



October 26, 2016

MIKE STUBBLEFIELD

R T HICKS CONSULTANTS

901 RIO GRANDE BLVD SUITE F-142

ALBUQUERQUE, NM 87104

RE: ASAU 149 TRUNK LINE RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 10/25/16 14:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

| | |
|------------------|------------------------------|
| Method EPA 552.2 | Haloacetic Acids (HAA-5) |
| Method EPA 524.2 | Total Trihalomethanes (TTHM) |
| Method EPA 524.4 | Regulated VOCs (V1, V2, V3) |

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

 R T HICKS CONSULTANTS
 MIKE STUBBLEFIELD
 901 RIO GRANDE BLVD SUITE F-142
 ALBUQUERQUE NM, 87104
 Fax To: NONE

| | | | |
|-------------------|-----------------------------|---------------------|---------------|
| Received: | 10/25/2016 | Sampling Date: | 10/24/2016 |
| Reported: | 10/26/2016 | Sampling Type: | Soil |
| Project Name: | ASAU 149 TRUNK LINE RELEASE | Sampling Condition: | Cool & Intact |
| Project Number: | 30.015.00204 | Sample Received By: | Jodi Henson |
| Project Location: | UTO SEC. 14-T18S-R26E | | |

Sample ID: S-7 NORTH WALL (H602387-01)

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 3520 | 16.0 | 10/25/2016 | ND | 416 | 104 | 400 | 0.00 | |

Sample ID: S-8 WEST WALL (H602387-02)

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | |
|--------------------------------------|---------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 10/26/2016 | ND | 197 | 98.3 | 200 | 3.72 | |
| DRO >C10-C28 | 26.7 | 10.0 | 10/26/2016 | ND | 213 | 107 | 200 | 5.60 | |
| <i>Surrogate: 1-Chlorooctane</i> | <i>97.4 %</i> | <i>35-147</i> | | | | | | | |
| <i>Surrogate: 1-Chlorooctadecane</i> | <i>114 %</i> | <i>28-171</i> | | | | | | | |

Sample ID: S-9 SOUTH WALL (H602387-03)

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | |
|--------------------------------------|---------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 10/26/2016 | ND | 197 | 98.3 | 200 | 3.72 | |
| DRO >C10-C28 | <10.0 | 10.0 | 10/26/2016 | ND | 213 | 107 | 200 | 5.60 | |
| <i>Surrogate: 1-Chlorooctane</i> | <i>82.3 %</i> | <i>35-147</i> | | | | | | | |
| <i>Surrogate: 1-Chlorooctadecane</i> | <i>98.5 %</i> | <i>28-171</i> | | | | | | | |

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 R T HICKS CONSULTANTS
 MIKE STUBBLEFIELD
 901 RIO GRANDE BLVD SUITE F-142
 ALBUQUERQUE NM, 87104
 Fax To: NONE

| | | | |
|-------------------|-----------------------------|---------------------|---------------|
| Received: | 10/25/2016 | Sampling Date: | 10/24/2016 |
| Reported: | 10/26/2016 | Sampling Type: | Soil |
| Project Name: | ASAU 149 TRUNK LINE RELEASE | Sampling Condition: | Cool & Intact |
| Project Number: | 30.015.00204 | Sample Received By: | Jodi Henson |
| Project Location: | UTO SEC. 14-T18S-R26E | | |

Sample ID: S-10 B-14' N. DEP PIPELINE (H602387-04)

| BTEX 8021B | | mg/kg | | Analyzed By: CK | | | | | | |
|----------------------|--------------|-----------------|------------|-----------------|------|------------|---------------|-------|-----------|--|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier | |
| Benzene* | <0.050 | 0.050 | 10/25/2016 | ND | 1.82 | 90.9 | 2.00 | 0.937 | | |
| Toluene* | <0.050 | 0.050 | 10/25/2016 | ND | 2.18 | 109 | 2.00 | 1.70 | | |
| Ethylbenzene* | 0.050 | 0.050 | 10/25/2016 | ND | 2.26 | 113 | 2.00 | 1.31 | | |
| Total Xylenes* | <0.150 | 0.150 | 10/25/2016 | ND | 6.90 | 115 | 6.00 | 1.38 | | |
| Total BTEX | <0.300 | 0.300 | 10/25/2016 | ND | | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.6-140

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | | |
|----------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier | |
| Chloride | 2440 | 16.0 | 10/25/2016 | ND | 416 | 104 | 400 | 0.00 | | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | | |
|--------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier | |
| GRO C6-C10 | <10.0 | 10.0 | 10/26/2016 | ND | 197 | 98.3 | 200 | 3.72 | | |
| DRO >C10-C28 | <10.0 | 10.0 | 10/26/2016 | ND | 213 | 107 | 200 | 5.60 | | |

Surrogate: 1-Chlorooctane 83.0 % 35-147

Surrogate: 1-Chlorooctadecane 100 % 28-171

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* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 R T HICKS CONSULTANTS
 MIKE STUBBLEFIELD
 901 RIO GRANDE BLVD SUITE F-142
 ALBUQUERQUE NM, 87104
 Fax To: NONE

| | | | |
|-------------------|-----------------------------|---------------------|---------------|
| Received: | 10/25/2016 | Sampling Date: | 10/24/2016 |
| Reported: | 10/26/2016 | Sampling Type: | Soil |
| Project Name: | ASAU 149 TRUNK LINE RELEASE | Sampling Condition: | Cool & Intact |
| Project Number: | 30.015.00204 | Sample Received By: | Jodi Henson |
| Project Location: | UTO SEC. 14-T18S-R26E | | |

Sample ID: S-11 B-15' S. DEP PIPELINE (H602387-05)

| BTEX 8021B | | mg/kg | | Analyzed By: CK | | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|-------|-----------|--|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier | |
| Benzene* | <0.050 | 0.050 | 10/25/2016 | ND | 1.82 | 90.9 | 2.00 | 0.937 | | |
| Toluene* | <0.050 | 0.050 | 10/25/2016 | ND | 2.18 | 109 | 2.00 | 1.70 | | |
| Ethylbenzene* | <0.050 | 0.050 | 10/25/2016 | ND | 2.26 | 113 | 2.00 | 1.31 | | |
| Total Xylenes* | <0.150 | 0.150 | 10/25/2016 | ND | 6.90 | 115 | 6.00 | 1.38 | | |
| Total BTEX | <0.300 | 0.300 | 10/25/2016 | ND | | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.6-140

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | | |
|----------------------|------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier | |
| Chloride | 320 | 16.0 | 10/25/2016 | ND | 416 | 104 | 400 | 0.00 | | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | | |
|------------------------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier | |
| GRO C6-C10 | <10.0 | 10.0 | 10/26/2016 | ND | 197 | 98.3 | 200 | 3.72 | | |
| DRO >C10-C28 | 57.3 | 10.0 | 10/26/2016 | ND | 213 | 107 | 200 | 5.60 | | |

Surrogate: 1-Chlorooctane 106 % 35-147

Surrogate: 1-Chlorooctadecane 118 % 28-171

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* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report



Celey D. Keene, Lab Director/Quality Manager

101 East Marland, Hobbs, NM 88240
 (575) 393-2326 FAX (575) 393-2476

BILL TO

ANALYSIS REQUEST

Company Name: R.T. Hicks Construction
 Project Manager: Mike Stobbe/Field
 Address: 2411 S. 15TH STREET
 City: Artesia State: NM Zip: 88210
 Phone #: 575-365-5031 Fax #:
 Project #: Project Owner: Lime Rock Res
 Project Name: ASPU 149 Trunk line release
 Project Location: US 0 sec 14 - TRS - R26E
 Sampler Name: Mikeswoodfield
 P.O. #: _____
 Company: Lime Rock Res
 Attn: Mike Barnett
 Address: _____
 City: _____
 State: _____ Zip: _____
 Phone #: _____
 Fax #: _____

FOR LAB USE ONLY

| Lab I.D. | Sample I.D. | (G)RAB OR (C)OMP. | # CONTAINERS | MATRIX | | | | | | PRESERV | SAMPLING | DATE | TIME | ANALYSIS |
|----------------|-------------|------------------------------------|--------------|-------------|------------|------|-----|--------|---------|---------|----------|------|------|----------|
| | | | | GROUNDWATER | WASTEWATER | SOIL | OIL | SLUDGE | OTHER : | | | | | |
| <u>H002387</u> | | | | | | | | | | | | | | |
| | <u>1</u> | <u>5-7 North wall</u> | | | | | | | | | | | | |
| | <u>2</u> | <u>5-8 West wall</u> | | | | | | | | | | | | |
| | <u>3</u> | <u>5-9 South wall</u> | | | | | | | | | | | | |
| | <u>4</u> | <u>5-10 B14' N. deep pipeline</u> | | | | | | | | | | | | |
| | <u>5</u> | <u>5-11 B-15' S. deep pipeline</u> | | | | | | | | | | | | |

Total chloride
 BTEX 8020 B
 TPH 8015 M

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Relinquished By: _____
 Received By: Mike Jensen
 Date: 10/24/16 Time: 2:00

Delivered By: (Circle One)
 Sampler - UPS - Bus - Other
 3.92

REMARKS: RUSH!!

* Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326