, TN |
| Wet Chemistry by Method 9045D | WG1893065 | 1 | 07/11/22 14:00 | 07/11/22 16:53 | NTG | Mt. Juliet, TN |
| Wet Chemistry by Method 9050AMod | WG1897844 | 1 | 07/21/22 03:26 | 07/21/22 07:16 | ARD | Mt. Juliet, TN |

20220707-KEROAD-SWBG-10"-1215 L1512960-03 Solid

Collected by
Chance Holder

Collected date/time
07/07/22 12:15

Received date/time
07/08/22 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|----------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Calculated Results | WG1898962 | 1 | 07/28/22 22:19 | 07/28/22 22:19 | CCE | Mt. Juliet, TN |
| Wet Chemistry by Method 9045D | WG1893469 | 1 | 07/12/22 13:00 | 07/12/22 15:00 | NTG | Mt. Juliet, TN |
| Wet Chemistry by Method 9050AMod | WG1897844 | 1 | 07/21/22 03:26 | 07/21/22 07:16 | ARD | Mt. Juliet, TN |

20220707-KEROAD-SWBG-36"-1230 L1512960-04 Solid

Collected by
Chance Holder

Collected date/time
07/07/22 12:30

Received date/time
07/08/22 08:45

| Method | Batch | Dilution | Preparation date/time | Analysis date/time | Analyst | Location |
|----------------------------------|-----------|----------|-----------------------|--------------------|---------|----------------|
| Calculated Results | WG1898962 | 1 | 07/28/22 22:22 | 07/28/22 22:22 | CCE | Mt. Juliet, TN |
| Wet Chemistry by Method 9045D | WG1893469 | 1 | 07/12/22 13:00 | 07/12/22 15:00 | NTG | Mt. Juliet, TN |
| Wet Chemistry by Method 9050AMod | WG1897844 | 1 | 07/21/22 03:26 | 07/21/22 07:16 | ARD | 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.



Kelly Mercer
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Calculated Results

| Analyte | Result | Qualifier | Dilution | Analysis date / time | Batch |
|-------------------------|--------|-----------|----------|----------------------|-----------|
| Sodium Adsorption Ratio | 7.95 | | 1 | 07/28/2022 22:13 | WG1898962 |

¹Cp

²Tc

Wet Chemistry by Method 9045D

| Analyte | Result | Qualifier | Dilution | Analysis date / time | Batch |
|---------|--------|--------------------|----------|----------------------|---------------------------|
| pH | 9.37 | T8 | 1 | 07/11/2022 16:53 | WG1893065 |

³Ss

⁴Cn

Sample Narrative:

L1512960-01 WG1893065: 9.37 at 23C

⁵Sr

Wet Chemistry by Method 9050AMod

| Analyte | Result | Qualifier | RDL | Dilution | Analysis date / time | Batch |
|----------------------|--------|-----------|------|----------|----------------------|---------------------------|
| Specific Conductance | 815 | | 10.0 | 1 | 07/21/2022 07:16 | WG1897844 |

⁶Qc

⁷Gl

Sample Narrative:

L1512960-01 WG1897844: at 25C

⁸Al

⁹Sc

Calculated Results

| Analyte | Result | Qualifier | Dilution | Analysis date / time | Batch |
|-------------------------|--------|-----------|----------|----------------------|-----------|
| Sodium Adsorption Ratio | 3.97 | | 1 | 07/28/2022 22:16 | WG1898962 |

¹Cp

²Tc

Wet Chemistry by Method 9045D

| Analyte | Result | Qualifier | Dilution | Analysis date / time | Batch |
|---------|--------|--------------------|----------|----------------------|---------------------------|
| pH | 8.85 | T8 | 1 | 07/11/2022 16:53 | WG1893065 |

³Ss

⁴Cn

Sample Narrative:

L1512960-02 WG1893065: 8.85 at 23.2C

⁵Sr

Wet Chemistry by Method 9050AMod

| Analyte | Result | Qualifier | RDL | Dilution | Analysis date / time | Batch |
|----------------------|--------|-----------|------|----------|----------------------|---------------------------|
| Specific Conductance | 913 | | 10.0 | 1 | 07/21/2022 07:16 | WG1897844 |

⁶Qc

⁷Gl

Sample Narrative:

L1512960-02 WG1897844: at 25C

⁸Al

⁹Sc

Calculated Results

| Analyte | Result | Qualifier | Dilution | Analysis date / time | Batch |
|-------------------------|--------|-----------|----------|----------------------|-----------|
| Sodium Adsorption Ratio | 30.2 | | 1 | 07/28/2022 22:19 | WG1898962 |

¹Cp

²Tc

Wet Chemistry by Method 9045D

| Analyte | Result | Qualifier | Dilution | Analysis date / time | Batch |
|---------|--------|-----------|----------|----------------------|---------------------------|
| pH | 8.42 | T8 | 1 | 07/12/2022 15:00 | WG1893469 |

³Ss

⁴Cn

Sample Narrative:

L1512960-03 WG1893469: 8.42 at 23.6C

⁵Sr

Wet Chemistry by Method 9050AMod

| Analyte | Result | Qualifier | RDL | Dilution | Analysis date / time | Batch |
|----------------------|--------|-----------|------|----------|----------------------|---------------------------|
| Specific Conductance | 5040 | | 10.0 | 1 | 07/21/2022 07:16 | WG1897844 |

⁶Qc

⁷Gl

Sample Narrative:

L1512960-03 WG1897844: at 25C

⁸Al

⁹Sc

Calculated Results

| Analyte | Result | Qualifier | Dilution | Analysis date / time | Batch |
|-------------------------|--------|-----------|----------|----------------------|-----------|
| Sodium Adsorption Ratio | 21.3 | | 1 | 07/28/2022 22:22 | WG1898962 |

¹ Cp

² Tc

Wet Chemistry by Method 9045D

| Analyte | Result | Qualifier | Dilution | Analysis date / time | Batch |
|---------|--------|-----------|----------|----------------------|---------------------------|
| pH | 8.17 | T8 | 1 | 07/12/2022 15:00 | WG1893469 |

³ Ss

⁴ Cn

Sample Narrative:

L1512960-04 WG1893469: 8.17 at 23.4C

⁵ Sr

Wet Chemistry by Method 9050AMod

| Analyte | Result | Qualifier | RDL | Dilution | Analysis date / time | Batch |
|----------------------|--------|-----------|------|----------|----------------------|---------------------------|
| Specific Conductance | 6630 | | 10.0 | 1 | 07/21/2022 07:16 | WG1897844 |

⁶ Qc

⁷ Gl

Sample Narrative:

L1512960-04 WG1897844: at 25C

⁸ Al

⁹ Sc

L1512921-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1512921-03 07/11/22 16:53 • (DUP) R3813340-2 07/11/22 16:53

| | Original Result | DUP Result | Dilution | DUP RPD | <u>DUP Qualifier</u> | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|----------------------|----------------|
| Analyte | pH | su | | % | | % |
| pH | 8.23 | 8.25 | 1 | 0.243 | | 1 |

Sample Narrative:

OS: 8.23 at 23C

DUP: 8.25 at 23.2C

L1513243-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1513243-05 07/11/22 16:53 • (DUP) R3813340-3 07/11/22 16:53

| | Original Result | DUP Result | Dilution | DUP RPD | <u>DUP Qualifier</u> | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|----------------------|----------------|
| Analyte | su | su | | % | | % |
| pH | 8.09 | 8.13 | 1 | 0.493 | | 1 |

Sample Narrative:

OS: 8.09 at 22.9C

DUP: 8.13 at 23C

Laboratory Control Sample (LCS)

(LCS) R3813340-1 07/11/22 16:53

| | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | <u>LCS Qualifier</u> |
|---------|--------------|------------|----------|-------------|----------------------|
| Analyte | su | su | % | % | |
| pH | 10.0 | 9.90 | 99.0 | 99.0-101 | |

Sample Narrative:

LCS: 9.9 at 23.2C

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1511319-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1511319-02 07/12/22 15:00 • (DUP) R3813760-2 07/12/22 15:00

| | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|---------------|----------------|
| Analyte | su | su | | % | | % |
| pH | 7.99 | 7.98 | 1 | 0.125 | | 1 |

Sample Narrative:

OS: 7.99 at 24.1C

DUP: 7.98 at 24.2C

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1511718-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1511718-01 07/12/22 15:00 • (DUP) R3813760-3 07/12/22 15:00

| | Original Result | DUP Result | Dilution | DUP RPD | DUP Qualifier | DUP RPD Limits |
|---------|-----------------|------------|----------|---------|---------------|----------------|
| Analyte | su | su | | % | | % |
| pH | 8.11 | 8.12 | 1 | 0.123 | | 1 |

Sample Narrative:

OS: 8.11 at 24.1C

DUP: 8.12 at 23.6C

Laboratory Control Sample (LCS)

(LCS) R3813760-1 07/12/22 15:00

| | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
|---------|--------------|------------|----------|-------------|---------------|
| Analyte | su | su | % | % | |
| pH | 10.0 | 9.90 | 99.0 | 99.0-101 | |

Sample Narrative:

LCS: 9.9 at 23.6C

Method Blank (MB)

(MB) R3817489-1 07/21/22 07:16

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

Sample Narrative:
BLANK: at 25C

L1512956-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1512956-02 07/21/22 07:16 • (DUP) R3817489-3 07/21/22 07:16

| Analyte | Original Result umhos/cm | DUP Result umhos/cm | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|----------------------|-----------------------------|------------------------|----------|--------------|---------------|------------------------|
| Specific Conductance | 48.6 | 45.7 | 1 | 6.15 | | 20 |

Sample Narrative:
OS: at 25C
DUP: at 25C

L1513292-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1513292-01 07/21/22 07:16 • (DUP) R3817489-4 07/21/22 07:16

| Analyte | Original Result umhos/cm | DUP Result umhos/cm | Dilution | DUP RPD % | DUP Qualifier | DUP RPD Limits % |
|----------------------|-----------------------------|------------------------|----------|--------------|---------------|------------------------|
| Specific Conductance | 1080 | 1180 | 1 | 8.93 | | 20 |

Sample Narrative:
OS: at 25C
DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R3817489-2 07/21/22 07:16

| Analyte | Spike Amount umhos/cm | LCS Result umhos/cm | LCS Rec. % | Rec. Limits % | LCS Qualifier |
|----------------------|--------------------------|------------------------|---------------|------------------|---------------|
| Specific Conductance | 286 | 277 | 96.8 | 85.0-115 | |

Sample Narrative:
LCS: at 25C

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. |
| 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

| | |
|----|---|
| T8 | Sample(s) received past/too close to holding time expiration. |
|----|---|

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

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 and Gas

143 Diamond Ave
Parachute, Co 81635

Billing Information:

Caerus Oil and Gas

Pres
Chk

Report to:
Blair Rollins

Email To: brollins@caerusoilandgas.com;
jjanicek@caerusoilandgas.com;
bmiddleton@caerusoilandgas.com

Project Description:

KE ROAD BG

City/State
Collected:

Please Circle:
PT MT CT ET

Phone: 970-640-6919

Client Project #

KE ROAD BG

Lab Project #

Collected by (print):

CHANCE HOLDER

Site/Facility ID #

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)

Same Day Five Day
Next Day 5 Day (Rad Only)
Two Day 10 Day (Rad Only)
Three Day

Quote #

Date Results Needed

No.
of
Cntrs

Immediately

Packed on Ice N Y

Sample ID

Comp/Grab

Matrix *

Depth

Date

Time

20220707-KE ROAD-SE BG-10"-1145

GRAB

SS

10"

7/7/22

1145

20

20220707-KE ROAD-SE BG-36"-1200

36"

1200

2

20220707-KE ROAD-SW BG-10"-1215

10"

1215

2

20220707-KE ROAD-SW BG-36"-1230

36"

1230

2

* 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 # 5755 8084 8271

Relinquished by: (Signature)

Date:

7/7/22

Time:

1800

Received by: (Signature)

Trip Blank Received: Yes (NO)

HCL / MeOH
TBR

Relinquished by: (Signature)

Date:

7/7/22

Time:

1500

Received by: (Signature)

Temp: 22.5 °C Bottles Received: 8

Relinquished by: (Signature)

Date:

7/8/22

Time:

8:45

Received for lab by: (Signature)

Date:

Time:

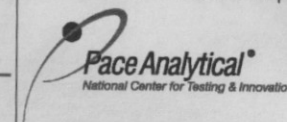
Hold:

Condition:

NCF 1 OK

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



SDG # 1512960

Table # E201

Acctnum:

Template:

Prelogin:

PM: 824 - Chris Ward

PB:

Shipped Via: FedEX Ground

Remarks

Sample # (lab only)

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
RAD Screen <0.5 mR/hr: ☒ Y ☐ N

If preservation required by Login: Date/Time