November 12, 2014

Jim Griswold
New Mexico Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505

**Re: Site Assessment Report May and June 2014**
**Benson-Montin-Greer**
**Highway 537 Truck Receiving Station**
**Rio Arriba County, New Mexico**

Dear Mr. Griswold:

On behalf of Benson-Montin-Greer Drilling Corporation (BMG), Animas Environmental Services, LLC (AES) has prepared this report for the May 2014 excavation assessment and June 2014 Geoprobe assessment at the BMG Highway 537 Truck Receiving Station. The assessment was requested by BMG as part of a contract condition in terminating the property lease.

# 1.0 Site Information

The BMG Highway 537 Truck Receiving Station consisted of eight 500 barrel (bbl) oil storage tanks, one 600 bbl oil storage tank, one 80 bbl open top waste tank, and various pumps and meters associated with crude oil transport truck loading, unloading, and pipeline transport. Surface ownership consists of private land owned by the Schmitz Ranch.

## *1.1 Site Location*

The Hwy 537 Truck Receiving Station is located along the south side of NM State Highway 537 and is adjacent to the wash in Los Ojitos Canyon, which eventually drains to Largo Canyon. The facility is described legally as being located at SW¼ NW¼ Section 18, T25N, R3W, in Rio Arriba County, New Mexico. Latitude and longitude were recorded as N36.39866 and W107.19328, respectively. A Topographic Site Location Map, based on an excerpt from the United States Geological Survey (USGS) 7.5-minute Schmitz Ranch, Rio Arriba County, New Mexico topographic quadrangle (USGS 1963), is presented as Figure 1. An Aerial Site

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Map with a site plan, including existing monitor wells, is included as Figure 2.

### *1.2 Past Release History*

On January 29, 2009, a Western Refining truck driver discovered crude condensate within the bermed area around the storage tanks, on the south side of Tank #1. On January 30, 2009, TNT used a trackhoe to excavate an area (10 feet by 20 feet by 15 feet in depth) around the buried 6-inch line. The release was the found to be the result of a corrosion hole along the bottom of the pipe near the truck loading pumps. Because it was determined that the leak had impacted soils to at least 15 feet below ground surface (bgs), and due to the presence of tanks, buried pipe, buried conduit, and fixed pumps and meters within the release area, BMG and AES, in consultation with NMOCD, concluded that an assessment of the release area by installing soil borings and monitor wells would be the most appropriate assessment method.

On February 2, 2009, the 6-inch line was repaired, and the excavation was backfilled with clean fill material. Approximately 100 cubic yards of contaminated soil were transported to the TNT Landfarm for disposal. From February 16 through 20, 2009, site investigation activities were conducted by AES in order to delineate the full extent of petroleum hydrocarbon impact on surface and subsurface soils and groundwater resulting from the release. The investigation procedures included the installation of 11 monitor wells (MW-1 through MW-11) and collection of soil and groundwater samples. Work was completed in accordance with the *Sampling and Analysis Plan* prepared by AES and dated February 3, 2009, and also in accordance with U.S. Environmental Protection Agency (USEPA) Environmental Response Team's Standard Operating Procedures (SOPs), and applicable American Society of Testing and Materials (ASTM) standards. Details of the site investigation are included in the AES *Site Investigation Report* submitted to NMOCD in April 2009 and in subsequent monitoring reports submitted to NMOCD.

## 2.0 Site Assessment for Lease Termination – May and June 2014

On May 12 and June 4, 2014, AES conducted a site assessment on behalf of BMG as part of termination of the site lease. The work included soil sampling during the excavation of hydrocarbon contaminated soils that were discovered when the storage tanks and truck loading station were removed from the site, and a subsequent assessment of subsurface soils, utilizing a Geoprobe. Approximately 600 cubic yards of petroleum impacted soil were removed from the excavated areas and transported to the BMG Landfarm by TPC, LLC.

## *2.1 NMOCD Ranking*

In accordance with New Mexico Oil Conservation Division (NMOCD) release protocols, action levels were established per NMOCD *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993) prior to site work. The release was given a ranking score of 40 based on the following factors:

- **Depth to Groundwater:** The average depth to groundwater in the 11 monitoring wells on site is 28.37 feet. (20 points)
- **Wellhead Protection Area:** The release location is not within a wellhead protection area. (0 points)
- **Distance to Surface Water Body:** The wash in Los Ojitos Canyon is located approximately 135 feet south of the location. (20 points)

## *2.2 Soil Sampling – Field Sampling and Laboratory Analyses*

On May 12, 2014, a total of 11 composite (SC-1 through SC-11) soil samples were collected from the two discrete areas of excavation. Samples were collected from each wall (i.e. north, south, east, and west) and base of both excavations and from the center trench. All soil samples were field-screened for volatile organic carbons (VOCs) and total petroleum hydrocarbons (TPH). Excavation area extents and the sample locations from May 2014 are shown on Figure 3.

On June 4, 2014, a total of 59 discrete soil samples from 20 Geoprobe borings (SB-1 through SB-20) were collected as part of further investigating petroleum contaminated soils at the site. Soil borings were advanced to between 8 and 20 feet bgs to avoid intersecting the water table. Soil samples were field-screened for VOCs, and selected samples were also field-analyzed for TPH. One composite sample from the storage tank area collected during the June assessment was submitted for confirmation laboratory analysis. The soil boring locations are shown in Figure 4.

### 2.2.1 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 parts per million (ppm) isobutylene gas.

### 2.2.2 Total Petroleum Hydrocarbons

Field TPH samples were analyzed 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*.

### 2.2.3 Laboratory Analyses

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

- Benzene, toluene, ethylbenzene, and xylene (BTEX) per USEPA Method 8021B; and
- TPH for gasoline range organics (GRO) and diesel range organics (DRO) per USEPA Method 8015D.

## *2.3 Field and Laboratory Analytical Results*

### 2.3.1 Field Results

On May 12, 2014, excavation assessment field screening results for VOCs via OVM showed concentrations ranging from 2.9 ppm in SC-9 up to 368 ppm in SC-11. Field TPH concentrations ranged from 28.6 mg/kg in SC-6 up to 2,350 mg/kg in SC-7. Field sampling results are presented in Table 1 and on Figure 3.

On June 4, 2014, assessment results for VOCs via OVM ranged from 0.0 ppm in SB-1, SB-2, SB-4, and SB-6 up to greater than 5,000 ppm in SB-11 through SB-14, SB-18, and SB-19. Field TPH concentrations ranged from 28.1 mg/kg in SB-1 up to greater than 2,500 mg/kg in SB-12 and SB-19. Results are included in Table 1 and on Figure 4. The AES Field Sampling Reports are included in the appendix.

### 2.3.2 Laboratory Analytical Results

For confirmation purposes, a composite sample was collected from the tank area excavation for laboratory analyses to confirm the field screening results obtained on June 4, 2014. The composite sample consisted of samples collected from SB-1 through SB-8 from the interval 4 to 8 feet. Laboratory analytical results reported that benzene concentrations were below laboratory detection limits, and total BTEX concentrations were less than 0.14 mg/kg. TPH concentrations were reported as less than 2.8 mg/kg (GRO) and 26 mg/kg (DRO). Results are presented in Table 2 and on Figure 4. The laboratory analytical report is included in the appendix.

## *2.4 Conclusions, Mitigation Efforts and Scheduled Site Activities*

### 2.4.1 Conclusions

On May 12 and June 4, 2014, AES conducted a contaminated soils site assessment on behalf of BMG as part of termination of the property lease. The work included excavation clearance and soil boring assessment of two discrete areas, along with associated field sampling and laboratory analyses.

Former Tank Area

Under the former tank area, the field screening results for VOCs via OVM ranged from 0.0 ppm in SB-1, SB-2, SB-4, and SB-6 up to 1,048 ppm in SB-5 (8 to 12 ft). With the exception of SB-5, VOC concentrations in the tank area borings were below the NMOCD action level of 100 ppm VOCs. Field TPH concentrations were also below the NMOCD action level of 100 mg/kg in all borings, with the exception of SB-5, in which the highest TPH concentration was noted at 225 mg/kg (12 to 16 ft bgs). The remaining intervals in SB-5 had TPH concentrations of 61.5 mg/kg (4 to 8 ft and 8 to 12 ft bgs) and 69.2 mg/kg (16 to 20 ft bgs). With the exception of SB-5, residual contaminant concentrations below the former tank area are below applicable NMOCD action levels for VOCs and TPH.

Former Truck Loading Station

Under the former loading area, the field screening results for VOCs via OVM ranged from 0.3 in SB-15, SB-16, SB-17 and SB-20 up to greater than 5,000 ppm in SB-11 through SB-14, SB-18, and SB-19. Field TPH concentrations were also reported above the NMOCD action level of 100 mg/kg. Based on VOC and TPH concentrations, residual contaminants in subsurface soils are still present at the former truck loading station area and former pump area.

### 2.4.2 Mitigation Efforts

In an effort to expedite remediation of residual vapors, soil concentrations and free product at the site, AES installed a Remediation Service International (RSI) mobile extraction and treatment system on August 4, 2014. The RSI unit is currently extracting from existing MW-1, which is located in the area between the former pumps and loading station.

### 2.4.3 Scheduled Site Activities

AES recommends running the RSI unit on a bi-weekly basis until December 2014 and then taking the unit off-line during the winter months. Results of the MPE system operations will be summarized in the Periodic Progress Report 4$^{th}$ Quarter 2014. Additionally, AES is currently reviewing options to continue remediation during winter months.

Additional site characterization of the lateral and vertical extent of impacted soils in the former truck loading station area (beyond the site characterization work completed in 2009) is also recommended.

If you have any questions regarding this report or site conditions, please do not hesitate to contact Brent Everett or Ross Kennemer at (505) 564-2281.

Brent Everett

Brent Everett, M.S.
Sr. Hydrogeologist/Project Manager

Ross Kennemer

Ross Kennemer
Principal

# Attachments

## Tables

Table 1. Field Sampling Report
Table 2. Laboratory Analytical Results

## Figures

Figure 1. Topographic Location Map
Figure 2. Aerial Site Map
Figure 3. Release Assessment Sample Locations and Results, May 2014
Figure 4. Release Assessment Sample Locations and Results, June 2014

## Appendix

AES Field Sampling Reports (May 12, 2014 and June 4, 2014)
Laboratory Analytical Reports (Hall Nos. 1406812)

cc: Mike Dimond
Zach Stradling
Benson-Montin-Greer Drilling Corp.
4900 College Blvd
Farmington, NM 87402

Craig Schmitz, Private Land Owner
#70 County Road 405
Lindrith, NM 87029

Brandon Powell
New Mexico Oil Conservation Division
1000 Rio Brazos Road
Aztec, NM 87410

C:\Users\beverett\Dropbox (Animas Environmental)\0000 Animas Server Dropbox EM (1)\2014 Projects\BMG\Hwy 537 2014 Rel and Excavation\Reports and Workplans\BMG Excavation Assessment 2014 111214.docx

Tables

TABLE 1
FIELD SAMPLING VOC AND TPH RESULTS
BMG HWY 537 2009 RELEASE ASSESSMENT
MAY AND JUNE 2014

| *Sample ID* | *Date Sampled* | *Sample Depth (ft bgs)* | *VOCs (ppm)* | *Field TPH (mg/kg)* |
|---|---|---|---|---|
| ***Analytical Method*** | | | **PID-OVM** | **418.1** |
| ***NMOCD Action Level**** | | | ***100*** | ***100*** |
| SC-1 | 5/12/2014 | 1-3 | 9.8 | **746** |
| SC-2 | 5/12/2014 | 1-3 | 9.2 | **734** |
| SC-3 | 5/12/2014 | 1-3 | 99.6 | **323** |
| SC-4 | 5/12/2014 | 1-3 | 64.1 | **374** |
| SC-5 | 5/12/2014 | 2-3 | **211** | **1,030** |
| SC-6 | 5/12/2014 | 4 | 2.4 | 28.6 |
| SC-7 | 5/12/2014 | 1-3 | **189** | **2,346** |
| SC-8 | 5/12/2014 | 1-3 | 21.1 | **1,528** |
| SC-9 | 5/12/2014 | 1-3 | 2.9 | **1,770** |
| SC-10 | 5/12/2014 | 1-3 | **257** | **971** |
| SC-11 | 5/12/2014 | 2-3 | **368** | **821** |
| SB-1 | 6/4/2014 | 4-8 | 0.7 | 35.8 |
| | | 8-12 | 0.0 | 35.8 |
| | | 12-16 | 0.1 | 28.1 |
| SB-2 | 6/4/2014 | 4-8 | 0.0 | 35.4 |
| | | 8-12 | 0.0 | *NA* |
| SB-3 | 6/4/2014 | 4-8 | 0.1 | 41.0 |
| | | 8-12 | 0.3 | *NA* |
| SB-4 | 6/4/2014 | 4-8 | 0.1 | 76.9 |
| | | 8-12 | 0.0 | *NA* |
| SB-5 | 6/4/2014 | 4-8 | **102** | 61.5 |
| | | 8-12 | **1,048** | 61.5 |
| | | 12-16 | *NA* | 225 |
| | | 16-20 | **1,040** | 69.2 |
| SB-6 | 6/4/2014 | 4-8 | 0.9 | 43.5 |
| | | 8-12 | 0.2 | *NA* |
| | | 12-16 | 0.0 | 44.8 |
| SB-7 | 6/4/2014 | 4-8 | 20.6 | 55.1 |
| | | 8-12 | 10.9 | 35.8 |
| SB-8 | 6/4/2014 | 4-8 | 33.4 | 89.8 |
| | | 8-12 | 10.4 | 34.6 |
| SB-9 | 6/4/2014 | 4-8 | 0.3 | *NA* |
| | | 8-12 | 0.3 | *NA* |
| | | 12-16 | 1.9 | 44.8 |

TABLE 1
FIELD SAMPLING VOC AND TPH RESULTS
BMG HWY 537 2009 RELEASE ASSESSMENT
MAY AND JUNE 2014

| *Sample ID* | *Date Sampled* | *Sample Depth (ft bgs)* | *VOCs (ppm)* | *Field TPH (mg/kg)* |
|---|---|---|---|---|
| ***Analytical Method*** | | | **PID-OVM** | **418.1** |
| ***NMOCD Action Level**** | | | ***100*** | ***100*** |
| SB-10 | 6/4/2014 | 4-8 | 1.4 | *NA* |
| | | 8-12 | 2.3 | *NA* |
| | | 12-16 | 2.2 | 41.0 |
| SB-11 | 6/4/2014 | 4-8 | **>5,000** | *NA* |
| | | 8-12 | **>5,000** | *NA* |
| | | 12-16 | **>5,000** | *NA* |
| | | 16-20 | **>5,000** | **692** |
| SB-12 | 6/4/2014 | 4-8 | **>5,000** | *NA* |
| | | 8-12 | **>5,000** | *NA* |
| | | 12-16 | **>5,000** | *NA* |
| | | 16-20 | **>5,000** | **>2,500** |
| SB-13 | 6/4/2014 | 4-8 | **>5,000** | *NA* |
| | | 8-12 | **>5,000** | *NA* |
| | | 12-16 | **>5,000** | *NA* |
| | | 16-20 | **>5,000** | *NA* |
| SB-14 | 6/4/2014 | 4-8 | **>5,000** | *NA* |
| | | 8-12 | **2,800** | *NA* |
| | | 12-16 | 23.6 | 41.0 |
| | | 16-20 | 22.4 | *NA* |
| SB-15 | 6/4/2014 | 0-4 | 4.1 | *NA* |
| | | 4-8 | 4.1 | *NA* |
| | | 8-12 | 1.5 | 35.8 |
| SB-16 | 6/4/2014 | 0-4 | 0.3 | *NA* |
| | | 4-8 | 1.2 | *NA* |
| | | 8-12 | 3.2 | *NA* |
| SB-17 | 6/4/2014 | 0-4 | 55.9 | *NA* |
| | | 4-8 | 3.5 | *NA* |
| | | 8-12 | 4.5 | *NA* |
| SB-18 | 6/4/2014 | 0-4 | 13.2 | *NA* |
| | | 4-8 | **>5000** | *NA* |
| SB-19 | 6/4/2014 | 0-4 | 1.3 | *NA* |
| | | 4-8 | 96.1 | *NA* |
| | | 8-12 | **>5,000** | **>2,500** |
| SB-20 | 6/4/2014 | 0-4 | 1.2 | *NA* |
| | | 4-8 | 1.1 | *NA* |
| | | 8-12 | 0.8 | *NA* |

TABLE 1
FIELD SAMPLING VOC AND TPH RESULTS
BMG HWY 537 2009 RELEASE ASSESSMENT
MAY AND JUNE 2014

| *Sample ID* | *Date Sampled* | *Sample Depth (ft bgs)* | *VOCs (ppm)* | *Field TPH (mg/kg)* |
|---|---|---|---|---|
| ***Analytical Method*** | | | **PID-OVM** | **418.1** |
| ***NMOCD Action Level**** | | | ***100*** | ***100*** |

**NOTE:** NA = Not Analyzed

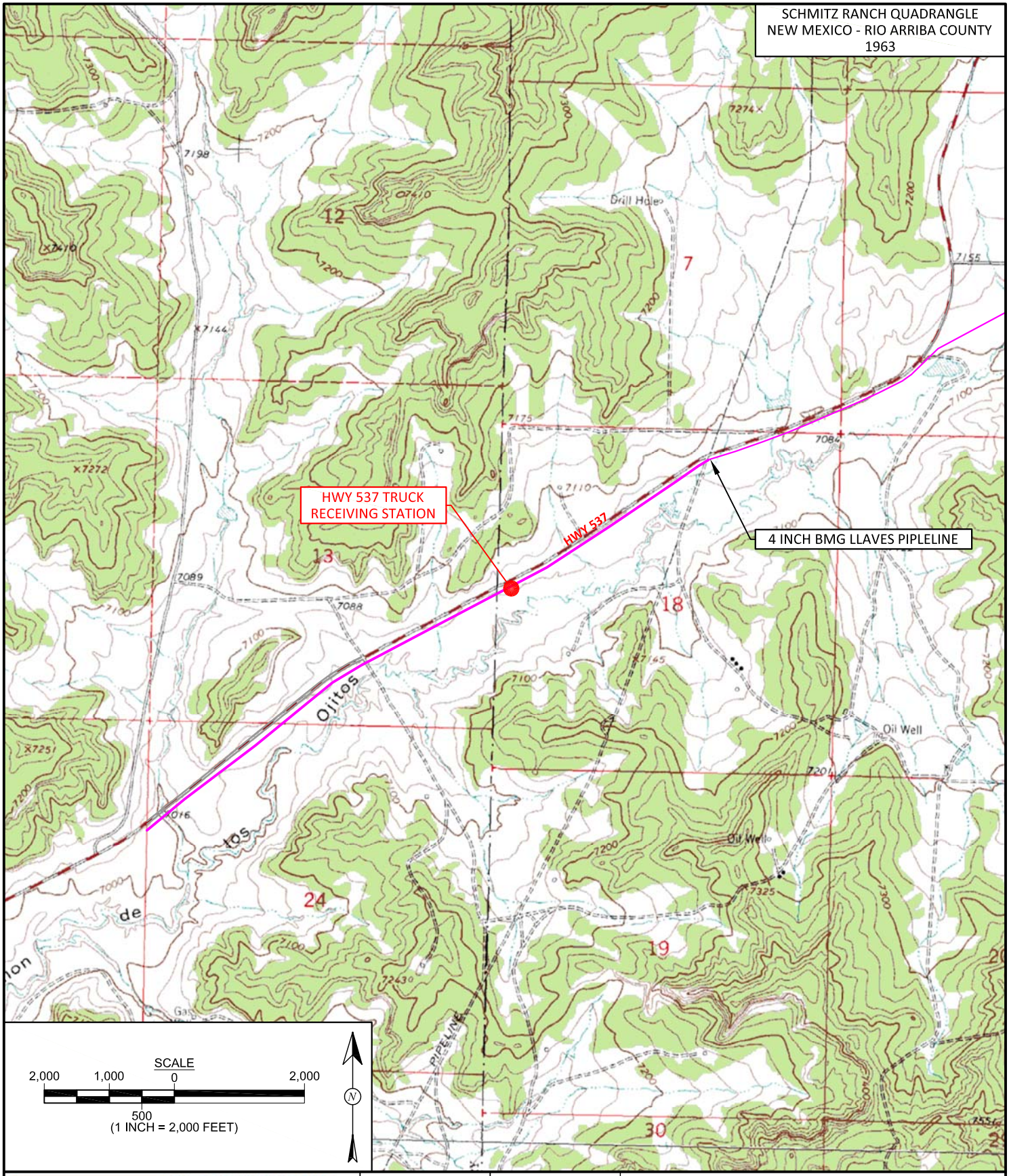
*Action level determined by the NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993)

TABLE 2. SUMMARY OF GROUNDWATER LABORATORY ANALYTICALS RESULTS
Bendon-Montin-Greer 2009 Truck Receiver Station Excavation Clearance, Rio Arriba County, New Mexico

| *Sample ID* | *Sample Depth (ft bgs)* | *Date Sampled* | *Benzene (mg/kg)* | *Total BTEX (mg/kg)* | *GRO (mg/kg)* | *DRO (mg/kg)* |
|---|---|---|---|---|---|---|
| ***NMOCD Action Level**** | | | ***10*** | ***50*** | ***100*** | ***100*** |
| **Tank Composite** | 4 to 8 | 6/4/14 | <0.028 | <0.14 | <2.8 | *26* |

***Notes:*** *Action level determined by the NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993)
Tank Composite was a composite sample of SB-1 through SB-8 at 4 to 8 feet bgs

Figures

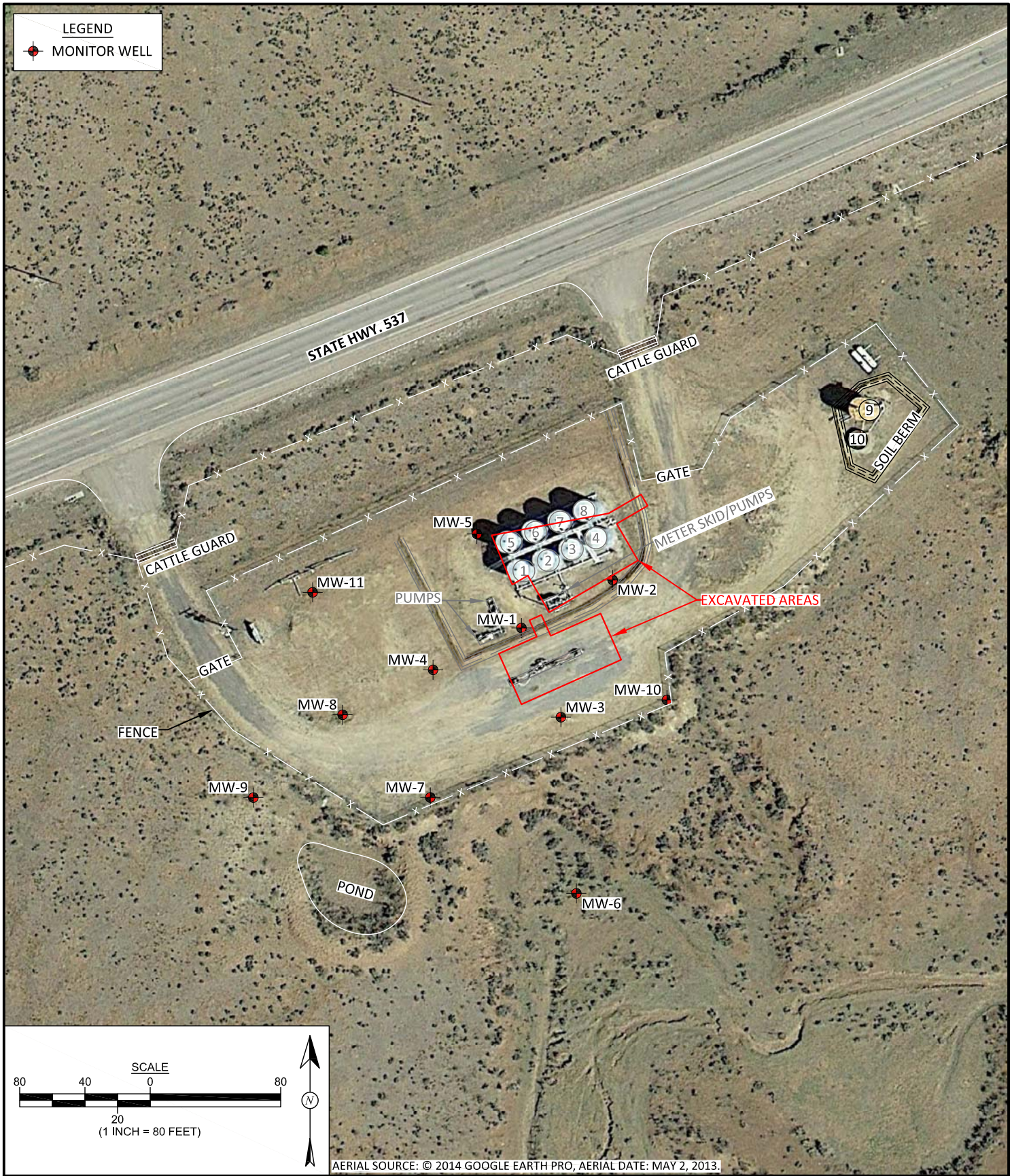



| | |
|---|---|
| **DRAWN BY:** C. Lameman | **DATE DRAWN:** May 28, 2014 |
| **REVISIONS BY:** C. Lameman | **DATE REVISED:** October 7, 2014 |
| **CHECKED BY:** B. Everett | **DATE CHECKED:** October 7, 2014 |
| **APPROVED BY:** E. McNally | **DATE APPROVED:** October 7, 2014 |

# FIGURE 1

**TOPOGRAPHIC SITE LOCATION MAP**
BENSON-MONTIN-GREER
LLAVES PIPELINE HWY. 537
TRUCK RECEIVING STATION
2014 EXCAVATION ASSESSMENT
SW ¼ NW ¼ SECTION 18, T25N, R3W
RIO ARRIBA COUNTY, NEW MEXICO
N36.39866, W107.19328

AES
Animas Environmental Services, LLC




AERIAL SOURCE: © 2014 GOOGLE EARTH PRO, AERIAL DATE: MAY 2, 2013.

Animas Environmental Services, LLC

| | |
|---|---|
| **DRAWN BY:** C. Lameman | **DATE DRAWN:** May 28, 2014 |
| **REVISIONS BY:** C. Lameman | **DATE REVISED:** October 7, 2014 |
| **CHECKED BY:** B. Everett | **DATE CHECKED:** October 7, 2014 |
| **APPROVED BY:** E. McNally | **DATE APPROVED:** October 7, 2014 |

# FIGURE 2

**AERIAL SITE MAP**
BENSON-MONTIN-GREER
LLAVES PIPELINE HWY. 537
TRUCK RECEIVING STATION
2014 EXCAVATION ASSESSMENT
SW ¼ NW ¼ SECTION 18, T25N, R3W
RIO ARRIBA COUNTY, NEW MEXICO
N36.39866, W107.19328

# FIGURE 3

**EXCAVATION AREA SAMPLE LOCATIONS AND RESULTS, MAY 2014**

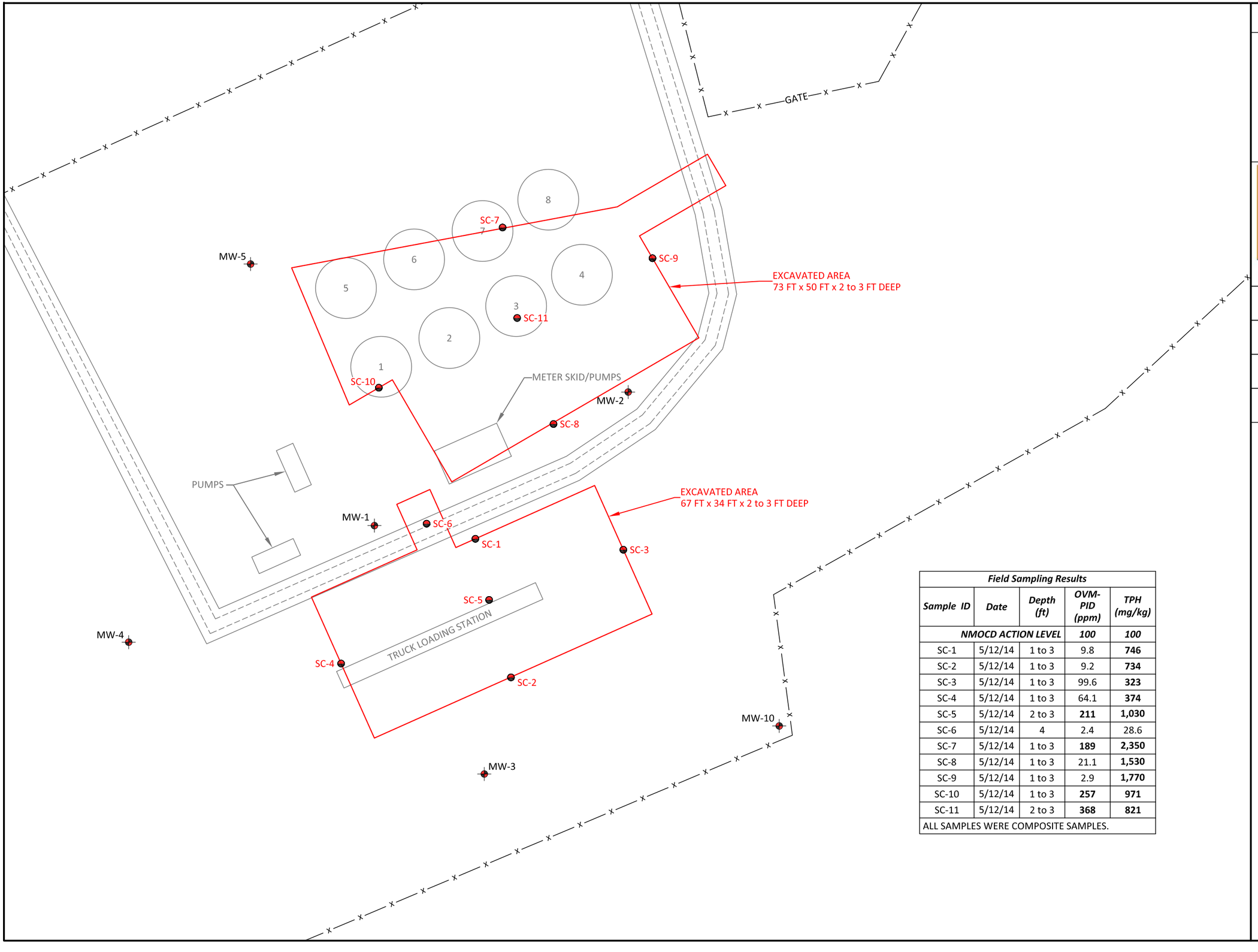
BENSON-MONTIN-GREER
LLAVES PIPELINE HWY. 537
TRUCK RECEIVING STATION
2014 EXCAVATION ASSESSMENT
SW ¼ NW ¼ SECTION 18, T25N, R3W
RIO ARRIBA COUNTY, NEW MEXICO
N36.39866, W107.19328

Animas Environmental Services, LLC

| DRAWN BY: | DATE DRAWN: |
|---|---|
| C. Lameman | May 29, 2014 |
| **REVISIONS BY:** | **DATE REVISED:** |
| C. Lameman | October 7, 2014 |
| **CHECKED BY:** | **DATE CHECKED:** |
| B. Everett | October 7, 2014 |
| **APPROVED BY:** | **DATE APPROVED:** |
| E. McNally | October 7, 2014 |

**LEGEND**

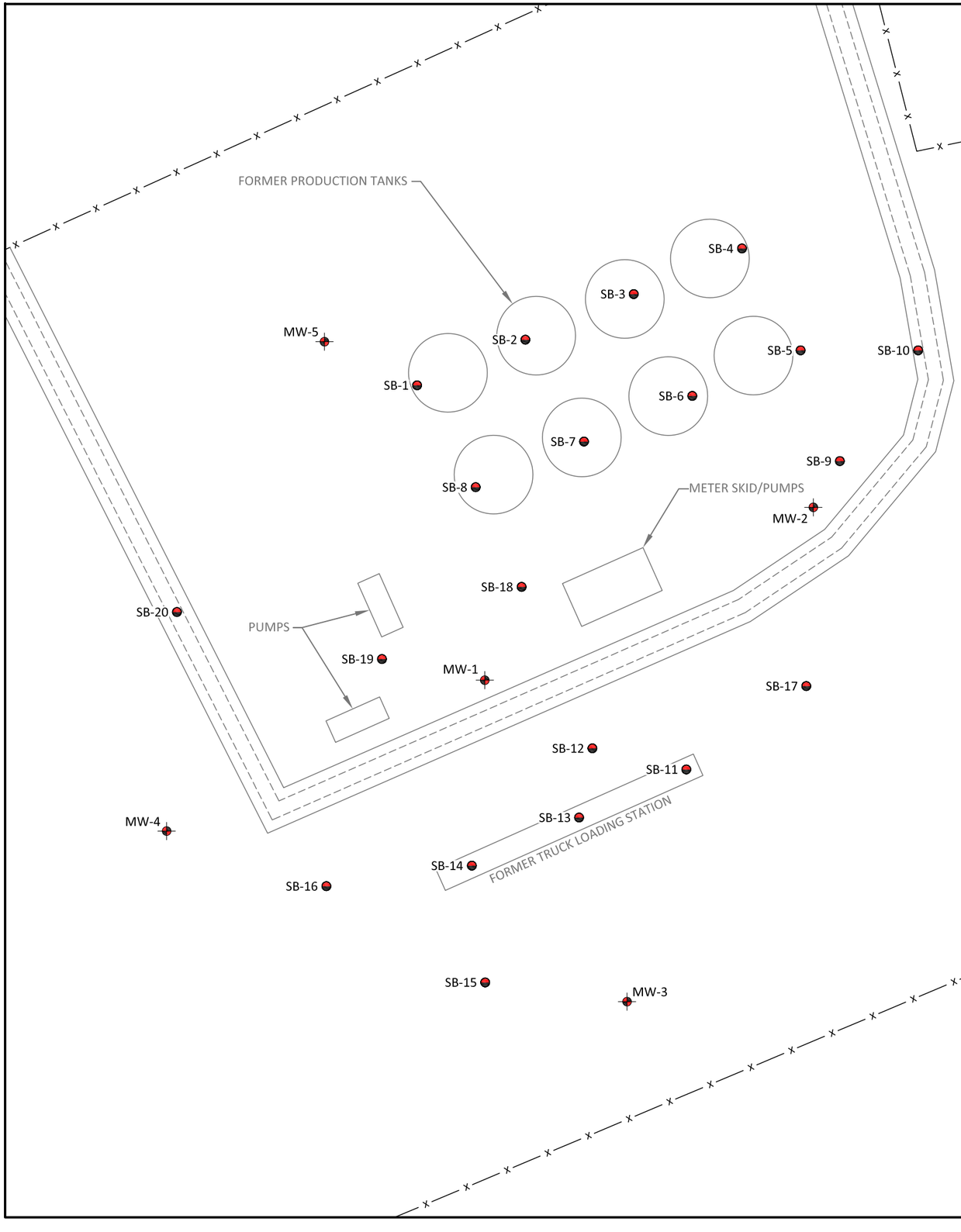
- SAMPLE LOCATIONS
- MONITOR WELL LOCATION
- FORMER SECONDARY CONTAINMENT BERM
- —x— FENCE




| *Field Sampling Results* | | | | |
|---|---|---|---|---|
| ***Sample ID*** | ***Date*** | ***Depth (ft)*** | ***OVM-PID (ppm)*** | ***TPH (mg/kg)*** |
| | | ***NMOCD ACTION LEVEL*** | ***100*** | ***100*** |
| SC-1 | 5/12/14 | 1 to 3 | 9.8 | **746** |
| SC-2 | 5/12/14 | 1 to 3 | 9.2 | **734** |
| SC-3 | 5/12/14 | 1 to 3 | 99.6 | **323** |
| SC-4 | 5/12/14 | 1 to 3 | 64.1 | **374** |
| SC-5 | 5/12/14 | 2 to 3 | **211** | **1,030** |
| SC-6 | 5/12/14 | 4 | 2.4 | 28.6 |
| SC-7 | 5/12/14 | 1 to 3 | **189** | **2,350** |
| SC-8 | 5/12/14 | 1 to 3 | 21.1 | **1,530** |
| SC-9 | 5/12/14 | 1 to 3 | 2.9 | **1,770** |
| SC-10 | 5/12/14 | 1 to 3 | **257** | **971** |
| SC-11 | 5/12/14 | 2 to 3 | **368** | **821** |
| ALL SAMPLES WERE COMPOSITE SAMPLES. | | | | |

N

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




# FIGURE 4

**RELEASE ASSESSMENT SAMPLE LOCATIONS AND RESULTS, JUNE 2014**

BENSON-MONTIN-GREER
LLAVES PIPELINE HWY. 537
TRUCK RECEIVING STATION
2014 EXCAVATION ASSESSMENT
SW ¼ NW ¼ SECTION 18, T25N, R3W
RIO ARRIBA COUNTY, NEW MEXICO
N36.39866, W107.19328

Animas Environmental Services, LLC

| DRAWN BY: | DATE DRAWN: |
|---|---|
| C. Lameman | June 9, 2014 |
| **REVISIONS BY:** | **DATE REVISED:** |
| C. Lameman | June 9, 2014 |
| **CHECKED BY:** | **DATE CHECKED:** |
| B. Everett | October 6, 2014 |
| **APPROVED BY:** | **DATE APPROVED:** |
| E. McNally | October 6, 2014 |

**LEGEND**

- SOIL BORING LOCATIONS
- EXISTING MONITOR WELL LOCATION
- FORMER SECONDARY CONTAINMENT BERM
- — x — FENCE

N

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

***Laboratory Analytical Results***

| *Sample ID* | *Date* | *Benzene (mg/kg)* | *Total BTEX (mg/kg)* | *TPH - GRO (mg/kg)* | *TPH - DRO (mg/kg)* |
|---|---|---|---|---|---|
| ***NMOCD ACTION LEVEL*** | | ***10*** | ***50*** | ***100*** | |
| Tank Composite | 6/4/14 | <0.028 | <0.14 | <2.8 | 26 |

TANK COMPOSITE WAS A COMPOSITE SAMPLE OF SB-1 THROUGH SB-8 AT 4 TO 8 FEET.

***Tank Field Sampling Results***

| *Sample ID* | *Date* | *Depth (ft)* | *OVM-PID (ppm)* | *TPH (mg/kg)* |
|---|---|---|---|---|
| ***NMOCD ACTION LEVEL*** | | | ***100*** | ***100*** |
| SB-1 | 6/4/14 | 4 to 8 | 0.7 | 35.8 |
| | | 8 to 12 | 0.0 | 35.8 |
| | | 12 to 16 | 0.1 | 28.1 |
| SB-2 | 6/4/14 | 4 to 8 | 0.0 | 35.4 |
| | | 8 to 12 | 0.0 | *NA* |
| SB-3 | 6/4/14 | 4 to 8 | 0.1 | 41.0 |
| | | 8 to 12 | 0.3 | *NA* |
| SB-4 | 6/4/14 | 4 to 8 | 0.1 | 76.9 |
| | | 8 to 12 | 0.0 | *NA* |
| SB-5 | 6/4/14 | 4 to 8 | **102** | 61.5 |
| | | 8 to 12 | **1,048** | 61.5 |
| | | 12 to 16 | *NA* | **225** |
| | | 16 to 20 | **1,040** | 69.2 |
| SB-6 | 6/4/14 | 4 to 8 | 0.9 | 43.5 |
| | | 8 to 12 | 0.2 | *NA* |
| | | 12 to 16 | 0.0 | 44.8 |
| SB-7 | 6/4/14 | 4 to 8 | 20.6 | 55.1 |
| | | 8 to 12 | 10.9 | 35.8 |
| SB-8 | 6/4/14 | 4 to 8 | 33.4 | 89.8 |
| | | 8 to 12 | 10.4 | 34.6 |
| SB-9 | 6/4/14 | 4 to 8 | 0.3 | *NA* |
| | | 8 to 12 | 0.3 | *NA* |
| | | 12 to 16 | 1.9 | 44.8 |
| SB-10 | 6/4/14 | 4 to 8 | 1.4 | *NA* |
| | | 8 to 12 | 2.3 | *NA* |
| | | 12 to 16 | 2.2 | 41.0 |

NA - NOT ANALYZED

***Truck Loading Station Field Sampling Results***

| *Sample ID* | *Date* | *Depth (ft)* | *OVM-PID (ppm)* | *TPH (mg/kg)* |
|---|---|---|---|---|
| ***NMOCD ACTION LEVEL*** | | | ***100*** | ***100*** |
| SB-11 | 6/4/14 | 4 to 8 | **>5,000** | *NA* |
| | | 8 to 12 | **>5,000** | *NA* |
| | | 12 to 16 | **>5,000** | *NA* |
| | | 16 to 20 | **>5,000** | **692** |
| SB-12 | 6/4/14 | 4 to 8 | **>5,000** | *NA* |
| | | 8 to 12 | **>5,000** | *NA* |
| | | 12 to 16 | **>5,000** | *NA* |
| | | 16 to 20 | **>5,000** | **>2,500** |
| SB-13 | 6/4/14 | 4 to 8 | **>5,000** | *NA* |
| | | 8 to 12 | **>5,000** | *NA* |
| | | 12 to 16 | **>5,000** | *NA* |
| | | 16 to 20 | **>5,000** | *NA* |
| SB-14 | 6/4/14 | 4 to 8 | **>5,000** | *NA* |
| | | 8 to 12 | **2,800** | *NA* |
| | | 12 to 16 | 23.6 | 41.0 |
| | | 16 to 20 | 22.4 | *NA* |
| SB-15 | 6/4/14 | 0 to 4 | 4.1 | *NA* |
| | | 4 to 8 | 4.1 | *NA* |
| | | 8 to 12 | 1.5 | 35.8 |
| SB-16 | 6/4/14 | 0 to 4 | 0.3 | *NA* |
| | | 4 to 8 | 1.2 | *NA* |
| | | 8 to 12 | 3.2 | *NA* |
| SB-17 | 6/4/14 | 0 to 4 | 55.9 | *NA* |
| | | 4 to 8 | 3.5 | *NA* |
| | | 8 to 12 | 4.5 | *NA* |
| SB-18 | 6/4/14 | 0 to 4 | 13.2 | *NA* |
| | | 4 to 8 | **>5,000** | *NA* |
| SB-19 | 6/4/14 | 0 to 4 | 1.3 | *NA* |
| | | 4 to 8 | 96.1 | *NA* |
| | | 8 to 12 | **>5,000** | **>2,500** |
| SB-20 | 6/4/14 | 0 to 4 | 1.2 | *NA* |
| | | 4 to 8 | 1.1 | *NA* |
| | | 8 to 12 | 0.8 | *NA* |

NA - NOT ANALYZED

# Appendix

# AES Field Sampling Report

Animas Environmental Services, LLC
www.animasenvironmental.com
624 E. Comanche
Farmington, NM 87401
505-564-2281
Durango, Colorado
970-403-3084

Client: Benson-Montin-Greer

Project Location: Hwy 537 2009 Release (North Excavation)

Date: 5/12/2014

Matrix: Soil

| Sample ID | Collection Date | Time of Sample Collection | Sample Location | OVM (ppm) | Field TPH* (mg/kg) | Field TPH Analysis Time | TPH PQL (mg/kg) | DF | TPH Analysts Initials |
|---|---|---|---|---|---|---|---|---|---|
| SC-7 | 5/12/2014 | 10:10 | North Wall | 189 | 2,346 | 11:33 | 20.0 | 1 | SL |
| SC-8 | 5/12/2014 | 10:15 | South Wall | 21.1 | 1,528 | 11:37 | 20.0 | 1 | SL |
| SC-9 | 5/12/2014 | 10:20 | East Wall | 2.9 | 1,770 | 11:42 | 20.0 | 1 | SL |
| SC-10 | 5/12/2014 | 10:25 | West Wall | 257 | 971 | 11:46 | 20.0 | 1 | SL |
| SC-11 | 5/12/2014 | 10:30 | Base | 368 | 821 | 11:51 | 20.0 | 1 | SL |

DF Dilution Factor

NA Not Analyzed

ND Not Detected at the Reporting Limit

PQL Practical Quantitation Limit

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst: Stephanie Alyn

**Field TPH concentrations recorded may be below PQL.*



Report Finalized: 5/12/14

# AES Field Sampling Report

Animas Environmental Services, LLC
www.animasenvironmental.com
624 E. Comanche
Farmington, NM 87401
505-564-2281
Durango, Colorado
970-403-3084

Client: Benson-Montin-Greer

Project Location: Hwy 537 2009 Release (South Excavation)

Date: 5/12/2014

Matrix: Soil

| Sample ID | Collection Date | Time of Sample Collection | Sample Location | OVM (ppm) | Field TPH* (mg/kg) | Field TPH Analysis Time | TPH PQL (mg/kg) | DF | TPH Analysts Initials |
|---|---|---|---|---|---|---|---|---|---|
| SC-1 | 5/12/2014 | 9:40 | North Wall | 9.8 | 746 | 11:07 | 20.0 | 1 | SL |
| SC-2 | 5/12/2014 | 9:45 | South Wall | 9.2 | 734 | 11:10 | 20.0 | 1 | SL |
| SC-3 | 5/12/2014 | 9:50 | East Wall | 99.6 | 323 | 11:12 | 20.0 | 1 | SL |
| SC-4 | 5/12/2014 | 9:55 | West Wall | 64.1 | 374 | 11:15 | 20.0 | 1 | SL |
| SC-5 | 5/12/2014 | 10:00 | Base | 211 | 1,033 | 11:17 | 20.0 | 1 | SL |
| SC-6 | 5/12/2014 | 10:05 | Center Trench | 2.4 | 28.6 | 11:20 | 20.0 | 1 | SL |

DF Dilution Factor

NA Not Analyzed

ND Not Detected at the Reporting Limit

PQL Practical Quantitation Limit

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst: Stephanie Alyn

**Field TPH concentrations recorded may be below PQL.*



Report Finalized: 5/12/14

# AES Field Sampling Report

Animas Environmental Services, LLC
www.animasenvironmental.com
624 E. Comanche
Farmington, NM 87401
505-564-2281
Durango, Colorado
970-403-3084

Client: Benson-Montin-Greer

Project Location: Llaves Pipeline Hwy 537 2009 Release

Date: 6/4/2014

Matrix: Soil

| Sample ID | Collection Date | Time of Sample Collection | Sample Location | OVM (ppm) | Field TPH Analysis Time | Field TPH* (mg/kg) | TPH PQL (mg/kg) | DF | TPH Analysts Initials |
|---|---|---|---|---|---|---|---|---|---|
| SB-1 @ 4'-8' | 6/4/2014 | 11:30 | Tank 5 | 0.7 | 12:02 | 35.8 | 20.0 | 1 | EMS |
| SB-1 @ 8'-12' | 6/4/2014 | 11:35 | Tank 5 | 0.0 | 12:05 | 35.8 | 20.0 | 1 | EMS |
| SB-1 @ 12'-16' | 6/4/2014 | 11:40 | Tank 5 | 0.1 | 12:08 | 28.1 | 20.0 | 1 | EMS |
| SB-2 @ 4'-8' | 6/4/2014 | 11:45 | Tank 6 | 0.0 | 12:36 | 35.4 | 20.0 | 1 | EMS |
| SB-2 @ 8'-12' | 6/4/2014 | 11:50 | Tank 6 | 0.0 | *Not Analyzed for TPH* | | | | |
| SB-3 @ 4'-8' | 6/4/2014 | 11:55 | Tank 7 | 0.1 | 12:38 | 41.0 | 20.0 | 1 | EMS |
| SB-3 @ 8'-12' | 6/4/2014 | 12:00 | Tank 7 | 0.3 | *Not Analyzed for TPH* | | | | |
| SB-4 @ 4'-8' | 6/4/2014 | 12:04 | Tank 8 | 0.1 | 12:43 | 76.9 | 20.0 | 1 | EMS |
| SB-4 @ 8'-12' | 6/4/2014 | 12:08 | Tank 8 | 0.0 | *Not Analyzed for TPH* | | | | |
| SB-5 @ 4'-8' | 6/4/2014 | 12:10 | Tank 4 | 102 | 12:47 | 61.5 | 20.0 | 1 | EMS |
| SB-5 @ 8'-12' | 6/4/2014 | 12:15 | Tank 4 | 1,048 | 12:50 | 61.5 | 20.0 | 1 | EMS |
| SB-5 @ 12'-16' | 6/4/2014 | 12:20 | Tank 4 | NA | 12:53 | 225 | 20.0 | 1 | EMS |
| SB-5 @ 16'-20' | 6/4/2014 | 12:25 | Tank 4 | 1,040 | 12:56 | 69.2 | 20.0 | 1 | EMS |
| SB-6 @ 4'-8' | 6/4/2014 | 12:30 | Tank 3 | 0.9 | 13:21 | 43.5 | 20.0 | 1 | EMS |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SB-6 @ 8'-12' | 6/4/2014 | 12:35 | Tank 3 | 0.2 | *Not Analyzed for TPH* | | | | |
| SB-6 @ 12'-16' | 6/4/2014 | 12:40 | Tank 3 | 0.0 | 13:25 | 44.8 | 20.0 | 1 | EMS |
| SB-7 @ 4'-8' | 6/4/2014 | 12:45 | Tank 2 | 20.6 | 13:27 | 55.1 | 20.0 | 1 | EMS |
| SB-7 @ 8'-12' | 6/4/2014 | 12:50 | Tank 2 | 10.9 | 13:30 | 35.8 | 20.0 | 1 | EMS |
| SB-8 @ 4'-8' | 6/4/2014 | 12:55 | Tank 1 | 33.4 | 13:38 | 89.8 | 20.0 | 1 | EMS |
| SB-8 @ 8'-12' | 6/4/2014 | 13:00 | Tank 1 | 10.4 | 13:41 | 34.6 | 20.0 | 1 | EMS |
| SB-9 @ 4'-8' | 6/4/2014 | 13:15 | See Figure | 0.3 | *Not Analyzed for TPH* | | | | |
| SB-9 @ 8'-12' | 6/4/2014 | 13:20 | See Figure | 0.3 | *Not Analyzed for TPH* | | | | |
| SB-9 @ 12'-16' | 6/4/2014 | 13:50 | See Figure | 1.9 | 14:03 | 44.8 | 20.0 | 1 | EMS |
| SB-10 @ 4'-8' | 6/4/2014 | 13:35 | See Figure | 1.4 | *Not Analyzed for TPH* | | | | |
| SB-10 @ 8'-12' | 6/4/2014 | 13:40 | See Figure | 2.3 | *Not Analyzed for TPH* | | | | |
| SB-10 @ 12'-16' | 6/4/2014 | 13:45 | See Figure | 2.2 | 14:00 | 41.0 | 20.0 | 1 | EMS |
| SB-11 @ 4'-8' | 6/4/2014 | 14:05 | See Figure | >5,000 | *Not Analyzed for TPH* | | | | |
| SB-11 @ 8'-12' | 6/4/2014 | 14:08 | See Figure | >5,000 | *Not Analyzed for TPH* | | | | |
| SB-11 @ 12'-16' | 6/4/2014 | 14:12 | See Figure | >5,000 | *Not Analyzed for TPH* | | | | |
| SB-11 @ 16'-20' | 6/4/2014 | 14:15 | See Figure | >5,000 | 14:58 | 692 | 20.0 | 1 | EMS |
| SB-12 @ 4'-8' | 6/4/2014 | 14:20 | See Figure | >5,000 | *Not Analyzed for TPH* | | | | |
| SB-12 @ 8'-12' | 6/4/2014 | 14:25 | See Figure | >5,000 | *Not Analyzed for TPH* | | | | |
| SB-12 @ 12'-16' | 6/4/2014 | 14:30 | See Figure | >5,000 | *Not Analyzed for TPH* | | | | |
| SB-12 @ 16'-20' | 6/4/2014 | 14:33 | See Figure | >5,000 | 14:52 | >2,500 | 20.0 | 1 | EMS |
| SB-13 @ 4'-8' | 6/4/2014 | 14:35 | See Figure | >5,000 | *Not Analyzed for TPH* | | | | |
| SB-13 @ 8'-12' | 6/4/2014 | 14:38 | See Figure | >5,000 | *Not Analyzed for TPH* | | | | |
| SB-13 @ 12'-16' | 6/4/2014 | 14:42 | See Figure | >5,000 | *Not Analyzed for TPH* | | | | |
| SB-13 @ 16'-20' | 6/4/2014 | 14:45 | See Figure | >5,000 | *Not Analyzed for TPH* | | | | |
| SB-14 @ 4'-8' | 6/4/2014 | 14:50 | See Figure | >5,000 | *Not Analyzed for TPH* | | | | |
| SB-14 @ 8'-12' | 6/4/2014 | 14:52 | See Figure | 2,800 | *Not Analyzed for TPH* | | | | |
| SB-14 @ 12'-16' | 6/4/2014 | 14:57 | See Figure | 23.6 | 16:00 | 41.0 | 20.0 | 1 | EMS |
| SB-14 @ 16'-20' | 6/4/2014 | 15:03 | See Figure | 22.4 | *Not Analyzed for TPH* | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SB-15 @ 0'-4' | 6/4/2014 | 15:20 | See Figure | 4.1 | *Not Analyzed for TPH* | | | | |
| SB-15 @ 4'-8' | 6/4/2014 | 15:25 | See Figure | 4.1 | *Not Analyzed for TPH* | | | | |
| SB-15 @ 8'-12' | 6/4/2014 | 15:30 | See Figure | 1.5 | 16:04 | 35.8 | 20.0 | 1 | EMS |
| SB-16 @ 0'-4' | 6/4/2014 | 15:35 | See Figure | 0.3 | *Not Analyzed for TPH* | | | | |
| SB-16 @ 4'-8' | 6/4/2014 | 15:40 | See Figure | 1.2 | *Not Analyzed for TPH* | | | | |
| SB-16 @ 8'-12' | 6/4/2014 | 15:45 | See Figure | 3.2 | *Not Analyzed for TPH* | | | | |
| SB-17 @ 0'-4' | 6/4/2014 | 15:47 | See Figure | 55.9 | *Not Analyzed for TPH* | | | | |
| SB-17 @ 4'-8' | 6/4/2014 | 15:50 | See Figure | 3.5 | *Not Analyzed for TPH* | | | | |
| SB-17 @ 8'-12' | 6/4/2014 | 15:52 | See Figure | 4.5 | *Not Analyzed for TPH* | | | | |
| SB-18 @ 0'-4' | 6/4/2014 | 15:57 | See Figure | 13.2 | *Not Analyzed for TPH* | | | | |
| SB-18 @ 4'-8' | 6/4/2014 | 16:00 | See Figure | >5,000 | *Not Analyzed for TPH* | | | | |
| SB-19 @ 0'-4' | 6/4/2014 | 16:02 | See Figure | 1.3 | *Not Analyzed for TPH* | | | | |
| SB-19 @ 4'-8' | 6/4/2014 | 16:05 | See Figure | 96.1 | *Not Analyzed for TPH* | | | | |
| SB-19 @ 8'-12' | 6/4/2014 | 16:08 | See Figure | >5,000 | 16:32 | >2,500 | 20.0 | 1 | EMS |
| SB-20 @ 0'-4' | 6/4/2014 | 16:14 | See Figure | 1.2 | *Not Analyzed for TPH* | | | | |
| SB-20 @ 4'-8' | 6/4/2014 | 16:16 | See Figure | 1.1 | *Not Analyzed for TPH* | | | | |
| SB-20 @ 8'-12' | 6/4/2014 | 16:20 | See Figure | 0.8 | *Not Analyzed for TPH* | | | | |

| | |
|---|---|
| DF | Dilution Factor |
| NA | Not Analyzed |
| ND | Not Detected at the Reporting Limit |
| PQL | Practical Quantitation Limit |

**Field TPH concentrations recorded may be below PQL.*

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst: Erik Sky

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*

June 20, 2014

Debbie Watson

Animas Environmental Services
624 East Comanche
Farmington, NM 87401
TEL: (505) 486-4071
FAX

RE: BMG Hwy 537 Truck Receiving Station OrderNo.: 1406812

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 6/18/2014 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

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services
**Client Sample ID:** Tank Composite
**Project:** BMG Hwy 537 Truck Receiving Station
**Collection Date:** 6/4/2014 7:00:00 PM
**Lab ID:** 1406812-001
**Matrix:** MEOH (SOIL)
**Received Date:** 6/18/2014 7:45:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 8015D: DIESEL RANGE ORGANICS** | | | | | | Analyst: **BCN** | |
| Diesel Range Organics (DRO) | 26 | 9.9 | | mg/Kg | 1 | 6/18/2014 10:36:06 AM | 13755 |
| Surr: DNOP | 86.8 | 57.9-140 | | %REC | 1 | 6/18/2014 10:36:06 AM | 13755 |
| **EPA METHOD 8015D: GASOLINE RANGE** | | | | | | Analyst: **NSB** | |
| Gasoline Range Organics (GRO) | ND | 2.8 | | mg/Kg | 1 | 6/18/2014 10:44:05 AM | R19352 |
| Surr: BFB | 90.0 | 80-120 | | %REC | 1 | 6/18/2014 10:44:05 AM | R19352 |
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** | |
| Benzene | ND | 0.028 | | mg/Kg | 1 | 6/18/2014 10:44:05 AM | R19352 |
| Toluene | ND | 0.028 | | mg/Kg | 1 | 6/18/2014 10:44:05 AM | R19352 |
| Ethylbenzene | ND | 0.028 | | mg/Kg | 1 | 6/18/2014 10:44:05 AM | R19352 |
| Xylenes, Total | ND | 0.056 | | mg/Kg | 1 | 6/18/2014 10:44:05 AM | R19352 |
| Surr: 4-Bromofluorobenzene | 99.7 | 80-120 | | %REC | 1 | 6/18/2014 10:44:05 AM | R19352 |

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

**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#: **1406812**

***20-Jun-14***

**Client:** Animas Environmental Services

**Project:** BMG Hwy 537 Truck Receiving Station

| Sample ID **MB-13755** | SampType: **MBLK** | TestCode: **EPA Method 8015D: Diesel Range Organics** |
|---|---|---|
| Client ID: **PBS** | Batch ID: **13755** | RunNo: **19341** |
| Prep Date: **6/18/2014** | Analysis Date: **6/18/2014** | SeqNo: **559117** 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 | 8.4 | | 10.00 | | 84.0 | 57.9 | 140 | | | |

| Sample ID **LCS-13755** | SampType: **LCS** | TestCode: **EPA Method 8015D: Diesel Range Organics** |
|---|---|---|
| Client ID: **LCSS** | Batch ID: **13755** | RunNo: **19341** |
| Prep Date: **6/18/2014** | Analysis Date: **6/18/2014** | SeqNo: **559118** Units: **mg/Kg** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | 49 | 10 | 50.00 | 0 | 98.5 | 60.8 | 145 | | | |
| Surr: DNOP | 4.3 | | 5.000 | | 85.2 | 57.9 | 140 | | | |

| Sample ID **1406812-001AMS** | SampType: **MS** | TestCode: **EPA Method 8015D: Diesel Range Organics** |
|---|---|---|
| Client ID: **Tank Composite** | Batch ID: **13755** | RunNo: **19341** |
| Prep Date: **6/18/2014** | Analysis Date: **6/18/2014** | SeqNo: **559593** Units: **mg/Kg** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | 81 | 10 | 49.80 | 25.98 | 111 | 40.1 | 152 | | | |
| Surr: DNOP | 4.4 | | 4.980 | | 88.7 | 57.9 | 140 | | | |

| Sample ID **1406812-001AMSD** | SampType: **MSD** | TestCode: **EPA Method 8015D: Diesel Range Organics** |
|---|---|---|
| Client ID: **Tank Composite** | Batch ID: **13755** | RunNo: **19341** |
| Prep Date: **6/18/2014** | Analysis Date: **6/18/2014** | SeqNo: **559595** Units: **mg/Kg** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | 78 | 10 | 50.45 | 25.98 | 102 | 40.1 | 152 | 4.48 | 32.1 | |
| Surr: DNOP | 4.8 | | 5.045 | | 94.6 | 57.9 | 140 | 0 | 0 | |

**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#: **1406812**

***20-Jun-14***

**Client:** Animas Environmental Services

**Project:** BMG Hwy 537 Truck Receiving Station

| Sample ID | **MB-13743 MK** | SampType: | **MBLK** | | TestCode: | **EPA Method 8015D: Gasoline Range** | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Client ID: | **PBS** | Batch ID: | **R19352** | | RunNo: | **19352** | | | | |
| Prep Date: | | Analysis Date: | **6/18/2014** | | SeqNo: | **559936** | 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 | 890 | | 1000 | | 89.0 | 80 | 120 | | | |

| Sample ID | **LCS-13743 MK** | SampType: | **LCS** | | TestCode: | **EPA Method 8015D: Gasoline Range** | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Client ID: | **LCSS** | Batch ID: | **R19352** | | RunNo: | **19352** | | | | |
| Prep Date: | | Analysis Date: | **6/18/2014** | | SeqNo: | **559937** | 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 | 98.6 | 71.7 | 134 | | | |
| Surr: BFB | 1100 | | 1000 | | 106 | 80 | 120 | | | |

| Sample ID | **MB-13743** | SampType: | **MBLK** | | TestCode: | **EPA Method 8015D: Gasoline Range** | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Client ID: | **PBS** | Batch ID: | **13743** | | RunNo: | **19352** | | | | |
| Prep Date: | **6/17/2014** | Analysis Date: | **6/18/2014** | | SeqNo: | **559944** | Units: | **%REC** | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Surr: BFB | 890 | | 1000 | | 89.0 | 80 | 120 | | | |

| Sample ID | **LCS-13743** | SampType: | **LCS** | | TestCode: | **EPA Method 8015D: Gasoline Range** | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Client ID: | **LCSS** | Batch ID: | **13743** | | RunNo: | **19352** | | | | |
| Prep Date: | **6/17/2014** | Analysis Date: | **6/18/2014** | | SeqNo: | **559946** | Units: | **%REC** | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Surr: BFB | 1100 | | 1000 | | 106 | 80 | 120 | | | |

**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#: **1406812**

***20-Jun-14***

**Client:** Animas Environmental Services

**Project:** BMG Hwy 537 Truck Receiving Station

| Sample ID **MB-13743 MK** | SampType: **MBLK** | TestCode: **EPA Method 8021B: Volatiles** |
|---|---|---|
| Client ID: **PBS** | Batch ID: **R19352** | RunNo: **19352** |
| Prep Date: | Analysis Date: **6/18/2014** | SeqNo: **559977** 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 | 1.0 | | 1.000 | | 102 | 80 | 120 | | | |

| Sample ID **LCS-13743 MK** | SampType: **LCS** | TestCode: **EPA Method 8021B: Volatiles** |
|---|---|---|
| Client ID: **LCSS** | Batch ID: **R19352** | RunNo: **19352** |
| Prep Date: | Analysis Date: **6/18/2014** | SeqNo: **559979** Units: **mg/Kg** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.96 | 0.050 | 1.000 | 0 | 96.1 | 80 | 120 | | | |
| Toluene | 0.94 | 0.050 | 1.000 | 0 | 93.5 | 80 | 120 | | | |
| Ethylbenzene | 0.94 | 0.050 | 1.000 | 0 | 94.4 | 80 | 120 | | | |
| Xylenes, Total | 3.0 | 0.10 | 3.000 | 0 | 98.7 | 80 | 120 | | | |
| Surr: 4-Bromofluorobenzene | 1.2 | | 1.000 | | 115 | 80 | 120 | | | |

| Sample ID **MB-13743** | SampType: **MBLK** | TestCode: **EPA Method 8021B: Volatiles** |
|---|---|---|
| Client ID: **PBS** | Batch ID: **13743** | RunNo: **19352** |
| Prep Date: **6/17/2014** | Analysis Date: **6/18/2014** | SeqNo: **559985** Units: **%REC** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Surr: 4-Bromofluorobenzene | 1.0 | | 1.000 | | 102 | 80 | 120 | | | |

| Sample ID **LCS-13743** | SampType: **LCS** | TestCode: **EPA Method 8021B: Volatiles** |
|---|---|---|
| Client ID: **LCSS** | Batch ID: **13743** | RunNo: **19352** |
| Prep Date: **6/17/2014** | Analysis Date: **6/18/2014** | SeqNo: **559986** Units: **%REC** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Surr: 4-Bromofluorobenzene | 1.2 | | 1.000 | | 115 | 80 | 120 | | | |

**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**

*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: **1406812** RcptNo: **1**

Received by/date: 06/18/14

Logged By: **Lindsay Mangin** 6/18/2014 7:45:00 AM

Completed By: **Lindsay Mangin** 6/18/2014 7:57:54 AM

Reviewed By: 06/18/14

## 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 ✔ | # of preserved bottles checked for pH: (<2 or >12 unless noted) |
| 12. Does paperwork match bottle labels? (Note discrepancies on chain of custody) | Yes ✔ | No ☐ | Adjusted? |
| 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 ☐ | 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 | 2.1 | Good | Yes | | | |

# Chain-of-Custody Record

Client: Animas Environmental Services LLC

Mailing Address: 624 E Comanche 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 same day

Project Name: BMG HWY 537 Truck Receiving Station

Project #:

Project Manager: D Watson

Sampler: D Watson

On Ice: ☒ Yes ☐ No

Sample Temperature: 2.1

**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. | 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) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6-4-14 | 1900 | Soil | Tank Composite | ~~4oz~~ Mason Jar | ~~None~~ cold | 1406812-001 | X | | X | | | | | | | | | | | | | |

| Date: | Time: | Relinquished by: | Received by: | Date | Time |
|---|---|---|---|---|---|
| 6/17/14 | 1644 | Deborah Watson | Christy Walker | 6/17/14 | 1644 |
| 6/17/14 | 1725 | Christy Walker | | 06/18/14 | 0745 |

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.