

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

| | |
|---|-------------------------------|
| Name of Company: XTO Energy, Inc. | Contact: Logan Hixon |
| Address: 382 Road 3100, Aztec, New Mexico 87410 | Telephone No.: (505) 333-3683 |
| Facility Name: Caldwell A 1E | Facility Type: Gas Well |

| | | |
|------------------------|------------------------|----------------------|
| Surface Owner: Private | Mineral Owner: Federal | API No. 30-045-34442 |
|------------------------|------------------------|----------------------|

LOCATION OF RELEASE

| | | | | | | | | |
|------------------|---------------|------------------|--------------|----------------------|-------------------------|----------------------|-----------------------|--------------------|
| Unit Letter M | Section 27 | Township 26 N | Range 11W | Feet from the 665 | North/South Line FSL | Feet from the 825 | East/West Line FWL | County San Juan |
|------------------|---------------|------------------|--------------|----------------------|-------------------------|----------------------|-----------------------|--------------------|

Latitude: N36.4534561 Longitude: W-107.997591

NATURE OF RELEASE

| | | |
|--|--|--|
| Type of Release: Produced Water/Oil | Volume of Release: Approximately 20 bbl. | Volume Recovered: 15 bbl. Recovered |
| Source of Release: Above Grade Water Tank (overflow) | Date and Hour of Occurrence: May 30, 2017 at Unknown Time | Date and Hour of Discovery: May 30, 2017 at 0800. |
| Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required | If YES, To Whom? N/A | |
| By Whom? | Date and Hour: | |
| Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | If YES, Volume Impacting the Watercourse. | |

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* On May 30, 2017, an over flow was discovered on the produced water above grade tank. An estimated 20 bbls of fluids (produced water/oil) was released. In immediate response 15 bbls of fluid was recovered. The well was shut in and it was discovered that the tank had overflowed due to surging of fluids up the backside of the well bore allowing for oil/produced water to be produced to the tank. The impacted area was approximately 20'x 18'x 19" deep. The site was ranked a 20 pursuant to the NMOCD Guidelines for the Remediation of Leaks, Spills, and Releases. The distance to a waterway is estimated to be less than 1,000 feet from the end of the release, and ground water is estimated to be greater than 50' below ground surface. This set the regulatory limits to 100 ppm TPH, 10 ppm benzene, and 50 ppm total BTEX.

Describe Area Affected and Cleanup Action Taken.* On May 30, 2017 (2) two samples were collected from the impacted area, (1) one at the surface below the gravel, and (1) at approximately 19" below the surface. The samples were analyzed for TPH (DRO/GRO/MRO) via USEPA Method 8015, BTEX via USEPA Method 8021, and for chlorides. The samples collected returned results below the standards for Benzene, and BTEX, but above the standard for TPH determined for this site. On June 2, 2017, the NMOCD was notified of remediation activities to begin on June 5, 2017. On June 5, 2017, excavation activities began to remove the impacted soil. The excavation reached an extent of 22'x19'x 5' 6" deep, where composite samples were collected of the (4) four walls and the bottom. All (5) five samples were sent for laboratory analysis for TPH (DRO/GRO/MRO) and BTEX analysis via US EPA method 8015 and 8021 respectively, and chlorides. All (5) five samples returned results below the standard set for this site. Approximately 150 CY of soil was disposed of at the Envirotech Landfarm. No further action required. *See attached field sheet*

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

| | | |
|--|---|-------------------------------------|
| Signature:  | OIL CONSERVATION DIVISION | |
| Printed Name: Logan Hixon | Approved by Environmental Specialist:  | |
| Title: EHS Coordinator | Approval Date: 8/24/17 | Expiration Date: |
| E-mail Address: Logan_Hixon@xtoenergy.com | Conditions of Approval: — | Attached <input type="checkbox"/> — |
| Date: June 8, 2017 | Phone: 505-333-3683 | |

* Attach Additional Sheets If Necessary

OIL CONS. DIV DIST. 3

#NCS1723647436

JUN 12 2017

25



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

June 05, 2017

James McDaniel
XTO Energy
382 County Road 3100
Aztec, NM 87410
TEL: (505) 787-0519
FAX (505) 333-3280

RE: Caldwell A1 E

OrderNo.: 1706007

Dear James McDaniel:

Hall Environmental Analysis Laboratory received 2 sample(s) on 6/1/2017 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman".

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706007

Date Reported: 6/5/2017

CLIENT: XTO Energy

Client Sample ID: Top 4"

Project: Caldwell A1 E

Collection Date: 5/30/2017 2:30:00 PM

Lab ID: 1706007-001

Matrix: SOIL

Received Date: 6/1/2017 7:20:00 AM

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed | Batch |
|--|--------|----------|------|-------|----|----------------------|---------------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: MRA |
| Chloride | ND | 30 | | mg/Kg | 20 | 6/1/2017 12:16:53 PM | 32061 |
| EPA METHOD 8015M/D: DIESEL RANGE ORGANICS | | | | | | | Analyst: TOM |
| Diesel Range Organics (DRO) | 1200 | 99 | | mg/Kg | 10 | 6/2/2017 11:23:19 AM | 32064 |
| Motor Oil Range Organics (MRO) | 540 | 500 | | mg/Kg | 10 | 6/2/2017 11:23:19 AM | 32064 |
| Surr: DNOP | 0 | 70-130 | S | %Rec | 10 | 6/2/2017 11:23:19 AM | 32064 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: RAA |
| Gasoline Range Organics (GRO) | 83 | 18 | D | mg/Kg | 5 | 6/1/2017 3:02:28 PM | R43189 |
| Surr: BFB | 313 | 54-150 | SD | %Rec | 5 | 6/1/2017 3:02:28 PM | R43189 |
| EPA METHOD 8021B: VOLATILES | | | | | | | Analyst: RAA |
| Benzene | ND | 0.089 | D | mg/Kg | 5 | 6/1/2017 3:02:28 PM | B43189 |
| Toluene | 0.62 | 0.18 | D | mg/Kg | 5 | 6/1/2017 3:02:28 PM | B43189 |
| Ethylbenzene | 0.56 | 0.18 | D | mg/Kg | 5 | 6/1/2017 3:02:28 PM | B43189 |
| Xylenes, Total | 3.1 | 0.35 | D | mg/Kg | 5 | 6/1/2017 3:02:28 PM | B43189 |
| Surr: 4-Bromofluorobenzene | 131 | 66.6-132 | D | %Rec | 5 | 6/1/2017 3:02:28 PM | B43189 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

| | | |
|--------------------|---|---|
| Qualifiers: | * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| | D Sample Diluted Due to Matrix | E Value above quantitation range |
| | H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| | ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| | R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| | S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706007

Date Reported: 6/5/2017

CLIENT: XTO Energy

Client Sample ID: Bottom 19"

Project: Caldwell A1 E

Collection Date: 5/30/2017 2:45:00 PM

Lab ID: 1706007-002

Matrix: SOIL

Received Date: 6/1/2017 7:20:00 AM

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed | Batch |
|--|--------|----------|------|-------|----|----------------------|---------------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: MRA |
| Chloride | ND | 30 | | mg/Kg | 20 | 6/1/2017 12:54:08 PM | 32061 |
| EPA METHOD 8015M/D: DIESEL RANGE ORGANICS | | | | | | | Analyst: TOM |
| Diesel Range Organics (DRO) | 99 | 9.6 | | mg/Kg | 1 | 6/2/2017 8:48:24 AM | 32064 |
| Motor Oil Range Organics (MRO) | 50 | 48 | | mg/Kg | 1 | 6/2/2017 8:48:24 AM | 32064 |
| Surr: DNOP | 107 | 70-130 | | %Rec | 1 | 6/2/2017 8:48:24 AM | 32064 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: RAA |
| Gasoline Range Organics (GRO) | ND | 17 | D | mg/Kg | 5 | 6/1/2017 3:26:08 PM | R43189 |
| Surr: BFB | 130 | 54-150 | D | %Rec | 5 | 6/1/2017 3:26:08 PM | R43189 |
| EPA METHOD 8021B: VOLATILES | | | | | | | Analyst: RAA |
| Benzene | ND | 0.084 | D | mg/Kg | 5 | 6/1/2017 3:26:08 PM | B43189 |
| Toluene | ND | 0.17 | D | mg/Kg | 5 | 6/1/2017 3:26:08 PM | B43189 |
| Ethylbenzene | ND | 0.17 | D | mg/Kg | 5 | 6/1/2017 3:26:08 PM | B43189 |
| Xylenes, Total | ND | 0.34 | D | mg/Kg | 5 | 6/1/2017 3:26:08 PM | B43189 |
| Surr: 4-Bromofluorobenzene | 117 | 66.6-132 | D | %Rec | 5 | 6/1/2017 3:26:08 PM | B43189 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

| | | |
|-------------|---|---|
| Qualifiers: | * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| | D Sample Diluted Due to Matrix | E Value above quantitation range |
| | H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| | ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| | R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| | S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706007

05-Jun-17

Client: XTO Energy
Project: Caldwell A1 E

| | | | | | | | | | | |
|------------|----------|-----|-------------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Sample ID | MB-32061 | | SampType: mblk | | TestCode: EPA Method 300.0: Anions | | | | | |
| Client ID: | PBS | | Batch ID: 32061 | | RunNo: 43191 | | | | | |
| Prep Date: | 6/1/2017 | | Analysis Date: 6/1/2017 | | SeqNo: 1360495 | | Units: mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Chloride | ND | 1.5 | | | | | | | | |

| | | | | | | | | | | |
|------------|-----------|-----|-------------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Sample ID | LCS-32061 | | SampType: lcs | | TestCode: EPA Method 300.0: Anions | | | | | |
| Client ID: | LCSS | | Batch ID: 32061 | | RunNo: 43191 | | | | | |
| Prep Date: | 6/1/2017 | | Analysis Date: 6/1/2017 | | SeqNo: 1360496 | | Units: mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Chloride | 14 | 1.5 | 15.00 | 0 | 92.1 | 90 | 110 | | | |

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706007

05-Jun-17

Client: XTO Energy
Project: Caldwell A1 E

| | | | | | | | | | | |
|-----------------------------|-----------|-----|-------------------------|-------------|---|----------|--------------|------|----------|------|
| Sample ID | LCS-32064 | | SampType: LCS | | TestCode: EPA Method 8015M/D: Diesel Range Organics | | | | | |
| Client ID: | LCSS | | Batch ID: 32064 | | RunNo: 43209 | | | | | |
| Prep Date: | 6/1/2017 | | Analysis Date: 6/2/2017 | | SeqNo: 1360326 | | Units: mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 44 | 10 | 50.00 | 0 | 87.3 | 73.2 | 114 | | | |
| Surr: DNOP | 4.7 | | 5.000 | | 94.5 | 70 | 130 | | | |

| | | | | | | | | | | | |
|--------------------------------|----------|-----|----------------|-------------|------|-----------|---|------|--------------|------|--|
| Sample ID | MB-32064 | | SampType: | MBLK | | TestCode: | EPA Method 8015M/D: Diesel Range Organics | | | | |
| Client ID: | PBS | | Batch ID: | 32064 | | RunNo: | 43209 | | | | |
| Prep Date: | 6/1/2017 | | Analysis Date: | 6/2/2017 | | SeqNo: | 1360330 | | Units: mg/Kg | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual | |
| Diesel Range Organics (DRO) | ND | 10 | | | | | | | | | |
| Motor Oil Range Organics (MRO) | ND | 50 | | | | | | | | | |
| Surr: DNOP | 9.5 | | 10.00 | | 95.1 | 70 | 130 | | | | |

| | | | | | | | | | | |
|------------|-----------|-----|-------------------------|-------------|---|----------|-------------|------|----------|------|
| Sample ID | LCS-32081 | | SampType: LCS | | TestCode: EPA Method 8015M/D: Diesel Range Organics | | | | | |
| Client ID: | LCSS | | Batch ID: 32081 | | RunNo: 43209 | | | | | |
| Prep Date: | 6/2/2017 | | Analysis Date: 6/2/2017 | | SeqNo: 1360770 | | Units: %Rec | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Surr: DNOP | 4.8 | | 5.000 | | 96.4 | 70 | 130 | | | |

| | | | | | | | | | | | |
|------------|----------|-----|----------------|-------------|------|-----------|---|------|-------------|------|--|
| Sample ID | MB-32081 | | SampType: | MBLK | | TestCode: | EPA Method 8015M/D: Diesel Range Organics | | | | |
| Client ID: | PBS | | Batch ID: | 32081 | | RunNo: | 43209 | | | | |
| Prep Date: | 6/2/2017 | | Analysis Date: | 6/2/2017 | | SeqNo: | 1360771 | | Units: %Rec | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual | |
| Surr: DNOP | 10 | | 10.00 | | 104 | 70 | 130 | | | | |

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706007

05-Jun-17

Client: XTO Energy
Project: Caldwell A1 E

| | | | | | | | | | | |
|-------------------------------|---------------|----------------|-----------|-------------|----------------------------------|----------|-----------|------|----------|------|
| Sample ID | 2.5UG GRO LCS | SampType: | LCS | TestCode: | EPA Method 8015D: Gasoline Range | | | | | |
| Client ID: | LCSS | Batch ID: | R43189 | RunNo: | 43189 | | | | | |
| Prep Date: | | Analysis Date: | 6/1/2017 | SeqNo: | 1359964 | Units: | mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 25 | 5.0 | 25.00 | 0 | 99.4 | 76.4 | 125 | | | |
| Surr: BFB | 1200 | | 1000 | | 120 | 54 | 150 | | | |

| | | | | | | | | | | |
|-------------------------------|--------|----------------|-----------|-------------|-----------|----------------------------------|-----------|--------|----------|------|
| Sample ID | RB | SampType: | MBLK | | TestCode: | EPA Method 8015D: Gasoline Range | | | | |
| Client ID: | PBS | Batch ID: | R43189 | | RunNo: | 43189 | | | | |
| Prep Date: | | Analysis Date: | 6/1/2017 | | SeqNo: | 1359965 | | Units: | mg/Kg | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND | 5.0 | | | | | | | | |
| Surr: BFB | 1100 | | 1000 | | 111 | 54 | 150 | | | |

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706007

05-Jun-17

Client: XTO Energy
Project: Caldwell A1 E

| | | | | | | | | | | |
|----------------------------|-----------------------|-------|----------------|-----------------|------|-----------|------------------------------------|------|---------------------|------|
| Sample ID | 100NG BTEX LCS | | SampType: | LCS | | TestCode: | EPA Method 8021B: Volatiles | | | |
| Client ID: | LCSS | | Batch ID: | B43189 | | RunNo: | 43189 | | | |
| Prep Date: | | | Analysis Date: | 6/1/2017 | | SeqNo: | 1359968 | | Units: mg/Kg | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 0.94 | 0.025 | 1.000 | 0 | 94.5 | 80 | 120 | | | |
| Toluene | 0.94 | 0.050 | 1.000 | 0 | 93.7 | 80 | 120 | | | |
| Ethylbenzene | 0.94 | 0.050 | 1.000 | 0 | 94.0 | 80 | 120 | | | |
| Xylenes, Total | 2.8 | 0.10 | 3.000 | 0 | 94.2 | 80 | 120 | | | |
| Surr: 4-Bromofluorobenzene | 1.1 | | 1.000 | | 112 | 66.6 | 132 | | | |

| | | | | | | | | | | |
|----------------------------|------------|-------|----------------|-----------------|------|-----------|------------------------------------|------|---------------------|------|
| Sample ID | RB | | SampType: | MBLK | | TestCode: | EPA Method 8021B: Volatiles | | | |
| Client ID: | PBS | | Batch ID: | B43189 | | RunNo: | 43189 | | | |
| Prep Date: | | | Analysis Date: | 6/1/2017 | | SeqNo: | 1359971 | | Units: mg/Kg | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | ND | 0.025 | | | | | | | | |
| Toluene | ND | 0.050 | | | | | | | | |
| Ethylbenzene | ND | 0.050 | | | | | | | | |
| Xylenes, Total | ND | 0.10 | | | | | | | | |
| Surr: 4-Bromofluorobenzene | 1.1 | | 1.000 | | 110 | 66.6 | 132 | | | |

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: XTO Energy

Work Order Number: 1706007

RcptNo: 1

Received By: Anne Thorne

6/1/2017 7:20:00 AM

Anne Thorne

Completed By: Anne Thorne

6/1/2017 8:32:58 AM

Anne Thorne

Reviewed By:

aj

6/1/17

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐
- # of preserved bottles checked for pH: _____
(<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (If applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

| | | | |
|----------------------|--|-------|---|
| Person Notified: | | Date: | |
| By Whom: | | Via: | <input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person |
| Regarding: | | | |
| Client Instructions: | | | |

17. Additional remarks:

18. Cooler Information

| Cooler No | Temp °C | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|-----------|---------|-----------|-------------|---------|-----------|-----------|
| 1 | 1.7 | Good | Yes | | | |

Hixon, Logan

From: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Sent: Monday, June 05, 2017 8:30 AM
To: Hixon, Logan; Fields, Vanessa, EMNRD
Cc: McDaniel, James; Hoekstra, Kurt; Weaver, John; Percell, Bob; Dawes, Thomas; Powell, Brandon, EMNRD
Subject: RE: Caldwell A 1E
Categories: External Sender

Mr. Hixon,

Based upon the provided sample results, since the contamination only extends 19" below the surface and there are no extenuating circumstances the OCD is denying XTO alternative closure standard request.

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

From: Hixon, Logan [mailto:Logan_Hixon@xtoenergy.com]
Sent: Friday, June 2, 2017 4:29 PM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>; Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>
Cc: McDaniel, James <James_McDaniel@xtoenergy.com>; Hoekstra, Kurt <Kurt_Hoekstra@xtoenergy.com>; Weaver, John <John_Weaver@xtoenergy.com>; Percell, Bob <Bob_Percell@xtoenergy.com>; Dawes, Thomas <Thomas_Dawes@xtoenergy.com>
Subject: Caldwell A 1E

Hello All,

This is to notify you of a release on the Caldwell A 1E location. On May 30, 2017 it was discovered that the above grade water tank had overflowed due to surging of fluids up the backside of the well bore allowing for oil/produced water to be produced to the tank. Approximately (5) five barrels of fluids were lost. On May 30, 2017 (2) two samples were collected from the impacted area, (1) one at the surface below the gravel, and (1) at approximately 19" below the surface. The surface sample returned results requiring soil removal at the surface based on total TPH. (*Samples attached*) We would like to begin the soil remediation on Monday June 5, 2017, and collect final samples on the same day.

The site was ranked a 20 pursuant to the NMOCD Guidelines for the Remediation of Leaks, Spills and Releases due to distance to surface water 200-1000 feet, and an estimated depth to groundwater between 50 and 100 feet. This will set the closure standards to 100 ppm TPH, 10 ppm benzene and 50 ppm total BTEX.

We would like to propose an alternative closure standard for this site due to the dense clay, and depth to groundwater being deeper than (50) fifty feet, and we are dealing with Diesel Range Organics which are considered a non-mobile constituent based on the samples collected.

The proposed alternative closure standard requested for this site is 1,000 mg/kg TPH (DRO/GRO/MRO), 10 mg/kg Benzene, and 50 mg/kg total BTEX.

Thank you for your consideration and if you have any questions do not hesitate to contact us at any time.

If you have any questions do not hesitate to contact us.

Thank You!

EHS Coordinator

Logan Hixon | 382 CR 3100 | Aztec, NM 87410 | ph: 505-333-3100 | Cell: 505-386 8018 |

Home: 505-320-6133 | Logan_Hixon@xtoenergy.com

XTO ENERGY INC., an ExxonMobil subsidiary

This document may contain information that is privileged, confidential and exempt from disclosure under applicable law. If you are not the intended recipient, you are on notice that any unauthorized disclosure, copying, distribution or taking of any action in reliance on the contents of this document is prohibited.



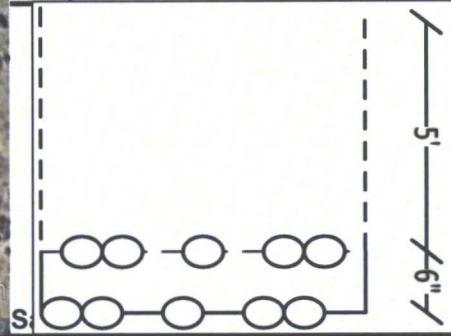
XTO Energy On-Site Form

Well Nam Caldwell A 1E

Land Use (Range / Residential / Tribe _____) Excavation 22 x 18 x 5'6" deep



Sample Location



Comments

Number of Photos Taken

Samples

| Time | Sample # | Sample Description | Characteristics | OVM (ppm) | Analysis Requested |
|------|----------|--------------------|-----------------|-----------|------------------------------|
| 1230 | NA | 100 Standard | NA | 100 | NA |
| 1435 | 1 | Bottom 40" | Clay/Shale/Sand | 227 | No |
| 1500 | 1 | S-Wall | Clay/Shale/Sand | 27 | 8015(DRO/GRO/MRO), BTEX, Chl |
| 1520 | 1 | E-Wall | Clay/Shale/Sand | 59 | 8015(DRO/GRO/MRO), BTEX, Chl |
| 1530 | 1 | N-Wall | Clay/Shale/Sand | 8.9 | 8015(DRO/GRO/MRO), BTEX, Chl |
| 1550 | 1 | Bottom 5' | Clay/Shale/Sand | 171 | No |
| 1600 | 1 | W-Wall | Clay/Shale/Sand | 0 | 8015(DRO/GRO/MRO), BTEX, Chl |
| 1630 | 1 | Bottom 5'6" | Clay/Shale | 10 | 8015(DRO/GRO/MRO), BTEX, Chl |

Name (Print) _____ Logan Hixon

6/5/2017

Name (Signature) Logan Hixon Company XTO



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

June 07, 2017

James McDaniel
XTO Energy
382 County Road 3100
Aztec, NM 87410
TEL: (505) 787-0519
FAX (505) 333-3280

RE: Caldwell A 1 E

OrderNo.: 1706218

Dear James McDaniel:

Hall Environmental Analysis Laboratory received 5 sample(s) on 6/6/2017 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman".

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706218

Date Reported: 6/7/2017

CLIENT: XTO Energy

Client Sample ID: S Wall 5'

Project: Caldwell A 1 E

Collection Date: 6/5/2017 3:00:00 PM

Lab ID: 1706218-001

Matrix: SOIL

Received Date: 6/6/2017 7:15:00 AM

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed | Batch |
|--|--------|----------|------|-------|----|----------------------|---------------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: MRA |
| Chloride | ND | 30 | | mg/Kg | 20 | 6/6/2017 10:59:12 AM | 32133 |
| EPA METHOD 8015M/D: DIESEL RANGE ORGANICS | | | | | | | Analyst: TOM |
| Diesel Range Organics (DRO) | 59 | 9.6 | | mg/Kg | 1 | 6/6/2017 9:32:33 AM | 32126 |
| Motor Oil Range Organics (MRO) | ND | 48 | | mg/Kg | 1 | 6/6/2017 9:32:33 AM | 32126 |
| Surr: DNOP | 87.4 | 70-130 | | %Rec | 1 | 6/6/2017 9:32:33 AM | 32126 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | 19 | 3.5 | | mg/Kg | 1 | 6/6/2017 9:27:51 AM | 32111 |
| Surr: BFB | 243 | 54-150 | S | %Rec | 1 | 6/6/2017 9:27:51 AM | 32111 |
| EPA METHOD 8021B: VOLATILES | | | | | | | Analyst: NSB |
| Benzene | 0.020 | 0.018 | | mg/Kg | 1 | 6/6/2017 9:27:51 AM | 32111 |
| Toluene | 0.21 | 0.035 | | mg/Kg | 1 | 6/6/2017 9:27:51 AM | 32111 |
| Ethylbenzene | 0.11 | 0.035 | | mg/Kg | 1 | 6/6/2017 9:27:51 AM | 32111 |
| Xylenes, Total | 0.51 | 0.071 | | mg/Kg | 1 | 6/6/2017 9:27:51 AM | 32111 |
| Surr: 4-Bromofluorobenzene | 132 | 66.6-132 | S | %Rec | 1 | 6/6/2017 9:27:51 AM | 32111 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

| | | |
|--------------------|---|---|
| Qualifiers: | * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| | D Sample Diluted Due to Matrix | E Value above quantitation range |
| | H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| | ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| | R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| | S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706218

Date Reported: 6/7/2017

CLIENT: XTO Energy

Client Sample ID: E Wall 5'

Project: Caldwell A 1 E

Collection Date: 6/5/2017 3:20:00 PM

Lab ID: 1706218-002

Matrix: SOIL

Received Date: 6/6/2017 7:15:00 AM

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed | Batch |
|--|--------|----------|------|-------|----|----------------------|---------------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: MRA |
| Chloride | ND | 30 | | mg/Kg | 20 | 6/6/2017 11:11:37 AM | 32133 |
| EPA METHOD 8015M/D: DIESEL RANGE ORGANICS | | | | | | | Analyst: TOM |
| Diesel Range Organics (DRO) | 12 | 9.3 | | mg/Kg | 1 | 6/6/2017 9:54:33 AM | 32126 |
| Motor Oil Range Organics (MRO) | ND | 47 | | mg/Kg | 1 | 6/6/2017 9:54:33 AM | 32126 |
| Surr: DNOP | 88.7 | 70-130 | | %Rec | 1 | 6/6/2017 9:54:33 AM | 32126 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | ND | 3.0 | | mg/Kg | 1 | 6/6/2017 9:51:52 AM | 32111 |
| Surr: BFB | 104 | 54-150 | | %Rec | 1 | 6/6/2017 9:51:52 AM | 32111 |
| EPA METHOD 8021B: VOLATILES | | | | | | | Analyst: NSB |
| Benzene | ND | 0.015 | | mg/Kg | 1 | 6/6/2017 9:51:52 AM | 32111 |
| Toluene | ND | 0.030 | | mg/Kg | 1 | 6/6/2017 9:51:52 AM | 32111 |
| Ethylbenzene | ND | 0.030 | | mg/Kg | 1 | 6/6/2017 9:51:52 AM | 32111 |
| Xylenes, Total | ND | 0.060 | | mg/Kg | 1 | 6/6/2017 9:51:52 AM | 32111 |
| Surr: 4-Bromofluorobenzene | 117 | 66.6-132 | | %Rec | 1 | 6/6/2017 9:51:52 AM | 32111 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

| | | |
|--------------------|---|---|
| Qualifiers: | * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| | D Sample Diluted Due to Matrix | E Value above quantitation range |
| | H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| | ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| | R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| | S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706218

Date Reported: 6/7/2017

CLIENT: XTO Energy

Client Sample ID: N Wall 5'

Project: Caldwell A 1 E

Collection Date: 6/5/2017 3:30:00 PM

Lab ID: 1706218-003

Matrix: SOIL

Received Date: 6/6/2017 7:15:00 AM

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed | Batch |
|--|--------|----------|------|-------|----|----------------------|---------------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: MRA |
| Chloride | ND | 30 | | mg/Kg | 20 | 6/6/2017 11:24:02 AM | 32133 |
| EPA METHOD 8015M/D: DIESEL RANGE ORGANICS | | | | | | | Analyst: TOM |
| Diesel Range Organics (DRO) | 13 | 9.6 | | mg/Kg | 1 | 6/6/2017 10:16:45 AM | 32126 |
| Motor Oil Range Organics (MRO) | ND | 48 | | mg/Kg | 1 | 6/6/2017 10:16:45 AM | 32126 |
| Surr: DNOP | 91.1 | 70-130 | | %Rec | 1 | 6/6/2017 10:16:45 AM | 32126 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | ND | 3.2 | | mg/Kg | 1 | 6/6/2017 10:15:48 AM | 32111 |
| Surr: BFB | 109 | 54-150 | | %Rec | 1 | 6/6/2017 10:15:48 AM | 32111 |
| EPA METHOD 8021B: VOLATILES | | | | | | | Analyst: NSB |
| Benzene | ND | 0.016 | | mg/Kg | 1 | 6/6/2017 10:15:48 AM | 32111 |
| Toluene | ND | 0.032 | | mg/Kg | 1 | 6/6/2017 10:15:48 AM | 32111 |
| Ethylbenzene | ND | 0.032 | | mg/Kg | 1 | 6/6/2017 10:15:48 AM | 32111 |
| Xylenes, Total | ND | 0.065 | | mg/Kg | 1 | 6/6/2017 10:15:48 AM | 32111 |
| Surr: 4-Bromofluorobenzene | 122 | 66.6-132 | | %Rec | 1 | 6/6/2017 10:15:48 AM | 32111 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

| | | |
|--------------------|---|---|
| Qualifiers: | * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| | D Sample Diluted Due to Matrix | E Value above quantitation range |
| | H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND | Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R | RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S | % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706218

Date Reported: 6/7/2017

CLIENT: XTO Energy

Client Sample ID: W Wall 5'

Project: Caldwell A I E

Collection Date: 6/5/2017 4:00:00 PM

Lab ID: 1706218-004

Matrix: SOIL

Received Date: 6/6/2017 7:15:00 AM

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed | Batch |
|--|--------|----------|------|-------|----|----------------------|---------------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: MRA |
| Chloride | ND | 30 | | mg/Kg | 20 | 6/6/2017 11:36:26 AM | 32133 |
| EPA METHOD 8015M/D: DIESEL RANGE ORGANICS | | | | | | | Analyst: TOM |
| Diesel Range Organics (DRO) | ND | 9.5 | | mg/Kg | 1 | 6/6/2017 10:39:05 AM | 32126 |
| Motor Oil Range Organics (MRO) | ND | 47 | | mg/Kg | 1 | 6/6/2017 10:39:05 AM | 32126 |
| Surr: DNOP | 89.4 | 70-130 | | %Rec | 1 | 6/6/2017 10:39:05 AM | 32126 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | ND | 3.6 | | mg/Kg | 1 | 6/6/2017 10:39:41 AM | 32111 |
| Surr: BFB | 95.2 | 54-150 | | %Rec | 1 | 6/6/2017 10:39:41 AM | 32111 |
| EPA METHOD 8021B: VOLATILES | | | | | | | Analyst: NSB |
| Benzene | ND | 0.018 | | mg/Kg | 1 | 6/6/2017 10:39:41 AM | 32111 |
| Toluene | ND | 0.036 | | mg/Kg | 1 | 6/6/2017 10:39:41 AM | 32111 |
| Ethylbenzene | ND | 0.036 | | mg/Kg | 1 | 6/6/2017 10:39:41 AM | 32111 |
| Xylenes, Total | ND | 0.072 | | mg/Kg | 1 | 6/6/2017 10:39:41 AM | 32111 |
| Surr: 4-Bromofluorobenzene | 118 | 66.6-132 | | %Rec | 1 | 6/6/2017 10:39:41 AM | 32111 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

| | | | | |
|-------------|----|---|----|---|
| Qualifiers: | * | Value exceeds Maximum Contaminant Level. | B | Analyte detected in the associated Method Blank |
| | D | Sample Diluted Due to Matrix | E | Value above quantitation range |
| | H | Holding times for preparation or analysis exceeded | J | Analyte detected below quantitation limits |
| | ND | Not Detected at the Reporting Limit | P | Sample pH Not In Range |
| | R | RPD outside accepted recovery limits | RL | Reporting Detection Limit |
| | S | % Recovery outside of range due to dilution or matrix | W | Sample container temperature is out of limit as specified |

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706218

Date Reported: 6/7/2017

CLIENT: XTO Energy

Client Sample ID: Bottom 5' 6"

Project: Caldwell A 1 E

Collection Date: 6/5/2017 4:30:00 PM

Lab ID: 1706218-005

Matrix: SOIL

Received Date: 6/6/2017 7:15:00 AM

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed | Batch |
|--|--------|----------|------|-------|----|----------------------|---------------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: MRA |
| Chloride | ND | 30 | | mg/Kg | 20 | 6/6/2017 11:48:51 AM | 32133 |
| EPA METHOD 8015M/D: DIESEL RANGE ORGANICS | | | | | | | Analyst: TOM |
| Diesel Range Organics (DRO) | ND | 9.9 | | mg/Kg | 1 | 6/6/2017 11:01:30 AM | 32126 |
| Motor Oil Range Organics (MRO) | ND | 50 | | mg/Kg | 1 | 6/6/2017 11:01:30 AM | 32126 |
| Surr: DNOP | 87.0 | 70-130 | | %Rec | 1 | 6/6/2017 11:01:30 AM | 32126 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | ND | 4.3 | | mg/Kg | 1 | 6/6/2017 11:03:46 AM | 32111 |
| Surr: BFB | 98.1 | 54-150 | | %Rec | 1 | 6/6/2017 11:03:46 AM | 32111 |
| EPA METHOD 8021B: VOLATILES | | | | | | | Analyst: NSB |
| Benzene | ND | 0.021 | | mg/Kg | 1 | 6/6/2017 11:03:46 AM | 32111 |
| Toluene | ND | 0.043 | | mg/Kg | 1 | 6/6/2017 11:03:46 AM | 32111 |
| Ethylbenzene | ND | 0.043 | | mg/Kg | 1 | 6/6/2017 11:03:46 AM | 32111 |
| Xylenes, Total | ND | 0.085 | | mg/Kg | 1 | 6/6/2017 11:03:46 AM | 32111 |
| Surr: 4-Bromofluorobenzene | 120 | 66.6-132 | | %Rec | 1 | 6/6/2017 11:03:46 AM | 32111 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

| | | |
|--------------------|---|---|
| Qualifiers: | * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| | D Sample Diluted Due to Matrix | E Value above quantitation range |
| | H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| | ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| | R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| | S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706218

07-Jun-17

Client: XTO Energy
Project: Caldwell A 1 E

| | | | | | | | | | | | |
|------------|----------|-----|----------------|-------------|------|-----------|--------------------------|------|--------------|------|--|
| Sample ID | MB-32133 | | SampType: | mblk | | TestCode: | EPA Method 300.0: Anions | | | | |
| Client ID: | PBS | | Batch ID: | 32133 | | RunNo: | 43284 | | | | |
| Prep Date: | 6/6/2017 | | Analysis Date: | 6/6/2017 | | SeqNo: | 1363498 | | Units: mg/Kg | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual | |
| Chloride | ND | 1.5 | | | | | | | | | |

| | | | | | | | | | | |
|------------|-----------|-----|-------------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Sample ID | LCS-32133 | | SampType: Ics | | TestCode: EPA Method 300.0: Anions | | | | | |
| Client ID: | LCSS | | Batch ID: 32133 | | RunNo: 43284 | | | | | |
| Prep Date: | 6/6/2017 | | Analysis Date: 6/6/2017 | | SeqNo: 1363499 | | Units: mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Chloride | 14 | 1.5 | 15.00 | 0 | 96.4 | 90 | 110 | | | |

Qualifiers:

| | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706218

07-Jun-17

Client: XTO Energy
Project: Caldwell A 1 E

| | | | | | | | | | | |
|-----------------------------|-----------|-----|-------------------------|-------------|---|----------|--------------|------|----------|------|
| Sample ID | LCS-32126 | | SampType: LCS | | TestCode: EPA Method 8015M/D: Diesel Range Organics | | | | | |
| Client ID: | LCSS | | Batch ID: 32126 | | RunNo: 43268 | | | | | |
| Prep Date: | 6/6/2017 | | Analysis Date: 6/6/2017 | | SeqNo: 1362102 | | Units: mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 43 | 10 | 50.00 | 0 | 85.6 | 73.2 | 114 | | | |
| Surr: DNOP | 3.6 | | 5.000 | | 72.9 | 70 | 130 | | | |

| | | | | | | | | | | | |
|--------------------------------|----------|-----|----------------|-------------|------|-----------|---|------|--------------|------|--|
| Sample ID | MB-32126 | | SampType: | MBLK | | TestCode: | EPA Method 8015M/D: Diesel Range Organics | | | | |
| Client ID: | PBS | | Batch ID: | 32126 | | RunNo: | 43268 | | | | |
| Prep Date: | 6/6/2017 | | Analysis Date: | 6/6/2017 | | SeqNo: | 1362103 | | Units: mg/Kg | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual | |
| Diesel Range Organics (DRO) | ND | 10 | | | | | | | | | |
| Motor Oil Range Organics (MRO) | ND | 50 | | | | | | | | | |
| Surr: DNOP | 9.6 | | 10.00 | | 96.4 | 70 | 130 | | | | |

| | | | | | | | | | | |
|-----------------------------|----------------|-----|-------------------------|-------------|---|----------|--------------|------|----------|------|
| Sample ID | 1706218-001AMS | | SampType: MS | | TestCode: EPA Method 8015M/D: Diesel Range Organics | | | | | |
| Client ID: | S Wall 5' | | Batch ID: 32126 | | RunNo: 43268 | | | | | |
| Prep Date: | 6/6/2017 | | Analysis Date: 6/6/2017 | | SeqNo: 1362737 | | Units: mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 87 | 10 | 50.81 | 59.14 | 54.6 | 55.8 | 122 | | | S |
| Surr: DNOP | 4.5 | | 5.081 | | 87.8 | 70 | 130 | | | |

| | | | | | | | | | | | |
|-----------------------------|-----------------|-----|----------------|-------------|------|-----------|---|------|--------------|------|--|
| Sample ID | 1706218-001AMSD | | SampType: | MSD | | TestCode: | EPA Method 8015M/D: Diesel Range Organics | | | | |
| Client ID: | S Wall 5' | | Batch ID: | 32126 | | RunNo: | 43268 | | | | |
| Prep Date: | 6/6/2017 | | Analysis Date: | 6/6/2017 | | SeqNo: | 1362738 | | Units: mg/Kg | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual | |
| Diesel Range Organics (DRO) | 91 | 10 | 49.95 | 59.14 | 64.6 | 55.8 | 122 | 5.10 | 20 | | |
| Surr: DNOP | 4.6 | | 4.995 | | 92.0 | 70 | 130 | 0 | 0 | | |

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706218

07-Jun-17

Client: XTO Energy
Project: Caldwell A 1 E

| | | | | | | | | | | |
|-------------------------------|-----------------|----------------|-----------------|-------------|---|----------|--------------|------|----------|------|
| Sample ID | MB-32111 | SampType: | MBLK | TestCode: | EPA Method 8015D: Gasoline Range | | | | | |
| Client ID: | PBS | Batch ID: | 32111 | RunNo: | 43287 | | | | | |
| Prep Date: | 6/5/2017 | Analysis Date: | 6/6/2017 | SeqNo: | 1363134 | Units: | mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND | 5.0 | | | | | | | | |
| Surr: BFB | 990 | | 1000 | | 99.2 | 54 | 150 | | | |

| | | | | | | | | | | |
|-------------------------------|------------------|----------------|-----------------|-------------|---|----------|--------------|------|----------|------|
| Sample ID | LCS-32111 | SampType: | LCS | TestCode: | EPA Method 8015D: Gasoline Range | | | | | |
| Client ID: | LCSS | Batch ID: | 32111 | RunNo: | 43287 | | | | | |
| Prep Date: | 6/5/2017 | Analysis Date: | 6/6/2017 | SeqNo: | 1363135 | Units: | mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 26 | 5.0 | 25.00 | 0 | 105 | 76.4 | 125 | | | |
| Surr: BFB | 1100 | | 1000 | | 111 | 54 | 150 | | | |

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706218

07-Jun-17

Client: XTO Energy
Project: Caldwell A 1 E

| | | | | | | | | | | |
|----------------------------|-----------------|-------|----------------|-----------------|------|-----------|------------------------------------|------|---------------------|------|
| Sample ID | MB-32111 | | SampType: | MBLK | | TestCode: | EPA Method 8021B: Volatiles | | | |
| Client ID: | PBS | | Batch ID: | 32111 | | RunNo: | 43287 | | | |
| Prep Date: | 6/5/2017 | | Analysis Date: | 6/6/2017 | | SeqNo: | 1363144 | | Units: mg/Kg | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | ND | 0.025 | | | | | | | | |
| Toluene | ND | 0.050 | | | | | | | | |
| Ethylbenzene | ND | 0.050 | | | | | | | | |
| Xylenes, Total | ND | 0.10 | | | | | | | | |
| Surr: 4-Bromofluorobenzene | 1.2 | | 1.000 | | 124 | 66.6 | 132 | | | |

| | | | | | | | | | | |
|----------------------------|------------------|-------|----------------|-----------------|------|-----------|------------------------------------|------|---------------------|------|
| Sample ID | LCS-32111 | | SampType: | LCS | | TestCode: | EPA Method 8021B: Volatiles | | | |
| Client ID: | LCSS | | Batch ID: | 32111 | | RunNo: | 43287 | | | |
| Prep Date: | 6/5/2017 | | Analysis Date: | 6/6/2017 | | SeqNo: | 1363145 | | Units: mg/Kg | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 1.0 | 0.025 | 1.000 | 0 | 102 | 80 | 120 | | | |
| Toluene | 1.0 | 0.050 | 1.000 | 0 | 104 | 80 | 120 | | | |
| Ethylbenzene | 1.1 | 0.050 | 1.000 | 0 | 105 | 80 | 120 | | | |
| Xylenes, Total | 3.2 | 0.10 | 3.000 | 0 | 108 | 80 | 120 | | | |
| Surr: 4-Bromofluorobenzene | 1.3 | | 1.000 | | 128 | 66.6 | 132 | | | |

| | | | | | | | | | | |
|----------------------------|-----------------------|-------|----------------|-----------------|------|-----------|------------------------------------|------|---------------------|------|
| Sample ID | 1706218-001AMS | | SampType: | MS | | TestCode: | EPA Method 8021B: Volatiles | | | |
| Client ID: | S Wall 5' | | Batch ID: | 32111 | | RunNo: | 43287 | | | |
| Prep Date: | | | Analysis Date: | 6/6/2017 | | SeqNo: | 1363146 | | Units: mg/Kg | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 0.75 | 0.018 | 0.7057 | 0.02025 | 104 | 61.5 | 138 | | | |
| Toluene | 0.97 | 0.035 | 0.7057 | 0.2100 | 108 | 71.4 | 127 | | | |
| Ethylbenzene | 0.87 | 0.035 | 0.7057 | 0.1092 | 108 | 70.9 | 132 | | | |
| Xylenes, Total | 2.8 | 0.071 | 2.117 | 0.5051 | 109 | 76.2 | 123 | | | |
| Surr: 4-Bromofluorobenzene | 0.96 | | 0.7057 | | 136 | 66.6 | 132 | | | S |

| | | | | | | | | | | |
|----------------------------|------------------------|-------|----------------|-----------------|------|-----------|------------------------------------|------|---------------------|------|
| Sample ID | 1706218-001AMSD | | SampType: | MSD | | TestCode: | EPA Method 8021B: Volatiles | | | |
| Client ID: | S Wall 5' | | Batch ID: | 32111 | | RunNo: | 43287 | | | |
| Prep Date: | | | Analysis Date: | 6/6/2017 | | SeqNo: | 1363147 | | Units: mg/Kg | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 0.74 | 0.018 | 0.7057 | 0.02025 | 102 | 61.5 | 138 | 1.95 | 20 | |
| Toluene | 0.96 | 0.035 | 0.7057 | 0.2100 | 106 | 71.4 | 127 | 1.36 | 20 | |
| Ethylbenzene | 0.85 | 0.035 | 0.7057 | 0.1092 | 106 | 70.9 | 132 | 2.19 | 20 | |
| Xylenes, Total | 2.8 | 0.071 | 2.117 | 0.5051 | 107 | 76.2 | 123 | 1.92 | 20 | |
| Surr: 4-Bromofluorobenzene | 0.93 | | 0.7057 | | 132 | 66.6 | 132 | 0 | 0 | |

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: XTO Energy

Work Order Number: 1706218

RcptNo: 1

Received By: Anne Thorne

6/6/2017 7:15:00 AM

Anne Thorne

Completed By: Anne Thorne

6/6/2017 7:22:42 AM

Anne Thorne

Reviewed By:

[Signature]

6/6/17

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐ # of preserved bottles checked for pH: _____
(<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐ Adjusted? _____
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐ Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

| Cooler No | Temp $^{\circ}\text{C}$ | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|-----------|-------------------------|-----------|-------------|---------|-----------|-----------|
| 1 | 1.0 | Good | Yes | | | |

