# 3R-1022

# Release Report/ General Correspondence

# Beeline Gas Systems
# Martin Whitaker #58
# Lateral
# Date: April 2015

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
APR 27 2015

Form C-141
Revised August 8, 2011
Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

# UPDATED
# Release Notification and Corrective Action

## OPERATOR

☒ Initial Report ☐ Final Report

| | |
|---|---|
| Name of Company Elm Ridge Exploration Co. LLC d.b.a. Beeline Gas Systems | Contact: Primary-Dianna Lee 330-2736 Secondary- Alan Lain 486-0260 |
| Address: 2001 E. Blanco Blvd. Bloomfield, NM 87413 | Telephone No. 634-1144 |
| Facility Name: Martin Whitaker #58 | Facility Type: pipeline right of way |

| | | |
|---|---|---|
| Surface Owner: Jicarilla | Mineral Owner: Jicarilla | API No. |

## LOCATION OF RELEASE

| Unit Letter | Section | Township | Range | Feet from the | North/South Line | Feet from the | East/West Line | County |
|---|---|---|---|---|---|---|---|---|
| | 9 | 23N | 5W | | | | | |

**Latitude** 36.27215 **Longitude** 107.62986

## NATURE OF RELEASE

| | | |
|---|---|---|
| Type of Release: Water and Oil mixture | Volume of Release: 262 cubic yds | Volume Recovered: 0 |
| Source of Release: Pipeline Leak | Date and Hour of Occurrence 8/18/14 | Date and hour of discovery 8/18/14 |
| Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required | If YES, To Whom? Cory Smith | |
| By Whom? Dianna Lee | Date and Hour 8/18/14 4:01 pm | |
| Was a Watercourse Reached? ☒ Yes ☐ No | If YES, Volume Impacting the Watercourse. | |

If a Watercourse was Impacted, Describe Fully.*
Leak is in wash, cause of leak was corrosion of pipeline. Oil and water mixture did seep to top of wash and was noticeably stained.

Describe Cause of Problem and Remedial Action Taken.*
Corrosion was the cause of the release. Halo crew with back hoe exposed pipe to find the source and location of corrosion. Excavator was then brought in to removed contaminated soil. We took out the whole pipe as it was corroded along the entire length of the pipeline and was replaced. Soil samples were taken from the walls and base of the excavation as well as a ground water sample. Please see attached lab results.

Describe Area Affected and Cleanup Action Taken.*
See attached diagram in final report from Animas. Excavation and clean up conducted. Soil samples were taken, repairs to pipeline were completed as well. Field results and lab results varied as shown in lab results, permission from NMOCD's Cory Smith was received for backfill as well as confirmation from Jicarilla Tribe to backfill. Contaminated soil was taken to Envirotech.

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: Dianna Lee | OIL CONSERVATION DIVISION |
| Printed Name: Dianna Lee | Approved by Environmental Specialist: Cory Smith |
| Title: Regulatory Administrator | Approval Date: 4/30/15 Expiration Date: |
| E-mail Address: BeelineRegulatory@elmridge.net | Conditions of Approval: Ground water Remediation Req 3RP-1022 Attached ☐ |
| Date: April 22, 2015 Phone: 505-330-2736 | |

#NCS 1512031303

(42)

April 15, 2015

Dianna Lee
Beeline Gas Systems
2001 E. Blanco Blvd
Bloomfield, New Mexico 87413

*Via electronic mail with delivery confirmation receipt to:*
BeelineRegulatory@elmridge.net

**RE: Release Assessment Report**
**AXI H-12 Well Tie Pipeline Release**
**NW¼ NW¼, Section 9, T23N, R5W**
**Rio Arriba County, New Mexico**

Dear Ms. Lee:

On December 3, 9, and 11, 2014, Animas Environmental Services, LLC (AES) completed an environmental assessment associated with a pipeline release at the Beeline Gas Systems (Beeline) Martin Whitaker #58. The release was discovered on August 18, 2014, and resulted from pipeline corrosion. The release occurred within Largo Canyon wash, and sustained heavy precipitation events prevented immediate remediation activities.

## 1.0 Site Information

### *1.1 Location*

Location – NW¼ NW¼, Section 9, T23N, R5W, Rio Arriba County, New Mexico
Latitude/Longitude – N36.24509 and W107.37516, respectively
Surface Owner – Jicarilla Apache Nation
Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map

### *1.2 Risk Ranking*

#### 1.2.1 JANOGA Action Levels

The Beeline Martin Whitaker Pipeline release is located on Jicarilla Apache Nation lands, and soil remediation action levels are determined by the Jicarilla Apache Nation Oil and Gas Administration

604 W. Piñon St.
Farmington, NM 87401
505-564-2281

1911 Main, Ste 280
Durango, CO 81301
970-403-3084

www.animasenvironmental.com

(JANOGA). JANOGA action levels for soils currently follow the New Mexico Oil Conservation Division (NMOCD) *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993). Per JANOGA, all locations within Jicarilla Apache Nation lands receive a ranking score of 20:

- 100 parts per million (ppm) volatile organic compounds (VOCs), or 10 mg/kg benzene and 50 mg/kg total benzene, toluene, ethylbenzene, and xylene (BTEX); and
- 100 mg/kg total petroleum hydrocarbons (TPH).

JANOGA water quality standards currently follow New Mexico Water Quality Control Commission (WQCC) standards.

### 1.2.2 Surface and Groundwater

The Martin Whitaker #58 release location occurred within the main channel of the Canyon Largo Wash. Depth to water is approximately 5 feet below ground surface (bgs), as determined by AES and Beeline personnel upon recharge of water within the excavation extent. Note also that in December 2014, AES conducted an unrelated assessment approximately 330 feet to the west, and depth to water was confirmed at approximately 7 feet bgs during installation of a temporary hydropunch point within the Canyon Largo Wash floodplain.

## *1.3 Assessment and Mitigation*

Prior to December 3, 2014, Beeline contractors began an excavation along the pipeline and determined that the pipeline release was the result of corrosion. On December 3 and 9, 2014, AES collected a total of six confirmation soil samples for field screening and laboratory analysis from the walls of the final excavation. At the request of the NMOCD, one 5-point composite confirmation soil sample was also collected along the length of pipeline to be replaced. Note that heavy precipitation necessitated the removal of excess rain water via hydro-vacuum trucks from the excavation. Prior to backfilling the excavation, one grab sample was collected from the recharged groundwater on December 11, 2014, under the supervision of NMOCD. The final excavation measured approximately 56 feet by 42 feet by 5 feet deep. The excavation was backfilled with clean, imported material. Petroleum impacted soil was transported to the Envirotech Landfarm for proper disposal. Soil and groundwater sample locations and final excavation extents are included on Figure 3.

# 2.0 Soil Sampling

On December 3, 2014, three soil samples (SC-1, SC-3, and SC-4) were collected from the west, northwest and southwest walls of the excavation and submitted for laboratory analysis. Additional hydrocarbon impacted soil was removed from the remaining walls of the excavation. On December 9, 2014, AES collected four soil samples (SC-2, SC-5 through SC-7) from the east, southeast and north walls, and along the exposed pipeline right of way (approximately 200 feet in length). All soil samples were field screened for VOCs and were also analyzed for TPH. All samples were submitted for laboratory analysis.

## *2.1 Field Screening*

### 2.1.1 Volatile Organic Compounds

Field screening for VOC vapors was conducted with a photo-ionization detector (PID) organic vapor meter (OVM). Before beginning field screening, the PID-OVM was first calibrated with 100 ppm isobutylene gas.

### 2.1.2 Total Petroleum Hydrocarbons

Soil samples were also analyzed in the field for TPH per U.S. Environmental Protection Agency (USEPA) Method 418.1 using a Buck Scientific Model HC-404 Total Hydrocarbon Analyzer Infrared Spectrometer (Buck). A 3-point calibration was completed prior to conducting soil analyses. Field analytical protocol followed AES's *Standard Operating Procedure: Field Analysis Total Petroleum Hydrocarbons per EPA Method 418.1*.

## *2.2 Laboratory Analyses*

The samples collected for laboratory analysis were placed into new, clean, laboratory-supplied containers, which were then labeled, placed on ice, and logged onto a sample chain of custody record. The samples were maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall), in Albuquerque, New Mexico. All samples were laboratory analyzed for:

- BTEX per USEPA Method 8021B; and
- TPH as gasoline range organics (GRO) and diesel range organics (DRO) per USEPA method 8015D.

## *2.3 Field Screening and Laboratory Analytical Results*

Soil field screening results showed that VOC concentrations via OVM ranged from 2.0 ppm in SC-6 to 4,522 ppm in SC-4. TPH concentrations ranged from 22.5 mg/kg in SC-6 to 83.1 mg/kg in SC-2. Field screening results are summarized in Table 1 and presented on Figure 3. The AES Field Sampling Report is attached.

Table 1. Soil Field Screening VOC and TPH Results
Martin Whitaker #58 Pipeline Release Assessment, December 2014

| Sample ID | Date Sampled | Sample Depth (ft bgs) | VOCs via OVM (ppm) | Field TPH (mg/kg) |
|---|---|---|---|---|
| JANOGA Action Level* | | | 100 | 100 |
| SC-1 | 12/3/14 | 3 to 5 | 8.4 | 32.8 |
| SC-2 | 12/9/14 | 1 to 5 | 26.9 | 23.9 |
| SC-3 | 12/3/14 | 1 to 5 | 612 | 68.0 |
| SC-4 | 12/3/14 | 1 to 5 | 4,522 | 83.1 |
| SC-5 | 12/9/14 | 1 to 4 | 27.3 | 25.2 |
| SC-6 | 12/9/14 | 1 to 5 | 2.0 | 22.5 |
| SC-7 | 12/9/14 | 5 | 49.5 | 29.0 |

*Action level determined by JANOGA (Ref. NMOCD ranking score of 20 per NMOCD Guidelines for Remediation of Leaks, Spills, and Releases (August 1993)).

Laboratory analytical results for the soil samples showed benzene concentrations ranging from below the laboratory detection limits in several samples up to 0.44 mg/kg in SC-3. Total BTEX concentrations ranged from below laboratory detection limits in several samples up to 8.48 mg/kg in SC-3. TPH concentrations as GRO/DRO ranged from below the laboratory detection limits in most samples up to 74 mg/kg in SC-3. Laboratory analytical results are included in Table 2 and on Figure 3. The laboratory analytical reports are attached.

Table 2. Soil Laboratory Analytical Results – Benzene, Total BTEX, and TPH
Martin Whitaker #58 Pipeline Release Assessment, December 2014

| Sample ID | Date Sampled | Depth (ft) | Benzene (mg/kg) | Total BTEX (mg/kg) | TPH – GRO (mg/kg) | TPH – DRO (mg/kg) |
|---|---|---|---|---|---|---|
| JANOGA Action Level* | | | 10 | 50 | 100 | |
| SC-1 | 12/3/14 | 3 to 5 | <0.047 | <0.235 | <4.7 | <10 |
| SC-2 | 12/9/14 | 1 to 5 | <0.048 | <0.241 | <4.8 | <9.8 |
| SC-3 | 12/3/14 | 1 to 5 | 0.44 | 8.48 | 74 | <9.9 |
| SC-4 | 12/3/14 | 1 to 5 | <0.081 | 2.88 | 59 | <10 |
| SC-5 | 12/9/14 | 1 to 4 | <0.049 | <0.245 | <4.9 | <10 |
| SC-6 | 12/9/14 | 1 to 4 | <0.047 | <0.235 | <4.7 | <9.9 |
| SC-7 | 12/9/14 | 5 | <0.049 | <0.246 | <4.9 | <10 |

*Action level determined by JANOGA (Ref. NMOCD ranking score of 20 per NMOCD Guidelines for Remediation of Leaks, Spills, and Releases (August 1993)).

## 3.0 Groundwater Sampling

On December 11, 2014, AES used an extendable pole with a new disposable bottle to collect one grab sample (GW-1) from the accumulated recharged water downgradient of the pipeline. Per NMOCD request, sample GW-1 was submitted to Hall for laboratory analyses of:

- BTEX per USEPA Method 8021B; and
- TPH (GRO/DRO) per USEPA method 8015D.

### *3.1 Laboratory Analytical Results*

Laboratory analytical results for the water sample (GW-1) reported dissolved phase concentrations of 340 µg/L benzene, 360 µg/L toluene, 130 µg/L ethylbenzene, and 790 µg/L xylenes. Dissolved phase TPH concentrations as GRO/DRO were reported at 4.9 mg/L. Laboratory analytical results are included in Table 3 and on Figure 3.

Table 3. Water Laboratory Analytical Results – Benzene, Total BTEX, and TPH
Martin Whitaker #58 Pipeline Release Assessment, December 2014

| *Sample ID* | *Date Sampled* | *Benzene (µg/L)* | *Toluene (µg/L)* | *Ethyl-Benzene (µg/L)* | *Xylenes (µg/L)* | *TPH – GRO (mg/L)* | *TPH – DRO (mg/L)* |
|---|---|---|---|---|---|---|---|
| ***WQCC Standards*** | | ***10*** | ***750*** | ***750*** | ***620*** | ***NE*** | |
| GW-1 | 12/11/14 | **340** | 360 | 130 | **790** | 4.9 | <1.0 |

## 4.0 Conclusions and Recommendations

On December 3, 9, and 11, 2014, AES completed an assessment at the Beeline Martin Whitaker #58 Pipeline release location. Action levels for releases are determined by JANOGA and currently reflect a site ranking of 20 per NMOCD *Guideline for Remediation of Leaks, Spills and Releases* (August 1993).

On December 3, 2014, an initial assessment of the excavation area was completed. Soil laboratory analyses for SC-1, SC-3, and SC-4 showed benzene and total BTEX concentrations below the JANOGA action levels of 10 mg/kg and 50 mg/kg, respectively, with the highest concentrations in SC-3 with 0.44 mg/kg benzene and 8.48 mg/kg total BTEX. TPH (GRO/DRO) concentrations were below the JANOGA action level of 100 mg/kg in all samples, with the highest concentration in SC-3 at 74 mg/kg.

Prior to December 9, 2014, additional petroleum hydrocarbon impacted soil was excavated from the north, east and southeast walls, based upon previous field results. After the excavation work, soil samples SC-2, SC-5 and SC-6 were collected by AES and showed field screening results and TPH concentrations below JANOGA action levels. Also on December 9, 2014, field screening of composite soil sample SC-7 (from beneath the soon-to-be-replaced exposed section of the Martin Whitaker pipeline) showed VOC and TPH concentrations below JANOGA action levels. Laboratory analytical results for SC-2, SC-5, SC-6, and SC-7 showed that benzene, total BTEX, and TPH (GRO/DRO) concentrations were reported below the applicable JANOGA action levels.

On December 11, 2014, a grab water sample (GW-1) was collected from the base of the excavation in the downgradient direction immediately north of the release location. Laboratory analytical results showed dissolved phase toluene and ethylbenzene below the applicable New Mexico WQCC standards; however, dissolved phase benzene and xylenes concentrations exceeded the WQCC standards of 10 µg/L for benzene (340 µg/L), and 620 µg/L for xylenes (790 µg/L). Note however that grab samples collected from excavation may not accurately reflect dissolved phase concentrations present in shallow groundwater. Depth to water was estimated at approximately 5 feet below ground surface.

Based on the final field screening and laboratory analytical results of the excavation of petroleum hydrocarbon impacted soils at the Martin Whitaker #58 Pipeline release location, benzene, total BTEX, and TPH concentrations were below applicable JANOGA (NMOCD) action levels. However, laboratory analytical results from the excavation water sample indicate that groundwater may be potentially impacted above the WQCC standards for benzene (10 µg/L) and xylenes (620 µg/L). Installation and sampling of temporary hydropunch points in the vicinity of the release area is recommended in approximately six months to evaluate the natural attenuation of residual dissolved phase contaminants.

If you have any questions about this report or site conditions, please do not hesitate to contact me at (505) 564-2281.

Sincerely,

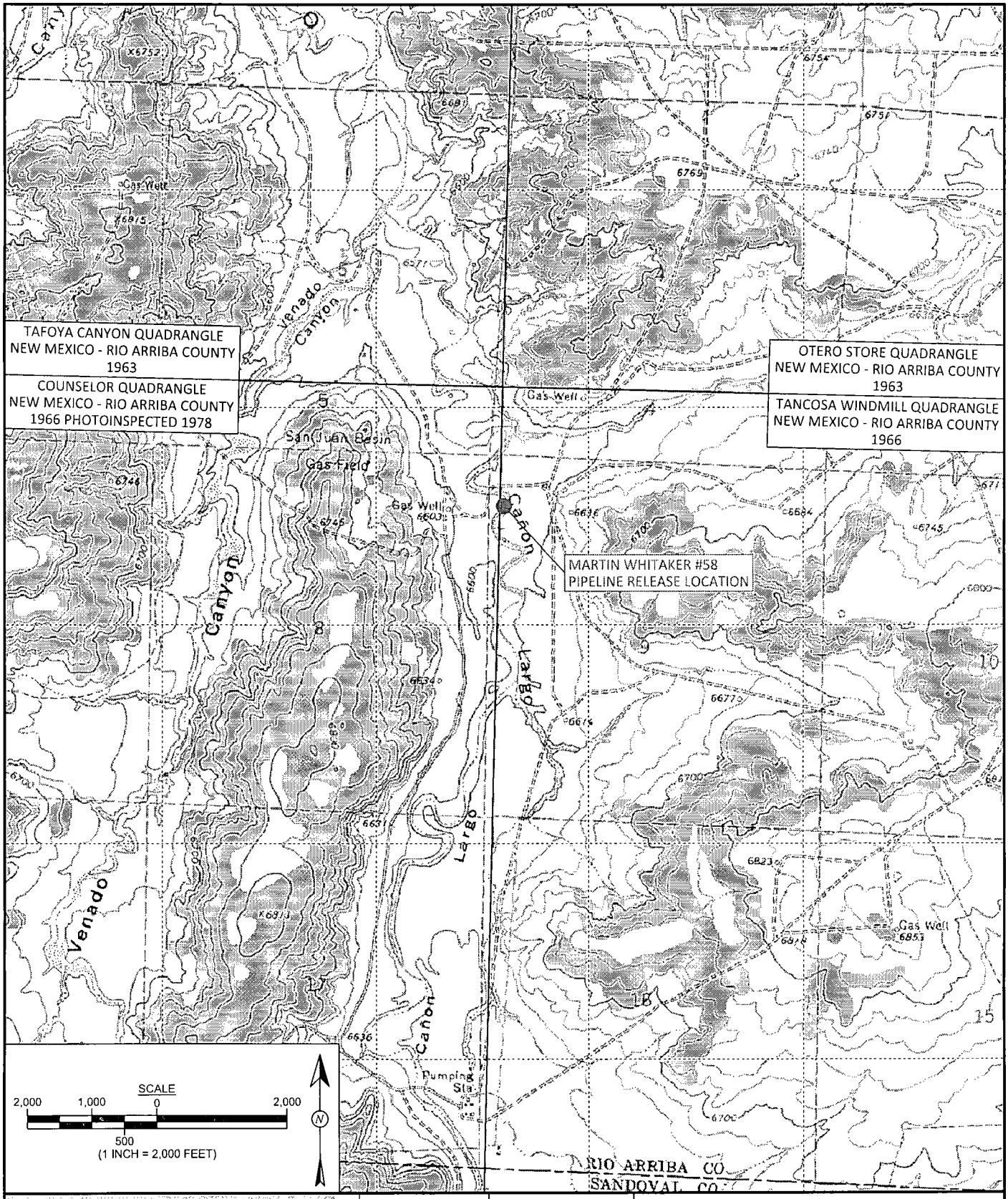
Emilee Skyles
Geologist

Elizabeth McNally, P.E.

Attachments:

Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map
Figure 3. Final Excavation Sample Locations and Results, December 2014
Photograph Log
AES Field Sampling Report 120314
AES Field Sampling Report 120914
Laboratory Analytical Reports (1412465, 1412469 and 1412598)

R:\Animas 2000\Dropbox (Animas Environmental)\0000 Animas Server Dropbox EM\2015 Projects\Beeline\Martin Whitaker #58\Beeline Martin Whitaker #58 Pipeline Release Report 041515.docx



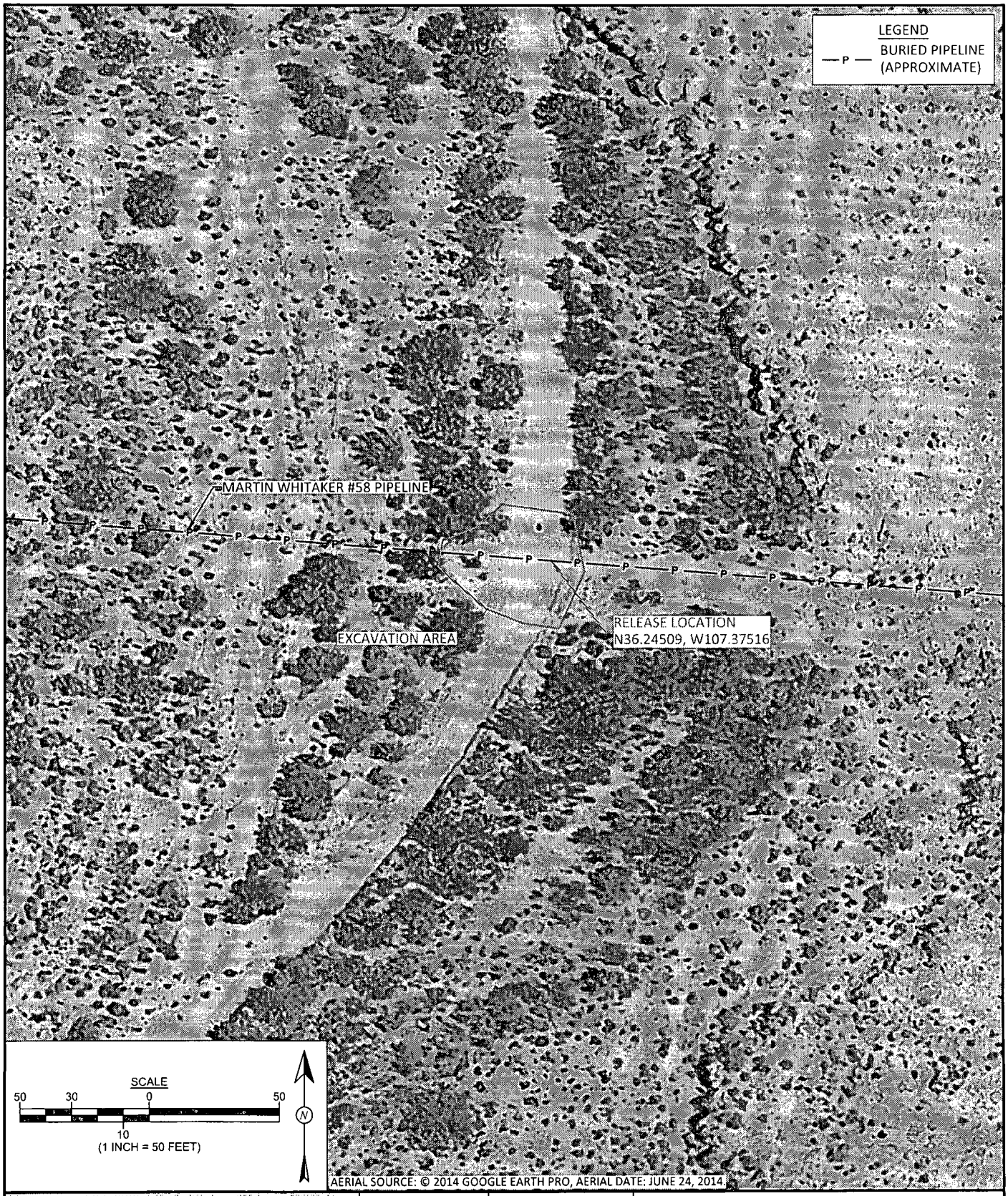

Animas Environmental Services, LLC

| | |
|---|---|
| **DRAWN BY:** C. Lameman | **DATE DRAWN:** December 22, 2014 |
| **REVISIONS BY:** C. Lameman | **DATE REVISED:** December 22, 2014 |
| **CHECKED BY:** E. Skyles | **DATE CHECKED:** December 22, 2014 |
| **APPROVED BY:** E. McNally | **DATE APPROVED:** December 22, 2014 |

# FIGURE 1

## TOPOGRAPHIC SITE LOCATION MAP

BEELINE GAS SYSTEMS
MARTIN WHITAKER #58 PIPELINE RELEASE
NW¼ NW¼, SECTION 9, T23N, R5W
RIO ARRIBA COUNTY, NEW MEXICO
N36.24509, W107.37516

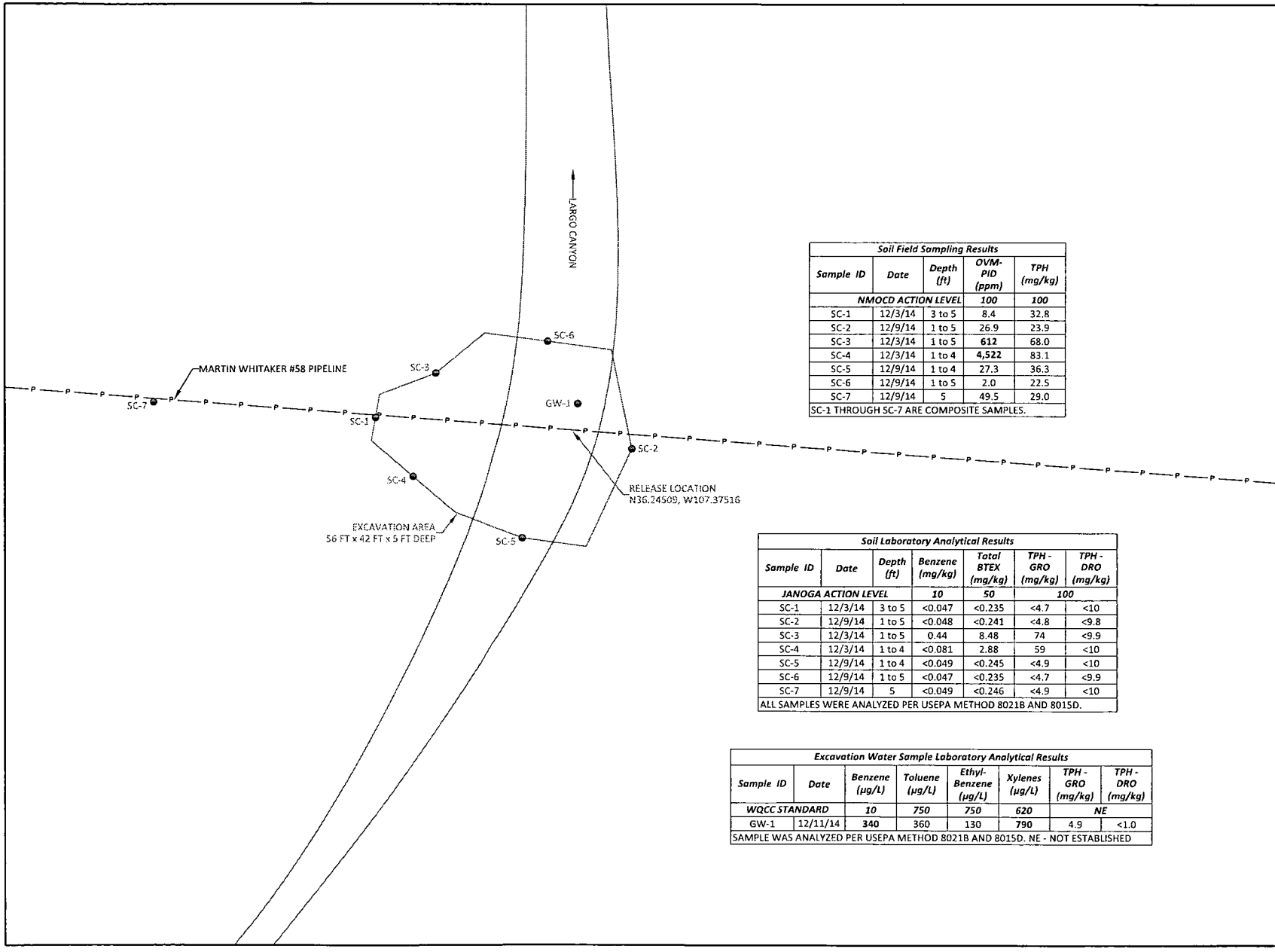



Animas Environmental Services, LLC

| | | |
|---|---|---|
| **DRAWN BY:** C. Lameman | **DATE DRAWN:** December 22, 2014 | **FIGURE 2** |
| **REVISIONS BY:** C. Lameman | **DATE REVISED:** December 22, 2014 | **AERIAL SITE MAP DECEMBER 2014** |
| **CHECKED BY:** E. Skyles | **DATE CHECKED:** December 22, 2014 | BEELINE GAS SYSTEMS<br>MARTIN WHITAKER #58 PIPELINE RELEASE<br>NW¼ NW¼, SECTION 9, T23N, R5W<br>RIO ARRIBA COUNTY, NEW MEXICO<br>N36.24509, W107.37516 |
| **APPROVED BY:** E. McNally | **DATE APPROVED:** December 22, 2014 | |

# FIGURE 3

**FINAL EXCAVATION SAMPLE LOCATIONS AND RESULTS**
**DECEMBER 2014**
BEELINE GAS SYSTEMS
MARTIN WHITAKER #58 PIPELINE RELEASE
NW¼ NW¼, SECTION 9, T23N, R5W
RIO ARRIBA COUNTY, NEW MEXICO
N36.24509, W107.37516




| Soil Field Sampling Results | | | | |
|---|---|---|---|---|
| Sample ID | Date | Depth (ft) | OVM-PID (ppm) | TPH (mg/kg) |
| NMOCD ACTION LEVEL | | | 100 | 100 |
| SC-1 | 12/3/14 | 3 to 5 | 8.4 | 32.8 |
| SC-2 | 12/9/14 | 1 to 5 | 26.9 | 23.9 |
| SC-3 | 12/3/14 | 1 to 5 | 612 | 68.0 |
| SC-4 | 12/3/14 | 1 to 4 | 4,522 | 83.1 |
| SC-5 | 12/9/14 | 1 to 4 | 27.3 | 36.3 |
| SC-6 | 12/9/14 | 1 to 5 | 2.0 | 22.5 |
| SC-7 | 12/9/14 | 5 | 49.5 | 29.0 |
| SC-1 THROUGH SC-7 ARE COMPOSITE SAMPLES. | | | | |

| Soil Laboratory Analytical Results | | | | | | |
|---|---|---|---|---|---|---|
| Sample ID | Date | Depth (ft) | Benzene (mg/kg) | Total BTEX (mg/kg) | TPH - GRO (mg/kg) | TPH - DRO (mg/kg) |
| JANOGA ACTION LEVEL | | | 10 | 50 | 100 | |
| SC-1 | 12/3/14 | 3 to 5 | <0.047 | <0.235 | <4.7 | <10 |
| SC-2 | 12/9/14 | 1 to 5 | <0.048 | <0.241 | <4.8 | <9.8 |
| SC-3 | 12/3/14 | 1 to 5 | 0.44 | 8.48 | 74 | <9.9 |
| SC-4 | 12/3/14 | 1 to 4 | <0.081 | 2.88 | 59 | <10 |
| SC-5 | 12/9/14 | 1 to 4 | <0.049 | <0.245 | <4.9 | <10 |
| SC-6 | 12/9/14 | 1 to 5 | <0.047 | <0.235 | <4.7 | <9.9 |
| SC-7 | 12/9/14 | 5 | <0.049 | <0.246 | <4.9 | <10 |
| ALL SAMPLES WERE ANALYZED PER USEPA METHOD 8021B AND 8015D. | | | | | | |

| Excavation Water Sample Laboratory Analytical Results | | | | | | | |
|---|---|---|---|---|---|---|---|
| Sample ID | Date | Benzene (µg/L) | Toluene (µg/L) | Ethyl-Benzene (µg/L) | Xylenes (µg/L) | TPH - GRO (mg/kg) | TPH - DRO (mg/kg) |
| WQCC STANDARD | | 10 | 750 | 750 | 620 | NE | |
| GW-1 | 12/11/14 | 340 | 360 | 130 | 790 | 4.9 | <1.0 |
| SAMPLE WAS ANALYZED PER USEPA METHOD 8021B AND 8015D. NE - NOT ESTABLISHED | | | | | | | |

Animas Environmental Services, LLC

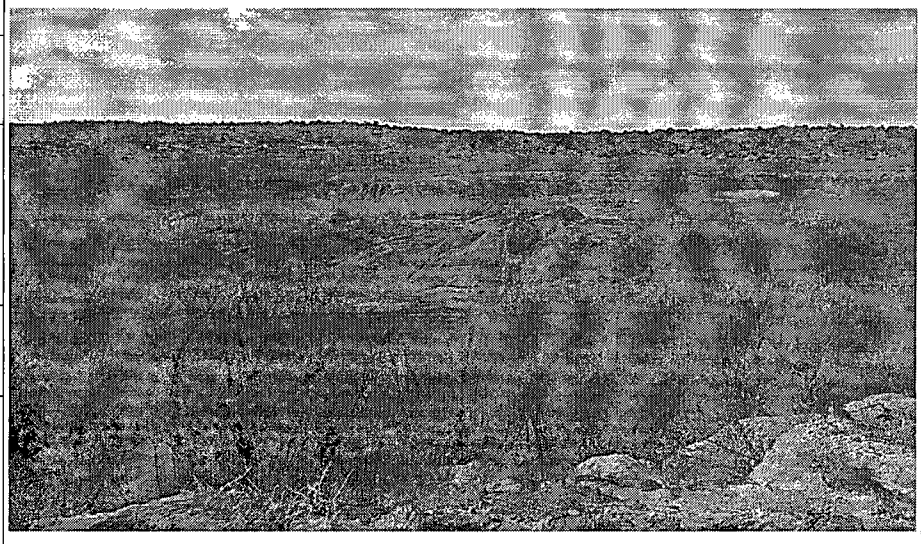
| | |
|---|---|
| DRAWN BY: C. Lameman | DATE DRAWN: December 22, 2014 |
| REVISIONS BY: C. Lameman | DATE REVISED: April 10, 2015 |
| CHECKED BY: E. Skyles | DATE CHECKED: April 10, 2015 |
| APPROVED BY: E. McNally | DATE APPROVED: April 10, 2015 |

**LEGEND**

- SAMPLE LOCATIONS
- —P— BURIED PIPELINE (APPROXIMATE)

N

SCALE
20 10 0 20
5
(1 INCH = 20 FEET)

| | |
|---|---|
| Photo #1 | |
| Client:<br>Beeline Gas Systems |  |
| Project Name:<br>Martin Whitaker #58<br><br>Rio Arriba County, NM | |
| Date Photo Taken:<br>December 9, 2014 | |
| Wellhead GPS and Location:<br>36.24509, -107.37516<br><br>NW¼ NW¼, Section 9, T23N, R5W | |
| Taken by:<br>Emilee Skyles, AES | Subject: Excavation Clearance, December 2014 |
| | Excavation Dimensions: 56 ft x 42 ft x 5 ft deep |
| | Description: Facing west, overview of excavation within Largo Wash. |

| | |
|---|---|
| Photo #2 | |
| Client:<br>Beeline Gas Systems |  |
| Project Name:<br>Martin Whitaker #58<br><br>Rio Arriba County, NM | |
| Date Photo Taken:<br>December 9, 2014 | |
| Wellhead GPS and Location:<br>36.24509, -107.37516<br><br>NW¼ NW¼, Section 9, T23N, R5W | |
| Taken by:<br>Emilee Skyles, AES | Subject: Excavation Clearance, December 2014 |
| | Excavation Dimensions: 56 ft x 42 ft x 5 ft deep |
| | Description: Facing north, final excavation limits of the northern half of the excavation. Water sample GW-1 was collected from the recharged water near the middle of the photo. Depth to water is approximately 5 feet bgs. |

| | |
|---|---|
| Photo #3 |  |
| Client:<br>Beeline Gas Systems | |
| Project Name:<br>Martin Whitaker #58<br><br>Rio Arriba County, NM | |
| Date Photo Taken:<br>December 9, 2014 | |
| Wellhead GPS and Location:<br>36.24509, -107.37516<br><br>NW¼ NW¼, Section 9, T23N, R5W | |
| Taken by:<br>Emilee Skyles, AES | Subject: Excavation Clearance, December 2014 |
| | Excavation Dimensions: 56 ft x 42 ft x 5 ft deep |
| | Description: Facing west, final excavation limits of the southern half of the excavation. In the background is the pipeline corridor from which soil sample SC-7 was collected. Depth to water is approximately 5 feet bgs. |

# AES Field Sampling Report

Animas Environmental Services, LLC

Client: Beeline Gas Systems

Project Location: Martin Whitaker

Date: 12/3/2014

Matrix: Soil

| Sample ID | Collection Date | Collection Time | Sample Location | OVM (ppm) | Field TPH* (mg/kg) | Field TPH Analysis Time | TPH PQL (mg/kg) | DF | TPH Analysts Initials |
|---|---|---|---|---|---|---|---|---|---|
| SC-1 | 12/3/2014 | 9:50 | West Wall | 8.4 | 32.8 | 10:52 | 20.0 | 1 | EMS |
| SC-3 | 12/3/2014 | 9:55 | Northwest Wall | 612 | 68.0 | 10:56 | 20.0 | 1 | EMS |
| SC-4 | 12/3/2014 | 9:59 | Southwest Wall | 4,522 | 83.1 | 10:58 | 20.0 | 1 | EMS |

DF Dilution Factor
NA Not Analyzed
PQL Practical Quantitation Limit
**TPH concentrations recorded may be below PQL.*

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst: Emily Shaw


Report Finalized: 12/9/14

# AES Field Sampling Report

Animas Environmental Services, LLC

Client: Beeline Gas Systems

Project Location: Martin Whitaker

Date: 12/9/2014

Matrix: Soil

| Sample ID | Collection Date | Collection Time | Sample Location | OVM (ppm) | Field TPH* (mg/kg) | Field TPH Analysis Time | TPH PQL (mg/kg) | DF | TPH Analysts Initials |
|---|---|---|---|---|---|---|---|---|---|
| SC-2 | 12/9/2014 | 12:25 | East Wall | 26.9 | 23.9 | 13:18 | 20.0 | 1 | EMS |
| SC-5 | 12/9/2014 | 12:40 | Southeast Wall | 27.3 | 36.3 | 13:20 | 20.0 | 1 | EMS |
| SC-6 | 12/9/2014 | 12:34 | North Wall | 2.0 | 22.5 | 13:15 | 20.0 | 1 | EMS |
| SC-7 | 12/9/2014 | 15:25 | Pipeline Comp. | 49.5 | 29.0 | 15:59 | 20.0 | 1 | EMS |

DF Dilution Factor
NA Not Analyzed
PQL Practical Quantitation Limit
**TPH concentrations recorded may be below PQL.*

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst: Erik Sy L


Report Finalized: 12/9/14

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

December 12, 2014

Emilee Skyles
Animas Environmental Services
604 Pinon Street
Farmington, NM 87401
TEL: (505) 564-2281
FAX (505) 324-2022

RE: Beeline Martin Whitaker #58 OrderNo.: 1412465

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 1 sample(s) on 12/10/2014 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 qualifers 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

**Analytical Report**
Lab Order **1412465**
Date Reported: **12/12/2014**

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services
**Client Sample ID:** SC-4
**Project:** Beeline Martin Whitaker #58
**Collection Date:** 12/3/2014 9:59:00 AM
**Lab ID:** 1412465-001
**Matrix:** MEOH (SOIL)
**Received Date:** 12/10/2014 8:00:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 8015D: DIESEL RANGE ORGANICS** | | | | | | Analyst: **BCN** | |
| Diesel Range Organics (DRO) | ND | 10 | | mg/Kg | 1 | 12/10/2014 9:51:42 AM | 16749 |
| Surr: DNOP | 71.5 | 63.5-128 | | %REC | 1 | 12/10/2014 9:51:42 AM | 16749 |
| **EPA METHOD 8015D: GASOLINE RANGE** | | | | | | Analyst: **NSB** | |
| Gasoline Range Organics (GRO) | 59 | 16 | | mg/Kg | 5 | 12/11/2014 11:13:48 AM | 16757 |
| Surr: BFB | 152 | 80-120 | S | %REC | 5 | 12/11/2014 11:13:48 AM | 16757 |
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** | |
| Benzene | ND | 0.081 | | mg/Kg | 5 | 12/11/2014 11:13:48 AM | 16757 |
| Toluene | ND | 0.16 | | mg/Kg | 5 | 12/11/2014 11:13:48 AM | 16757 |
| Ethylbenzene | 0.28 | 0.16 | | mg/Kg | 5 | 12/11/2014 11:13:48 AM | 16757 |
| Xylenes, Total | 2.6 | 0.32 | | mg/Kg | 5 | 12/11/2014 11:13:48 AM | 16757 |
| Surr: 4-Bromofluorobenzene | 103 | 80-120 | | %REC | 5 | 12/11/2014 11:13:48 AM | 16757 |

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 |
| 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 |
| O | RSD is greater than RSDlimit | P | Sample pH greater than 2. |
| R | RPD outside accepted recovery limits | RL | Reporting Detection Limit |
| S | Spike Recovery outside accepted recovery limits | | |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1412465

*12-Dec-14*

**Client:** Animas Environmental Services

**Project:** Beeline Martin Whitaker #58

| Sample ID | **LCS-16749** | SampType: | **LCS** | | TestCode: | **EPA Method 8015D: Diesel Range Organics** | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Client ID: | **LCSS** | Batch ID: | **16749** | | RunNo: | **23040** | | | | | |
| Prep Date: | **12/9/2014** | Analysis Date: | **12/10/2014** | | SeqNo: | **680736** | Units: | **mg/Kg** | | | |
| Analyte | | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | | 50 | 10 | 50.00 | 0 | 99.1 | 68.6 | 130 | | | |
| Surr: DNOP | | 4.3 | | 5.000 | | 85.1 | 63.5 | 128 | | | |

| Sample ID | **MB-16749** | SampType: | **MBLK** | | TestCode: | **EPA Method 8015D: Diesel Range Organics** | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Client ID: | **PBS** | Batch ID: | **16749** | | RunNo: | **23040** | | | | | |
| Prep Date: | **12/9/2014** | Analysis Date: | **12/10/2014** | | SeqNo: | **680982** | 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 | | 7.2 | | 10.00 | | 71.8 | 63.5 | 128 | | | |

**Qualifiers:**

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: **1412465**

*12-Dec-14*

**Client:** Animas Environmental Services

**Project:** Beeline Martin Whitaker #58

| Sample ID **MB-16757** | SampType: **MBLK** | TestCode: **EPA Method 8015D: Gasoline Range** |
|---|---|---|
| Client ID: **PBS** | Batch ID: **16757** | RunNo: **23073** |
| Prep Date: **12/10/2014** | Analysis Date: **12/11/2014** | SeqNo: **681989** 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 | | 91.9 | 80 | 120 | | | |

| Sample ID **LCS-16757** | SampType: **LCS** | TestCode: **EPA Method 8015D: Gasoline Range** |
|---|---|---|
| Client ID: **LCSS** | Batch ID: **16757** | RunNo: **23073** |
| Prep Date: **12/10/2014** | Analysis Date: **12/11/2014** | SeqNo: **681990** Units: **mg/Kg** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | 24 | 5.0 | 25.00 | 0 | 96.7 | 65.8 | 139 | | | |
| Surr: BFB | 990 | | 1000 | | 98.8 | 80 | 120 | | | |

**Qualifiers:**

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1412465

*12-Dec-14*

**Client:** Animas Environmental Services

**Project:** Beeline Martin Whitaker #58

| Sample ID **MB-16757** | SampType: **MBLK** | TestCode: **EPA Method 8021B: Volatiles** |
|---|---|---|
| Client ID: **PBS** | Batch ID: **16757** | RunNo: **23073** |
| Prep Date: **12/10/2014** | Analysis Date: **12/11/2014** | SeqNo: **682023** 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 | 0.99 | | 1.000 | | 99.3 | 80 | 120 | | | |

| Sample ID **LCS-16757** | SampType: **LCS** | TestCode: **EPA Method 8021B: Volatiles** |
|---|---|---|
| Client ID: **LCSS** | Batch ID: **16757** | RunNo: **23073** |
| Prep Date: **12/10/2014** | Analysis Date: **12/11/2014** | SeqNo: **682024** 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 | 99.3 | 80 | 120 | | | |
| Toluene | 0.94 | 0.050 | 1.000 | 0 | 94.3 | 80 | 120 | | | |
| Ethylbenzene | 0.99 | 0.050 | 1.000 | 0 | 99.1 | 80 | 120 | | | |
| Xylenes, Total | 2.9 | 0.10 | 3.000 | 0 | 96.4 | 80 | 120 | | | |
| Surr: 4-Bromofluorobenzene | 1.0 | | 1.000 | | 105 | 80 | 120 | | | |

**Qualifiers:**

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

*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: **Animas Environmental** Work Order Number: **1412465** RcptNo: **1**

Received by/date: 12/10/14

Logged By: **Ashley Gallegos** **12/10/2014 8:00:00 AM**

Completed By: **Ashley Gallegos** **12/10/2014 8:30:32 AM**

Reviewed By: IC 12/10/2014

## 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° 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 °C | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|---|---|---|---|---|---|---|
| 1 | 1.0 | Good | Yes | | | |

# Chain-of-Custody Record

Client: Animas Environmental Services

Mailing Address: 604 W. Pinon
Farmington, NM 87401

Phone #: 505-564-2281

email or Fax#:

QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time: Same Day
☐ Standard ☒ Rush ASAP

Project Name: Beeline Martin Whitaker #58

Project #:

Project Manager: E. Skyles

Sampler: E. Skyles

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

**HALL ENVIRONMENTAL ANALYSIS LABORATORY**
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

**Analysis Request**

| Date | Time | Matrix | Sample Request ID | Container Type and # | Preservative Type | HEAL No. 1412406 | BTEX + MTBE + TMB's (8021) | BTEX + MTBE + TPH (Gas only) | TPH 8015B (GRO / DRO / MRO) | TPH (Method 418.1) | EDB (Method 504.1) | PAH's (8310 or 8270 SIMS) | RCRA 8 Metals | Anions ($F,Cl,NO_3,NO_2,PO_4,SO_4$) | 8081 Pesticides / 8082 PCB's | 8260B (VOA) | 8270 (Semi-VOA) | | | | | Air Bubbles (Y or N) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2/3/14 | 959 | Soil | SC-4 | 1-4oz | cool | -001 | X | | X | | | | | | | | | | | | | |

| Date: | Time: | Relinquished by: | Received by: | Date | Time | Remarks: |
|---|---|---|---|---|---|---|
| 2/9/14 | 1847 | | Christine Walker | 12/9/14 | 1847 | |
| 2/9/14 | 1931 | Christine Walker | | 12/10/14 | 0800 | |

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.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

December 15, 2014

Emilee Skyles
Animas Environmental Services
604 Pinon Street
Farmington, NM 87401
TEL: (505) 564-2281
FAX (505) 324-2022

RE: Beeline Martin Whitaker # 58 OrderNo.: 1412469

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 6 sample(s) on 12/10/2014 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 qualifers 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

Elm Ridge Exploration Co., LLC d.b.a.

***Beeline Gas Systems***

**2001 E. Blanco Blvd.**
**P. O. Box 1280**
**Bloomfield, NM 87413**
**(505) 634-1144**



April 22, 2015

State of New Mexico Energy Minerals and Natural Resources
Oil Conservation Division – Aztec Office
1000 Rio Brazos Road
Aztec, NM 87410
Attention: Cory Smith

**Certified Mail – Return Receipt Requested – 7008 1300 0001 3401 8891**

Subject: Martin Whitaker # 58 – Beeline Gas Systems

Please find attached updated C-141 and final lab results for soil sampling and water sample that were taken at the release location.

Should you have any questions or concerns with submittal or the attached check please feel free to contact me at 505-330-2736 or by e-mail at BeelineRegulatory@elmridge.net.

Thank you for your time

Sincerely,

Dianna Lee

Dianna Lee
Regulatory Compliance Administrator

**Analytical Report**
Lab Order **1412469**
Date Reported: **12/15/2014**

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services
**Project:** Beeline Martin Whitaker # 58
**Lab ID:** 1412469-001 **Matrix:** SOIL

**Client Sample ID:** SC-1
**Collection Date:** 12/3/2014 9:50:00 AM
**Received Date:** 12/10/2014 8:00:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 8015D: DIESEL RANGE ORGANICS** | | | | | | Analyst: **BCN** | |
| Diesel Range Organics (DRO) | ND | 10 | | mg/Kg | 1 | 12/11/2014 1:20:34 PM | 16761 |
| Surr: DNOP | 79.7 | 63.5-128 | | %REC | 1 | 12/11/2014 1:20:34 PM | 16761 |
| **EPA METHOD 8015D: GASOLINE RANGE** | | | | | | Analyst: **NSB** | |
| Gasoline Range Organics (GRO) | ND | 4.7 | | mg/Kg | 1 | 12/11/2014 2:05:56 PM | 16757 |
| Surr: BFB | 92.5 | 80-120 | | %REC | 1 | 12/11/2014 2:05:56 PM | 16757 |
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** | |
| Benzene | ND | 0.047 | | mg/Kg | 1 | 12/11/2014 2:05:56 PM | 16757 |
| Toluene | ND | 0.047 | | mg/Kg | 1 | 12/11/2014 2:05:56 PM | 16757 |
| Ethylbenzene | ND | 0.047 | | mg/Kg | 1 | 12/11/2014 2:05:56 PM | 16757 |
| Xylenes, Total | ND | 0.094 | | mg/Kg | 1 | 12/11/2014 2:05:56 PM | 16757 |
| Surr: 4-Bromofluorobenzene | 98.2 | 80-120 | | %REC | 1 | 12/11/2014 2:05:56 PM | 16757 |

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 |
| 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 |
| O | RSD is greater than RSDlimit | P | Sample pH greater than 2. |
| R | RPD outside accepted recovery limits | RL | Reporting Detection Limit |
| S | Spike Recovery outside accepted recovery limits | | |

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services
**Client Sample ID:** SC-2
**Project:** Beeline Martin Whitaker # 58
**Collection Date:** 12/9/2014 12:25:00 PM
**Lab ID:** 1412469-002 **Matrix:** SOIL **Received Date:** 12/10/2014 8:00:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 8015D: DIESEL RANGE ORGANICS** | | | | | | Analyst: **BCN** | |
| Diesel Range Organics (DRO) | ND | 9.8 | | mg/Kg | 1 | 12/11/2014 1:42:06 PM | 16761 |
| Surr: DNOP | 78.2 | 63.5-128 | | %REC | 1 | 12/11/2014 1:42:06 PM | 16761 |
| **EPA METHOD 8015D: GASOLINE RANGE** | | | | | | Analyst: **NSB** | |
| Gasoline Range Organics (GRO) | ND | 4.8 | | mg/Kg | 1 | 12/11/2014 2:34:29 PM | 16757 |
| Surr: BFB | 92.0 | 80-120 | | %REC | 1 | 12/11/2014 2:34:29 PM | 16757 |
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** | |
| Benzene | ND | 0.048 | | mg/Kg | 1 | 12/11/2014 2:34:29 PM | 16757 |
| Toluene | ND | 0.048 | | mg/Kg | 1 | 12/11/2014 2:34:29 PM | 16757 |
| Ethylbenzene | ND | 0.048 | | mg/Kg | 1 | 12/11/2014 2:34:29 PM | 16757 |
| Xylenes, Total | ND | 0.097 | | mg/Kg | 1 | 12/11/2014 2:34:29 PM | 16757 |
| Surr: 4-Bromofluorobenzene | 97.8 | 80-120 | | %REC | 1 | 12/11/2014 2:34:29 PM | 16757 |

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 |
| 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 |
| O | RSD is greater than RSDlimit | P | Sample pH greater than 2. |
| R | RPD outside accepted recovery limits | RL | Reporting Detection Limit |
| S | Spike Recovery outside accepted recovery limits | | |

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services
**Client Sample ID:** SC-3
**Project:** Beeline Martin Whitaker # 58
**Collection Date:** 12/3/2014 9:55:00 AM
**Lab ID:** 1412469-003 **Matrix:** SOIL **Received Date:** 12/10/2014 8:00:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 8015D: DIESEL RANGE ORGANICS** | | | | | | Analyst: **BCN** | |
| Diesel Range Organics (DRO) | ND | 9.9 | | mg/Kg | 1 | 12/11/2014 2:28:02 PM | 16761 |
| Surr: DNOP | 76.2 | 63.5-128 | | %REC | 1 | 12/11/2014 2:28:02 PM | 16761 |
| **EPA METHOD 8015D: GASOLINE RANGE** | | | | | | Analyst: **NSB** | |
| Gasoline Range Organics (GRO) | 74 | 23 | | mg/Kg | 5 | 12/11/2014 3:03:09 PM | 16757 |
| Surr: BFB | 121 | 80-120 | S | %REC | 5 | 12/11/2014 3:03:09 PM | 16757 |
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** | |
| Benzene | 0.44 | 0.23 | | mg/Kg | 5 | 12/11/2014 3:03:09 PM | 16757 |
| Toluene | 2.9 | 0.23 | | mg/Kg | 5 | 12/11/2014 3:03:09 PM | 16757 |
| Ethylbenzene | 0.54 | 0.23 | | mg/Kg | 5 | 12/11/2014 3:03:09 PM | 16757 |
| Xylenes, Total | 4.6 | 0.47 | | mg/Kg | 5 | 12/11/2014 3:03:09 PM | 16757 |
| Surr: 4-Bromofluorobenzene | 104 | 80-120 | | %REC | 5 | 12/11/2014 3:03:09 PM | 16757 |

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 |
| 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 |
| O | RSD is greater than RSDlimit | P | Sample pH greater than 2. |
| R | RPD outside accepted recovery limits | RL | Reporting Detection Limit |
| S | Spike Recovery outside accepted recovery limits | | |

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services
**Client Sample ID:** SC-5
**Project:** Beeline Martin Whitaker # 58
**Collection Date:** 12/9/2014 12:40:00 PM
**Lab ID:** 1412469-004 **Matrix:** SOIL **Received Date:** 12/10/2014 8:00:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 8015D: DIESEL RANGE ORGANICS** | | | | | | Analyst: **BCN** | |
| Diesel Range Organics (DRO) | ND | 10 | | mg/Kg | 1 | 12/11/2014 2:49:38 PM | 16761 |
| Surr: DNOP | 74.9 | 63.5-128 | | %REC | 1 | 12/11/2014 2:49:38 PM | 16761 |
| **EPA METHOD 8015D: GASOLINE RANGE** | | | | | | Analyst: **NSB** | |
| Gasoline Range Organics (GRO) | ND | 4.9 | | mg/Kg | 1 | 12/11/2014 3:31:42 PM | 16757 |
| Surr: BFB | 92.3 | 80-120 | | %REC | 1 | 12/11/2014 3:31:42 PM | 16757 |
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** | |
| Benzene | ND | 0.049 | | mg/Kg | 1 | 12/11/2014 3:31:42 PM | 16757 |
| Toluene | ND | 0.049 | | mg/Kg | 1 | 12/11/2014 3:31:42 PM | 16757 |
| Ethylbenzene | ND | 0.049 | | mg/Kg | 1 | 12/11/2014 3:31:42 PM | 16757 |
| Xylenes, Total | ND | 0.098 | | mg/Kg | 1 | 12/11/2014 3:31:42 PM | 16757 |
| Surr: 4-Bromofluorobenzene | 99.0 | 80-120 | | %REC | 1 | 12/11/2014 3:31:42 PM | 16757 |

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 |
| 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 |
| O | RSD is greater than RSDlimit | P | Sample pH greater than 2. |
| R | RPD outside accepted recovery limits | RL | Reporting Detection Limit |
| S | Spike Recovery outside accepted recovery limits | | |

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services
**Client Sample ID:** SC-6
**Project:** Beeline Martin Whitaker # 58
**Collection Date:** 12/9/2014 12:34:00 PM
**Lab ID:** 1412469-005 **Matrix:** SOIL **Received Date:** 12/10/2014 8:00:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 8015D: DIESEL RANGE ORGANICS** | | | | | | Analyst: **BCN** | |
| Diesel Range Organics (DRO) | ND | 9.9 | | mg/Kg | 1 | 12/11/2014 3:11:16 PM | 16761 |
| Surr: DNOP | 80.4 | 63.5-128 | | %REC | 1 | 12/11/2014 3:11:16 PM | 16761 |
| **EPA METHOD 8015D: GASOLINE RANGE** | | | | | | Analyst: **NSB** | |
| Gasoline Range Organics (GRO) | ND | 4.7 | | mg/Kg | 1 | 12/11/2014 4:00:25 PM | 16757 |
| Surr: BFB | 93.6 | 80-120 | | %REC | 1 | 12/11/2014 4:00:25 PM | 16757 |
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** | |
| Benzene | ND | 0.047 | | mg/Kg | 1 | 12/11/2014 4:00:25 PM | 16757 |
| Toluene | ND | 0.047 | | mg/Kg | 1 | 12/11/2014 4:00:25 PM | 16757 |
| Ethylbenzene | ND | 0.047 | | mg/Kg | 1 | 12/11/2014 4:00:25 PM | 16757 |
| Xylenes, Total | ND | 0.094 | | mg/Kg | 1 | 12/11/2014 4:00:25 PM | 16757 |
| Surr: 4-Bromofluorobenzene | 98.5 | 80-120 | | %REC | 1 | 12/11/2014 4:00:25 PM | 16757 |

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 |
| 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 |
| O | RSD is greater than RSDlimit | P | Sample pH greater than 2. |
| R | RPD outside accepted recovery limits | RL | Reporting Detection Limit |
| S | Spike Recovery outside accepted recovery limits | | |

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services
**Client Sample ID:** SC-7
**Project:** Beeline Martin Whitaker # 58
**Collection Date:** 12/9/2014 3:25:00 PM
**Lab ID:** 1412469-006 **Matrix:** SOIL **Received Date:** 12/10/2014 8:00:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 8015D: DIESEL RANGE ORGANICS** | | | | | | Analyst: **BCN** | |
| Diesel Range Organics (DRO) | ND | 10 | | mg/Kg | 1 | 12/11/2014 3:32:51 PM | 16761 |
| Surr: DNOP | 80.1 | 63.5-128 | | %REC | 1 | 12/11/2014 3:32:51 PM | 16761 |
| **EPA METHOD 8015D: GASOLINE RANGE** | | | | | | Analyst: **NSB** | |
| Gasoline Range Organics (GRO) | ND | 4.9 | | mg/Kg | 1 | 12/11/2014 4:29:08 PM | 16757 |
| Surr: BFB | 92.2 | 80-120 | | %REC | 1 | 12/11/2014 4:29:08 PM | 16757 |
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** | |
| Benzene | ND | 0.049 | | mg/Kg | 1 | 12/11/2014 4:29:08 PM | 16757 |
| Toluene | ND | 0.049 | | mg/Kg | 1 | 12/11/2014 4:29:08 PM | 16757 |
| Ethylbenzene | ND | 0.049 | | mg/Kg | 1 | 12/11/2014 4:29:08 PM | 16757 |
| Xylenes, Total | ND | 0.099 | | mg/Kg | 1 | 12/11/2014 4:29:08 PM | 16757 |
| Surr: 4-Bromofluorobenzene | 97.8 | 80-120 | | %REC | 1 | 12/11/2014 4:29:08 PM | 16757 |

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 |
| 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 |
| O | RSD is greater than RSDlimit | P | Sample pH greater than 2. |
| R | RPD outside accepted recovery limits | RL | Reporting Detection Limit |
| S | Spike Recovery outside accepted recovery limits | | |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: **1412469**

*15-Dec-14*

**Client:** Animas Environmental Services

**Project:** Beeline Martin Whitaker # 58

| Sample ID **MB-16761** | SampType: **MBLK** | TestCode: **EPA Method 8015D: Diesel Range Organics** |
|---|---|---|
| Client ID: **PBS** | Batch ID: **16761** | RunNo: **23040** |
| Prep Date: **12/10/2014** | Analysis Date: **12/10/2014** | SeqNo: **681318** 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 | 7.3 | | 10.00 | | 73.4 | 63.5 | 128 | | | |

| Sample ID **LCS-16761** | SampType: **LCS** | TestCode: **EPA Method 8015D: Diesel Range Organics** |
|---|---|---|
| Client ID: **LCSS** | Batch ID: **16761** | RunNo: **23040** |
| Prep Date: **12/10/2014** | Analysis Date: **12/10/2014** | SeqNo: **681339** 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 | 68.6 | 130 | | | |
| Surr: DNOP | 4.4 | | 5.000 | | 87.2 | 63.5 | 128 | | | |

| Sample ID **MB-16773** | SampType: **MBLK** | TestCode: **EPA Method 8015D: Diesel Range Organics** |
|---|---|---|
| Client ID: **PBS** | Batch ID: **16773** | RunNo: **23067** |
| Prep Date: **12/11/2014** | Analysis Date: **12/11/2014** | SeqNo: **683101** Units: **%REC** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Surr: DNOP | 7.3 | | 10.00 | | 73.0 | 63.5 | 128 | | | |

| Sample ID **LCS-16773** | SampType: **LCS** | TestCode: **EPA Method 8015D: Diesel Range Organics** |
|---|---|---|
| Client ID: **LCSS** | Batch ID: **16773** | RunNo: **23067** |
| Prep Date: **12/11/2014** | Analysis Date: **12/11/2014** | SeqNo: **683102** Units: **%REC** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Surr: DNOP | 4.6 | | 5.000 | | 92.1 | 63.5 | 128 | | | |

**Qualifiers:**

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: **1412469**

*15-Dec-14*

**Client:** Animas Environmental Services

**Project:** Beeline Martin Whitaker # 58

| Sample ID **MB-16757** | SampType: **MBLK** | TestCode: **EPA Method 8015D: Gasoline Range** |
|---|---|---|
| Client ID: **PBS** | Batch ID: **16757** | RunNo: **23073** |
| Prep Date: **12/10/2014** | Analysis Date: **12/11/2014** | SeqNo: **681989** 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 | | 91.9 | 80 | 120 | | | |

| Sample ID **LCS-16757** | SampType: **LCS** | TestCode: **EPA Method 8015D: Gasoline Range** |
|---|---|---|
| Client ID: **LCSS** | Batch ID: **16757** | RunNo: **23073** |
| Prep Date: **12/10/2014** | Analysis Date: **12/11/2014** | SeqNo: **681990** Units: **mg/Kg** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | 24 | 5.0 | 25.00 | 0 | 96.7 | 65.8 | 139 | | | |
| Surr: BFB | 990 | | 1000 | | 98.8 | 80 | 120 | | | |

**Qualifiers:**

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: **1412469**

*15-Dec-14*

**Client:** Animas Environmental Services

**Project:** Beeline Martin Whitaker # 58

| Sample ID **MB-16757** | SampType: **MBLK** | TestCode: **EPA Method 8021B: Volatiles** |
|---|---|---|
| Client ID: **PBS** | Batch ID: **16757** | RunNo: **23073** |
| Prep Date: **12/10/2014** | Analysis Date: **12/11/2014** | SeqNo: **682023** 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 | 0.99 | | 1.000 | | 99.3 | 80 | 120 | | | |

| Sample ID **LCS-16757** | SampType: **LCS** | TestCode: **EPA Method 8021B: Volatiles** |
|---|---|---|
| Client ID: **LCSS** | Batch ID: **16757** | RunNo: **23073** |
| Prep Date: **12/10/2014** | Analysis Date: **12/11/2014** | SeqNo: **682024** 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 | 99.3 | 80 | 120 | | | |
| Toluene | 0.94 | 0.050 | 1.000 | 0 | 94.3 | 80 | 120 | | | |
| Ethylbenzene | 0.99 | 0.050 | 1.000 | 0 | 99.1 | 80 | 120 | | | |
| Xylenes, Total | 2.9 | 0.10 | 3.000 | 0 | 96.4 | 80 | 120 | | | |
| Surr: 4-Bromofluorobenzene | 1.0 | | 1.000 | | 105 | 80 | 120 | | | |

**Qualifiers:**

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

*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: Animas Environmental | Work Order Number: 1412469 | RcptNo: 1

Received by/date: AG 12/10/14

Logged By: **Celina Sessa** 12/10/2014 8:00:00 AM Celina Sessa

Completed By: **Celina Sessa** 12/10/2014 9:20:36 AM Celina Sessa

Reviewed By: TO 12/10/14

## 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° 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 °C | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|---|---|---|---|---|---|---|
| 1 | 1.0 | Good | Yes | | | |

# 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

| | |
|---|---|
| Client: Animas Environmental Services | Turn-Around Time: ☒ Standard ☐ Rush |
| Mailing Address: 604 W. Pinon Farmington, NM 87401 | Project Name: Beeline Martin Whittaker #58 |
| Phone #: 505-564-2281 | Project #: |
| email or Fax#: | Project Manager: E Sfyles |
| QA/QC Package: ☒ Standard ☐ Level 4 (Full Validation) | Sampler: E. Sfyles |
| Accreditation: ☐ NELAP ☐ Other | On Ice: ☒ Yes ☐ No |
| ☐ EDD (Type) | Sample Temperature: 1.0 |

| Date | Time | Matrix | Sample Request ID | Container Type and # | Preservative Type | HEAL No. 1412469 | BTEX + MTBE + TMB's (8021) | BTEX + MTBE + TPH (Gas only) | TPH 8015B (GRO / DRO / MRO) | TPH (Method 418.1) | EDB (Method 504.1) | PAH's (8310 or 8270 SIMS) | RCRA 8 Metals | Anions (F, Cl, $NO_3$, $NO_2$, $PO_4$, $SO_4$) | 8081 Pesticides / 8082 PCB's | 8260B (VOA) | 8270 (Semi-VOA) | | | | Air Bubbles (Y or N) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/3/14 | 950 | Soil | SC-1 | 1-4oz | cool | -001 | X | | X | | | | | | | | | | | | |
| 12/9/14 | 1225 | Soil | SC-2 | 1-4oz | cool | -002 | X | | X | | | | | | | | | | | | |
| 12/3/14 | 955 | Soil | SC-3 | 1-4oz | cool | -003 | X | | X | | | | | | | | | | | | |
| 12/9/14 | 1240 | Soil | SC-4 | 1-4oz | cool | -004 | X | | X | | | | | | | | | | | | |
| 12/9/14 | 1234 | Soil | SC-5 | 1-4oz | cool | -005 | X | | X | | | | | | | | | | | | |
| 12/9/14 | 1525 | Soil | SC-7 | 1-4oz | cool | -006 | X | | X | | | | | | | | | | | | |

| Date | Time | Relinquished by | Received by | Date | Time |
|---|---|---|---|---|---|
| 12/9/14 | 1847 | | | 12/9/14 | 1847 |
| 12/9/14 | 1831 | | | 12/10/14 | 0820 |

Remarks:

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.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

December 16, 2014

Emilee Skyles
Animas Environmental Services
604 Pinon Street
Farmington, NM 87401
TEL: (505) 564-2281
FAX (505) 324-2022

RE: Beeline Martin Whitaker #58 OrderNo.: 1412598

Dear Emilee Skyles:

Hall Environmental Analysis Laboratory received 1 sample(s) on 12/12/2014 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 qualifers 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

**Analytical Report**
Lab Order **1412598**
Date Reported: **12/16/2014**

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services
**Project:** Beeline Martin Whitaker #58
**Lab ID:** 1412598-001 **Matrix:** AQUEOUS

**Client Sample ID:** GW-1
**Collection Date:** 12/11/2014 1:30:00 PM
**Received Date:** 12/12/2014 7:32:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 8015D: DIESEL RANGE** | | | | | | Analyst: **BCN** | |
| Diesel Range Organics (DRO) | ND | 1.0 | | mg/L | 1 | 12/12/2014 8:13:27 PM | 16791 |
| Surr: DNOP | 101 | 59-141 | | %REC | 1 | 12/12/2014 8:13:27 PM | 16791 |
| **EPA METHOD 8015D: GASOLINE RANGE** | | | | | | Analyst: **NSB** | |
| Gasoline Range Organics (GRO) | 4.9 | 2.5 | | mg/L | 50 | 12/12/2014 4:55:44 PM | R23126 |
| Surr: BFB | 95.8 | 80-120 | | %REC | 50 | 12/12/2014 4:55:44 PM | R23126 |
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** | |
| Benzene | 340 | 50 | | µg/L | 50 | 12/12/2014 4:55:44 PM | R23126 |
| Toluene | 360 | 50 | | µg/L | 50 | 12/12/2014 4:55:44 PM | R23126 |
| Ethylbenzene | 130 | 50 | | µg/L | 50 | 12/12/2014 4:55:44 PM | R23126 |
| Xylenes, Total | 790 | 100 | | µg/L | 50 | 12/12/2014 4:55:44 PM | R23126 |
| Surr: 4-Bromofluorobenzene | 109 | 66.6-167 | | %REC | 50 | 12/12/2014 4:55:44 PM | R23126 |

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 |
| 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 |
| O | RSD is greater than RSDlimit | P | Sample pH greater than 2. |
| R | RPD outside accepted recovery limits | RL | Reporting Detection Limit |
| S | Spike Recovery outside accepted recovery limits | | |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: **1412598**

*16-Dec-14*

**Client:** Animas Environmental Services

**Project:** Beeline Martin Whitaker #58

| Sample ID **MB-16791** | SampType: **MBLK** | TestCode: **EPA Method 8015D: Diesel Range** |
|---|---|---|
| Client ID: **PBW** | Batch ID: **16791** | RunNo: **23096** |
| Prep Date: **12/12/2014** | Analysis Date: **12/12/2014** | SeqNo: **682802** Units: **mg/L** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | ND | 1.0 | | | | | | | | |
| Surr: DNOP | 1.0 | | 1.000 | | 103 | 59 | 141 | | | |

| Sample ID **LCS-16791** | SampType: **LCS** | TestCode: **EPA Method 8015D: Diesel Range** |
|---|---|---|
| Client ID: **LCSW** | Batch ID: **16791** | RunNo: **23096** |
| Prep Date: **12/12/2014** | Analysis Date: **12/12/2014** | SeqNo: **682803** Units: **mg/L** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | 6.1 | 1.0 | 5.000 | 0 | 121 | 69.7 | 142 | | | |
| Surr: DNOP | 0.60 | | 0.5000 | | 120 | 59 | 141 | | | |

**Qualifiers:**

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: **1412598**

*16-Dec-14*

**Client:** Animas Environmental Services

**Project:** Beeline Martin Whitaker #58

| Sample ID **5ML RB** | SampType: **MBLK** | TestCode: **EPA Method 8015D: Gasoline Range** |
|---|---|---|
| Client ID: **PBW** | Batch ID: **R23126** | RunNo: **23126** |
| Prep Date: | Analysis Date: **12/12/2014** | SeqNo: **683028** Units: **mg/L** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | ND | 0.050 | | | | | | | | |
| Surr: BFB | 18 | | 20.00 | | 92.3 | 80 | 120 | | | |

| Sample ID **2.5UG GRO LCS** | SampType: **LCS** | TestCode: **EPA Method 8015D: Gasoline Range** |
|---|---|---|
| Client ID: **LCSW** | Batch ID: **R23126** | RunNo: **23126** |
| Prep Date: | Analysis Date: **12/12/2014** | SeqNo: **683032** Units: **mg/L** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | 0.46 | 0.050 | 0.5000 | 0 | 92.9 | 80 | 120 | | | |
| Surr: BFB | 19 | | 20.00 | | 95.6 | 80 | 120 | | | |

| Sample ID **1412598-001AMS** | SampType: **MS** | TestCode: **EPA Method 8015D: Gasoline Range** |
|---|---|---|
| Client ID: **GW-1** | Batch ID: **R23126** | RunNo: **23126** |
| Prep Date: | Analysis Date: **12/12/2014** | SeqNo: **683053** Units: **mg/L** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | 28 | 2.5 | 25.00 | 4.910 | 94.3 | 70.4 | 127 | | | |
| Surr: BFB | 1000 | | 1000 | | 102 | 80 | 120 | | | |

| Sample ID **1412598-001AMSD** | SampType: **MSD** | TestCode: **EPA Method 8015D: Gasoline Range** |
|---|---|---|
| Client ID: **GW-1** | Batch ID: **R23126** | RunNo: **23126** |
| Prep Date: | Analysis Date: **12/12/2014** | SeqNo: **683054** Units: **mg/L** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | 27 | 2.5 | 25.00 | 4.910 | 88.6 | 70.4 | 127 | 5.08 | 20 | |
| Surr: BFB | 1000 | | 1000 | | 99.9 | 80 | 120 | 0 | 0 | |

**Qualifiers:**

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: **1412598**

*16-Dec-14*

**Client:** Animas Environmental Services

**Project:** Beeline Martin Whitaker #58

| Sample ID **5ML RB** | SampType: **MBLK** | TestCode: **EPA Method 8021B: Volatiles** |
|---|---|---|
| Client ID: **PBW** | Batch ID: **R23126** | RunNo: **23126** |
| Prep Date: | Analysis Date: **12/12/2014** | SeqNo: **683087** Units: **µg/L** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | 1.0 | | | | | | | | |
| Toluene | ND | 1.0 | | | | | | | | |
| Ethylbenzene | ND | 1.0 | | | | | | | | |
| Xylenes, Total | ND | 2.0 | | | | | | | | |
| Surr: 4-Bromofluorobenzene | 21 | | 20.00 | | 104 | 66.6 | 167 | 0 | 0 | |

| Sample ID **100NG BTEX LCS** | SampType: **LCS** | TestCode: **EPA Method 8021B: Volatiles** |
|---|---|---|
| Client ID: **LCSW** | Batch ID: **R23126** | RunNo: **23126** |
| Prep Date: | Analysis Date: **12/12/2014** | SeqNo: **683089** Units: **µg/L** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 19 | 1.0 | 20.00 | 0 | 94.1 | 80 | 120 | | | |
| Toluene | 19 | 1.0 | 20.00 | 0 | 96.3 | 80 | 120 | | | |
| Ethylbenzene | 19 | 1.0 | 20.00 | 0 | 97.3 | 80 | 120 | | | |
| Xylenes, Total | 60 | 2.0 | 60.00 | 0 | 100 | 80 | 120 | | | |
| Surr: 4-Bromofluorobenzene | 22 | | 20.00 | | 111 | 66.6 | 167 | | | |

**Qualifiers:**

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

*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: Animas Environmental  Work Order Number: 1412598  RcptNo: 1

Received by/date: AT 12/12/14

Logged By: Anne Thorne  12/12/2014 7:32:00 AM  Anne Thorne

Completed By: Anne Thorne  12/12/2014  Anne Thorne

Reviewed By:  12/12/14

## 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° 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 °C | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|---|---|---|---|---|---|---|
| 1 | 1.3 | Good | Yes | | | |

# Chain-of-Custody Record

Client: Animas Environmental Services

Mailing Address: 604 W Apon
Farmington, NM 87401

Phone #: 505-564-2281

email or Fax#:

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☒ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: Beeline Martin Whitaker #58

Project #:

Project Manager: E. Skyles

Sampler: ESkyles

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.3

**HALL ENVIRONMENTAL ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

| Date | Time | Matrix | Sample Request ID | Container Type and # | Preservative Type | HEAL No. 1412598 | BTEX + MTBE + TMB's (8021) | BTEX + MTBE + TPH (Gas only) | TPH 8015B (GRO / DRO / MRO) | TPH (Method 418.1) | EDB (Method 504.1) | PAH's (8310 or 8270 SIMS) | RCRA 8 Metals | Anions (F, Cl, NO3, NO2, PO4, SO4) | 8081 Pesticides / 8082 PCB's | 8260B (VOA) | 8270 (Semi-VOA) | | | | Air Bubbles (Y or N) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/11/14 | 1330 | H2O | GW-1 | 1-250mL Amber<br>3-40mL VOA | cool<br>HCl | -001 | X | | X | | | | | | | | | | | | |

Analysis Request

| Date: | Time: | Relinquished by: | Received by: | Date: | Time: |
|---|---|---|---|---|---|
| 12/11/14 | 1750 | | | 12/11/14 | 1750 |
| 12/11/14 | 1849 | | | 12/12/14 | 0732 |

Remarks:

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.