



February 8, 2018

Mr. Erik Mickelson
Senior HSE Representative
Kerr-McGee Oil & Gas Onshore LP
1099 18th Street, Suite 1800
Denver, Colorado 80202

Re: Sump Closure Summary Report
UPRC 33-10 J5 Tank Battery
Location ID: 329676
NWSE 33 3N65W
COGCC eForm 27 Initial Remediation #10981

Dear Mr. Mickelson:

Apex Companies, LLC (Apex) is providing Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) with this Sump Closure Summary Report (Report) to document sampling activities and the results of environmental testing at the tank battery associated with the UPRC 33-10J5 well. In accordance with the Initial eForm 27 - Remediation Number 10981 as approved by the COGCC, this form is being submitted to document the produced water vessel closure activities. Apex provided the environmental services at the site, that included the collection of confirmation samples from the excavation and documentation of field activities, as described below.

Site Assessment Activities

The field activities described herein were performed on December 29, 2017 through January 2, 2018, with the purpose of assessing potential hydrocarbon impacts at the site related to the closure of a produced water vessel. Soil sampling activities, laboratory analytical results, and conclusions are presented below. The general site layout and sample locations are provided on Figure 1.

The final extent of the excavation measured approximately 31 feet by 31 feet, at an approximate depth of 10 feet below ground surface (bgs). Ninety-six cubic yards of impacted soils were removed from the excavation and disposed at the Kerr-McGee Land Treatment Facility in Weld County, Colorado. Groundwater was not encountered in the excavation.

On December 29, 2017 and January 2, 2018 confirmation soil samples were collected from the sidewalls of the excavation area at between 5 feet and 6.5 feet bgs, and from the base of the excavation at approximately 9 and 10 feet bgs respectively. Soil samples were field-screened for volatile organic compound concentrations using a photoionization detector. The soil samples collected from the sidewalls (W01@6', S01@6.5', E01@5', and N01@6.5') and beneath the former produced water vessel locations (Base01@9' and Base02@10') were submitted to Origins Laboratory in Denver, Colorado and analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX), total petroleum hydrocarbons (TPH) – gasoline range organics (GRO) by United States Environmental Protection Agency (USEPA) Method 8260, TPH – diesel range and residual range organics (DRO and

RRO, respectively) by USEPA Method 8015, electrical conductivity (EC), and pH. Soil laboratory results are summarized in Table 1, and the laboratory analytical report is provided in Attachment A.

Results

Analytical results from the confirmation sidewall samples, and the base sample (Base02@10') collected from the final extent of the excavation indicate that BTEX and TPH concentrations are below the applicable COGCC Table 910-1 standards and in full compliance with the State standards. For both EC and pH, analytical results indicate that concentrations are within COGCC Table 910-1 allowable concentrations. The remaining soil samples, collected from the sidewalls of the excavation area on January 2, 2018, were not submitted for laboratory analysis as analytical data from the previous sidewall samples collected on December 29, 2017, confirmed the absence of petroleum hydrocarbon impacts above COGCC Table 910-1 standards.

Conclusions

Analytical results described herein confirm BTEX and TPH impacts are not present at concentrations above applicable regulatory standards at the former produced water vessel locations. Consequently, no further site assessment or remedial activity is necessary. Prior to site assessment activities, the sump was permanently removed.

Please contact me at (720) 501-5052 if you have any questions regarding this report or require additional information.

Sincerely,

Apex Companies, LLC



Chandler E Cole
Project Manager

Attachments:

Figure 1 – UPRC 33-10J5 Tank Battery - Facility Layout & Analytical Results
Table 1 – Soil Sample Analytical Results
Attachment A – Laboratory Analytical Report

Kerr-McGee Oil & Gas Onshore LP
Location Name: UPRC 33-10 J5 Tank Battery
Location ID: 329676
County: Weld

| COGCC Table 910-1 State Standards --> | | | | Organics (mg/kg [ppm]) | | | | | | | Inorganics | |
|---------------------------------------|--------------|--|--------------|----------------------------------|------------------------------------|------------------------------------|--------------|---------|--------------|-----------------|--------------------------------------|-------|
| | | | | | 500 | | 0.17 | 85 | 100 | 175 | 4 | (6-9) |
| Location | Sample Date: | Matrix Notes [Sample Point - Depth] | Depth (feet) | TPH-GRO (C6-C10) Low Fraction | TPH-DRO (C10-C28) High Fraction | TPH-RRO (C28-C40) High Fraction | Benzene | Toluene | Ethylbenzene | Xylenes - total | EC (<4 mmhos/cm or 2x background) | pH |
| KMG - UPRC 33-10J5 | 12/29/17 | Base01@9' | 9 | 11.1 | <25.0 | <100 | 0.478 | <0.050 | <0.050 | 0.714 | 0.208 | 8.04 |
| KMG - UPRC 33-10J5 | 12/29/17 | W01@6' | 6 | <0.200 | <25.0 | <100 | <0.002 | <0.002 | <0.002 | <0.002 | 0.149 | 7.61 |
| KMG - UPRC 33-10J5 | 12/29/17 | S01@6.5' | 6.5 | 98.4 | 353 | <100 | <0.050 | <0.050 | 1.33 | 3.900 | 0.206 | 7.52 |
| KMG - UPRC 33-10J5 | 12/29/17 | E01@5' | 5 | <0.200 | <50.0 | <200 | <0.002 | <0.002 | <0.002 | <0.002 | 0.521 | 7.77 |
| KMG - UPRC 33-10J5 | 12/29/17 | N01@6.5' | 6.5 | <0.200 | <50.0 | <200 | <0.002 | <0.002 | <0.002 | <0.002 | 0.133 | 8.11 |
| KMG - UPRC 33-10J5 | 01/02/18 | Base02@10' | 10 | 9.12 | <25.0 | <100 | 0.121 | <0.002 | 0.037 | 0.451 | 0.190 | 8.32 |

Notes:

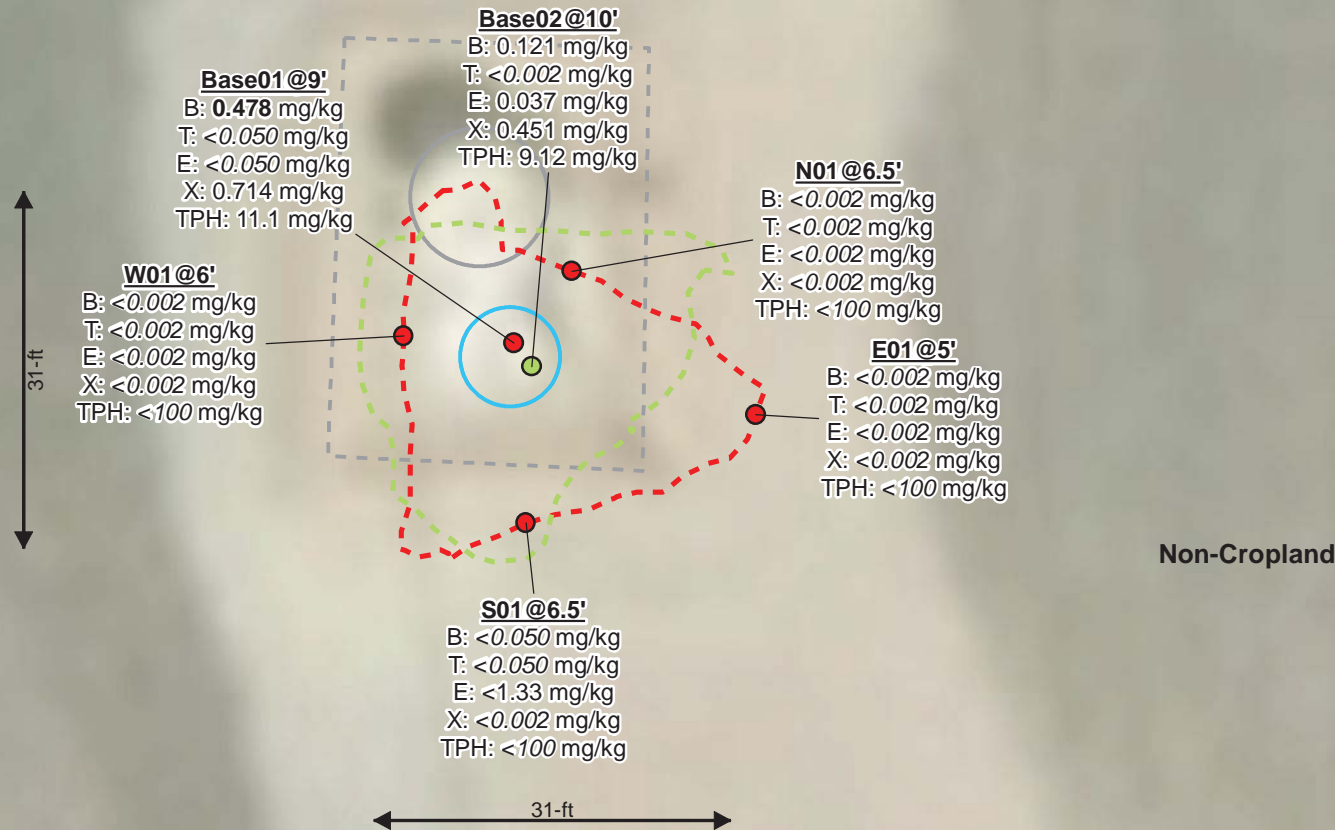
TPH Total petroleum hydrocarbons
GRO Gasoline range hydrocarbons (C6 - C10)
DRO Diesel range organics (C10 - C28)
RRO Residual range organics (C28 - C40)

Cell indicates result exceeded COGCC Table 910-1 allowable concentration for the contaminant / inorganic of concern

bgs below ground surface
mg/kg milligrams per kilogram
mmhos/cm millimhos per centimeter
NA Not analyzed/ not available
COGCC Colorado Oil and Gas Conservation Commission

Non-Crop Land

Access Road



For illustration purposes, spatial data in this diagram (e.g. sample points, excavation perimeter) is representative of field observations, and for illustration purposes may have been adjusted to align with aerial imagery and other pictured spatial data. Apex also collects spatial data using GPS units with real-time differential correction and sub-meter accuracy. Spatial data (e.g. ESRI shapefiles, Google Earth KMZ) provided separately from this diagram, may not be consistent with what is presented in this site diagram, due to adjustments made for illustrative purposes.

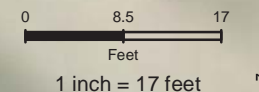


Figure 1
UPRC 33-10 J5
Tank Battery -
Facility Layout &
Analytical Results

Legend

- Soil Sample (12/29/2017)
- Soil Sample (1/2/2018)
- Former Crude Oil Tank
- Former Produced Water Tank
- Former Secondary Containment
- Excavation Extent (12/29/2017)
- Excavation Extent (1/2/2018)

Sample Location

B: benzene
T: toluene
E: ethylbenzene
X: xylenes
TPH: total petroleum hydrocarbons

Bold values exceed COGCC Table
910-1 allowable concentrations

Site Characteristics

Legal Location: NESE, Sec 33, T3N R65W
County: Weld
Land Use: Non-Crop Land
Topography: 0-3% Slopes
Run-Off Risk: Not Available
Soil Type: Loup-Boel loamy sands

| REVISED | BY | COMMENT |
|----------|-----|----------|
| 1/8/2018 | BJB | Figure 1 |

Apex Companies, LLC
beau.bergstrom@apexco.com
M:\Projects\Anadarko\DJ_Basin\Remediation\UPRC_33-10_J5_TB\Projects\UPRC_33-10_J5_TB_Fig1.dwg 20180108.mxd

Attachment A

Laboratory Analytical Report



January 02, 2018

Apex Companies, LLC

Chandler Cole

4150 Darley Avenue, Suite 1

Boulder

CO 80305

Project Name - KMG - UPRC 33-10 J5

Project Number - [none]

Attached are your analytical results for KMG - UPRC 33-10 J5 received by Origins Laboratory, Inc. December 29, 2017. This project is associated with Origins project number Y712480-01.

The analytical results in the following report were analyzed under the guidelines of EPA Methods. These methods are identified as follows; "SW" are defined in SW-846, "EPA" are defined in 40CFR part 136 and "SM" are defined in the most current revision of Standard Methods For the Examination of Water and Wastewater.

The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. As such, this report shall not be reproduced except in full, without the written approval of Origin's laboratory.

Unless otherwise noted, the analytical results for all soil samples are reported on a wet weight basis. All analytical analyses were performed under NELAP guidelines unless noted by a data qualifier.

Any holding time exceedances, deviations from the method specifications or deviations from Origins Laboratory's Standard Operating Procedures are outlined in the case narrative.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory, Inc.
303.433.1322
o-squad@oelabinc.com



1725 Elk Place, Denver, CO 80211 | Phone: 303.433.1322 | Fax: 303.265.9645

Apex Companies, LLC
4150 Darley Avenue, Suite 1
Boulder CO 80305

Chandler Cole
Project Number: [none]
Project: KMG - UPRC 33-10 J5

CROSS REFERENCE REPORT

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|-----------|---------------|--------|-------------------------|------------------|
| Base01@9' | Y712480-01 | Soil | December 29, 2017 14:09 | 12/29/2017 15:42 |
| W01@6' | Y712480-02 | Soil | December 29, 2017 14:11 | 12/29/2017 15:42 |
| S01@6.5' | Y712480-03 | Soil | December 29, 2017 14:15 | 12/29/2017 15:42 |
| E01@5' | Y712480-04 | Soil | December 29, 2017 14:17 | 12/29/2017 15:42 |
| N01@6.5' | Y712480-05 | Soil | December 29, 2017 14:19 | 12/29/2017 15:42 |

C. Cole requested via email that samples -02,-03, -04 & -05 be taken off of hold. ndm 1.2.18

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Chandler Cole
Project Number: [none]
Project: KMG - UPRC 33-10 J5

ORIGINS

LABORATORY, INC

www.originslaboratory.com

172460

page 1 of 1

Client: Apex Companies
 Address: 1746 Cole Blvd, Lakewood, CO 80401
 Telephone Number: 970-903-1260
 Email Address: Chandler.Cole@apexcos.com

Project Manager: Chandler Cole
 Project Name: UPRC 33-ID J5
 Project Number: WO# Pending Erik Mickelson
 Samples Collected By: Kennedy Whalen
 Bill to Anadarko

| Sample ID Description | Date Sampled | Time Sampled | # of Containers | Preservative | | | | Matrix | | | Analysis | | | | Sample Instructions |
|-----------------------------|----------------|--------------|--------------------------|----------------|------------|--|-------|-------------|------|-------------|----------|---------|--------|----------|---------------------|
| | | | | Unpreserved | HCl | HNO ₃ | Other | Groundwater | Soil | Air Summa # | Other | DRG/RRO | EC, PH | HOLD SAR | |
| Base @ 9' | 12/29/17 | 1409 | 1 | X | | | | | | X | | | X | X | 1 |
| W01 @ 0' | | 1411 | 1 | X | | | | | | X | | | | HOLD | 2 |
| S01 @ 0.5' | | 1415 | 1 | X | | | | | | X | | | | HOLD | 3 |
| E01 @ 0.5' | | 1417 | 1 | X | | | | | | X | | | | HOLD | 4 |
| N01 @ 0.5' | | 1419 | 1 | X | | | | | | X | | | | HOLD | 5 |
| | | | | | | | | | | | | | | | 6 |
| | | | | | | | | | | | | | | | 7 |
| | | | | | | | | | | | | | | | 8 |
| | | | | | | | | | | | | | | | 9 |
| | | | | | | | | | | | | | | | 10 |
| Relinquished By: Kennedy W. | Date: 12/29/17 | Time: 1512 | Received By: [Signature] | Date: 12-29-17 | Time: 1512 | Turnaround Time: Same Day <input checked="" type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/> Standard <input type="checkbox"/> | | | | | | | | | |
| Relinquished By: | Date: | Time: | Received By: | Date: | Time: | | | | | | | | | | |

Date Results Needed 7am, 1/2/18

Origins Laboratory, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Companies, LLC
4150 Darley Avenue, Suite 1
Boulder CO 80305

Chandler Cole
Project Number: [none]
Project: KMG - UPRC 33-10 J5

Origins Laboratory

F-012207-01-R1
Effective Date: 01/09/12

Sample Receipt Checklist

Origins Work Order: 4712480

Client: Apex Co.

Client Project ID: KMG-UPRC 33-10 J5

Checklist Completed by: DL

Shipped Via: 1-D
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 12-28-11

Airbill #: 12

Matrix(s) Received: (Check all that apply): ☒ Soil/Solid ☐ Water ☐ Other: _____

Cooler Number/Temperature: 1 / 5.4 °C 1 / _____ °C 1 / _____ °C (Describe)

Thermometer ID: 1003

| Requirement Description | Yes | No | N/A | Comments (if any) |
|---|-------------------------------------|-------------------------------------|-------------------------------------|-------------------|
| If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Is there ice present (document if blue ice is used) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact) | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact) | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Were all samples received intact ⁽¹⁾ ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Was adequate sample volume provided ⁽¹⁾ ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <u>pH</u> |
| Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| For volatiles in water — is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity) / (pH <2 for samples preserved with HNO ₃ , HCL, H ₂ SO ₄) / (pH >10 for samples preserved with NaAsO ₂ +NaOH, ZnAc+NaOH) | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Additional Comments (if any): | | | | |

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note date/time and person contacted as well as the corrective action to in the additional comments (above) and the case narrative.

Reviewed by (Project Manager) [Signature]

Date/Time Reviewed 12-28-11

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Companies, LLC
4150 Darley Avenue, Suite 1
Boulder CO 80305

Chandler Cole
Project Number: [none]
Project: KMG - UPRC 33-10 J5

Base01@9'

12/29/2017 2:09:00PM

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|

Origins Laboratory, Inc.
Y712480-01 (Soil)

DRO/RRO by EPA8015C

| | | | | | | | | |
|-----------------------------------|----|------|-------|---|---------|------------|------------|---|
| Diesel (C10-C28) | ND | 25.0 | mg/kg | 1 | B7L2903 | 12/29/2017 | 12/29/2017 | U |
| Residual Range Organics (C28-C40) | ND | 100 | " | " | " | " | " | U |

Surrogate: o-Terphenyl 109 % 59-131 " " "

GBTEX by EPA 8260C

| | | | | | | | | |
|-----------------------------|-------|-------|-------|----|---------|---|------------|---|
| Gasoline Range Hydrocarbons | 11.1 | 5.00 | mg/kg | 25 | B7L2902 | " | 12/30/2017 | |
| Benzene | 0.478 | 0.050 | " | " | " | " | " | |
| Toluene | ND | 0.050 | " | " | " | " | " | U |
| Ethylbenzene | ND | 0.050 | " | " | " | " | " | U |
| Xylenes, total | 0.714 | 0.050 | " | " | " | " | " | |

Surrogate: 1,2-Dichloroethane-d4 110 % 70-130 " " "

Surrogate: Toluene-d8 95.9 % 70-130 " " "

Surrogate: 4-Bromofluorobenzene 101 % 70-130 " " "

pH in Soil by EPA 9045D

| | | | | | | | | |
|----|------|--|----------|---|---------|---|------------|--|
| pH | 8.04 | | pH Units | 1 | B7L2904 | " | 12/29/2017 | |
|----|------|--|----------|---|---------|---|------------|--|

Specific Conductance by Modified 9050A

| | | | | | | | | |
|---------------------------|-------|--|----------|---|---------|---|------------|--|
| Specific Conductance (EC) | 0.208 | | mmhos/cm | " | B7L2905 | " | 12/29/2017 | |
|---------------------------|-------|--|----------|---|---------|---|------------|--|

Origins Laboratory, Inc.



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Apex Companies, LLC
4150 Darley Avenue, Suite 1
Boulder CO 80305

Chandler Cole
Project Number: [none]
Project: KMG - UPRC 33-10 J5

W01@6'

12/29/2017 2:11:00PM

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|

Origins Laboratory, Inc.
Y712480-02 (Soil)

DRO/RRO by EPA8015C

| | | | | | | | | |
|-----------------------------------|----|------|-------|---|---------|------------|------------|---|
| Diesel (C10-C28) | ND | 50.0 | mg/kg | 1 | B8A0202 | 01/02/2018 | 01/02/2018 | U |
| Residual Range Organics (C28-C40) | ND | 200 | " | " | " | " | " | U |

Surrogate: o-Terphenyl 128 % 59-131 " " "

GBTEX by EPA 8260C

| | | | | | | | | |
|-----------------------------|----|-------|-------|---|---------|---|------------|---|
| Gasoline Range Hydrocarbons | ND | 0.200 | mg/kg | 1 | B8A0201 | " | 01/02/2018 | U |
| Benzene | ND | 0.002 | " | " | " | " | " | U |
| Toluene | ND | 0.002 | " | " | " | " | " | U |
| Ethylbenzene | ND | 0.002 | " | " | " | " | " | U |
| Xylenes, total | ND | 0.002 | " | " | " | " | " | U |

Surrogate: 1,2-Dichloroethane-d4 126 % 70-130 " " "
Surrogate: Toluene-d8 93.8 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 98.0 % 70-130 " " "

pH in Soil by EPA 9045D

| | | | | | | | | |
|----|------|--|----------|---|---------|------------|------------|--|
| pH | 7.61 | | pH Units | 1 | B8A0203 | 01/02/2018 | 01/02/2018 | |
|----|------|--|----------|---|---------|------------|------------|--|

Specific Conductance by Modified 9050A

| | | | | | | | | |
|---------------------------|-------|--|----------|---|---------|---|------------|--|
| Specific Conductance (EC) | 0.149 | | mmhos/cm | " | B8A0204 | " | 01/02/2018 | |
|---------------------------|-------|--|----------|---|---------|---|------------|--|

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Companies, LLC
4150 Darley Avenue, Suite 1
Boulder CO 80305

Chandler Cole
Project Number: [none]
Project: KMG - UPRC 33-10 J5

S01@6.5'

12/29/2017 2:15:00PM

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|

Origins Laboratory, Inc.
Y712480-03 (Soil)

DRO/RRO by EPA8015C

| | | | | | | | | |
|-----------------------------------|-----|------|-------|---|---------|------------|------------|---|
| Diesel (C10-C28) | 353 | 50.0 | mg/kg | 1 | B8A0202 | 01/02/2018 | 01/02/2018 | |
| Residual Range Organics (C28-C40) | ND | 200 | " | " | " | " | " | U |

| | | | | | | | | |
|------------------------|-------|--------|--|--|---|---|---|--|
| Surrogate: o-Terphenyl | 110 % | 59-131 | | | " | " | " | |
|------------------------|-------|--------|--|--|---|---|---|--|

GBTEX by EPA 8260C

| | | | | | | | | |
|-----------------------------|------|-------|-------|----|---------|---|------------|---|
| Gasoline Range Hydrocarbons | 98.4 | 5.00 | mg/kg | 25 | B8A0201 | " | 01/02/2018 | |
| Benzene | ND | 0.050 | " | " | " | " | " | U |
| Toluene | ND | 0.050 | " | " | " | " | " | U |
| Ethylbenzene | 1.33 | 0.050 | " | " | " | " | " | |
| Xylenes, total | 3.90 | 0.050 | " | " | " | " | " | |

| | | | | | | | | |
|----------------------------------|--------|--------|--|--|---|---|---|--|
| Surrogate: 1,2-Dichloroethane-d4 | 110 % | 70-130 | | | " | " | " | |
| Surrogate: Toluene-d8 | 90.4 % | 70-130 | | | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 117 % | 70-130 | | | " | " | " | |

pH in Soil by EPA 9045D

| | | | | | | | | |
|----|------|--|----------|---|---------|------------|------------|--|
| pH | 7.52 | | pH Units | 1 | B8A0203 | 01/02/2018 | 01/02/2018 | |
|----|------|--|----------|---|---------|------------|------------|--|

Specific Conductance by Modified 9050A

| | | | | | | | | |
|---------------------------|-------|--|----------|---|---------|---|------------|--|
| Specific Conductance (EC) | 0.206 | | mmhos/cm | " | B8A0204 | " | 01/02/2018 | |
|---------------------------|-------|--|----------|---|---------|---|------------|--|

Origins Laboratory, Inc.



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Apex Companies, LLC
4150 Darley Avenue, Suite 1
Boulder CO 80305

Chandler Cole
Project Number: [none]
Project: KMG - UPRC 33-10 J5

E01@5'
12/29/2017 2:17:00PM

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|

Origins Laboratory, Inc.
Y712480-04 (Soil)

DRO/RRO by EPA8015C

| | | | | | | | | |
|-----------------------------------|----|------|-------|---|---------|------------|------------|---|
| Diesel (C10-C28) | ND | 50.0 | mg/kg | 1 | B8A0202 | 01/02/2018 | 01/02/2018 | U |
| Residual Range Organics (C28-C40) | ND | 200 | " | " | " | " | " | U |

| | | | | | | | | |
|------------------------|-------|--------|--|--|---|---|---|--|
| Surrogate: o-Terphenyl | 113 % | 59-131 | | | " | " | " | |
|------------------------|-------|--------|--|--|---|---|---|--|

GBTEX by EPA 8260C

| | | | | | | | | |
|-----------------------------|----|-------|-------|---|---------|---|------------|---|
| Gasoline Range Hydrocarbons | ND | 0.200 | mg/kg | 1 | B8A0201 | " | 01/02/2018 | U |
| Benzene | ND | 0.002 | " | " | " | " | " | U |
| Toluene | ND | 0.002 | " | " | " | " | " | U |
| Ethylbenzene | ND | 0.002 | " | " | " | " | " | U |
| Xylenes, total | ND | 0.002 | " | " | " | " | " | U |

| | | | | | | | | |
|----------------------------------|--------|--------|--|--|---|---|---|--|
| Surrogate: 1,2-Dichloroethane-d4 | 117 % | 70-130 | | | " | " | " | |
| Surrogate: Toluene-d8 | 97.4 % | 70-130 | | | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 109 % | 70-130 | | | " | " | " | |

pH in Soil by EPA 9045D

| | | | | | | | | |
|----|------|--|----------|---|---------|------------|------------|--|
| pH | 7.77 | | pH Units | 1 | B8A0203 | 01/02/2018 | 01/02/2018 | |
|----|------|--|----------|---|---------|------------|------------|--|

Specific Conductance by Modified 9050A

| | | | | | | | | |
|---------------------------|-------|--|----------|---|---------|---|------------|--|
| Specific Conductance (EC) | 0.521 | | mmhos/cm | " | B8A0204 | " | 01/02/2018 | |
|---------------------------|-------|--|----------|---|---------|---|------------|--|

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Apex Companies, LLC
4150 Darley Avenue, Suite 1
Boulder CO 80305

Chandler Cole
Project Number: [none]
Project: KMG - UPRC 33-10 J5

N01@6.5'

12/29/2017 2:19:00PM

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|

Origins Laboratory, Inc.
Y712480-05 (Soil)

DRO/RRO by EPA8015C

| | | | | | | | | |
|-----------------------------------|----|------|-------|---|---------|------------|------------|---|
| Diesel (C10-C28) | ND | 50.0 | mg/kg | 1 | B8A0202 | 01/02/2018 | 01/02/2018 | U |
| Residual Range Organics (C28-C40) | ND | 200 | " | " | " | " | " | U |

| | | | | | | | | |
|------------------------|-------|--------|--|--|---|---|---|--|
| Surrogate: o-Terphenyl | 118 % | 59-131 | | | " | " | " | |
|------------------------|-------|--------|--|--|---|---|---|--|

GBTEX by EPA 8260C

| | | | | | | | | |
|-----------------------------|----|-------|-------|---|---------|---|------------|---|
| Gasoline Range Hydrocarbons | ND | 0.200 | mg/kg | 1 | B8A0201 | " | 01/02/2018 | U |
| Benzene | ND | 0.002 | " | " | " | " | " | U |
| Toluene | ND | 0.002 | " | " | " | " | " | U |
| Ethylbenzene | ND | 0.002 | " | " | " | " | " | U |
| Xylenes, total | ND | 0.002 | " | " | " | " | " | U |

| | | | | | | | | |
|----------------------------------|--------|--------|--|--|---|---|---|--|
| Surrogate: 1,2-Dichloroethane-d4 | 117 % | 70-130 | | | " | " | " | |
| Surrogate: Toluene-d8 | 95.9 % | 70-130 | | | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 95.4 % | 70-130 | | | " | " | " | |

pH in Soil by EPA 9045D

| | | | | | | | | |
|----|------|--|----------|---|---------|------------|------------|--|
| pH | 8.11 | | pH Units | 1 | B8A0203 | 01/02/2018 | 01/02/2018 | |
|----|------|--|----------|---|---------|------------|------------|--|

Specific Conductance by Modified 9050A

| | | | | | | | | |
|---------------------------|-------|--|----------|---|---------|---|------------|--|
| Specific Conductance (EC) | 0.133 | | mmhos/cm | " | B8A0204 | " | 01/02/2018 | |
|---------------------------|-------|--|----------|---|---------|---|------------|--|

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Apex Companies, LLC
4150 Darley Avenue, Suite 1
Boulder CO 80305

Chandler Cole
Project Number: [none]
Project: KMG - UPRC 33-10 J5

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|--|--------|-----------------|-------|-------------|---|------|-------------|-----|-----------|-------|
| Batch B7L2902 - EPA 5030 (soil) | | | | | | | | | | |
| Blank (B7L2902-BLK1) | | | | | Prepared: 12/29/2017 Analyzed: 12/29/2017 | | | | | |
| Gasoline Range Hydrocarbons | ND | 0.200 | mg/kg | | | | | | | U |
| Benzene | ND | 0.002 | " | | | | | | | U |
| Toluene | ND | 0.002 | " | | | | | | | U |
| Ethylbenzene | ND | 0.002 | " | | | | | | | U |
| Xylenes, total | ND | 0.002 | " | | | | | | | U |
| Surrogate: 1,2-Dichloroethane-d4 | 71 | | ug/kg | 62.5 | | 113 | 70-130 | | | |
| Surrogate: Toluene-d8 | 63 | | " | 62.5 | | 100 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 68 | | " | 62.5 | | 109 | 70-130 | | | |

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Chandler Cole
Project Number: [none]
Project: KMG - UPRC 33-10 J5

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|--|--------|-----------------|-------|-------------|---|------|-------------|-----|-----------|-------|
| Batch B7L2902 - EPA 5030 (soil) | | | | | | | | | | |
| LCS (B7L2902-BS1) | | | | | Prepared: 12/29/2017 Analyzed: 12/29/2017 | | | | | |
| Benzene | 0.112 | 0.002 | mg/kg | 0.100 | | 112 | 77.1-124 | | | |
| Toluene | 0.107 | 0.002 | " | 0.100 | | 107 | 74.5-128 | | | |
| Ethylbenzene | 0.099 | 0.002 | " | 0.100 | | 99.2 | 66.4-127 | | | |
| m,p-Xylene | 0.209 | 0.004 | " | 0.200 | | 104 | 76.6-124 | | | |
| o-Xylene | 0.112 | 0.002 | " | 0.100 | | 112 | 76.6-124 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 68 | | ug/kg | 62.5 | | 109 | 70-130 | | | |
| Surrogate: Toluene-d8 | 63 | | " | 62.5 | | 100 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 61 | | " | 62.5 | | 98.1 | 70-130 | | | |

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Chandler Cole
Project Number: [none]
Project: KMG - UPRC 33-10 J5

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch B7L2902 - EPA 5030 (soil)

| Matrix Spike (B7L2902-MS1) | | Source: Y712450-01 | | | Prepared: 12/29/2017 Analyzed: 12/29/2017 | | | | | |
|----------------------------------|-------|--------------------|-------|-------|---|------|----------|--|--|--|
| Benzene | 0.110 | 0.002 | mg/kg | 0.100 | ND | 110 | 71.8-126 | | | |
| Toluene | 0.109 | 0.002 | " | 0.100 | ND | 109 | 65.1-130 | | | |
| Ethylbenzene | 0.119 | 0.002 | " | 0.100 | ND | 119 | 62.2-130 | | | |
| m,p-Xylene | 0.231 | 0.004 | " | 0.200 | ND | 115 | 46.5-137 | | | |
| o-Xylene | 0.115 | 0.002 | " | 0.100 | ND | 115 | 54.2-134 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 66 | | ug/kg | 62.5 | | 106 | 70-130 | | | |
| Surrogate: Toluene-d8 | 62 | | " | 62.5 | | 98.7 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 65 | | " | 62.5 | | 104 | 70-130 | | | |

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Boulder CO 80305

Chandler Cole
Project Number: [none]
Project: KMG - UPRC 33-10 J5

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch B7L2902 - EPA 5030 (soil)

| Matrix Spike Dup (B7L2902-MSD1) | | Source: Y712450-01 | | | Prepared: 12/29/2017 Analyzed: 12/29/2017 | | | | | |
|----------------------------------|-------|--------------------|-------|-------|---|------|----------|------|------|--|
| Benzene | 0.107 | 0.002 | mg/kg | 0.100 | ND | 107 | 71.8-126 | 2.18 | 11.3 | |
| Toluene | 0.106 | 0.002 | " | 0.100 | ND | 106 | 65.1-130 | 2.47 | 15.4 | |
| Ethylbenzene | 0.114 | 0.002 | " | 0.100 | ND | 114 | 62.2-130 | 4.25 | 19.6 | |
| m,p-Xylene | 0.223 | 0.004 | " | 0.200 | ND | 111 | 46.5-137 | 3.53 | 19.2 | |
| o-Xylene | 0.112 | 0.002 | " | 0.100 | ND | 112 | 54.2-134 | 2.45 | 17.9 | |
| Surrogate: 1,2-Dichloroethane-d4 | 63 | | ug/kg | 62.5 | | 101 | 70-130 | | | |
| Surrogate: Toluene-d8 | 61 | | " | 62.5 | | 98.0 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 66 | | " | 62.5 | | 105 | 70-130 | | | |

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Apex Companies, LLC
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Boulder CO 80305

Chandler Cole
Project Number: [none]
Project: KMG - UPRC 33-10 J5

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|--|--------|-----------------|-------|-------------|---|------|-------------|-----|-----------|-------|
| Batch B8A0201 - EPA 5030 (soil) | | | | | | | | | | |
| Blank (B8A0201-BLK1) | | | | | Prepared: 01/02/2018 Analyzed: 01/02/2018 | | | | | |
| Gasoline Range Hydrocarbons | ND | 0.200 | mg/kg | | | | | | | U |
| Benzene | ND | 0.002 | " | | | | | | | U |
| Toluene | ND | 0.002 | " | | | | | | | U |
| Ethylbenzene | ND | 0.002 | " | | | | | | | U |
| Xylenes, total | ND | 0.002 | " | | | | | | | U |
| Surrogate: 1,2-Dichloroethane-d4 | 64 | | ug/kg | 62.5 | | 102 | 70-130 | | | |
| Surrogate: Toluene-d8 | 63 | | " | 62.5 | | 100 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 64 | | " | 62.5 | | 102 | 70-130 | | | |

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Boulder CO 80305

Chandler Cole
Project Number: [none]
Project: KMG - UPRC 33-10 J5

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|--|--------|-----------------|-------|-------------|---|------|-------------|-----|-----------|-------|
| Batch B8A0201 - EPA 5030 (soil) | | | | | | | | | | |
| LCS (B8A0201-BS1) | | | | | Prepared: 01/02/2018 Analyzed: 01/02/2018 | | | | | |
| Benzene | 0.100 | 0.002 | mg/kg | 0.100 | | 100 | 77.1-124 | | | |
| Toluene | 0.106 | 0.002 | " | 0.100 | | 106 | 74.5-128 | | | |
| Ethylbenzene | 0.109 | 0.002 | " | 0.100 | | 109 | 66.4-127 | | | |
| m,p-Xylene | 0.228 | 0.004 | " | 0.200 | | 114 | 76.6-124 | | | |
| o-Xylene | 0.111 | 0.002 | " | 0.100 | | 111 | 76.6-124 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 57 | | ug/kg | 62.5 | | 90.8 | 70-130 | | | |
| Surrogate: Toluene-d8 | 65 | | " | 62.5 | | 104 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 63 | | " | 62.5 | | 101 | 70-130 | | | |

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Boulder CO 80305

Chandler Cole
Project Number: [none]
Project: KMG - UPRC 33-10 J5

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch B8A0201 - EPA 5030 (soil)

| Matrix Spike (B8A0201-MS1) | | Source: Y712480-02 | | | Prepared: 01/02/2018 Analyzed: 01/02/2018 | | | | | |
|----------------------------------|-------|--------------------|-------|-------|---|------|----------|--|--|--|
| Benzene | 0.098 | 0.002 | mg/kg | 0.100 | ND | 98.0 | 71.8-126 | | | |
| Toluene | 0.094 | 0.002 | " | 0.100 | ND | 94.0 | 65.1-130 | | | |
| Ethylbenzene | 0.092 | 0.002 | " | 0.100 | ND | 92.2 | 62.2-130 | | | |
| m,p-Xylene | 0.195 | 0.004 | " | 0.200 | 0.004 | 95.4 | 46.5-137 | | | |
| o-Xylene | 0.101 | 0.002 | " | 0.100 | ND | 101 | 54.2-134 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 67 | | ug/kg | 62.5 | | 107 | 70-130 | | | |
| Surrogate: Toluene-d8 | 61 | | " | 62.5 | | 97.7 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 66 | | " | 62.5 | | 106 | 70-130 | | | |

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Boulder CO 80305

Chandler Cole
Project Number: [none]
Project: KMG - UPRC 33-10 J5

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch B8A0201 - EPA 5030 (soil)

| Matrix Spike Dup (B8A0201-MSD1) | | Source: Y712480-02 | | | Prepared: 01/02/2018 Analyzed: 01/02/2018 | | | | | |
|----------------------------------|-------|--------------------|-------|-------|---|------|----------|------|------|--|
| Benzene | 0.103 | 0.002 | mg/kg | 0.100 | ND | 103 | 71.8-126 | 4.92 | 11.3 | |
| Toluene | 0.106 | 0.002 | " | 0.100 | ND | 106 | 65.1-130 | 11.7 | 15.4 | |
| Ethylbenzene | 0.095 | 0.002 | " | 0.100 | ND | 95.2 | 62.2-130 | 3.22 | 19.6 | |
| m,p-Xylene | 0.206 | 0.004 | " | 0.200 | 0.004 | 101 | 46.5-137 | 5.53 | 19.2 | |
| o-Xylene | 0.106 | 0.002 | " | 0.100 | ND | 106 | 54.2-134 | 4.53 | 17.9 | |
| Surrogate: 1,2-Dichloroethane-d4 | 63 | | ug/kg | 62.5 | | 101 | 70-130 | | | |
| Surrogate: Toluene-d8 | 63 | | " | 62.5 | | 101 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 63 | | " | 62.5 | | 100 | 70-130 | | | |

Origins Laboratory, Inc.



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Chandler Cole
Project Number: [none]
Project: KMG - UPRC 33-10 J5

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control

Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Extractable Petroleum Hydrocarbons by 8015C - Quality Control

Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch B7L2903 - EPA 3550B

Blank (B7L2903-BLK1)

Prepared: 12/29/2017 Analyzed: 12/29/2017

| | | | | | | | | | | |
|-----------------------------------|----|------|-------|------|--|-----|--------|--|--|---|
| Diesel (C10-C28) | ND | 50.0 | mg/kg | | | | | | | U |
| Residual Range Organics (C28-C40) | ND | 200 | " | | | | | | | U |
| Surrogate: o-Terphenyl | 64 | | " | 50.0 | | 127 | 59-131 | | | |

LCS (B7L2903-BS1)

Prepared: 12/29/2017 Analyzed: 12/29/2017

| | | | | | | | | | | |
|-----------------------------------|------|------|-------|------|--|-----|--------|--|--|--|
| Diesel (C10-C28) | 1110 | 50.0 | mg/kg | 1000 | | 111 | 64-121 | | | |
| Residual Range Organics (C28-C40) | 1050 | 200 | " | 1000 | | 105 | 58-124 | | | |
| Surrogate: o-Terphenyl | 59 | | " | 50.0 | | 117 | 59-131 | | | |

Matrix Spike (B7L2903-MS1)

Source: Y712450-01

Prepared: 12/29/2017 Analyzed: 12/29/2017

| | | | | | | | | | | |
|-----------------------------------|------|------|-------|------|------|-----|--------|--|--|--|
| Diesel (C10-C28) | 1240 | 50.0 | mg/kg | 1000 | ND | 124 | 53-125 | | | |
| Residual Range Organics (C28-C40) | 1140 | 200 | " | 1000 | 31.5 | 110 | 47-133 | | | |
| Surrogate: o-Terphenyl | 62 | | " | 50.0 | | 124 | 59-131 | | | |

Matrix Spike Dup (B7L2903-MSD1)

Source: Y712450-01

Prepared: 12/29/2017 Analyzed: 12/29/2017

| | | | | | | | | | | |
|-----------------------------------|------|------|-------|------|------|------|--------|------|----|--|
| Diesel (C10-C28) | 1110 | 50.0 | mg/kg | 1000 | ND | 111 | 53-125 | 11.1 | 20 | |
| Residual Range Organics (C28-C40) | 1020 | 200 | " | 1000 | 31.5 | 98.4 | 47-133 | 11.6 | 20 | |
| Surrogate: o-Terphenyl | 54 | | " | 50.0 | | 109 | 59-131 | | | |

Batch B8A0202 - EPA 3550B

Blank (B8A0202-BLK1)

Prepared: 01/02/2018 Analyzed: 01/02/2018

Origins Laboratory, Inc.



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Apex Companies, LLC
4150 Darley Avenue, Suite 1
Boulder CO 80305

Chandler Cole
Project Number: [none]
Project: KMG - UPRC 33-10 J5

Extractable Petroleum Hydrocarbons by 8015C - Quality Control Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|--|--------|-----------------|-------|-------------|---|------|---|--------|-----------|-------|
| Batch B8A0202 - EPA 3550B | | | | | | | | | | |
| Blank (B8A0202-BLK1) | | | | | Prepared: 01/02/2018 Analyzed: 01/02/2018 | | | | | |
| Diesel (C10-C28) | ND | 50.0 | mg/kg | | | | | | | U |
| Residual Range Organics (C28-C40) | ND | 200 | " | | | | | | | U |
| Surrogate: o-Terphenyl | 60 | | " | 50.0 | | 120 | 59-131 | | | |
| LCS (B8A0202-BS1) | | | | | Prepared: 01/02/2018 Analyzed: 01/02/2018 | | | | | |
| Diesel (C10-C28) | 1060 | 50.0 | mg/kg | 1000 | | 106 | 64-121 | | | |
| Residual Range Organics (C28-C40) | 1040 | 200 | " | 1000 | | 104 | 58-124 | | | |
| Surrogate: o-Terphenyl | 60 | | " | 50.0 | | 120 | 59-131 | | | |
| Matrix Spike (B8A0202-MS1) | | | | | Source: Y712480-02 | | Prepared: 01/02/2018 Analyzed: 01/02/2018 | | | |
| Diesel (C10-C28) | 1120 | 50.0 | mg/kg | 1000 | ND | 112 | 53-125 | | | |
| Residual Range Organics (C28-C40) | 1430 | 200 | " | 1000 | 26.4 | 141 | 47-133 | | | QM-07 |
| Surrogate: o-Terphenyl | 70 | | " | 50.0 | | 141 | 59-131 | | | |
| Matrix Spike Dup (B8A0202-MSD1) | | | | | Source: Y712480-02 | | Prepared: 01/02/2018 Analyzed: 01/02/2018 | | | |
| Diesel (C10-C28) | 1120 | 50.0 | mg/kg | 1000 | ND | 112 | 53-125 | 0.0676 | 20 | |
| Residual Range Organics (C28-C40) | 1070 | 200 | " | 1000 | 26.4 | 104 | 47-133 | 29.8 | 20 | QR-03 |
| Surrogate: o-Terphenyl | 72 | | " | 50.0 | | 144 | 59-131 | | | |

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Apex Companies, LLC
4150 Darley Avenue, Suite 1
Boulder CO 80305

Chandler Cole
Project Number: [none]
Project: KMG - UPRC 33-10 J5

Classical Chemistry Parameters - Quality Control Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------------------------------|---------|---|----------|-------------|---|------|-------------|-------|-----------|-------|
| Batch B7L2904 - NO PREP | | | | | | | | | | |
| Duplicate (B7L2904-DUP1) | | Source: Y712450-01 | | | Prepared: 12/29/2017 Analyzed: 12/29/2017 | | | | | |
| pH | 8.61 | | pH Units | | 8.62 | | | 0.116 | 25 | |
| Batch B7L2905 - NO PREP | | | | | | | | | | |
| Blank (B7L2905-BLK1) | | Prepared: 12/29/2017 Analyzed: 12/29/2017 | | | | | | | | |
| Specific Conductance (EC) | 0.00160 | | mmhos/cm | | | | | | | |
| Duplicate (B7L2905-DUP1) | | Source: Y712450-01 | | | Prepared: 12/29/2017 Analyzed: 12/29/2017 | | | | | |
| Specific Conductance (EC) | 0.133 | | mmhos/cm | | 0.124 | | | 6.85 | 25 | |
| Batch B8A0203 - NO PREP | | | | | | | | | | |
| Duplicate (B8A0203-DUP1) | | Source: Y712480-02 | | | Prepared: 01/02/2018 Analyzed: 01/02/2018 | | | | | |
| pH | 7.43 | | pH Units | | 7.61 | | | 2.39 | 25 | |
| Batch B8A0204 - NO PREP | | | | | | | | | | |
| Blank (B8A0204-BLK1) | | Prepared: 01/02/2018 Analyzed: 01/02/2018 | | | | | | | | |
| Specific Conductance (EC) | 0.00180 | | mmhos/cm | | | | | | | |
| Duplicate (B8A0204-DUP1) | | Source: Y712480-02 | | | Prepared: 01/02/2018 Analyzed: 01/02/2018 | | | | | |
| Specific Conductance (EC) | 0.151 | | mmhos/cm | | 0.149 | | | 1.14 | 25 | |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Companies, LLC

4150 Darley Avenue, Suite 1

Boulder CO 80305

Chandler Cole

Project Number: [none]

Project: KMG - UPRC 33-10 J5

Notes and Definitions

U Sample is Non-Detect.

QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



January 03, 2018

Apex Companies, LLC

Chandler Cole

4150 Darley Avenue, Suite 1

Boulder

CO 80305

Project Name - KMG - UPRC 33-10 J5

Project Number - [none]

Attached are your analytical results for KMG - UPRC 33-10 J5 received by Origins Laboratory, Inc. January 02, 2018. This project is associated with Origins project number Y801014-01.

The analytical results in the following report were analyzed under the guidelines of EPA Methods. These methods are identified as follows; "SW" are defined in SW-846, "EPA" are defined in 40CFR part 136 and "SM" are defined in the most current revision of Standard Methods For the Examination of Water and Wastewater.

The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. As such, this report shall not be reproduced except in full, without the written approval of Origin's laboratory.

Unless otherwise noted, the analytical results for all soil samples are reported on a wet weight basis. All analytical analyses were performed under NELAP guidelines unless noted by a data qualifier.

Any holding time exceedances, deviations from the method specifications or deviations from Origins Laboratory's Standard Operating Procedures are outlined in the case narrative.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory, Inc.
303.433.1322
o-squad@oelabinc.com



1725 Elk Place, Denver, CO 80211 | Phone: 303.433.1322 | Fax: 303.265.9645

Apex Companies, LLC

4150 Darley Avenue, Suite 1

Boulder CO 80305

Chandler Cole

Project Number: [none]

Project: KMG - UPRC 33-10 J5

CROSS REFERENCE REPORT

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|------------|---------------|--------|-----------------------|------------------|
| Base02@10' | Y801014-01 | Soil | January 2, 2018 14:53 | 01/02/2018 17:55 |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Chandler Cole
Project Number: [none]
Project: KMG - UPRC 33-10 J5

ORIGINS

LABORATORY, INC

www.originslaboratory.com

Client:

Apex Companies

Address:

1746 Cole Blvd, Lakewood, CO 80401

Telephone Number:

970-903-1260

Email Address:

Chandler.Cole@apexcos.com

Project Manager:

Chandler Cole

Project Name:

UPRC 33-10 JS

Project Number:

WO# pending Erik Mickelson

Samples Collected By:

Kennedy Whalen

Bill to Anadarko

page 1

of 1

| Sample ID Description | Date Sampled | Time Sampled | # of Containers | Preservative | | | Matrix | | | Analysis | | | | Sample Instructions | |
|--------------------------------|--------------|--------------|-----------------|----------------------------|--------------|------------------|--------|---|------|-------------|-------|-------|---------|---------------------|--------|
| | | | | Unpreserved | HCl | HNO ₃ | Other | Groundwater | Soil | Air Summa # | Other | GRTEX | DRO/RRO | | EC, pH |
| Base 02010' | 1/2/18 | 1453 | 1 | X | | | | | X | | | X | X | 1 | |
| E0207' | | 1455 | 1 | | | | | | | | | | | 2 | HOLD |
| N0207' | | 1457 | 1 | | | | | | | | | | | 3 | HOLD |
| S0207' | | 1459 | 1 | | | | | | | | | | | 4 | HOLD |
| N0207' | | 1503 | 1 | | | | | | | | | | | 5 | HOLD |
| | | | | | | | | | | | | | | 6 | |
| | | | | | | | | | | | | | | 7 | |
| | | | | | | | | | | | | | | 8 | |
| | | | | | | | | | | | | | | 9 | |
| | | | | | | | | | | | | | | 10 | |
| Relinquished By: <i>Linney</i> | Date: 1/2/18 | Time: 1155 | | Received By: <i>Linney</i> | Date: 1-2-18 | Time: 1155 | | Turnaround Time: Same Day <input checked="" type="checkbox"/> 24 Hr <input type="checkbox"/> | | | | | | | |
| Relinquished By: | Date: | Time: | | Received By: | Date: | Time: | | 48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/> Standard <input type="checkbox"/> | | | | | | | |

24

Date Results Needed

7am, 1/3/18

Origins Laboratory, Inc.

RBm

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Companies, LLC
4150 Darley Avenue, Suite 1
Boulder CO 80305

Chandler Cole
Project Number: [none]
Project: KMG - UPRC 33-10 J5

Origins Laboratory

F-012207-01-R1
Effective Date: 01/09/12

Sample Receipt Checklist

Origins Work Order: Y861014

Client: Apex Co.

Client Project ID: KMG - UPRC 33-10 J5

Checklist Completed by: Chandler

Shipped Via: HD
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 1-2-12

Airbill #: LP

Matrix(s) Received: (Check all that apply): ☒ Soil/Solid ☐ Water ☐ Other: _____

Cooler Number/Temperature: 1 / 2.4 °C 1 / _____ °C 1 / _____ °C (Describe)

Thermometer ID: 1003

| Requirement Description | Yes | No | N/A | Comments (if any) |
|---|-------------------------------------|-------------------------------------|-------------------------------------|-------------------|
| If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Is there ice present (document if blue ice is used) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact) | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact) | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Were all samples received intact ⁽¹⁾ ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Was adequate sample volume provided ⁽¹⁾ ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | pH |
| Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)/(pH < 2 for samples preserved with HNO ₃ , HCL, H ₂ SO ₄) / (pH > 10 for samples preserved with NaAsO ₂ +NaOH, ZnAc+NaOH) | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Additional Comments (if any): | | | | |

⁽¹⁾If NO, then contact the client before proceeding with analysis and note date/time and person contacted as well as the corrective action to in the additional comments (above) and the case narrative.

Reviewed by (Project Manager) Chandler

Date/Time Reviewed 1-2-12

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Companies, LLC
4150 Darley Avenue, Suite 1
Boulder CO 80305

Chandler Cole
Project Number: [none]
Project: KMG - UPRC 33-10 J5

Base02. 10@
12/2018 2'53'00PM

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|-----------------|-------|----------|-------|----------|----------|-------|

Ori) ins Laboratory, gnci
Y801014-01 Soil(

DROORO by / PA8015C

| | | | | | | | | |
|-----------------------------------|----|------|-------|---|---------|------------|------------|---|
| Diesel (C10-C28) | ND | 25.0 | mg/kg | 1 | B8A0202 | 01/02/2018 | 01/02/2018 | U |
| Residual Range Organics (C28-C40) | ND | 100 | " | " | " | " | " | U |

Surrogate: o-Terphenyl 99.0 % 59-131 " " "

GB: / E by / PA 82T0C

| | | | | | | | | |
|-----------------------------|-------|-------|-------|---|---------|------------|------------|---|
| Gasoline Range Hydrocarbons | X12 | 0.200 | mg/kg | 1 | B8A0201 | 01/02/2018 | 01/02/2018 | |
| Benzene | 0121 | 0.002 | " | " | " | " | " | |
| Toluene | ND | 0.002 | " | " | " | " | " | U |
| Ethylbenzene | 01036 | 0.002 | " | " | " | " | " | |
| Xylenes, total | 01451 | 0.002 | " | " | " | " | " | |

Surrogate: 1,2,4-trichloroethane-dB 112 % 7, -13, " " "

Surrogate: Toluene-d0 05. % 7, -13, " " "

Surrogate: Bromofluorobenzene 110 % 7, -13, " " "

pH in Soil by / PA X045D

| | | | | | | | | |
|----|------|--|----------|---|---------|------------|------------|--|
| pH | 8132 | | pH Units | 1 | B8A0203 | 01/02/2018 | 01/03/2018 | |
|----|------|--|----------|---|---------|------------|------------|--|

Specific Conductance by Modified X050A

| | | | | | | | | |
|---------------------------|-------|--|----------|---|---------|---|---|--|
| Specific Conductance (EC) | 011X0 | | mmhos/cm | " | B8A0204 | " | " | |
|---------------------------|-------|--|----------|---|---------|---|---|--|

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Companies, LLC
4150 Darley Avenue, Suite 1
Boulder CO 80305

Chandler Cole
Project Number: [none]
Project: KMG - UPRC 33-10 J5

Volatile Organic Compounds by GC/MS SV 84T 82T0C - Quality Control
Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
| Batch B8A0201 - / PA 5030 Soil | | | | | | | | | | |
| Blank B8A0201-BLK1 | | | | | | | | | | |
| Prepared: 01/02/2018 Analyzed: 01/02/2018 | | | | | | | | | | |
| Gasoline Range Hydrocarbons | ND | 0.200 | mg/kg | | | | | | | U |
| Benzene | ND | 0.002 | " | | | | | | | U |
| Toluene | ND | 0.002 | " | | | | | | | U |
| Ethylbenzene | ND | 0.002 | " | | | | | | | U |
| Xylenes, total | ND | 0.002 | " | | | | | | | U |
| Surrogate: 1,2-dichloroethane-dB | 2B | | ug/kg | 24.5 | | 1, 4 | 7, -13, | | | |
| Surrogate: Toluene-d0 | 23 | | " | 24.5 | | 1, , | 7, -13, | | | |
| Surrogate: B-bromofluorobenzene | 2B | | " | 24.5 | | 1, 4 | 7, -13, | | | |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Companies, LLC
4150 Darley Avenue, Suite 1
Boulder CO 80305

Chandler Cole
Project Number: [none]
Project: KMG - UPRC 33-10 J5

Volatile Organic Compounds by GC/MS SV 84T 82T0C - Quality Control
Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|----------------------------------|--------|-----------------|-------|-------------|---|-------|-------------|-----|-----------|-------|
| Batch B8A0201 - / PA 5030 Soil | | | | | | | | | | |
| LCS B8A0201-BS1 | | | | | Prepared: 01/02/2018 Analyzed: 01/02/2018 | | | | | |
| Benzene | 0.100 | 0.002 | mg/kg | 0.100 | | 100 | 77.1-124 | | | |
| Toluene | 0.106 | 0.002 | " | 0.100 | | 106 | 74.5-128 | | | |
| Ethylbenzene | 0.109 | 0.002 | " | 0.100 | | 109 | 66.4-127 | | | |
| m,p-Xylene | 0.228 | 0.004 | " | 0.200 | | 114 | 76.6-124 | | | |
| o-Xylene | 0.111 | 0.002 | " | 0.100 | | 111 | 76.6-124 | | | |
| Surrogate: 1,2-dichloroethane-dB | 57 | | ug/kg | 24.5 | | 9, .0 | 7, -13, | | | |
| Surrogate: Toluene-d0 | 25 | | " | 24.5 | | 1, B | 7, -13, | | | |
| Surrogate: B-bromofluorobenzene | 23 | | " | 24.5 | | 1, 1 | 7, -13, | | | |

Origins Laboratory, Inc.



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Apex Companies, LLC
4150 Darley Avenue, Suite 1
Boulder CO 80305

Chandler Cole
Project Number: [none]
Project: KMG - UPRC 33-10 J5

Volatile Organic Compounds by GC/MS SV 84T 82T0C - Quality Control
Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch B8A0201 - / PA 5030 7soil(

| Matrix Spike B8A0201-MS1(| | Source' Y612480-02 | | | Prepared: 01/02/2018 Analyzed: 01/02/2018 | | | | | |
|----------------------------------|-------|--------------------|-------|-------|---|------|----------|--|--|--|
| Benzene | 0.098 | 0.002 | mg/kg | 0.100 | ND | 98.0 | 71.8-126 | | | |
| Toluene | 0.094 | 0.002 | " | 0.100 | ND | 94.0 | 65.1-130 | | | |
| Ethylbenzene | 0.092 | 0.002 | " | 0.100 | ND | 92.2 | 62.2-130 | | | |
| m,p-Xylene | 0.195 | 0.004 | " | 0.200 | 0.004 | 95.4 | 46.5-137 | | | |
| o-Xylene | 0.101 | 0.002 | " | 0.100 | ND | 101 | 54.2-134 | | | |
| Surrogate: 1,2-dichloroethane-dB | 27 | | ug/kg | 24.5 | | 1, 7 | 7, -13, | | | |
| Surrogate: Toluene-d0 | 21 | | " | 24.5 | | 97.7 | 7, -13, | | | |
| Surrogate: B-bromofluorobenzene | 22 | | " | 24.5 | | 1, 2 | 7, -13, | | | |

Origins Laboratory, Inc.



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Apex Companies, LLC
4150 Darley Avenue, Suite 1
Boulder CO 80305

Chandler Cole
Project Number: [none]
Project: KMG - UPRC 33-10 J5

Volatile Organic Compounds by GC/MS SV 84T 82T0C - Quality Control
Origins Laboratory, gnc

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch B8A0201 - / PA 5030 7soil(

| Matrix Spike Dup 7B8A0201-MSD1(| | Source' Y612480-02 | | | Prepared: 01/02/2018 Analyzed: 01/02/2018 | | | | | |
|-----------------------------------|-------|--------------------|-------|-------|---|------|----------|------|------|--|
| Benzene | 0.103 | 0.002 | mg/kg | 0.100 | ND | 103 | 71.8-126 | 4.92 | 11.3 | |
| Toluene | 0.106 | 0.002 | " | 0.100 | ND | 106 | 65.1-130 | 11.7 | 15.4 | |
| Ethylbenzene | 0.095 | 0.002 | " | 0.100 | ND | 95.2 | 62.2-130 | 3.22 | 19.6 | |
| m,p-Xylene | 0.206 | 0.004 | " | 0.200 | 0.004 | 101 | 46.5-137 | 5.53 | 19.2 | |
| o-Xylene | 0.106 | 0.002 | " | 0.100 | ND | 106 | 54.2-134 | 4.53 | 17.9 | |
| Surrogate: 1,2-dichloroethane-dB | 23 | | ug/kg | 24.5 | | 1, 1 | 7, -13, | | | |
| Surrogate: Toluene-d0 | 23 | | " | 24.5 | | 1, 1 | 7, -13, | | | |
| Surrogate: B-6 bromofluorobenzene | 23 | | " | 24.5 | | 1, , | 7, -13, | | | |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Companies, LLC
4150 Darley Avenue, Suite 1
Boulder CO 80305

Chandler Cole
Project Number: [none]
Project: KMG - UPRC 33-10 J5

Volatile Organic Compounds by GC/MS SV 84T 82T0C - Quality Control
Origins Laboratory, gnci

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Extractable Petroleum Hydrocarbons by 8015C - Quality Control
Origins Laboratory, gnci

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch B8A0202 - / PA 3550B

Blank B8A0202-BLK1(

Prepared: 01/02/2018 Analyzed: 01/02/2018

| | | | | | | | | | | |
|-----------------------------------|----|------|-------|-------|--|-----|--------|--|--|---|
| Diesel (C10-C28) | ND | 50.0 | mg/kg | | | | | | | U |
| Residual Range Organics (C28-C40) | ND | 200 | " | | | | | | | U |
| Surrogate: o-Terphenyl | 2, | | " | 5, .. | | 14, | 59-131 | | | |

LCS B8A0202-BS1(

Prepared: 01/02/2018 Analyzed: 01/02/2018

| | | | | | | | | | | |
|-----------------------------------|------|------|-------|-------|--|------|--------|--|--|--|
| Diesel (C10-C28) | 1050 | 50.0 | mg/kg | 1000 | | 105 | 64-121 | | | |
| Residual Range Organics (C28-C40) | 942 | 200 | " | 1000 | | 94.2 | 58-124 | | | |
| Surrogate: o-Terphenyl | 52 | | " | 5, .. | | 114 | 59-131 | | | |

Matrix Spike B8A0202-MS1(

Source' Y612480-02

Prepared: 01/02/2018 Analyzed: 01/02/2018

| | | | | | | | | | | |
|-----------------------------------|------|------|-------|-------|------|-----|--------|--|--|-------|
| Diesel (C10-C28) | 1120 | 50.0 | mg/kg | 1000 | ND | 112 | 53-125 | | | |
| Residual Range Organics (C28-C40) | 1430 | 200 | " | 1000 | 13.2 | 142 | 47-133 | | | QM-07 |
| Surrogate: o-Terphenyl | 7, | | " | 5, .. | | 1B1 | 59-131 | | | S-04 |

Matrix Spike Dup B8A0202-MSD1(

Source' Y612480-02

Prepared: 01/02/2018 Analyzed: 01/02/2018

| | | | | | | | | | | |
|-----------------------------------|------|------|-------|-------|------|-----|--------|--------|----|-------|
| Diesel (C10-C28) | 1120 | 50.0 | mg/kg | 1000 | ND | 112 | 53-125 | 0.0676 | 20 | |
| Residual Range Organics (C28-C40) | 1070 | 200 | " | 1000 | 13.2 | 106 | 47-133 | 29.5 | 20 | QR-03 |
| Surrogate: o-Terphenyl | 74 | | " | 5, .. | | 1BB | 59-131 | | | S-04 |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Companies, LLC
4150 Darley Avenue, Suite 1
Boulder CO 80305

Chandler Cole
Project Number: [none]
Project: KMG - UPRC 33-10 J5

Classical Chemistry Parameters - Quality Control

Ori) ins Laboratory, gnci

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------------------------|---------|-----------------|---|-------------|---------------|---|-------------|------|-----------|-------|
| Batch B8A0203 - NO PR/ P | | | | | | | | | | |
| Duplicate B8A0203-DUP1(| | | Source' Y612480-02 | | | Prepared: 01/02/2018 Analyzed: 01/02/2018 | | | | |
| pH | 7.43 | | pH Units | | 7.61 | | | 2.39 | 25 | |
| Batch B8A0204 - NO PR/ P | | | | | | | | | | |
| Blank B8A0204-BLK1(| | | Prepared: 01/02/2018 Analyzed: 01/02/2018 | | | | | | | |
| Specific Conductance (EC) | 0.00180 | | mmhos/cm | | | | | | | |
| Duplicate B8A0204-DUP1(| | | Source' Y612480-02 | | | Prepared: 01/02/2018 Analyzed: 01/02/2018 | | | | |
| Specific Conductance (EC) | 0.151 | | mmhos/cm | | 0.149 | | | 1.14 | 25 | |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Companies, LLC
4150 Darley Avenue, Suite 1
Boulder CO 80305

Chandler Cole
Project Number: [none]
Project: KMG - UPRC 33-10 J5

Notes and Definitions

U Sample is Non-Detect.

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.