

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

OIL CONS. DIV DIST. 3

JAN 15 2016

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: BP | Contact: Steve Moskal |
| Address: 200 Energy Court, Farmington, NM 87401 | Telephone No.: 505-326-9497 |
| Facility Name: Gallegos Canyon Unit 159 | Facility Type: Natural gas well |

| | | |
|-----------------------|-----------------------|--------------------|
| Surface Owner: Tribal | Mineral Owner: Tribal | API No. 3004507040 |
|-----------------------|-----------------------|--------------------|

LOCATION OF RELEASE

| | | | | | | | | |
|------------------|---------------|-----------------|--------------|------------------------|---------------------------|------------------------|------------------------|------------------|
| Unit Letter F | Section 31 | Township 28N | Range 12W | Feet from the 1,765 | North/South Line North | Feet from the 1,585 | East/West Line West | County: San Juan |
|------------------|---------------|-----------------|--------------|------------------------|---------------------------|------------------------|------------------------|------------------|

Latitude 36.62114° Longitude -108.15616°

NATURE OF RELEASE

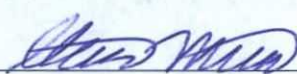
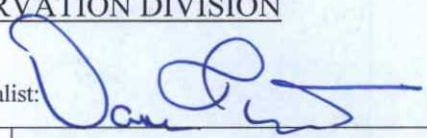
| | | |
|--|--|---|
| Type of Release: produced water | Volume of Release: 6.8 bbl | Volume Recovered: none |
| Source of Release: Corrosion of load line ball valve and swage | Date and Hour of Occurrence: January 18, 2016 | Date and Hour of Discovery: January 18, 2016 8:00 AM |
| Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required | If YES, To Whom? | |
| 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.* Water truck driver arrived on location to find a hole in the drain valve of the load line of the produced water tank leaking into the bermed area.

Describe Area Affected and Cleanup Action Taken.* The tank was drained and the valve and swage were replaced. Soil samples for BTEX, TPH via 8015 and chlorides collected and submitted for laboratory analysis following the spill and release guidelines. BTEX and TPH below closure standards, chlorides exceed closure standards with 4,500 ppm. Gypsum will be applied to the surface and will be raked into the soil.

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: Steve Moskal | Approved by Environmental Specialist:  | |
| Title: Field Environmental Coordinator | Approval Date: <u>02/23/2016</u> | Expiration Date: |
| E-mail Address: steven.moskal@bp.com | Conditions of Approval: | Attached <input type="checkbox"/> |
| Date: February 15, 2016 Phone: 505-326-9497 | <u>Apply Gypsum per affected area, provide photos after completion.</u> <u>NUF1602830702</u> | |

* Attach Additional Sheets If Necessary

12

| | | |
|---|---|--|
| CLIENT: <u>BP</u> | BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199 | API #: <u>30-045-07040</u> TANK ID (if applicable): <u>-</u> |
| FIELD REPORT: (circle one): BGT CONFIRMATION / <u>RELEASE INVESTIGATION</u> / OTHER: | | PAGE #: <u>1</u> of <u>1</u> |
| SITE INFORMATION: SITE NAME: <u>GCU 159</u> QUAD/UNIT: <u>F SEC. 31 TWP. 28N RING. 12W PM. NM CNTY. SJ ST. NM</u> 1/4 - 1/4 FOOTAGE: <u>1765 FNL x 1585 FNL</u> LEASE TYPE: <u>FEDERAL</u> STATE / FEE / <u>INDIAN</u> LEASE #: <u>I-149-IND-8478</u> PROD. FORMATION: <u>-</u> CONTRACTOR: <u>-</u> | | DATE STARTED: <u>1/22/2016</u> DATE FINISHED: <u>1/22/2016</u> ENVIRONMENTAL SPECIALIST(S): <u>JCB</u> |
| REFERENCE POINT: WELL HEAD (W.H.) GPS COORD.: <u>36.62117 x 108.15624</u> GL ELEV.: <u>5706</u> | | |
| 1) _____ GPS COORD.: _____ DISTANCE/BEARING FROM WH: _____ 2) _____ GPS COORD.: _____ DISTANCE/BEARING FROM WH: _____ 3) _____ GPS COORD.: _____ DISTANCE/BEARING FROM WH: _____ 4) _____ GPS COORD.: _____ DISTANCE/BEARING FROM WH: _____ | | |
| SAMPLING DATA: CHAIN OF CUSTODY RECORD(S) # OR LAB USED: <u>HAU</u> | | OVM READING (ppm) |
| 1) SAMPLE ID: <u>Water Release Impact 3"-9"</u> SAMPLE DATE: <u>1/22/16</u> SAMPLE TIME: <u>1005</u> LAB ANALYSIS: <u>TPH/BTEX/CL-</u> | | 0.0 |
| 2) SAMPLE ID: _____ SAMPLE DATE: _____ SAMPLE TIME: _____ LAB ANALYSIS: _____ | | |
| 3) SAMPLE ID: _____ SAMPLE DATE: _____ SAMPLE TIME: _____ LAB ANALYSIS: _____ | | |
| 4) SAMPLE ID: _____ SAMPLE DATE: _____ SAMPLE TIME: _____ LAB ANALYSIS: _____ | | |
| SOIL DESCRIPTION: SOIL TYPE: <u>SAND / SILTY SAND</u> SILT / SILTY CLAY / CLAY / GRAVEL / OTHER _____ SOIL COLOR: <u>DARK TAN</u> PLASTICITY (CLAYS): NON PLASTIC / SLIGHTLY PLASTIC / COHESIVE / MEDIUM PLASTIC / HIGHLY PLASTIC COHESION (ALL OTHERS): NON COHESIVE / <u>SLIGHTLY COHESIVE</u> / COHESIVE / HIGHLY COHESIVE DENSITY (COHESIVE CLAYS & SILTS): SOFT / FIRM / STIFF / VERY STIFF / HARD CONSISTENCY (NON COHESIVE SOILS): LOOSE / <u>FIRM</u> / DENSE / VERY DENSE HC ODOR DETECTED: YES <u>(NO)</u> EXPLANATION: _____ MOISTURE: DRY / SLIGHTLY MOIST / <u>MOIST</u> / WET / SATURATED / SUPER SATURATED ANY AREAS DISPLAYING WETNESS: <u>(YES)</u> NO EXPLANATION: <u>From Recent Snow & Release</u> SAMPLE TYPE: GRAB / <u>COMPOSITE</u> # OF PTS. <u>5</u> DISCOLORATION/STAINING OBSERVED: YES <u>(NO)</u> EXPLANATION: _____ | | |
| SITE OBSERVATIONS: LOST INTEGRITY OF EQUIPMENT: YES / NO EXPLANATION: <u>Frozen Valve</u> APPARENT EVIDENCE OF A RELEASE OBSERVED AND/OR OCCURRED: YES / NO EXPLANATION: <u>Wet Soils</u> EQUIPMENT SET OVER RECLAIMED AREA: YES / NO EXPLANATION: _____ OTHER: <u>Soils moist From Water Release - No Hydrobarion Observed.</u> | | |
| SOIL IMPACT DIMENSION ESTIMATION: <u>15</u> ft. X <u>8'</u> ft. X <u>1</u> ft. EXCAVATION ESTIMATION (Cubic Yards): _____ DEPTH TO GROUNDWATER: <u>>100</u> NEAREST WATER SOURCE: <u>>1000'</u> NEAREST SURFACE WATER: <u>>200'</u> NMOCOD TPH CLOSURE STD: <u>1,000</u> ppm | | |
| SITE SKETCH BGT Located: off / on site PLOT PLAN circle: <u>attached</u> | | |
| | | OVM CALIB. READ. = _____ ppm RF=0.52 OVM CALIB. GAS = _____ ppm TIME: _____ am/pm DATE: _____ |
| NOTES: BGT = BELOW-GRADE TANK; E.D. = EXCAVATION DEPRESSION; B.G. = BELOW GRADE; B = BELOW; T.H. = TEST HOLE; - = APPROX.; W.H. = WELL HEAD; T.B. = TANK BOTTOM; PBGTL = PREVIOUS BELOW-GRADE TANK LOCATION; SPD = SAMPLE POINT DESIGNATION; R.W. = RETAINING WALL; NA = NOT APPLICABLE OR NOT AVAILABLE; SW = SINGLE WALL; DW = DOUBLE WALL; SB = SINGLE BOTTOM; DB = DOUBLE BOTTOM. | | MISCELL. NOTES WO: _____ PO #: _____ PK: <u>VM056HQFEC</u> PJ #: _____ Permit date(s): _____ OCD Appr. date(s): _____ BGT Sidewalls Visible: Y / N BGT Sidewalls Visible: Y / N BGT Sidewalls Visible: Y / N Magnetic declination: <u>10° E</u> |
| NOTES: _____ ONSITE: <u>1/22/2016</u> | | |

GCU 159 Water Release Sampling

Water Stock Tank

Release Impact Area

January 22, 2016
5-Point Composite
Sample Points
(3' - 9" Depth)

Compressor

95 BGT

N

50 ft

Google earth







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

February 03, 2016

Jeff Blagg
Blagg Engineering
P. O. Box 87
Bloomfield, NM 87413
TEL: (505) 320-1183
FAX (505) 632-3903

RE: GCU 159

OrderNo.: 1601895

Dear Jeff Blagg:

Hall Environmental Analysis Laboratory received 1 sample(s) on 1/23/2016 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1601895

Date Reported: 2/3/2016

CLIENT: Blagg Engineering

Project: GCU 159

Lab ID: 1601895-001

Matrix: SOIL

Client Sample ID: Water Release Impact 5-pt @ 3"-

Collection Date: 1/22/2016 10:05:00 AM

Received Date: 1/23/2016 9:00:00 AM

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed | Batch |
|--|--------|----------|------|-------|-----|----------------------|---------------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: LGT |
| Chloride | 4600 | 300 | | mg/Kg | 200 | 2/2/2016 2:26:20 AM | 23486 |
| EPA METHOD 8015M/D: DIESEL RANGE ORGANICS | | | | | | | Analyst: KJH |
| Diesel Range Organics (DRO) | ND | 10 | | mg/Kg | 1 | 1/27/2016 4:27:57 AM | 23373 |
| Surr: DNOP | 106 | 70-130 | | %Rec | 1 | 1/27/2016 4:27:57 AM | 23373 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | ND | 4.7 | | mg/Kg | 1 | 1/26/2016 3:05:36 PM | 23385 |
| Surr: BFB | 94.1 | 66.2-112 | | %Rec | 1 | 1/26/2016 3:05:36 PM | 23385 |
| EPA METHOD 8021B: VOLATILES | | | | | | | Analyst: NSB |
| Benzene | ND | 0.047 | | mg/Kg | 1 | 1/26/2016 3:05:36 PM | 23385 |
| Toluene | ND | 0.047 | | mg/Kg | 1 | 1/26/2016 3:05:36 PM | 23385 |
| Ethylbenzene | ND | 0.047 | | mg/Kg | 1 | 1/26/2016 3:05:36 PM | 23385 |
| Xylenes, Total | ND | 0.094 | | mg/Kg | 1 | 1/26/2016 3:05:36 PM | 23385 |
| Surr: 4-Bromofluorobenzene | 111 | 80-120 | | %Rec | 1 | 1/26/2016 3:05:36 PM | 23385 |

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#: 1601895

03-Feb-16

Client: Blagg Engineering

Project: GCU 159

| | | | | | | | | | | |
|------------|-----------|-----|----------------|-------------|------|-----------|--------------------------|------|--------------|------|
| Sample ID | MB-23486 | | SampType: | MBLK | | TestCode: | EPA Method 300.0: Anions | | | |
| Client ID: | PBS | | Batch ID: | 23486 | | RunNo: | 31808 | | | |
| Prep Date: | 1/29/2016 | | Analysis Date: | 1/29/2016 | | SeqNo: | 973423 | | Units: mg/Kg | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Chloride | ND | 1.5 | | | | | | | | |

| | | | | | | | | | | |
|------------|-----------|-----|----------------|-------------|------|-----------|--------------------------|------|--------------|------|
| Sample ID | LCS-23486 | | SampType: | LCS | | TestCode: | EPA Method 300.0: Anions | | | |
| Client ID: | LCSS | | Batch ID: | 23486 | | RunNo: | 31808 | | | |
| Prep Date: | 1/29/2016 | | Analysis Date: | 1/29/2016 | | SeqNo: | 973424 | | Units: mg/Kg | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Chloride | 14 | 1.5 | 15.00 | 0 | 95.6 | 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#: 1601895

03-Feb-16

Client: Blagg Engineering

Project: GCU 159

| | | | | | | | | | | | |
|-----------------------------|-----------|-----|----------------|-------------|------|-----------|---|------|--------------|------|--|
| Sample ID | MB-23373 | | SampType: | MBLK | | TestCode: | EPA Method 8015M/D: Diesel Range Organics | | | | |
| Client ID: | PBS | | Batch ID: | 23373 | | RunNo: | 31683 | | | | |
| Prep Date: | 1/25/2016 | | Analysis Date: | 1/26/2016 | | SeqNo: | 969933 | | Units: mg/Kg | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual | |
| Diesel Range Organics (DRO) | ND | 10 | | | | | | | | | |
| Surr: DNOP | 13 | | 10.00 | | 130 | 70 | 130 | | | | |

| | | | | | | | | | | |
|-----------------------------|-----------|-----|--------------------------|-------------|---|----------|--------------|------|----------|------|
| Sample ID | LCS-23373 | | SampType: LCS | | TestCode: EPA Method 8015M/D: Diesel Range Organics | | | | | |
| Client ID: | LCSS | | Batch ID: 23373 | | RunNo: 31683 | | | | | |
| Prep Date: | 1/25/2016 | | Analysis Date: 1/26/2016 | | SeqNo: 969934 | | Units: mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 53 | 10 | 50.00 | 0 | 105 | 65.8 | 136 | | | |
| Surr: DNOP | 6.0 | | 5.000 | | 121 | 70 | 130 | | | |

| | | | | | | | | | | |
|------------|-----------|-----|--------------------------|-------------|---|----------|-------------|------|----------|------|
| Sample ID | MB-23439 | | SampType: MBLK | | TestCode: EPA Method 8015M/D: Diesel Range Organics | | | | | |
| Client ID: | PBS | | Batch ID: 23439 | | RunNo: 31735 | | | | | |
| Prep Date: | 1/27/2016 | | Analysis Date: 1/28/2016 | | SeqNo: 971590 | | Units: %Rec | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Surr: DNOP | 11 | | 10.00 | | 114 | 70 | 130 | | | |

| | | | | | | | | | | |
|------------|-----------|-----|--------------------------|-------------|---|----------|-------------|------|----------|------|
| Sample ID | LCS-23439 | | SampType: LCS | | TestCode: EPA Method 8015M/D: Diesel Range Organics | | | | | |
| Client ID: | LCSS | | Batch ID: 23439 | | RunNo: 31735 | | | | | |
| Prep Date: | 1/27/2016 | | Analysis Date: 1/28/2016 | | SeqNo: 971591 | | Units: %Rec | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Surr: DNOP | 5.3 | | 5.000 | | 106 | 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#: 1601895

03-Feb-16

Client: Blagg Engineering

Project: GCU 159

| | | | | | | | | | | |
|------------|-----------|-----|--------------------------|-------------|--|----------|-------------|------|----------|------|
| Sample ID | MB-23381 | | SampType: MBLK | | TestCode: EPA Method 8015D: Gasoline Range | | | | | |
| Client ID: | PBS | | Batch ID: 23381 | | RunNo: 31689 | | | | | |
| Prep Date: | 1/25/2016 | | Analysis Date: 1/26/2016 | | SeqNo: 969838 | | Units: %Rec | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Surr: BFB | 920 | | 1000 | | 91.9 | 66.2 | 112 | | | |

| | | | | | | | | | | |
|------------|-----------|-----|--------------------------|-------------|--|----------|-------------|------|----------|------|
| Sample ID | LCS-23381 | | SampType: LCS | | TestCode: EPA Method 8015D: Gasoline Range | | | | | |
| Client ID: | LCSS | | Batch ID: 23381 | | RunNo: 31689 | | | | | |
| Prep Date: | 1/25/2016 | | Analysis Date: 1/26/2016 | | SeqNo: 969839 | | Units: %Rec | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Surr: BFB | 1000 | | 1000 | | 101 | 66.2 | 112 | | | |

| | | | | | | | | | | |
|-------------------------------|-----------|-----|--------------------------|-------------|--|----------|--------------|------|----------|------|
| Sample ID | MB-23385 | | SampType: MBLK | | TestCode: EPA Method 8015D: Gasoline Range | | | | | |
| Client ID: | PBS | | Batch ID: 23385 | | RunNo: 31689 | | | | | |
| Prep Date: | 1/25/2016 | | Analysis Date: 1/26/2016 | | SeqNo: 969860 | | 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 | 920 | | 1000 | | 91.5 | 66.2 | 112 | | | |

| | | | | | | | | | | |
|-------------------------------|-----------|-----|--------------------------|-------------|--|----------|--------------|------|----------|------|
| Sample ID | LCS-23385 | | SampType: LCS | | TestCode: EPA Method 8015D: Gasoline Range | | | | | |
| Client ID: | LCSS | | Batch ID: 23385 | | RunNo: 31689 | | | | | |
| Prep Date: | 1/25/2016 | | Analysis Date: 1/26/2016 | | SeqNo: 969861 | | 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 | 101 | 79.6 | 122 | | | |
| Surr: BFB | 1000 | | 1000 | | 100 | 66.2 | 112 | | | |

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#: 1601895

03-Feb-16

Client: Blagg Engineering

Project: GCU 159

| | | | | | | | | | | |
|----------------------------|-----------|-------|----------------|-------------|------|-----------|-----------------------------|------|--------------|------|
| Sample ID | MB-23385 | | SampType: | MBLK | | TestCode: | EPA Method 8021B: Volatiles | | | |
| Client ID: | PBS | | Batch ID: | 23385 | | RunNo: | 31689 | | | |
| Prep Date: | 1/25/2016 | | Analysis Date: | 1/26/2016 | | SeqNo: | 969886 | | Units: mg/Kg | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | ND | 0.050 | | | | | | | | |
| Toluene | ND | 0.050 | | | | | | | | |
| Ethylbenzene | ND | 0.050 | | | | | | | | |
| Xylenes, Total | ND | 0.10 | | | | | | | | |
| Surr: 4-Bromofluorobenzene | 1.1 | | 1.000 | | 112 | 80 | 120 | | | |

| | | | | | | | | | | |
|----------------------------|-----------|-------|----------------|-------------|------|-----------|-----------------------------|------|--------------|------|
| Sample ID | LCS-23385 | | SampType: | LCS | | TestCode: | EPA Method 8021B: Volatiles | | | |
| Client ID: | LCSS | | Batch ID: | 23385 | | RunNo: | 31689 | | | |
| Prep Date: | 1/25/2016 | | Analysis Date: | 1/26/2016 | | SeqNo: | 969887 | | Units: mg/Kg | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 0.99 | 0.050 | 1.000 | 0 | 99.4 | 80 | 120 | | | |
| Toluene | 1.0 | 0.050 | 1.000 | 0 | 103 | 80 | 120 | | | |
| Ethylbenzene | 1.0 | 0.050 | 1.000 | 0 | 105 | 80 | 120 | | | |
| Xylenes, Total | 3.2 | 0.10 | 3.000 | 0 | 108 | 80 | 120 | | | |
| Surr: 4-Bromofluorobenzene | 1.2 | | 1.000 | | 117 | 80 | 120 | | | |

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: **BLAGG**

Work Order Number: **1601895**

RcptNo: **1**

Received by/date:

Logged By: **Lindsay Mangin**

01/23/16
1/23/2016 9:00:00 AM

Completed By: **Lindsay Mangin**

1/25/2016 9:36:35 AM

Reviewed By:

mg

01/25/16

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: ☐ 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 | 2.3 | Good | Yes | | | |

Turn-Around Time:

ient: BP AMERICA

BLAG+ ENGINEERING

ailing Address:

Phone #: (505) 320-1183

mail or Fax#:

A/QC Package:

☒ Standard

accreditation

☐ Other

EDD (Type)

| Date | Time | Matrix | Sample Request ID |
|------|------|--------|-------------------|
|------|------|--------|-------------------|

Matrix

Sample Request ID

| | | |
|------|------|--------------------------------------|
| 1005 | SOIL | WATER RELEASE IMPACT 5-DE @ 3"-9" |
|------|------|--------------------------------------|

7105

WATER RELEASE IMPACT
5-DE @ 3"-9"

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

GC0 159

Project #:

Project Manager:

J. Blagg

Sampler: J. Biagg

| | | |
|---------|---|-----------------------------|
| On Ice: | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
|---------|---|-----------------------------|

Sample Temperature: 2.3

HEAL No.

| Container Type and # | Preservative Type |
|-------------------------|----------------------|
|-------------------------|----------------------|

-100-

COOL

| | |
|------------------|-------|
| Relinquished by: | Time: |
|------------------|-------|

Relinquished by: Bill Baggett

| Date | Time |
|------|------|
|------|------|

| | | |
|--------------|-------|------|
| Received by: | Date | Time |
| Mustre Waei | 12/16 | 1234 |

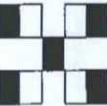
| | | |
|-------|-------|------------------|
| Date: | Time: | Relinquished by: |
|-------|-------|------------------|

Received by: [Signature] Date 11/13/16 Time noon

CONTACT: STEVE MOSCAL

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

[illegible]