

**3R – 448**

**2009 GWMR**

**04 / 10 / 2009**

# Animas Environmental Services, LLC

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April 10, 2009

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Glen von Gonten  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

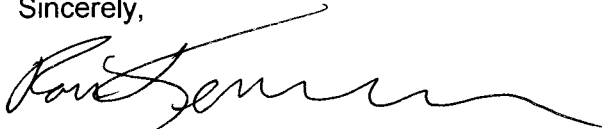
**RE: Site Investigation Report for the BMG Highway 537 Truck Receiving Station  
Spill, Schmitz Ranch, Rio Arriba County, New Mexico**

Dear Mr. von Gonten:

Enclosed is the Site Investigation Report prepared by Animas Environmental Services, LLC (AES), on behalf of Benson-Montin-Greer Drilling Corporation (BMG), for the investigation of the oil leak at BMG's Highway 537 Truck Receiving Station. The leak was discovered on January 29, 2009, and is fully described within this report.

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

Sincerely,



Ross Kennemer  
Project Manager

Cc: Brandon Powell  
New Mexico Oil Conservation Division  
1000 Rio Brazos Rd.  
Aztec, New Mexico 87410

Mike Dimond  
Benson-Montin-Greer Drilling Corporation  
4900 College Blvd  
Farmington, New Mexico 87402

Craig Schmitz, Schmitz Ranch  
#70 County Road 405  
Lindrith, New Mexico 87029



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Prepared for:

Brandon Powell

New Mexico Oil Conservation Division

1000 Rio Brazos Road

Aztec, New Mexico 87410

Glen von Gonten

New Mexico Oil Conservation Division

1220 South St. Francis Drive

Santa Fe, New Mexico 87505

Site Investigation Report  
Highway 537 Truck Receiving Station  
2009 Spill

Benson Montin Greer  
SW $\frac{1}{4}$  SW $\frac{1}{4}$  NW $\frac{1}{4}$  of Sect. 18, T25N, R3W  
Los Ojitos Canyon, Rio Arriba County,  
New Mexico

April 10, 2009

Prepared on behalf of:

Benson-Montin-Greer Drilling Corporation

4900 College Blvd.

Farmington, New Mexico 87402

Prepared by:

Animas Environmental Services, LLC

624 E. Comanche

Farmington, New Mexico 87401



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## 1.0 Introduction

Animas Environmental Services, LLC (AES), on behalf of Benson Montin Greer Drilling Corporation (BMG), has prepared this Site Investigation Report for BMG's Highway 537 Truck Receiving Station oil spill, which was discovered on January 28, 2009.

Site investigation work was completed in accordance with a Sampling and Analysis Plan (SAP) prepared by AES and dated February 3, 2009. The SAP was submitted to the New Mexico Oil Conservation Division (NMOCD) for review prior to implementing the proposed scope of work.

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## 2.0 Site Information

### 2.1 Facility Information

The BMG Highway 537 Truck Receiving Station consists 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 shipping. Surface ownership in the area where the spill occurred includes private land owned by the Schmitz Ranch.

### 2.2 Site Location

The truck receiving station is located along the south side of New Mexico State Highway 537 and is adjacent to the Los Ojitos Arroyo, which eventually drains to Largo Canyon. The facility is described legally as being located within the SW $\frac{1}{4}$  SW $\frac{1}{4}$  NW $\frac{1}{4}$  Section 18, T25N, R3W in Rio Arriba County, New Mexico. Longitude and latitude were recorded as being N36°23'55.160" and W107°11'35.814". A topographic site location map is included as Figure 1.

### 2.3 Spill History

On January 29, 2009, at approximately 0630, a Western Refining truck driver discovered crude condensate within the bermed area around the storage tanks, on the south side of Tank #1, and immediately contacted BMG. BMG personnel arrived on-site later in the morning and confirmed a leak at a buried 6-inch line between the storage tanks and the truck loading pump. BMG isolated the line and emptied it of residual oil. At 0800, BMG contacted Mr. Brandon Powell, New Mexico Oil Conservation Division (NMOCD), to provide notification and intended response to the spill. Also on January 29, 2009, BMG contracted with TNT Excavating (TNT) to remove the buried 6-inch line in order to determine where the leak originated.

On January 30, 2009, TNT used a trackhoe to excavate an area around the buried 6-inch line measuring 10' W x 20' L x 15' D. AES collected soil samples from the base of the excavation for field screening with an organic vapor meter (OVM) photo-ionization detector (PID). Field screening results at 12 feet below ground surface (bgs) were 5,861 parts per million (ppm) volatile organic compounds (VOCs), and at 15 feet bgs VOCs were measured

at 6,640 ppm. Additionally, AES collected one soil sample at 15 feet bgs for laboratory analysis of benzene, toluene, ethylbenzene, and xylene (BTEX) and total petroleum hydrocarbons (TPH). This sample was analyzed by Hall Environmental Analysis Laboratory (Hall), Albuquerque, New Mexico. The analytical results of the soil sample collected on January 30, 2009, had total BTEX concentrations of 1,657 mg/kg and total TPH concentrations of 20,300 mg/kg. A site plan showing the spill location, excavated area, and sample location (January 30) is included as Figure 2. The soil sample analytical report is included in Appendix A.

Following a thorough inspection of the buried 6-inch line, BMG personnel discovered a small external corrosion hole, measuring approximately 1/8" diameter, along the bottom of the pipe near the truck loading pumps (see Figure 2). Because it was determined that the leak had impacted soils to at least 15 feet bgs, and due to the presence of tanks, buried pipe, buried conduit, and fixed pumps and meters within the spill area, BMG and AES, in consultation with NMOCD, concluded that excavating additional soils in order to determine the extent of the spill would be difficult and that an assessment of the spill 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.

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### 3.0 Geology and Hydrogeology

#### 3.1 Geology

Rio Arriba County, New Mexico, is located along the southeastern margin of the San Juan Basin portion of the Colorado Plateau physiographic province. The San Juan Basin is a large, structural depression encompassing approximately 22,000 square miles and contains deep Tertiary fill resting on rocks of Late Cretaceous age. The lithology consists primarily of the Mesa Verde Formation, composed primarily of sandstones. The topography is broad and mostly flat, surrounded by mountains and deep canyons. Major rivers carved deep canyons and mesas, and physical erosion from wind and water chipped and polished the exposed rocks in the canyons.

The regional geology of Los Ojitos Canyon area is predominately Late Cretaceous coastal plains and shoreline and marine units that were deposited along the western margin of the interior seaway. The shallow inland sea transgressed and regressed over a period of 250 million years, depositing the Dakota Sandstone and Mancos Shale units. The Dakota Sandstone records the alternating rise (shale) and fall (sandstones) of sea level as the shoreline moved back and forth across the area about 98 to 100 million years ago. The long-term rise in sea level deposited rocks of the Mancos Group, which from oldest to youngest; include the Graneros Shale, Greenhorn Limestone, and Carlile Shale. Gradually the sea level dropped again, and the shoreline retreated to the northeast, as deposition of the Mesaverde Group began. The Mesaverde Group consists of alternating sandstones, siltstones, and coal deposited by rivers flowing into the shallow sea.

### **3.2 Hydrogeology**

The BMG Highway 537 Truck Receiving Station is located adjacent to several unnamed washes and the Los Ojitos Canyon Arroyo, which drain southwest to Largo Canyon and ultimately to the San Juan River.

Locally, shallow groundwater is encountered within the valleys and canyons at depths less than 50 feet and is typically associated with arroyos, which can be incised as much as 20 feet below the valley floor. Based on measurements from monitor wells installed by AES on-site, groundwater underlying the spill site is approximately 27 feet bgs.

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## **4.0 Site Investigation – February and March 2009**

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 spill. The investigation procedures included the installation of 11 monitor wells and collection of soil and groundwater samples. Work was completed in accordance with the SAP 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.

### **4.1 Permits and Access Agreements**

Prior to initiating the fieldwork, AES obtained a verbal property access agreement from Tony Schmitz, private property owner.

### **4.2 Utilities Notification**

AES utilized the New Mexico One-Call system to identify and mark all underground utilities at the site before initiating drilling activities.

### **4.3 Notification**

AES notified Mike Dimond of BMG, Brandon Powell of NMOCD, and Tony Schmitz of Schmitz Ranch, before starting field activities. AES also notified Mr. Brandon Powell of NMOCD on February 16, 2009, that groundwater had been impacted.

### **4.4 Health and Safety Plan**

Prior to the start of the site investigation activities, AES prepared and implemented a comprehensive site-specific Health and Safety Plan (HASP) addressing the site investigation activities and associated soil and groundwater sampling. All employees and subcontractors were required to read and sign the HASP to acknowledge their understanding of the information contained within the HASP. The HASP was implemented and enforced on site by the assigned Site Safety and Health Officer. Daily tailgate meetings were held and documented during field activities and addressed site-specific health and safety concerns or issues.



## **4.5 Installation and Sampling of Soil Borings**

From February 16 through February 20, 2009, AES installed 11 monitor wells at and in the vicinity of the spill in order to define the lateral and vertical extent of near surface and subsurface soil contamination. All monitor wells (MW-1 through MW-11) were installed with a hollow stem auger. Wells MW-1 through MW-11 ranged in depth from 24.0 feet below ground surface (bgs) to 40 feet bgs. Mr. Brandon Powell of NMOCD was present on February 17, 2009, for the drilling and sampling of monitor well MW-5. The locations of soil borings/monitor wells are presented on Figure 3.

### **4.5.1 Drilling Methods**

Soil borings MW-1 through MW-11 were advanced with a CME 75 hollow stem auger drill rig subcontracted through Envirodrill, Inc., Albuquerque, New Mexico.

### **4.5.2 Soil Sample Collection**

Soil samples were collected from continuously driven core-barrel samplers during advancement of the soil borings. Discrete samples were collected based on PID-OVM screening measurements from the core barrel sampler and transferred to appropriately labeled sample containers. Soil sample collection was completed in strict accordance with AES's Standard Operating Procedures (SOPs).

For each soil boring, a Soil Boring Log was completed. These logs recorded sample identification, depth collected, and method of collection, as well as observations of soil moisture, color, density, grain size, plasticity, contaminant presence, and overall stratigraphy.

### **4.5.3 Field Screening**

Samples were collected at approximate 5-foot intervals from each soil sampling location and field screened for volatile organic vapors utilizing a PID-OVM calibrated with isobutylene gas to obtain preliminary data regarding potential petroleum hydrocarbon-impacted soil.

Once collected, the soil samples to be field screened were immediately placed in a clean one-gallon Ziploc bag and allowed to warm up to approximately 80°F. Approximately ten minutes was allowed for the soil to be heated and for any VOCs in the soil to accumulate in the headspace of the Ziploc bag. During the initial stages of headspace development, the sample was gently shaken for one minute to promote vapor development and disaggregate the sample. Volatile gases were then measured by carefully opening the Ziploc bag and inserting the sample probe of the PID-OVM. The highest (peak) measurements were recorded onto the Soil Boring Logs. All field screening was completed in accordance with the SAP and USEPA Environmental Response Team's SOPs.

### **4.5.4 Laboratory Analyses - Soil**

Soil samples collected from borings were submitted to an EPA-approved laboratory, Hall, Albuquerque, New Mexico, for laboratory analysis of the following parameters:

- Benzene, Toluene, Ethylbenzene, and Xylene (BTEX) – EPA Method 8021
- Total Petroleum Hydrocarbons (TPH) (C<sub>6</sub>-C<sub>36</sub>) Gasoline Range Organics (GRO), Diesel Range Organics (DRO) and Motor Oil Range Organics (MRO) – EPA Method 8015 Modified

Once collected, soil samples were preserved in laboratory-supplied containers containing methanol and stored in an insulated cooler containing ice. Samples were shipped in insulated coolers containing ice at less than 6°C via Greyhound bus to the analyzing laboratory. For all laboratory samples, quality assurance and quality control (QA/QC) procedures, sample preservation, apparatus required, and analyses performed were in accordance with USEPA Document EPA-600, "Methods for Chemical Analysis for Water and Wastes" dated July 1982; and USEPA document SW-846, 3rd Edition, "Test Methods for Evaluating Solid Waste: Physical Chemical Methods", dated November 1986.

## **4.6 Groundwater Monitor Well Installation**

### **4.6.1 Groundwater Monitor Well Installation and Construction**

A total of eleven monitor wells were installed at the site. Monitor wells were positioned around the spill area in order to define any horizontal migration of contaminants in groundwater. Groundwater was encountered between approximately 12 to 29 feet bgs.

Monitor well construction consisted of 2-inch outside diameter (OD) Schedule 40 PVC screen and 2-inch blank riser casing. The screened interval extended 15 feet across the water table. The wells were constructed with a filter pack of 10/20 Colorado silica sand covering the well screen and 1 foot of the blank riser casing. Two feet of bentonite seal was placed above the sand pack, and concrete grout with approximately five percent bentonite was poured from the top of the bentonite plug up to within a foot of ground surface. An above grade locking steel protective riser, enclosed with a shroud of concrete was installed on the well to prevent unauthorized access and damage. Monitor well locations are included as Figure 3. Monitor well construction diagrams for MW-1 through MW-11 are included on the soil boring logs in Appendix B.

### **4.6.2 Groundwater Monitor Well Development**

Following monitor well installation and completion, each well was developed in order to remove fine-grained sediments from the sand pack and to increase hydraulic conductivity through the well screen. Each well was developed by a combination of surging and pumping techniques. Groundwater purged from the wells was contained in labeled and sealed 55-gallon drums. Development water was disposed of within the 80 bbl waste tank. Monitor wells were developed in strict accordance with AES's SOPs. Details of monitor well development including purged water volume are included on a Groundwater Monitor Well Development Form.

### **4.6.3 Monitor Well Survey**

The location and elevation of the top of each well casing was surveyed to the nearest 0.01 foot with reference to mean sea level by Arrow Engineering, a New Mexico Licensed Professional Surveyor. Each well is tied to an existing USGS benchmark.

### **4.6.4 Groundwater Monitor Well Monitoring and Sampling**

AES personnel completed groundwater monitoring and sampling of the wells on March 5, 6, and 9, and April 6, 2009. Groundwater samples were collected from a total of 12 monitor wells (eleven newly completed wells and one from the BMG Highway 537 2006 and 2007

Spill) with new disposable bailers and transferred into appropriate sample containers, labeled accordingly, and documented on Water Sample Collection Forms.

Prior to sample collection, water quality measurements were recorded which included depth to groundwater, pH, temperature, conductivity, dissolved oxygen (DO), and oxidation reduction potential (ORP). Samples were shipped in insulated coolers containing ice at less than 6°C via Greyhound bus to Hall, the analyzing laboratory.

#### **4.6.5 Laboratory Analyses - Groundwater**

All groundwater analytical samples were analyzed for the following parameters:

- BTEX – EPA Method 8021
- TPH (C<sub>6</sub>-C<sub>36</sub>) GRO, DRO, and MRO – EPA Method 8015 Modified

A travel blank was analyzed for BTEX per EPA Method 8021.

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## **5.0 Results**

### **5.1 Soil**

#### **5.1.1 Lithology**

Soil lithology was observed to consist of interbedded layers of moist reddish-brown clayey and silty sand, moist reddish-brown silty and sandy clay, poorly sorted tan sands and sandstone, and moist stiff brown clays throughout the site. Soil boring logs with monitor well construction details are included in Appendix B.

#### **5.1.2 Field Results**

Soil samples collected from soil borings were field-screened for VOCs with a PID-OVM. OVM readings were at or near background levels for all samples collected from MW-6 and MW-7 and ranged from 0.0 parts per million (ppm) to 0.6 ppm. Details of PID-OVM readings above background levels are as follows:

- **MW-1** – OVM readings ranged from 163 ppm at 15 feet bgs to 1,247 ppm at 20 feet bgs.
- **MW-2** – OVM readings ranged from 0.0 ppm at 5 feet bgs to 4.9 ppm at 25 feet bgs.
- **MW-3** – OVM readings ranged from 0.5 ppm at 10 feet bgs to 1,246 ppm at 25 feet bgs.
- **MW-4** – OVM readings ranged from 2.3 ppm at 15 feet bgs to 1,358 ppm at 25 feet bgs.
- **MW-5** – The highest OVM reading was 8.7 ppm at 25 feet bgs.
- **MW-8** – OVM readings ranged from 0.1 ppm at 5 feet bgs to 1,763 ppm at 26 feet bgs.
- **MW-9** – OVM readings ranged from 0.2 ppm at 10 feet bgs to 34.9 ppm at 28 feet bgs.
- **MW-10** – The highest OVM reading was 4.7 ppm at 30 feet bgs.
- **MW-11** – The highest OVM reading was 1.7 ppm at 34 feet bgs.

PID readings were recorded on the Soil Boring Logs, which are included in Appendix B.

### **5.1.3 Soil Analytical Results**

Soil samples were collected for laboratory analysis from zones with high OVM readings and/or visible contaminant staining. Remediation action levels promulgated by NMOCD for oil spills and releases (August 13, 1993) were utilized as action levels for soil characterization. The NMOCD remediation action levels for total BTEX are 50 mg/kg and 100 mg/kg for TPH.

Soil analytical results showed that soil samples collected from MW-1 at 20 feet bgs and 30 feet bgs had total BTEX concentrations above NMOCD Action Levels with 112 mg/kg and 102 mg/kg, respectively. Soil samples collected from MW-3 at 26 feet bgs had BTEX concentrations at 345 mg/kg. BTEX concentrations were above NMOCD Action Levels in MW-4 (26 feet bgs) with 175 mg/kg and in MW-8 (26 feet bgs) with 200 mg/kg. Total BTEX concentrations in the remaining soil samples were either below laboratory detection limits or well below the applicable action level of 50 mg/kg total BTEX.

The NMOCD Action Level for TPH (100 mg/kg) was exceeded in five samples, MW-1 at 20 feet bgs (2,820 mg/kg) and 30 feet bgs (2,920 mg/kg), MW-3 at 26 feet bgs (8,100 mg/kg), MW-4 at 26 feet bgs (2,740 mg/kg), and MW-8 at 26 feet bgs (4,300 mg/kg). TPH concentrations in the remaining soil samples were either below laboratory detection limits or well below the applicable action level of 100 mg/kg total TPH.

The analytical results for the soil samples collected during well installation have been tabulated and are presented in Table 1 and on Figure 4. Soil analytical laboratory reports are presented in Appendix A.

## **5.2 Groundwater**

Newly installed monitor wells were developed by AES personnel on February 28, 2009, and the well development form is included in Appendix C.

AES personnel subsequently collected groundwater samples from 12 monitor wells for laboratory analysis on March 5, 6, and 9, 2009. Samples were collected from the 11 wells installed in February 2009 (MW-1 through MW-11) and from BMG Highway 537 2006 & 2007 spill MW-7 (located down-gradient from the spill). Monitor wells MW-4 and MW-9 were re-sampled by AES personnel on April 6, 2009, for confirmation purposes.

### **5.2.1 Measurement Data**

Following depth to water measurement, each well was purged with a disposable bailer until recorded temperature, pH, conductivity, and dissolved oxygen (DO) measurements were stabilized. All data was recorded onto Water Sample Collection Forms. Groundwater temperature ranged from 8.14°C in the downgradient MW-7(Hwy 537 06-07 Spill) to 12.36°C in MW-4 (March). Conductivity ranged from 3.441 mS in the downgradient MW-7(Hwy 537 06-07 Spill) to 6.088 mS in MW-5, and DO was measured between 1.27 mg/L in MW-1 and 5.12 mg/L in MW-9 (March). Although DO was recorded during field activities, it should be noted that due to the use of bailers, the accuracy of dissolved oxygen measurements is

unknown. Oxidation Reduction Potential (ORP) was recorded between -36.1 mV in MW-1 and 25.2 mV in MW-9 (April). Based on groundwater elevation data, the hydraulic gradient was calculated to be approximately 0.006 ft/ft from east to west between MW-10 and MW-8. Depth to groundwater measurements and water quality data are summarized in Table 2, and groundwater elevation contours are presented in Figure 5. Water Sample Collection forms are presented in Appendix D.

### 5.2.2 Groundwater Analytical Results

Analytical results from groundwater samples collected during the March and April 2009 sampling events show benzene concentrations exceeded the New Mexico Water Quality Control Commission (WQCC) standard of 10 µg/L in four wells, including MW-1 (310 µg/L), MW-3 (400 µg/L), MW-8 (160 µg/L), and MW-9 (170 µg/L in March and 82 µg/L in April). MW-4 had benzene concentrations of 2.7 µg/L in March and below the detection limit of 1.0 µg/L in April. Toluene and xylene concentrations exceeded the WQCC standards in MW-3 with concentrations of 1,100 µg/L and 1,300 µg/L, respectively. The remaining wells had toluene, ethylbenzene, and xylene concentrations either below laboratory detection limits or well below applicable WQCC standards.

WQCC standards have not been established for TPH. Four wells had gasoline range organic (GRO) concentrations above the laboratory detection limit, including MW-1 (2.1 mg/L), MW-3 (8.2 mg/L), MW-8 (2.1 mg/L), and MW-9 (2.5 mg/L in March and 1.6 mg/L in April). Two wells had diesel range organic (DRO) concentrations above laboratory detection limits, including MW-3 (3.4 mg/L) and MW-8 (1.5 mg/L). Motor oil range organic (MRO) concentrations were below laboratory detection limits in all wells sampled. The analytical results for groundwater samples collected during the March and April 2009 sampling event have been tabulated and are presented in Table 3 and on Figure 6. Groundwater analytical laboratory reports are presented in Appendix E.

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## 6.0 Conclusion and Recommendations

A total of 11 monitor wells were installed by AES between February 16 and 20, 2009. Soils were found to consist of interbedded layers of moist reddish-brown clayey and silty sand, moist reddish-brown silty and sandy clay, poorly sorted tan sands and sandstone, and moist stiff brown clays. Groundwater was found to exist at approximately 13 feet to 28 feet bgs. Soil petroleum hydrocarbon contamination is evident in MW-1 (below the area of excavation), MW-3 (between the truck loading station and the arroyo southeast of the spill), MW-4 (down-gradient of the spill), and MW-8 (down-gradient of the spill). Soil contaminant concentrations exceeded NMOCD action levels for total BTEX in MW-1, MW-3, MW-4, and MW-8. Soil concentrations for total TPH exceeded laboratory detection limits in MW-1, MW-3, MW-4, and MW-8. The highest total BTEX concentrations and total TPH concentrations were reported at 345 mg/kg and 8,100 mg/kg, respectively, at 26 feet bgs in MW-3.

Depths to groundwater varied across the site and were observed to exist at about 12.67 to 28.33 feet bgs from the top of the well casing. The groundwater gradient was calculated to be approximately 0.006 ft/ft to the west-southwest between MW-10 and MW-8. A baseline groundwater monitoring and sampling event was conducted by AES on March 5, 2009. The

groundwater analytical results showed that groundwater is impacted above the WQCC standard for benzene in MW-1, MW-3, MW-8, and MW-9. In addition, MW-3 had concentrations of toluene and xylene which exceed the WQCC standards of 750 µg/L and 620 µg/L, respectively. Monitor wells MW-1, MW-3, MW-8, and MW-9 had TPH-GRO concentrations above laboratory detection limits. TPH-DRO concentrations were above laboratory detection limits in monitor wells MW-3 and MW-8.

On April 6, 2009, AES personnel conducted groundwater monitoring and sampling on monitor wells MW-4 and MW-9 due to what appeared to be a discrepancy between the soil analytical results (February 2009) and the groundwater analytical results (March 2009). Specifically, soil data showed contamination in MW-4 with total BTEX concentrations of 175 mg/kg and total TPH concentrations of 2,740 mg/kg, while groundwater concentrations of BTEX were below WQCC standards and total TPH concentrations were below laboratory detection limits. In MW-9, soil results showed total BTEX concentrations at 1.128 mg/kg, and groundwater results showed benzene concentrations above the WQCC standard of 10 µg/L with 170 µg/L. Total TPH concentrations of the soil in MW-9 were 15 mg/kg (at 28 feet bgs), and groundwater GRO concentrations were 2.5 mg/L. Results of the April 2009 sampling event supported the laboratory analytical results of the March 2009 event. BTEX and total TPH concentrations were below laboratory detection limits in MW-4, while results for MW-9 showed dissolved phase concentrations for benzene at 82 µg/L, toluene at 62 µg/L, ethylbenzene at 16 µg/L, xylene at 210 µg/L, and TPH-GRO at 1.6 mg/L.

Based upon the results of the March and April 2009 site investigations associated with the Highway 537 2009 Truck Receiving Station spill, both soil and groundwater have been impacted by the release. Groundwater is impacted above the WQCC standard for benzene in MW-1, MW-3, MW-8, and MW-9 and for toluene and xylene in MW-3. Significant petroleum hydrocarbon vapors or visibly stained soil were observed during soil boring/well installation in MW-1, MW-3, MW-4, and MW-8.

Currently, the extent of groundwater contamination has not been defined down-gradient of MW-9. Therefore, AES recommends the installation of three additional monitor wells, which are shown on Figure 7. Additionally, AES recommends remediation of soils and groundwater via mechanical high vacuum extraction. A corrective action plan (CAP) outlining proposed remedial efforts at the site will be prepared and submitted to NMOCD for review after one additional groundwater monitoring and sampling event, which is scheduled for June 2009.

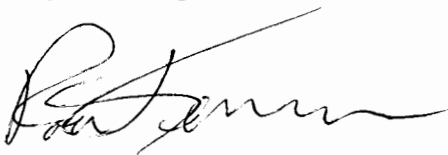
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## 7.0 Certification

I, the undersigned, am personally familiar with the information submitted in this Site Investigation report, prepared on behalf of Benson-Montin-Greer for the February, March, and April 2009 site activities associated with the 2009 Highway 537 Truck Station 2009 spill in Los Ojitos Canyon, Rio Arriba County, New Mexico. I attest that it is true and complete to the best of my knowledge.



Deborah Watson  
Project Manager



Ross Kennemer  
Environmental Scientist



Elizabeth McNally, P.E.

---

## 8.0 References

- Animas Environmental Services, LLC (AES). *Sampling and Analysis Plan for Benson-Montin-Greer Drilling Corporation Highway 537 Truck Receiving Station Pipeline Spill-January 2009, Rio Arriba County, New Mexico*. February 3, 2009.
- U.S. Environmental Protection Agency (USEPA). 1982. *Methods for Chemical Analysis for Water and Wastes*. Document EPA-600, July, 1982.
- USEPA. 1992. SW-846, 3rd Edition, *Test Methods for Evaluating Solid Waste: Physical Chemical Methods*, dated November, 1986, and as amended by Update One, July, 1992.
- USEPA. 1991. *Site Characterization for Subsurface Remediation*, EPA 625/4-91-026, November, 1991.
- USEPA. 1997. *Expedited Site Assessment Tools for Underground Storage Tank Sites*. OSWER 5403G and EPA 510B-97-001, March, 1997.
- USEPA. 2001. Contract Laboratory Program (CLP) Guidance for Field Samplers. OSWER 9240.0-35, EPA 540-R-00-003. June, 2001.



**TABLE 1**  
**SUMMARY OF SOIL ANALYTICAL RESULTS**  
**BMG HWY 537 TRUCK RECEIVING STATION 2009 SPILL**  
**Rio Arriba County, New Mexico**

Sample I.D.	Date Sampled	Depth (feet)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl- benzene (mg/Kg)	Total Xylenes (mg/Kg)	GRO (mg/Kg)	DRO (mg/Kg)	MRO (mg/Kg)
<i>Analytical Method</i>			8021B	8021B	8021B	8021B	8015B	8015B	8015B
<i>USEPA Region 6 Screening Levels</i>			1.6	520	230	210	NE	NE	NE
<i>NMOC D Action Level</i>			50			100			
MW-1	16-Feb-09	20	8.1	43	5.4	55	720	1,400	700
MW-1	16-Feb-09	30	16	12	6.4	68	1,000	1,200	720
MW-2	17-Feb-09	10	<0.050	<0.050	<0.050	<0.10	<5.0	<10	<50
MW-2	17-Feb-09	20	<0.050	<0.050	<0.050	<0.10	<5.0	<10	<50
MW-2	17-Feb-09	29.5	<0.050	<0.050	<0.050	<0.10	<5.0	<10	<50
MW-3	16-Feb-09	10	<0.050	<0.050	<0.050	<0.10	<5.0	<10	<50
MW-3	16-Feb-09	20	<0.050	<0.050	<0.050	<0.10	<5.0	<10	<50
MW-3	16-Feb-09	26	28	130	17	170	1,400	3,900	2,800
MW-4	17-Feb-09	10	<0.050	<0.050	<0.050	<0.10	<5.0	<10	<50
MW-4	17-Feb-09	20	0.080	<0.050	<0.050	0.12	<5.0	<10	<50
MW-4	17-Feb-09	26	16	59	9.4	91	980	1,100	660
MW-5	17-Feb-09	10	<0.050	<0.050	<0.050	<0.10	<5.0	<10	<50
MW-5	17-Feb-09	20	<0.050	<0.050	<0.050	<0.10	<5.0	<10	<50
MW-5	17-Feb-09	30	<0.050	<0.050	<0.050	<0.10	<5.0	<10	<50
MW-6	18-Feb-09	10	<0.050	<0.050	<0.050	<0.10	<5.0	<10	<50
MW-6	18-Feb-09	15	<0.050	<0.050	<0.050	<0.10	<5.0	<10	<50
MW-7	18-Feb-09	18	<0.050	<0.050	<0.050	<0.10	<5.0	<10	<50
MW-7	18-Feb-09	29	<0.050	<0.050	<0.050	<0.10	<5.0	<10	<50
MW-8	18-Feb-09	20	<0.050	<0.050	<0.050	<0.10	<5.0	<10	<50
MW-8	18-Feb-09	26	21	70	11	98	1,000	2,300	1,000
MW-9	18-Feb-09	20	<0.050	<0.050	<0.050	<0.10	<5.0	<10	<50
MW-9	18-Feb-09	28	<0.050	0.24	0.058	0.83	15	<10	<50
MW-10	20-Feb-09	25	<0.050	<0.050	<0.050	<0.10	<5.0	<10	<50
MW-10	20-Feb-09	30	<0.050	<0.050	<0.050	<0.10	<5.0	<10	<50

**TABLE 1**  
**SUMMARY OF SOIL ANALYTICAL RESULTS**  
**BMG HWY 537 TRUCK RECEIVING STATION 2009 SPILL**  
**Rio Arriba County, New Mexico**

Sample I.D.	Date Sampled	Depth (feet)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl- benzene (mg/Kg)	Total Xylenes (mg/Kg)	GRO (mg/Kg)	DRO (mg/Kg)	MRO (mg/Kg)
<i>Analytical Method</i>									
<i>USEPA Region 6 Screening Levels</i>			8021B	8021B	8021B	8021B	8015B	8015B	8015B
<i>NMOCDA Action Level</i>			1.6	520	230	210	NE	NE	NE
			50						
MW-11	20-Feb-09	28	<0.050	<0.050	<0.050	<0.10	<5.0	<10	<50
MW-11	20-Feb-09	34	<0.050	<0.050	<0.050	<0.10	<5.0	<10	<50

**NOTE: NE = Not Established**  
 GRO = Gasoline Range Organics  
 DRO = Diesel Range Organics  
 MRO = Motor Oil Range Organics

**TABLE 2**  
**SUMMARY OF GROUNDWATER MEASUREMENT AND WATER QUALITY DATA**  
**BMG HWY 537 TRUCK RECEIVING STATION 2009 SPILL**  
**Rio Arriba County, New Mexico**

Well ID	Date Sampled	Depth to Water (ft)	Surveyed TOC (ft)	GW Elev. (ft)	Temperature (C)	Conductivity (mS)	DO (mg/L)	pH	ORP (mV)
MW-1	05-Mar-09	27.95	7064.66	7036.71	12.29	5.231	1.27	6.64	-36.1
MW-2	05-Mar-09	27.69	7064.65	7036.96	12.00	4.567	2.59	6.82	-29.8
MW-3	05-Mar-09	27.16	7064.01	7036.85	12.29	4.310	2.17	6.66	-28.2
MW-4	05-Mar-09	27.39	7063.72	7036.33	12.36	4.760	1.72	6.58	-29.2
MW-4	06-Apr-09	27.58	7063.72	7036.14	11.87	4.599	2.06	6.75	18.0
MW-5	05-Mar-09	28.24	7064.79	7036.55	11.80	6.088	3.89	6.61	-17.3
MW-6	05-Mar-09	12.67	7049.54	7036.87	9.21	4.967	4.30	6.53	4.6
MW-7	06-Mar-09	26.34	7062.80	7036.46	11.40	4.951	2.17	6.50	-3.3
MW-8	06-Mar-09	27.49	7063.27	7035.78	11.91	4.731	2.14	6.40	-4.4
MW-9	06-Mar-09	27.60	7062.60	7035.00	9.47	5.418	5.12	6.39	-1.8
MW-9	06-Apr-09	27.74	7062.60	7034.86	11.86	5.174	2.24	6.72	25.2
MW-10	09-Mar-09	26.25	7063.27	7037.02	10.51	4.572	3.44	6.62	15.6
MW-11	09-Mar-09	28.33	7064.10	7035.77	11.47	5.730	3.52	6.63	17.1
Downgradient MW-7*	09-Mar-09	13.09	7051.30	7038.21	8.14	3.441	4.52	6.49	12.8

**NOTE:**

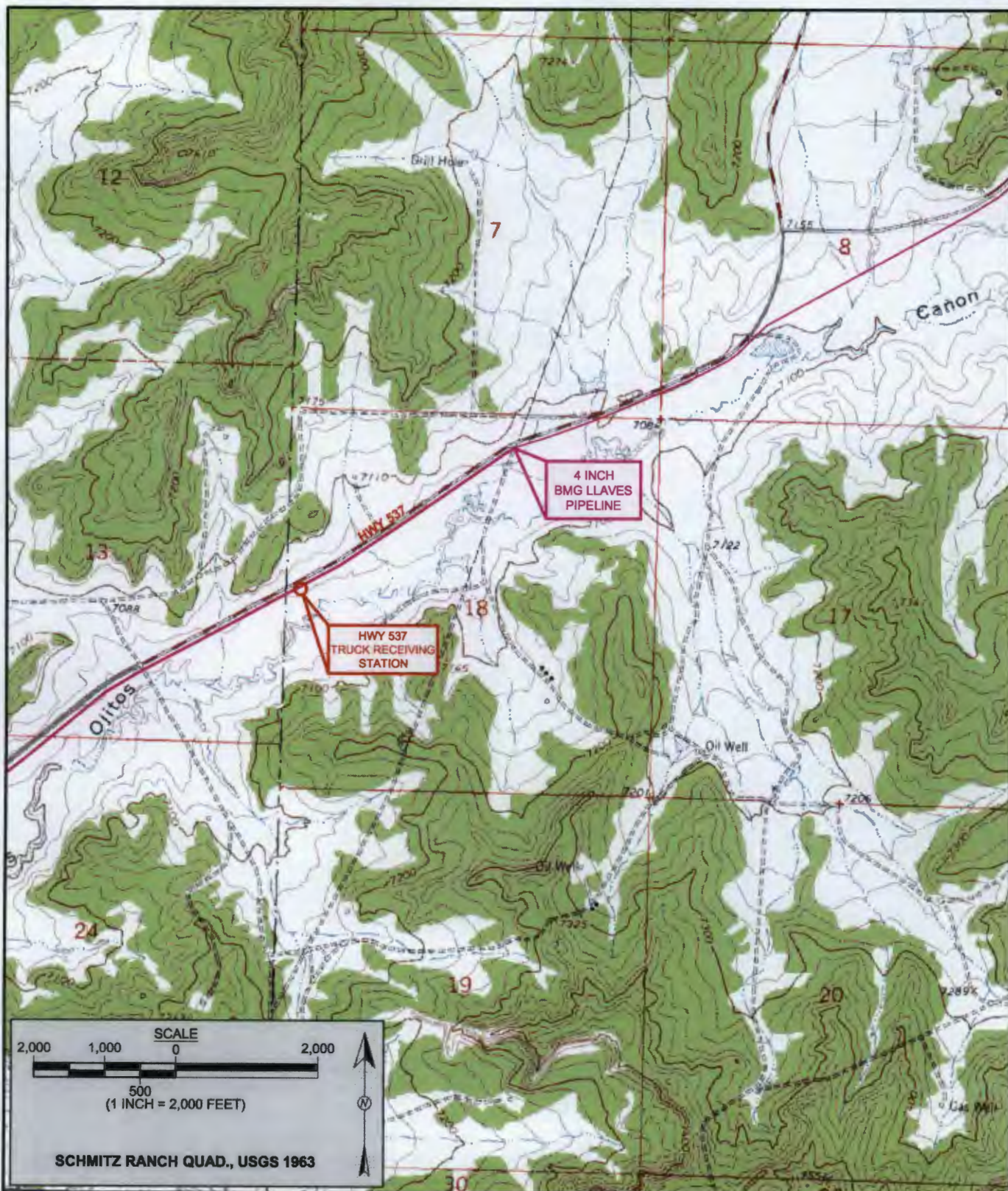
NM = NOT MEASURED  
 NA = NOT AVAILABLE  
 \* = Monitoring Well from HWY 537 '06-'07 spill

**TABLE 3**  
**SUMMARY OF GROUNDWATER ANALYTICAL RESULTS**  
**BMG HWY 537 TRUCK RECEIVING STATION 2009 SPILL**  
**Rio Arriba County, New Mexico**

Well ID	Date Sampled	Benzene	Toluene	Ethyl-benzene	Total Xylenes	GRO	DRO	MRO
		(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)
<b>Analytical Method</b>		<b>8021B</b>	<b>8021B</b>	<b>8021B</b>	<b>8021B</b>	<b>8015B</b>	<b>8015B</b>	<b>8015B</b>
<b>New Mexico WQCC</b>		<b>10</b>	<b>750</b>	<b>750</b>	<b>620</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>
<b>MW-1</b>	05-Mar-09	<b>310</b>	91	5.1	200	2.1	<1.0	<5.0
<b>MW-2</b>	05-Mar-09	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
<b>MW-3</b>	05-Mar-09	<b>400</b>	<b>1,100</b>	110	<b>1,300</b>	8.2	3.4	<5.0
<b>MW-4</b>	05-Mar-09	2.7	1.4	<1.0	<2.0	<0.050	<1.0	<5.0
<b>MW-4</b>	06-Apr-09	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
<b>MW-5</b>	05-Mar-09	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
<b>MW-6</b>	06-Mar-09	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
<b>MW-7</b>	06-Mar-09	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
<b>MW-8</b>	06-Mar-09	<b>160</b>	170	12	350	2.1	1.5	<5.0
<b>MW-9</b>	06-Mar-09	<b>170</b>	350	49	530	2.5	<1.0	<5.0
<b>MW-9</b>	06-Apr-09	<b>82</b>	62	16	210	1.6	<1.0	<5.0
<b>MW-10</b>	09-Mar-09	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
<b>MW-11</b>	09-Mar-09	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
<b>Downgradient MW-7*</b>	09-Mar-09	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0

**NOTE:** NS = Not Sampled  
 GRO = Gasoline Range Organics  
 DRO = Diesel Range Organics  
 MRO = Motor Oil Range Organics  
 \* = Monitoring Well from HWY 537 '06-'07 spill

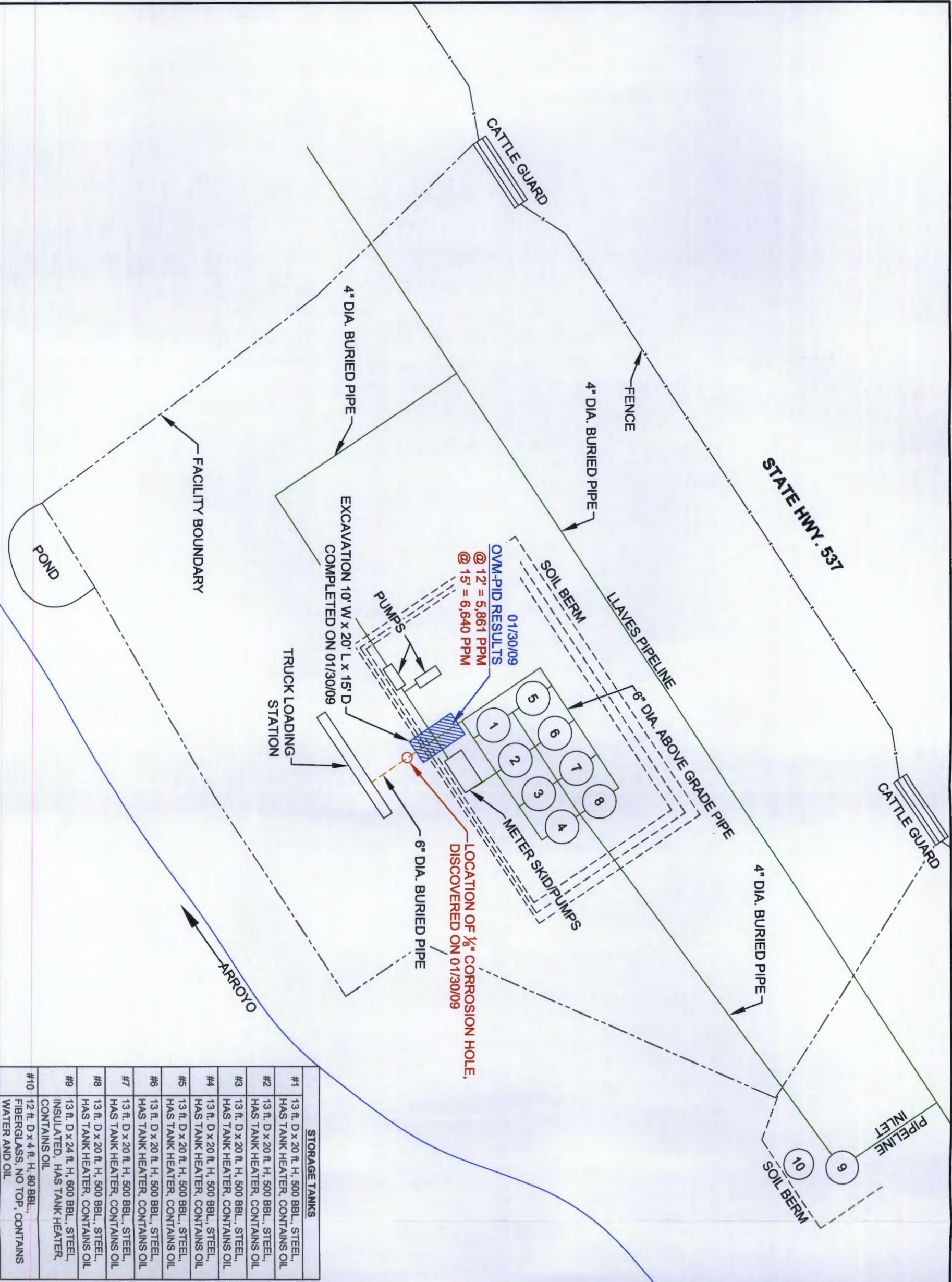




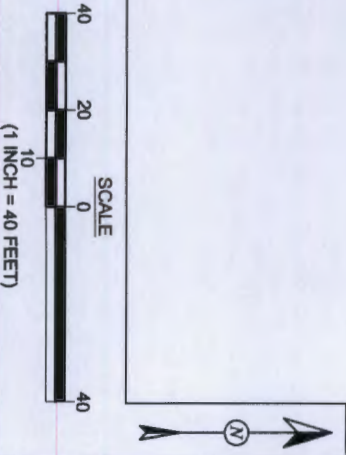
DRAWN BY: R. Kennemer	DATE DRAWN: February 2, 2009
REVISIONS BY: R. Kennemer	DATE REVISED: April 10, 2009
CHECKED BY: E. McNally	DATE CHECKED: April 10, 2009
APPROVED BY: R. Kennemer	DATE APPROVED: April 10, 2009

**FIGURE 1**  
**TOPOGRAPHIC SITE LOCATION MAP**  
BENSON-MONTIN-GREER  
LLAVES PIPELINE HWY. 537 TRUCK RECEIVING STATION  
SW ¼, SW ¼, NW ¼ SEC. 18, T25N, R3W  
RIO ARRIBA COUNTY, NEW MEXICO  
N36°23'55.160", W107°11'35.814"





STORAGE TANKS	
#1	13 ft. D x 20 ft. H, 500 BBL., STEEL, HAS TANK HEATER, CONTAINS OIL
#2	13 ft. D x 20 ft. H, 500 BBL., STEEL, HAS TANK HEATER, CONTAINS OIL
#3	13 ft. D x 20 ft. H, 500 BBL., STEEL, HAS TANK HEATER, CONTAINS OIL
#4	13 ft. D x 20 ft. H, 500 BBL., STEEL, HAS TANK HEATER, CONTAINS OIL
#5	13 ft. D x 20 ft. H, 500 BBL., STEEL, HAS TANK HEATER, CONTAINS OIL
#6	13 ft. D x 20 ft. H, 500 BBL., STEEL, HAS TANK HEATER, CONTAINS OIL
#7	13 ft. D x 20 ft. H, 500 BBL., STEEL, HAS TANK HEATER, CONTAINS OIL
#8	13 ft. D x 20 ft. H, 500 BBL., STEEL, HAS TANK HEATER, CONTAINS OIL
#9	13 ft. D x 24 ft. H, 600 BBL., STEEL, INSULATED, HAS TANK HEATER, CONTAINS OIL
#10	12 ft. D x 4 ft. H, 80 BBL., FIBERGLASS, NO TOP, CONTAINS WATER AND OIL



**FIGURE 2**  
**SITE PLAN AND SPILL LOCATION**  
 BENSON-MONTIN-GREER  
 LLAVES PIPELINE HWY. 537  
 TRUCK RECEIVING STATION  
 SW 1/4, SW 1/4, NW 1/4 SEC. 18, T25N, R3W  
 RIO ARRIBA COUNTY, NEW MEXICO  
 N36°23'55.160", W107°11'35.814"



<b>DRAWN BY:</b>	R. Kennemer	<b>DATE DRAWN:</b>	March 16, 2009
<b>REVISIONS BY:</b>	R. Kennemer	<b>DATE REVISED:</b>	April 2, 2009
<b>CHECKED BY:</b>	D. Watson	<b>DATE CHECKED:</b>	April 2, 2009
<b>APPROVED BY:</b>	E. McNally	<b>DATE APPROVED:</b>	April 2, 2009



FIGURE 3

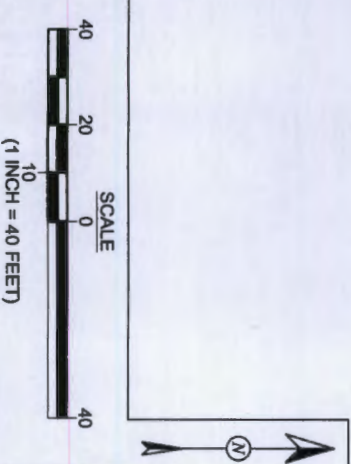
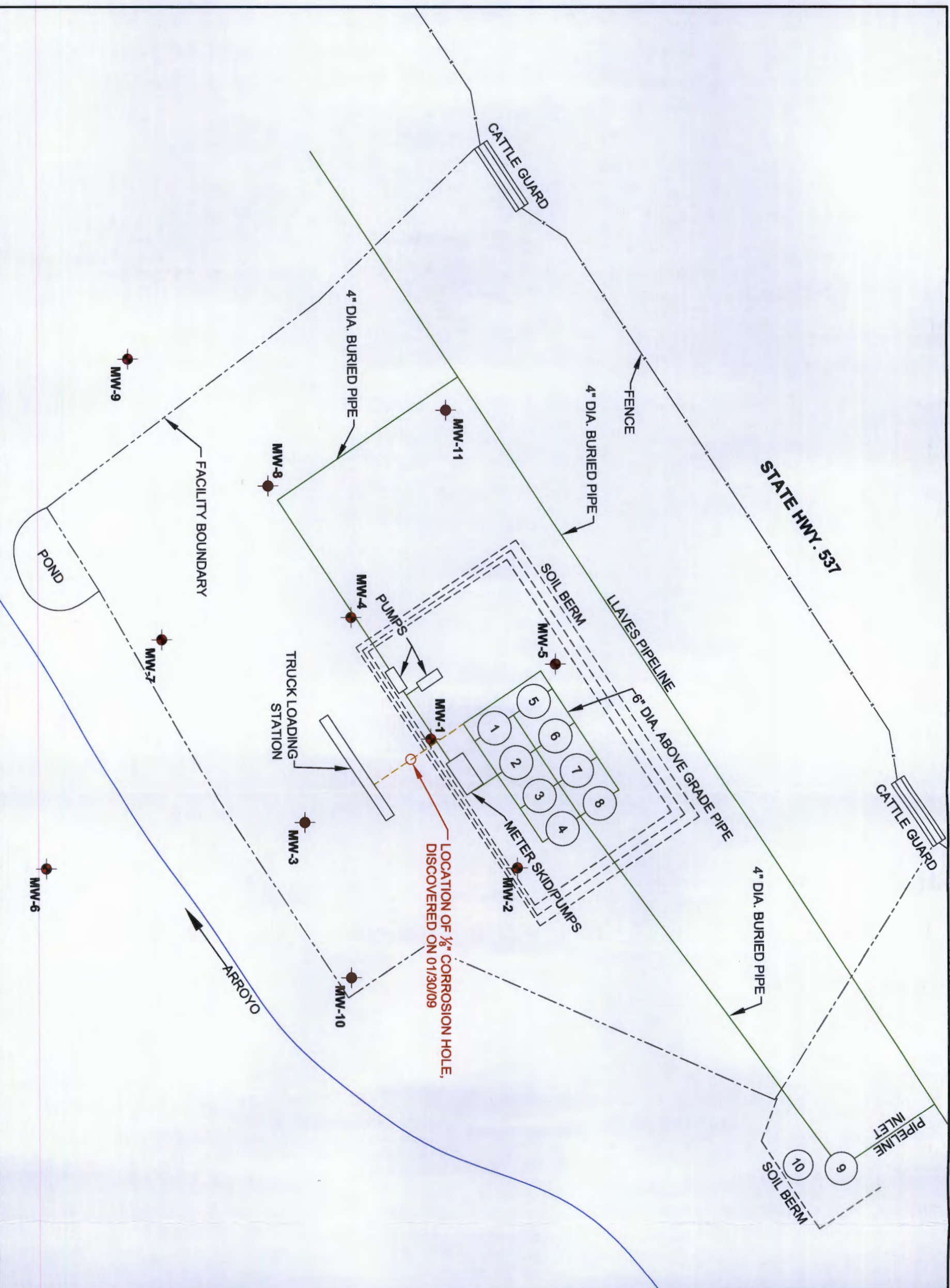
MONITORING WELL LOCATIONS

BENSON-MONTIN-GREER  
LLAVES PIPELINE HWY. 537  
TRUCK RECEIVING STATION  
SW 1/4, SW 1/4, NW 1/4 SEC. 18, T25N, R3W  
RIO ARRIBA COUNTY, NEW MEXICO  
N36°23'55.160", W107°11'35.814"



DRAWN BY:	DATE DRAWN:
R. Kennemer	March 16, 2009
REVISIONS BY:	DATE REVISED:
R. Kennemer	April 2, 2009
CHECKED BY:	DATE CHECKED:
D. Watson	April 2, 2009
APPROVED BY:	DATE APPROVED:
E. McNally	April 2, 2009

MONITORING WELL INSTALLED  
FEBRUARY 2009





BENSON-MONTIN-GREER  
LLAVES PIPELINE HWY. 537  
TRUCK RECEIVING STATION  
SW  $\frac{1}{4}$ , SW  $\frac{1}{4}$ , NW  $\frac{1}{4}$  SEC. 18, T25N, R33W  
RIO ARRIBA COUNTY, NEW MEXICO  
N36°23'55.160", W107°11'35.814"

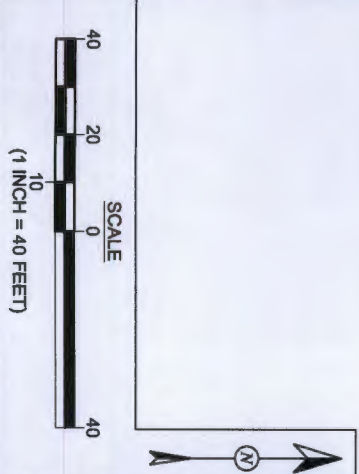


<b>DRAWN BY:</b> R. Kennemer	<b>DATE DRAWN:</b> March 16, 2009
<b>REVISIONS BY:</b> R. Kennemer	<b>DATE REVISED:</b> April 2, 2009
<b>CHECKED BY:</b> D. Watson	<b>DATE CHECKED:</b> April 2, 2009
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> April 2, 2009

## LEGEND

- MONITORING WELL INSTALLED  
FEBRUARY 2008
- |     |                              |
|-----|------------------------------|
| B   | BENZENE                      |
| T   | TOLUENE                      |
| E   | ETHYLBENZENE                 |
| X   | XYLENE                       |
| TPH | TOTAL PETROLEUM HYDROCARBONS |
|     | C6 - C36                     |
- < ANALYTE CONCENTRATION LESS THAN ANALYSIS METHOD DETECTION LIMIT

NOTE: SOIL SAMPLES COLLECTED BETWEEN FEBRUARY 16 AND 20, 2009. CONTAMINANT CONCENTRATIONS ARE REPORTED IN mg/kg OR PARTS PER MILLION. BTEX ANALYZED PER EPA METHOD 8021B AND TPH ANALYZED PER EPA METHOD 8015B. CONCENTRATION RESULTS IN RED EXCEED USEPA REGION 6 SCREENING LEVELS.





**FIGURE 5**  
**GROUNDWATER ELEVATIONS**  
BENSON-MONTIN-GREER  
LLAVES PIPELINE HWY. 537  
TRUCK RECEIVING STATION  
SW ¼, SW ¼, NW ¼ SEC. 18, T29N, R3W  
RIO ARriba COUNTY, NEW MEXICO  
N36°23'55.160", W107°11'35.814"



DRAWN BY:	DATE DRAWN:
R. Kennemer	March 16, 2009
REVISIONS BY:	DATE REVISED:
R. Kennemer	April 2, 2009
CHECKED BY:	DATE CHECKED:
D. Watson	April 2, 2009
APPROVED BY:	DATE APPROVED:
E. McNally	April 2, 2009

LEGEND	
	MONITORING WELL INSTALLED
7036.9	FEBRUARY 2009
7036.9	GROUNDWATER ELEVATION IN FEET A.M.S.L.
7036.9	GROUNDWATER ELEVATION CONTOUR
	IN FEET A.M.S.L.

NOTE: ALL GROUNDWATER ELEVATION MEASUREMENTS WERE MADE ON MARCH 5, 2009.

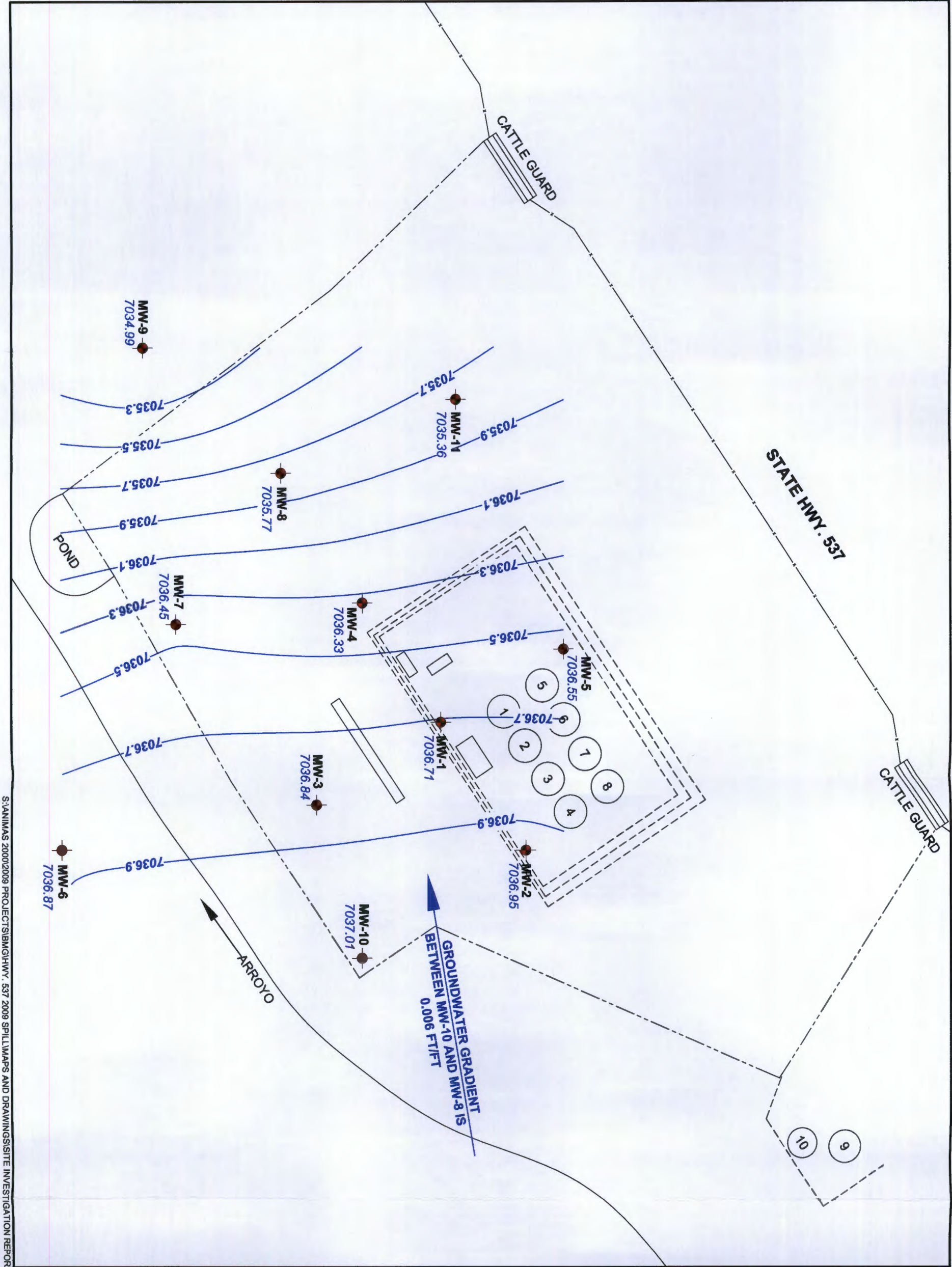
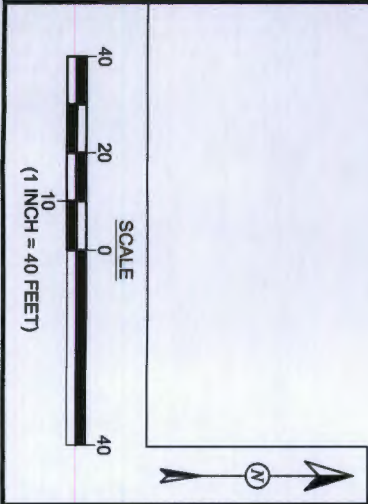




FIGURE 6  
GROUNDWATER ANALYTICAL RESULTS

BENSON-MONTIN-GREER  
LLAVES PIPELINE HWY. 537  
TRUCK RECEIVING STATION  
SW ¼, SW ¼, NW ¼ SEC. 18, T25N, R3W  
RIO ARriba COUNTY, NEW MEXICO  
N36°23'55.160", W107°11'35.814"



DRAWN BY: R. Karmenier	DATE DRAWN: March 16, 2009
REVISIONS BY: R. Karmenier	DATE REVISED: April 10, 2009
CHECKED BY: D. Watson	DATE CHECKED: April 10, 2008
APPROVED BY: E. McNally	DATE APPROVED: April 10, 2009

LEGEND

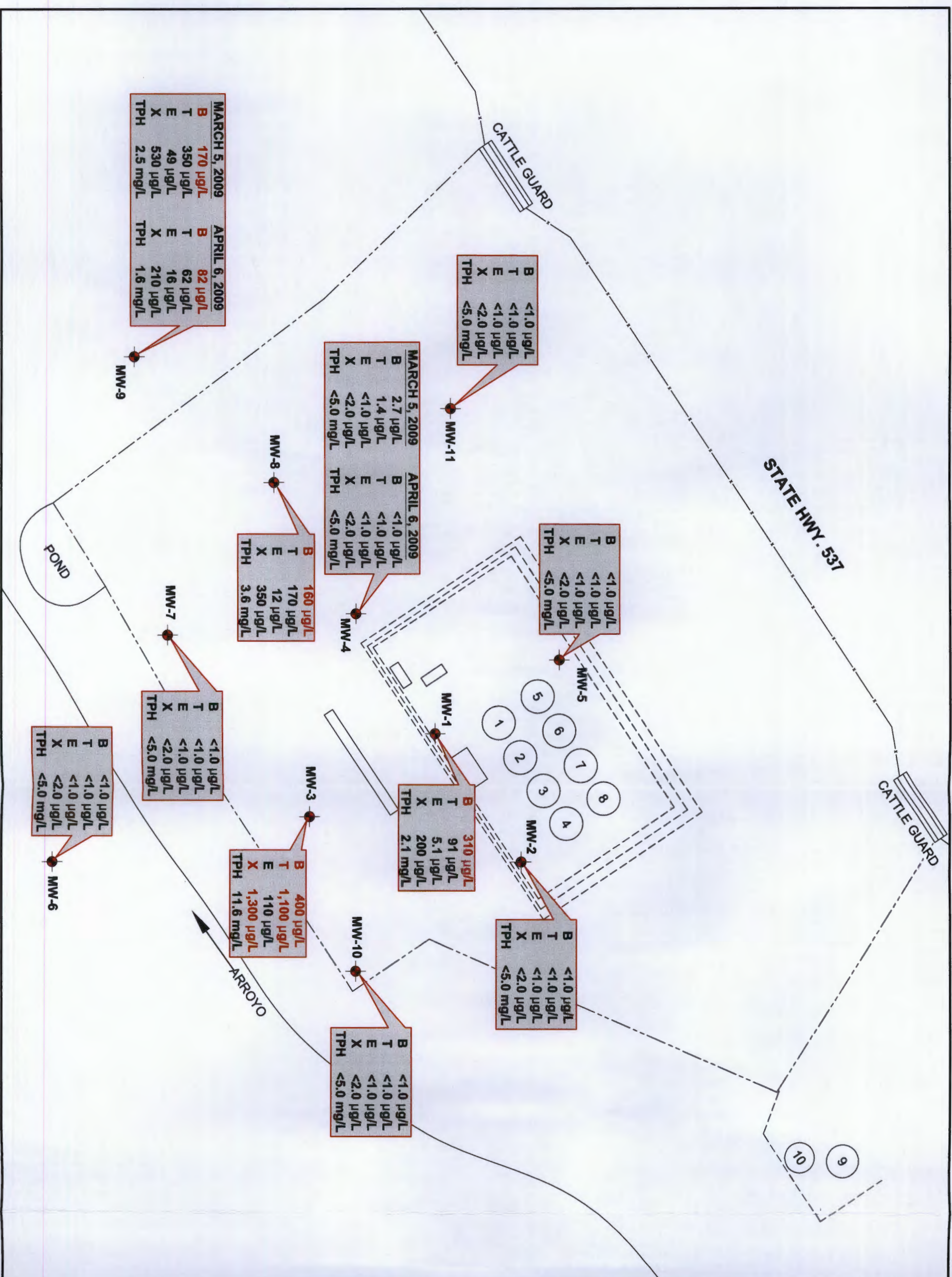
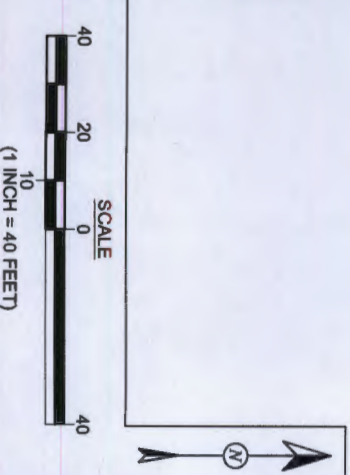
MONITORING WELL INSTALLED  
FEBRUARY 2009

B BENZENE  
T TOLUENE  
E ETHYLBENZENE  
X XYLENE

TPH TOTAL PETROLEUM HYDROCARBONS  
C6 - C36

< ANALYTE CONCENTRATION LESS THAN  
ANALYSIS METHOD DETECTION LIMIT

NOTE: GROUNDWATER SAMPLES COLLECTED BETWEEN  
MARCH 6 AND 9, 2009. ADDITIONALLY, SAMPLES WERE  
COLLECTED FROM MW-4 AND MW-9 FOR CONFIRMATION  
PURPOSES ON APRIL 6, 2009. BTEX CONCENTRATIONS  
ARE REPORTED IN µg/L OR PARTS PER BILLION. TPH  
CONCENTRATION REPORTED IN mg/L OR PARTS PER  
MILLION. BTEX ANALYZED PER EPA METHOD 8021B  
AND TPH ANALYZED PER EPA METHOD 8015B.  
CONCENTRATION RESULTS IN RED EXCEED NEW  
MEXICO WQCC LIMITS.



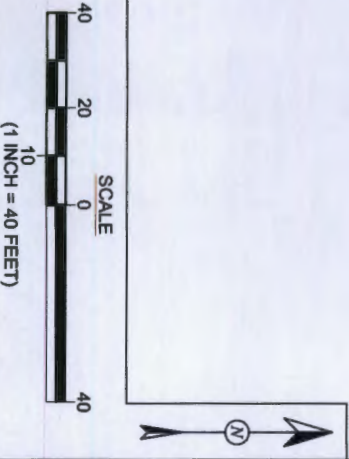
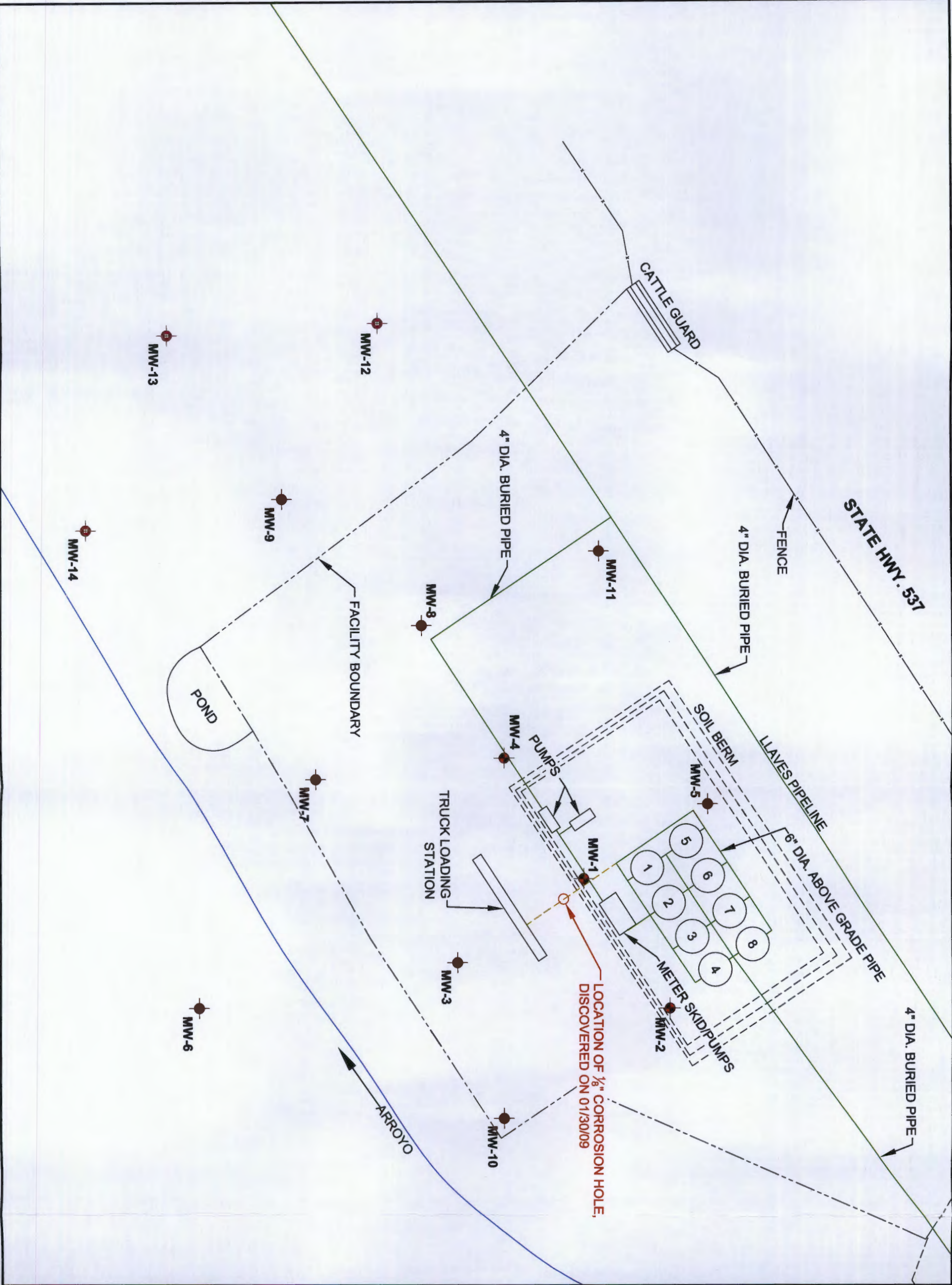


**FIGURE 7**  
**PROPOSED**  
**MONITORING WELL LOCATIONS**  
BENSON-MONTIN-GREER  
LLAVES PIPELINE HWY. 537  
TRUCK RECEIVING STATION  
SW 1/4, SW 1/4, NW 1/4 SEC. 18, T25N, R3W  
RIO ARRIBA COUNTY, NEW MEXICO  
N36°23'55.160" W107°11'35.814"



DRAWN BY:	R. Kammener	DATE DRAWN:	April 10, 2009
REVISIONS BY:	R. Kammener	DATE REVISED:	April 10, 2009
CHECKED BY:	D. Watson	DATE CHECKED:	April 10, 2009
APPROVED BY:	E. McNally	DATE APPROVED:	April 10, 2009

- LEGEND**
- MONITORING WELL INSTALLED  
FEBRUARY 2009
  - PROPOSED MONITORING WELLS



## COVER LETTER

Friday, February 06, 2009

Ross Kennemer  
Animas Environmental Services  
624 East Comanche  
Farmington, NM 87401

TEL: (505) 564-2281

FAX (505) 324-2022

RE: BMG Hwy 537 Truck Station 2009 Spill

Order No.: 0902009

Dear Ross Kennemer:

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 2/2/2009 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,



Andy Freeman, Business Manager  
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425  
AZ license # AZ0682  
ORELAP Lab # NM100001  
Texas Lab# T104704424-08-TX



**Hall Environmental Analysis Laboratory, Inc.****Date:** 06-Feb-09

---

**CLIENT:** Animas Environmental Services  
**Project:** BMG Hwy 537 Truck Station 2009 Spill  
**Lab Order:** 0902009

---

**CASE NARRATIVE**

Analytical Comments for METHOD 8015DRO\_S, SAMPLE 0902009-01A: DNOP not recovered due to dilution

**Hall Environmental Analysis Laboratory, Inc.**

Date: 06-Feb-09

**CLIENT:** Animas Environmental Services  
**Lab Order:** 0902009  
**Project:** BMG Hwy 537 Truck Station 2009 Spill  
**Lab ID:** 0902009-01

**Client Sample ID:** Excavation Base @ 15'  
**Collection Date:** 1/30/2009 11:55:00 AM  
**Date Received:** 2/2/2009  
**Matrix:** MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	9100	200		mg/Kg	20	2/4/2009
Motor Oil Range Organics (MRO)	2300	1000		mg/Kg	20	2/4/2009
Surr: DNOP	0	61.7-135	S	%REC	20	2/4/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	8900	5000		mg/Kg	1000	2/5/2009 4:38:18 PM
Surr: BFB	85.9	58.8-123		%REC	1000	2/5/2009 4:38:18 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	170	50		mg/Kg	1000	2/5/2009 4:38:18 PM
Toluene	730	50		mg/Kg	1000	2/5/2009 4:38:18 PM
Ethylbenzene	67	50		mg/Kg	1000	2/5/2009 4:38:18 PM
Xylenes, Total	690	100		mg/Kg	1000	2/5/2009 4:38:18 PM
Surr: 4-Bromofluorobenzene	83.5	66.8-139		%REC	1000	2/5/2009 4:38:18 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit



## QA/QC SUMMARY REPORT

Client: Animas Environmental Services  
 Project: BMG Hwy 537 Truck Station 2009 Spill

Work Order: 0902009

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
<b>Method: EPA Method 8015B: Diesel Range Organics</b>									
Sample ID: MB-18217		MBLK							
					Batch ID: 18217	Analysis Date:			2/4/2009
Diesel Range Organics (DRO)	ND	mg/Kg	10						
Motor Oil Range Organics (MRO)	ND	mg/Kg	50						
Sample ID: LCS-18217		LCS							
					Batch ID: 18217	Analysis Date:			2/4/2009
Diesel Range Organics (DRO)	43.68	mg/Kg	10	87.4	64.6	116			
Sample ID: LCSD-18217		LCSD							
					Batch ID: 18217	Analysis Date:			2/4/2009
Diesel Range Organics (DRO)	44.68	mg/Kg	10	89.4	64.6	116	2.26	17.4	
<b>Method: EPA Method 8015B: Gasoline Range</b>									
Sample ID: MB-18223		MBLK							
					Batch ID: 18223	Analysis Date:			2/5/2009 5:39:05 PM
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0						
Sample ID: LCS-18223		LCS							
					Batch ID: 18223	Analysis Date:			2/5/2009 6:09:33 PM
Gasoline Range Organics (GRO)	29.60	mg/Kg	5.0	116	64.4	133			
Sample ID: LCSD-18223		LCSD							
					Batch ID: 18223	Analysis Date:			2/5/2009 6:39:49 PM
Gasoline Range Organics (GRO)	29.17	mg/Kg	5.0	114	69.5	120	1.46	11.6	
<b>Method: EPA Method 8021B: Volatiles</b>									
Sample ID: MB-18223		MBLK							
					Batch ID: 18223	Analysis Date:			2/5/2009 5:39:05 PM
Benzene	ND	mg/Kg	0.050						
Toluene	ND	mg/Kg	0.050						
Ethylbenzene	ND	mg/Kg	0.050						
Xylenes, Total	ND	mg/Kg	0.10						
Sample ID: LCS-18223		LCS							
					Batch ID: 18223	Analysis Date:			2/5/2009 7:10:16 PM
Benzene	1.027	mg/Kg	0.050	102	78.8	132			
Toluene	1.067	mg/Kg	0.050	107	78.9	112			
Ethylbenzene	1.130	mg/Kg	0.050	113	69.3	125			
Xylenes, Total	3.395	mg/Kg	0.10	113	73	128			
Sample ID: LCSD-18223		LCSD							
					Batch ID: 18223	Analysis Date:			2/5/2009 7:40:45 PM
Benzene	1.003	mg/Kg	0.050	100	78.8	132	2.44	27	
Toluene	1.030	mg/Kg	0.050	103	78.9	112	3.61	19	
Ethylbenzene	1.107	mg/Kg	0.050	111	69.3	125	2.05	10	
Xylenes, Total	3.322	mg/Kg	0.10	111	73	128	2.16	13	

## Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name ANIMAS ENVIRONMENTAL

Date Received:

2/2/2009

Work Order Number 0902009

Received by: TLS

Checklist completed by:

Signature

Sample ID labels checked by:

Initials

Matrix:

Carrier name Greyhound

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒

No ☐

Not Present ☐

Not Shipped ☐

Custody seals intact on sample bottles?

Yes ☒

No ☐

N/A ☐

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☒

Yes ☐

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☐

No ☐

N/A ☒

Water - pH acceptable upon receipt?

Yes ☐

No ☐

N/A ☒

Container/Temp Blank temperature?

5°

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding:

Comments:

Corrective Action







## COVER LETTER

Monday, February 23, 2009

Ross Kennemer  
Animas Environmental Services  
624 East Comanche  
Farmington, NM 87401

TEL: (505) 564-2281  
FAX (505) 324-2022

RE: BMG HWY 537 Truck Receiving Station Spill 2009

Order No.: 0902192

Dear Ross Kennemer:

Hall Environmental Analysis Laboratory, Inc. received 14 sample(s) on 2/18/2009 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", written over a horizontal line.

Andy Freeman, Business Manager  
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425  
AZ license # AZ0682  
ORELAP Lab # NM100001  
Texas Lab# T104704424-08-TX



**Hall Environmental Analysis Laboratory, Inc.**

Date: 23-Feb-09

**CLIENT:** Animas Environmental Services  
**Project:** BMG HWY 537 Truck Receiving Station Spill 2  
**Lab Order:** 0902192

**CASE NARRATIVE**

Analytical Comments for METHOD 8015DRO\_S, SAMPLE 0902192-03A: DNOP not recovered due to dilution

**Hall Environmental Analysis Laboratory, Inc.**

Date: 23-Feb-09

**CLIENT:** Animas Environmental Services **Client Sample ID:** MW-3 @ 10'  
**Lab Order:** 0902192 **Collection Date:** 2/16/2009 11:25:00 AM  
**Project:** BMG HWY 537 Truck Receiving Station Spill 2 **Date Received:** 2/18/2009  
**Lab ID:** 0902192-01 **Matrix:** MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/21/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/21/2009
Surr: DNOP	93.4	61.7-135		%REC	1	2/21/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/20/2009 4:19:14 PM
Surr: BFB	96.1	58.8-123		%REC	1	2/20/2009 4:19:14 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	ND	0.050		mg/Kg	1	2/20/2009 4:19:14 PM
Toluene	ND	0.050		mg/Kg	1	2/20/2009 4:19:14 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/20/2009 4:19:14 PM
Xylenes, Total	ND	0.10		mg/Kg	1	2/20/2009 4:19:14 PM
Surr: 4-Bromofluorobenzene	94.5	66.8-139		%REC	1	2/20/2009 4:19:14 PM

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits  
B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
RL Reporting Limit

**Hall Environmental Analysis Laboratory, Inc.**

Date: 23-Feb-09

**CLIENT:** Animas Environmental Services **Client Sample ID:** MW-3 @ 20'  
**Lab Order:** 0902192 **Collection Date:** 2/16/2009 11:40:00 AM  
**Project:** BMG HWY 537 Truck Receiving Station Spill 2 **Date Received:** 2/18/2009  
**Lab ID:** 0902192-02 **Matrix:** MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/21/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/21/2009
Surr: DNOP	92.5	61.7-135		%REC	1	2/21/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/20/2009 4:49:40 PM
Surr: BFB	95.6	58.8-123		%REC	1	2/20/2009 4:49:40 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	ND	0.050		mg/Kg	1	2/20/2009 4:49:40 PM
Toluene	ND	0.050		mg/Kg	1	2/20/2009 4:49:40 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/20/2009 4:49:40 PM
Xylenes, Total	ND	0.10		mg/Kg	1	2/20/2009 4:49:40 PM
Surr: 4-Bromofluorobenzene	95.7	66.8-139		%REC	1	2/20/2009 4:49:40 PM

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
RL Reporting Limit

**Hall Environmental Analysis Laboratory, Inc.**

Date: 23-Feb-09

**CLIENT:** Animas Environmental Services **Client Sample ID:** MW-3 @ 26'  
**Lab Order:** 0902192 **Collection Date:** 2/16/2009 11:53:00 AM  
**Project:** BMG HWY 537 Truck Receiving Station Spill 2 **Date Received:** 2/18/2009  
**Lab ID:** 0902192-03 **Matrix:** MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	3900	500		mg/Kg	50	2/21/2009
Motor Oil Range Organics (MRO)	2800	2500		mg/Kg	50	2/21/2009
Surr: DNOP	0	61.7-135	S	%REC	50	2/21/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	1400	500		mg/Kg	100	2/20/2009 5:20:04 PM
Surr: BFB	92.3	58.8-123		%REC	100	2/20/2009 5:20:04 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	28	5.0		mg/Kg	100	2/20/2009 5:20:04 PM
Toluene	130	5.0		mg/Kg	100	2/20/2009 5:20:04 PM
Ethylbenzene	17	5.0		mg/Kg	100	2/20/2009 5:20:04 PM
Xylenes, Total	170	10		mg/Kg	100	2/20/2009 5:20:04 PM
Surr: 4-Bromofluorobenzene	93.9	66.8-139		%REC	100	2/20/2009 5:20:04 PM

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
RL Reporting Limit

**Hall Environmental Analysis Laboratory, Inc.**

Date: 23-Feb-09

<b>CLIENT:</b>	Animas Environmental Services	<b>Client Sample ID:</b>	MW-1 @ 20'
<b>Lab Order:</b>	0902192	<b>Collection Date:</b>	2/16/2009 3:25:00 PM
<b>Project:</b>	BMG HWY 537 Truck Receiving Station Spill 2	<b>Date Received:</b>	2/18/2009
<b>Lab ID:</b>	0902192-04	<b>Matrix:</b>	MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	1400	100		mg/Kg	10	2/21/2009
Motor Oil Range Organics (MRO)	700	500		mg/Kg	10	2/21/2009
Surr: DNOP	116	61.7-135		%REC	10	2/21/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	720	500		mg/Kg	100	2/20/2009 9:26:19 PM
Surr: BFB	89.1	58.8-123		%REC	100	2/20/2009 9:26:19 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	8.1	5.0		mg/Kg	100	2/20/2009 9:26:19 PM
Toluene	43	5.0		mg/Kg	100	2/20/2009 9:26:19 PM
Ethylbenzene	5.4	5.0		mg/Kg	100	2/20/2009 9:26:19 PM
Xylenes, Total	55	10		mg/Kg	100	2/20/2009 9:26:19 PM
Surr: 4-Bromofluorobenzene	81.5	66.8-139		%REC	100	2/20/2009 9:26:19 PM

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Estimated value	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

**Hall Environmental Analysis Laboratory, Inc.**

Date: 23-Feb-09

<b>CLIENT:</b>	Animas Environmental Services	<b>Client Sample ID:</b>	MW-1 @ 30'
<b>Lab Order:</b>	0902192	<b>Collection Date:</b>	2/16/2009 3:40:00 PM
<b>Project:</b>	BMG HWY 537 Truck Receiving Station Spill 2	<b>Date Received:</b>	2/18/2009
<b>Lab ID:</b>	0902192-05	<b>Matrix:</b>	MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	1200	100		mg/Kg	10	2/21/2009
Motor Oil Range Organics (MRO)	720	500		mg/Kg	10	2/21/2009
Surr: DNOP	106	61.7-135		%REC	10	2/21/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	1000	50		mg/Kg	10	2/20/2009 10:27:09 PM
Surr: BFB	182	58.8-123	S	%REC	10	2/20/2009 10:27:09 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	16	0.50		mg/Kg	10	2/20/2009 10:27:09 PM
Toluene	12	0.50		mg/Kg	10	2/20/2009 10:27:09 PM
Ethylbenzene	6.4	0.50		mg/Kg	10	2/20/2009 10:27:09 PM
Xylenes, Total	68	1.0		mg/Kg	10	2/20/2009 10:27:09 PM
Surr: 4-Bromofluorobenzene	105	66.8-139		%REC	10	2/20/2009 10:27:09 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit



**Hall Environmental Analysis Laboratory, Inc.**

Date: 23-Feb-09

**CLIENT:** Animas Environmental Services **Client Sample ID:** MW-4 @ 10'  
**Lab Order:** 0902192 **Collection Date:** 2/17/2009 9:30:00 AM  
**Project:** BMG HWY 537 Truck Receiving Station Spill 2 **Date Received:** 2/18/2009  
**Lab ID:** 0902192-06 **Matrix:** MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/21/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/21/2009
Surr: DNOP	91.6	61.7-135		%REC	1	2/21/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/20/2009 11:28:08 PM
Surr: BFB	101	58.8-123		%REC	1	2/20/2009 11:28:08 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	ND	0.050		mg/Kg	1	2/20/2009 11:28:08 PM
Toluene	ND	0.050		mg/Kg	1	2/20/2009 11:28:08 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/20/2009 11:28:08 PM
Xylenes, Total	ND	0.10		mg/Kg	1	2/20/2009 11:28:08 PM
Surr: 4-Bromofluorobenzene	100	66.8-139		%REC	1	2/20/2009 11:28:08 PM

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
RL Reporting Limit

**Hall Environmental Analysis Laboratory, Inc.**

Date: 23-Feb-09

<b>CLIENT:</b>	Animas Environmental Services	<b>Client Sample ID:</b>	MW-4 @ 20'
<b>Lab Order:</b>	0902192	<b>Collection Date:</b>	2/17/2009 9:41:00 AM
<b>Project:</b>	BMG HWY 537 Truck Receiving Station Spill 2	<b>Date Received:</b>	2/18/2009
<b>Lab ID:</b>	0902192-07	<b>Matrix:</b>	MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/21/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/21/2009
Surr: DNOP	91.7	61.7-135		%REC	1	2/21/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/20/2009 11:58:35 PM
Surr: BFB	89.2	58.8-123		%REC	1	2/20/2009 11:58:35 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	0.080	0.050		mg/Kg	1	2/20/2009 11:58:35 PM
Toluene	ND	0.050		mg/Kg	1	2/20/2009 11:58:35 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/20/2009 11:58:35 PM
Xylenes, Total	0.12	0.10		mg/Kg	1	2/20/2009 11:58:35 PM
Surr: 4-Bromofluorobenzene	86.5	66.8-139		%REC	1	2/20/2009 11:58:35 PM

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Estimated value	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

**Hall Environmental Analysis Laboratory, Inc.**

Date: 23-Feb-09

**CLIENT:** Animas Environmental Services **Client Sample ID:** MW-4 @ 26'  
**Lab Order:** 0902192 **Collection Date:** 2/17/2009 10:00:00 AM  
**Project:** BMG HWY 537 Truck Receiving Station Spill 2 **Date Received:** 2/18/2009  
**Lab ID:** 0902192-08 **Matrix:** MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	1100	100		mg/Kg	10	2/21/2009
Motor Oil Range Organics (MRO)	660	500		mg/Kg	10	2/21/2009
Surr: DNOP	105	61.7-135		%REC	10	2/21/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	980	500		mg/Kg	100	2/21/2009 12:28:57 AM
Surr: BFB	93.1	58.8-123		%REC	100	2/21/2009 12:28:57 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	16	5.0		mg/Kg	100	2/21/2009 12:28:57 AM
Toluene	59	5.0		mg/Kg	100	2/21/2009 12:28:57 AM
Ethylbenzene	9.4	5.0		mg/Kg	100	2/21/2009 12:28:57 AM
Xylenes, Total	91	10		mg/Kg	100	2/21/2009 12:28:57 AM
Surr: 4-Bromofluorobenzene	91.5	66.8-139		%REC	100	2/21/2009 12:28:57 AM

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
RL Reporting Limit

**Hall Environmental Analysis Laboratory, Inc.**

Date: 23-Feb-09

**CLIENT:** Animas Environmental Services **Client Sample ID:** MW-5 @ 10'  
**Lab Order:** 0902192 **Collection Date:** 2/17/2009 12:05:00 PM  
**Project:** BMG HWY 537 Truck Receiving Station Spill 2 **Date Received:** 2/18/2009  
**Lab ID:** 0902192-09 **Matrix:** MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/21/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/21/2009
Surr: DNOP	90.9	61.7-135		%REC	1	2/21/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/21/2009 1:29:54 AM
Surr: BFB	97.9	58.8-123		%REC	1	2/21/2009 1:29:54 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	ND	0.050		mg/Kg	1	2/21/2009 1:29:54 AM
Toluene	ND	0.050		mg/Kg	1	2/21/2009 1:29:54 AM
Ethylbenzene	ND	0.050		mg/Kg	1	2/21/2009 1:29:54 AM
Xylenes, Total	ND	0.10		mg/Kg	1	2/21/2009 1:29:54 AM
Surr: 4-Bromofluorobenzene	102	66.8-139		%REC	1	2/21/2009 1:29:54 AM

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
RL Reporting Limit

**Hall Environmental Analysis Laboratory, Inc.**

Date: 23-Feb-09

**CLIENT:** Animas Environmental Services **Client Sample ID:** MW-5 @ 20'  
**Lab Order:** 0902192 **Collection Date:** 2/17/2009 12:19:00 PM  
**Project:** BMG HWY 537 Truck Receiving Station Spill 2 **Date Received:** 2/18/2009  
**Lab ID:** 0902192-10 **Matrix:** MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/21/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/21/2009
Surr: DNOP	92.7	61.7-135		%REC	1	2/21/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/21/2009 2:00:16 AM
Surr: BFB	89.7	58.8-123		%REC	1	2/21/2009 2:00:16 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	ND	0.050		mg/Kg	1	2/21/2009 2:00:16 AM
Toluene	ND	0.050		mg/Kg	1	2/21/2009 2:00:16 AM
Ethylbenzene	ND	0.050		mg/Kg	1	2/21/2009 2:00:16 AM
Xylenes, Total	ND	0.10		mg/Kg	1	2/21/2009 2:00:16 AM
Surr: 4-Bromofluorobenzene	89.1	66.8-139		%REC	1	2/21/2009 2:00:16 AM

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
RL Reporting Limit

**Hall Environmental Analysis Laboratory, Inc.**

Date: 23-Feb-09

**CLIENT:** Animas Environmental Services **Client Sample ID:** MW-5 @ 30'  
**Lab Order:** 0902192 **Collection Date:** 2/17/2009 12:35:00 PM  
**Project:** BMG HWY 537 Truck Receiving Station Spill 2 **Date Received:** 2/18/2009  
**Lab ID:** 0902192-11 **Matrix:** MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/21/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/21/2009
Surr: DNOP	92.4	61.7-135		%REC	1	2/21/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/21/2009 2:30:37 AM
Surr: BFB	92.9	58.8-123		%REC	1	2/21/2009 2:30:37 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	ND	0.050		mg/Kg	1	2/21/2009 2:30:37 AM
Toluene	ND	0.050		mg/Kg	1	2/21/2009 2:30:37 AM
Ethylbenzene	ND	0.050		mg/Kg	1	2/21/2009 2:30:37 AM
Xylenes, Total	ND	0.10		mg/Kg	1	2/21/2009 2:30:37 AM
Surr: 4-Bromofluorobenzene	93.9	66.8-139		%REC	1	2/21/2009 2:30:37 AM

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
RL Reporting Limit

**Hall Environmental Analysis Laboratory, Inc.**

Date: 23-Feb-09

<b>CLIENT:</b>	Animas Environmental Services	<b>Client Sample ID:</b>	MW-2 @ 10'
<b>Lab Order:</b>	0902192	<b>Collection Date:</b>	2/17/2009 3:12:00 PM
<b>Project:</b>	BMG HWY 537 Truck Receiving Station Spill 2	<b>Date Received:</b>	2/18/2009
<b>Lab ID:</b>	0902192-12	<b>Matrix:</b>	MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/21/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/21/2009
Surr: DNOP	96.2	61.7-135		%REC	1	2/21/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/21/2009 3:01:11 AM
Surr: BFB	93.9	58.8-123		%REC	1	2/21/2009 3:01:11 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	ND	0.050		mg/Kg	1	2/21/2009 3:01:11 AM
Toluene	ND	0.050		mg/Kg	1	2/21/2009 3:01:11 AM
Ethylbenzene	ND	0.050		mg/Kg	1	2/21/2009 3:01:11 AM
Xylenes, Total	ND	0.10		mg/Kg	1	2/21/2009 3:01:11 AM
Surr: 4-Bromofluorobenzene	96.4	66.8-139		%REC	1	2/21/2009 3:01:11 AM

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Estimated value	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

**Hall Environmental Analysis Laboratory, Inc.**

Date: 23-Feb-09

**CLIENT:** Animas Environmental Services **Client Sample ID:** MW-2 @ 20'  
**Lab Order:** 0902192 **Collection Date:** 2/17/2009 3:27:00 PM  
**Project:** BMG HWY 537 Truck Receiving Station Spill 2 **Date Received:** 2/18/2009  
**Lab ID:** 0902192-13 **Matrix:** MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/21/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/21/2009
Surr: DNOP	94.6	61.7-135		%REC	1	2/21/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/21/2009 3:31:43 AM
Surr: BFB	92.2	58.8-123		%REC	1	2/21/2009 3:31:43 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	ND	0.050		mg/Kg	1	2/21/2009 3:31:43 AM
Toluene	ND	0.050		mg/Kg	1	2/21/2009 3:31:43 AM
Ethylbenzene	ND	0.050		mg/Kg	1	2/21/2009 3:31:43 AM
Xylenes, Total	ND	0.10		mg/Kg	1	2/21/2009 3:31:43 AM
Surr: 4-Bromofluorobenzene	94.3	66.8-139		%REC	1	2/21/2009 3:31:43 AM

**Qualifiers:** \* Value exceeds Maximum Contaminant Level B Analyte detected in the associated Method Blank  
E Estimated value H Holding times for preparation or analysis exceeded  
J Analyte detected below quantitation limits MCL Maximum Contaminant Level  
ND Not Detected at the Reporting Limit RL Reporting Limit  
S Spike recovery outside accepted recovery limits



**Hall Environmental Analysis Laboratory, Inc.**

Date: 23-Feb-09

<b>CLIENT:</b>	Animas Environmental Services	<b>Client Sample ID:</b>	MW-2 @ 29.5'
<b>Lab Order:</b>	0902192	<b>Collection Date:</b>	2/17/2009 3:37:00 PM
<b>Project:</b>	BMG HWY 537 Truck Receiving Station Spill 2	<b>Date Received:</b>	2/18/2009
<b>Lab ID:</b>	0902192-14	<b>Matrix:</b>	MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/21/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/21/2009
Surr: DNOP	94.7	61.7-135		%REC	1	2/21/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/21/2009 7:35:31 AM
Surr: BFB	94.2	58.8-123		%REC	1	2/21/2009 7:35:31 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	ND	0.050		mg/Kg	1	2/21/2009 7:35:31 AM
Toluene	ND	0.050		mg/Kg	1	2/21/2009 7:35:31 AM
Ethylbenzene	ND	0.050		mg/Kg	1	2/21/2009 7:35:31 AM
Xylenes, Total	ND	0.10		mg/Kg	1	2/21/2009 7:35:31 AM
Surr: 4-Bromofluorobenzene	96.6	66.8-139		%REC	1	2/21/2009 7:35:31 AM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

## QA/QC SUMMARY REPORT

Client: Animas Environmental Services  
 Project: BMG HWY 537 Truck Receiving Station Spill 2

Work Order: 0902192

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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## Method: EPA Method 8015B: Diesel Range Organics

Sample ID: MB-18363		MBLK		Batch ID: 18363		Analysis Date: 2/21/2009	
Diesel Range Organics (DRO)	ND	mg/Kg	10				
Motor Oil Range Organics (MRO)	ND	mg/Kg	50				
Sample ID: LCS-18363		LCS		Batch ID: 18363		Analysis Date: 2/21/2009	
Diesel Range Organics (DRO)	48.15	mg/Kg	10	96.3	64.6	116	
Sample ID: LCSD-18363		LCSD		Batch ID: 18363		Analysis Date: 2/21/2009	
Diesel Range Organics (DRO)	49.39	mg/Kg	10	98.8	64.6	116	2.54 17.4

## Method: EPA Method 8015B: Gasoline Range

Sample ID: MB-18347					Batch ID: 18347		Analysis Date: 2/21/2009 5:03:23 AM	
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0					
Sample ID: LCS-18347					Batch ID: 18347		Analysis Date: 2/20/2009 6:21:02 PM	
Gasoline Range Organics (GRO)	28.81	mg/Kg	5.0	111	64.4	133		
Sample ID: LCSD-18347					Batch ID: 18347		Analysis Date: 2/20/2009 6:51:38 PM	
Gasoline Range Organics (GRO)	31.27	mg/Kg	5.0	121	64.4	133	8.19	11.6

## Method: EPA Method 8021B: Volatiles

Sample ID: MB-18347		MBLK		Batch ID: 18347		Analysis Date: 2/21/2009 5:03:23 AM	
Benzene	ND	mg/Kg	0.050				
Toluene	ND	mg/Kg	0.050				
Ethylbenzene	ND	mg/Kg	0.050				
Xylenes, Total	ND	mg/Kg	0.10				
Sample ID: LCS-18347		LCS		Batch ID: 18347		Analysis Date: 2/21/2009 4:02:19 AM	
Benzene	0.9602	mg/Kg	0.050	94.5	78.8	132	
Toluene	0.9806	mg/Kg	0.050	97.4	78.9	112	
Ethylbenzene	1.054	mg/Kg	0.050	105	69.3	125	
Xylenes, Total	3.184	mg/Kg	0.10	106	73	128	
Sample ID: LCSD-18347		LCSD		Batch ID: 18347		Analysis Date: 2/21/2009 4:32:47 AM	
Benzene	0.9866	mg/Kg	0.050	97.1	78.8	132	2.71 27
Toluene	1.018	mg/Kg	0.050	101	78.9	112	3.75 19
Ethylbenzene	1.115	mg/Kg	0.050	111	69.3	125	5.62 10
Xylenes, Total	3.349	mg/Kg	0.10	112	73	128	5.07 13

## Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Sample Receipt Checklist

Client Name ANIMAS ENVIRONMENTAL

Date Received:

2/18/2009

Work Order Number 0902192

Received by: ARS

Checklist completed by:

Signature

Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name: Greyhound

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	Not Shipped <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>	
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Water - VOA vials have zero headspace?	No VOA vials submitted <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Water - Preservation labels on bottle and cap match?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	

Container/Temp Blank temperature?

4°

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted \_\_\_\_\_ Date contacted: \_\_\_\_\_ Person contacted \_\_\_\_\_

Contacted by: \_\_\_\_\_ Regarding: \_\_\_\_\_

Comments: \_\_\_\_\_

Corrective Action \_\_\_\_\_







## COVER LETTER

Wednesday, February 25, 2009

Ross Kennemer  
Animas Environmental Services  
624 East Comanche  
Farmington, NM 87401

TEL: (505) 564-2281  
FAX (505) 324-2022

RE: BMG HWY 537 Truck Receiving Station 2009 Spill

Order No.: 0902208

Dear Ross Kennemer:

Hall Environmental Analysis Laboratory, Inc. received 8 sample(s) on 2/19/2009 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Freeman, Business Manager  
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425  
AZ license # AZ0682  
ORELAP Lab # NM100001  
Texas Lab# T104704424-08-TX



**Hall Environmental Analysis Laboratory, Inc.**

Date: 25-Feb-09

**CLIENT:** Animas Environmental Services**Client Sample ID:** MW-6 @ 10'**Lab Order:** 0902208**Collection Date:** 2/18/2009 8:52:00 AM**Project:** BMG HWY 537 Truck Receiving Station 2009**Date Received:** 2/19/2009**Lab ID:** 0902208-01**Matrix:** MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/21/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/21/2009
Surr: DNOP	92.9	61.7-135		%REC	1	2/21/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/23/2009 6:32:44 PM
Surr: BFB	88.6	58.8-123		%REC	1	2/23/2009 6:32:44 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	ND	0.050		mg/Kg	1	2/23/2009 6:32:44 PM
Toluene	ND	0.050		mg/Kg	1	2/23/2009 6:32:44 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/23/2009 6:32:44 PM
Xylenes, Total	ND	0.10		mg/Kg	1	2/23/2009 6:32:44 PM
Surr: 4-Bromofluorobenzene	86.3	66.8-139		%REC	1	2/23/2009 6:32:44 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

**Hall Environmental Analysis Laboratory, Inc.**

Date: 25-Feb-09

**CLIENT:** Animas Environmental Services **Client Sample ID:** MW-6 @ 15'  
**Lab Order:** 0902208 **Collection Date:** 2/18/2009 8:58:00 AM  
**Project:** BMG HWY 537 Truck Receiving Station 2009 **Date Received:** 2/19/2009  
**Lab ID:** 0902208-02 **Matrix:** MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/21/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/21/2009
Surr: DNOP	97.5	61.7-135		%REC	1	2/21/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/23/2009 7:03:13 PM
Surr: BFB	90.8	58.8-123		%REC	1	2/23/2009 7:03:13 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	ND	0.050		mg/Kg	1	2/23/2009 7:03:13 PM
Toluene	ND	0.050		mg/Kg	1	2/23/2009 7:03:13 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/23/2009 7:03:13 PM
Xylenes, Total	ND	0.10		mg/Kg	1	2/23/2009 7:03:13 PM
Surr: 4-Bromofluorobenzene	92.2	66.8-139		%REC	1	2/23/2009 7:03:13 PM

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		



**Hall Environmental Analysis Laboratory, Inc.**

Date: 25-Feb-09

**CLIENT:** Animas Environmental Services**Client Sample ID:** MW-7 @ 18'**Lab Order:** 0902208**Collection Date:** 2/18/2009 10:55:00 AM**Project:** BMG HWY 537 Truck Receiving Station 2009**Date Received:** 2/19/2009**Lab ID:** 0902208-03**Matrix:** MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/21/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/21/2009
Surr: DNOP	95.9	61.7-135		%REC	1	2/21/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/23/2009 9:35:29 PM
Surr: BFB	94.4	58.8-123		%REC	1	2/23/2009 9:35:29 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	ND	0.050		mg/Kg	1	2/23/2009 9:35:29 PM
Toluene	ND	0.050		mg/Kg	1	2/23/2009 9:35:29 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/23/2009 9:35:29 PM
Xylenes, Total	ND	0.10		mg/Kg	1	2/23/2009 9:35:29 PM
Surr: 4-Bromofluorobenzene	99.1	66.8-139		%REC	1	2/23/2009 9:35:29 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

**Hall Environmental Analysis Laboratory, Inc.**

Date: 25-Feb-09

<b>CLIENT:</b>	Animas Environmental Services	<b>Client Sample ID:</b>	MW-7 @ 29'
<b>Lab Order:</b>	0902208	<b>Collection Date:</b>	2/18/2009 11:05:00 AM
<b>Project:</b>	BMG HWY 537 Truck Receiving Station 2009	<b>Date Received:</b>	2/19/2009
<b>Lab ID:</b>	0902208-04	<b>Matrix:</b>	MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/21/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/21/2009
Surr: DNOP	96.8	61.7-135		%REC	1	2/21/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/23/2009 10:06:01 PM
Surr: BFB	92.2	58.8-123		%REC	1	2/23/2009 10:06:01 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	ND	0.050		mg/Kg	1	2/23/2009 10:06:01 PM
Toluene	ND	0.050		mg/Kg	1	2/23/2009 10:06:01 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/23/2009 10:06:01 PM
Xylenes, Total	ND	0.10		mg/Kg	1	2/23/2009 10:06:01 PM
Surr: 4-Bromofluorobenzene	94.4	66.8-139		%REC	1	2/23/2009 10:06:01 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

**Hall Environmental Analysis Laboratory, Inc.**

Date: 25-Feb-09

CLIENT: Animas Environmental Services

Client Sample ID: MW-8 @ 20'

Lab Order: 0902208

Collection Date: 2/18/2009 1:23:00 PM

Project: BMG HWY 537 Truck Receiving Station 2009

Date Received: 2/19/2009

Lab ID: 0902208-05

Matrix: MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/21/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/21/2009
Surr: DNOP	93.8	61.7-135		%REC	1	2/21/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/24/2009 8:44:47 PM
Surr: BFB	97.9	58.8-123		%REC	1	2/24/2009 8:44:47 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	ND	0.050		mg/Kg	1	2/24/2009 8:44:47 PM
Toluene	ND	0.050		mg/Kg	1	2/24/2009 8:44:47 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/24/2009 8:44:47 PM
Xylenes, Total	ND	0.10		mg/Kg	1	2/24/2009 8:44:47 PM
Surr: 4-Bromofluorobenzene	104	66.8-139		%REC	1	2/24/2009 8:44:47 PM

Qualifiers: \* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
RL Reporting Limit

**Hall Environmental Analysis Laboratory, Inc.**

Date: 25-Feb-09

<b>CLIENT:</b>	Animas Environmental Services	<b>Client Sample ID:</b>	MW-8 @ 26'
<b>Lab Order:</b>	0902208	<b>Collection Date:</b>	2/18/2009 1:35:00 PM
<b>Project:</b>	BMG HWY 537 Truck Receiving Station 2009	<b>Date Received:</b>	2/19/2009
<b>Lab ID:</b>	0902208-06	<b>Matrix:</b>	MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	2300	100		mg/Kg	10	2/21/2009
Motor Oil Range Organics (MRO)	1000	500		mg/Kg	10	2/21/2009
Surr: DNOP	122	61.7-135		%REC	10	2/21/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	1000	500		mg/Kg	100	2/23/2009 11:37:29 PM
Surr: BFB	85.8	58.8-123		%REC	100	2/23/2009 11:37:29 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	21	5.0		mg/Kg	100	2/23/2009 11:37:29 PM
Toluene	70	5.0		mg/Kg	100	2/23/2009 11:37:29 PM
Ethylbenzene	11	5.0		mg/Kg	100	2/23/2009 11:37:29 PM
Xylenes, Total	98	10		mg/Kg	100	2/23/2009 11:37:29 PM
Surr: 4-Bromofluorobenzene	83.3	66.8-139		%REC	100	2/23/2009 11:37:29 PM

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Estimated value	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

**Hall Environmental Analysis Laboratory, Inc.**

Date: 25-Feb-09

<b>CLIENT:</b>	Animas Environmental Services	<b>Client Sample ID:</b> MW-9 @ 20'
<b>Lab Order:</b>	0902208	<b>Collection Date:</b> 2/18/2009 3:31:00 PM
<b>Project:</b>	BMG HWY 537 Truck Receiving Station 2009	<b>Date Received:</b> 2/19/2009
<b>Lab ID:</b>	0902208-07	<b>Matrix:</b> MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/21/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/21/2009
Surr: DNOP	96.5	61.7-135		%REC	1	2/21/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/24/2009 12:38:19 AM
Surr: BFB	94.8	58.8-123		%REC	1	2/24/2009 12:38:19 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	ND	0.050		mg/Kg	1	2/24/2009 12:38:19 AM
Toluene	ND	0.050		mg/Kg	1	2/24/2009 12:38:19 AM
Ethylbenzene	ND	0.050		mg/Kg	1	2/24/2009 12:38:19 AM
Xylenes, Total	ND	0.10		mg/Kg	1	2/24/2009 12:38:19 AM
Surr: 4-Bromofluorobenzene	97.7	66.8-139		%REC	1	2/24/2009 12:38:19 AM

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Estimated value	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

**Hall Environmental Analysis Laboratory, Inc.**

Date: 25-Feb-09

**CLIENT:** Animas Environmental Services **Client Sample ID:** MW-9 @ 28'  
**Lab Order:** 0902208 **Collection Date:** 2/18/2009 3:44:00 PM  
**Project:** BMG HWY 537 Truck Receiving Station 2009 **Date Received:** 2/19/2009  
**Lab ID:** 0902208-08 **Matrix:** MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/21/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/21/2009
Surr: DNOP	97.5	61.7-135		%REC	1	2/21/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	15	5.0		mg/Kg	1	2/24/2009 1:08:40 AM
Surr: BFB	126	58.8-123	S	%REC	1	2/24/2009 1:08:40 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	ND	0.050		mg/Kg	1	2/24/2009 1:08:40 AM
Toluene	0.24	0.050		mg/Kg	1	2/24/2009 1:08:40 AM
Ethylbenzene	0.058	0.050		mg/Kg	1	2/24/2009 1:08:40 AM
Xylenes, Total	0.83	0.10		mg/Kg	1	2/24/2009 1:08:40 AM
Surr: 4-Bromofluorobenzene	106	66.8-139		%REC	1	2/24/2009 1:08:40 AM

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits  
B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
RL Reporting Limit

## QA/QC SUMMARY REPORT

Client: Animas Environmental Services  
 Project: BMG HWY 537 Truck Receiving Station 2009

Work Order: 0902208

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
<b>Method: EPA Method 8015B: Diesel Range Organics</b>									
Sample ID: 0902208-03AMSD		MSD				Batch ID: 18364	Analysis Date:		2/21/2009
Diesel Range Organics (DRO)	44.95	mg/Kg	10	89.9	67.4	117	5.07	17.4	
Sample ID: MB-18363		MBLK				Batch ID: 18363	Analysis Date:		2/21/2009
Diesel Range Organics (DRO)	ND	mg/Kg	10						
Motor Oil Range Organics (MRO)	ND	mg/Kg	50						
Sample ID: MB-18364		MBLK				Batch ID: 18364	Analysis Date:		2/21/2009
Diesel Range Organics (DRO)	ND	mg/Kg	10						
Motor Oil Range Organics (MRO)	ND	mg/Kg	50						
Sample ID: LCS-18363		LCS				Batch ID: 18363	Analysis Date:		2/21/2009
Diesel Range Organics (DRO)	48.15	mg/Kg	10	96.3	64.6	116			
Sample ID: LCS-18364		LCS				Batch ID: 18364	Analysis Date:		2/21/2009
Diesel Range Organics (DRO)	39.06	mg/Kg	10	78.1	64.6	116			
Sample ID: LCSD-18363		LCSD				Batch ID: 18363	Analysis Date:		2/21/2009
Diesel Range Organics (DRO)	49.39	mg/Kg	10	98.8	64.6	116	2.54	17.4	
Sample ID: LCSD-18364		LCSD				Batch ID: 18364	Analysis Date:		2/21/2009
Diesel Range Organics (DRO)	42.72	mg/Kg	10	85.4	64.6	116	8.97	17.4	
Sample ID: 0902208-03AMS		MS				Batch ID: 18364	Analysis Date:		2/21/2009
Diesel Range Organics (DRO)	47.29	mg/Kg	10	94.6	67.4	117			

**Method: EPA Method 8015B: Gasoline Range**

Sample ID: MB-18366		MBLK				Batch ID: 18366	Analysis Date:		2/24/2009 3:41:04 AM
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0						
Sample ID: LCS-18366 GRO		LCS				Batch ID: 18366	Analysis Date:		2/24/2009 1:38:55 AM
Gasoline Range Organics (GRO)	29.40	mg/Kg	5.0	118	64.4	133			
Sample ID: LCSD-18366 GRO		LCSD				Batch ID: 18366	Analysis Date:		2/24/2009 2:09:27 AM
Gasoline Range Organics (GRO)	29.60	mg/Kg	5.0	118	69.5	120	0.678	11.6	

**Method: EPA Method 8021B: Volatiles**

Sample ID: MB-18366		MBLK				Batch ID: 18366	Analysis Date:		2/24/2009 3:41:04 AM
Benzene	ND	mg/Kg	0.050						
Toluene	ND	mg/Kg	0.050						
Ethylbenzene	ND	mg/Kg	0.050						
Xylenes, Total	ND	mg/Kg	0.10						
Sample ID: LCS-18366		LCS				Batch ID: 18366	Analysis Date:		2/24/2009 2:39:57 AM
Benzene	0.9666	mg/Kg	0.050	95.1	78.8	132			
Toluene	1.003	mg/Kg	0.050	99.1	78.9	112			
Ethylbenzene	1.065	mg/Kg	0.050	107	69.3	125			
Xylenes, Total	3.228	mg/Kg	0.10	108	73	128			
Sample ID: LCSD-18366		LCSD				Batch ID: 18366	Analysis Date:		2/24/2009 3:10:38 AM
Benzene	0.9875	mg/Kg	0.050	97.2	78.8	132	2.14	27	
Toluene	1.014	mg/Kg	0.050	100	78.9	112	1.12	19	
Ethylbenzene	1.110	mg/Kg	0.050	111	69.3	125	4.08	10	
Xylenes, Total	3.325	mg/Kg	0.10	111	73	128	2.97	13	

**Qualifiers:**

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Sample Receipt Checklist

Client Name ANIMAS ENVIRONMENTAL

Date Received:

2/19/2009

Work Order Number 0902208

Received by: TLS

Checklist completed by:

Signature

Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name Greyhound

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒

No ☐

Not Present ☐

Not Shipped ☐

Custody seals intact on sample bottles?

Yes ☒

No ☐

N/A ☐

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☒

Yes ☐

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☐

No ☐

N/A ☒

Water - pH acceptable upon receipt?

Yes ☐

No ☐

N/A ☒

Container/Temp Blank temperature?

3°

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding:

Comments:

Corrective Action



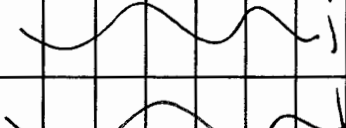

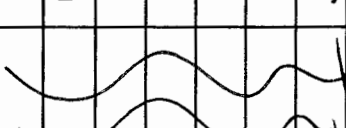















Chain-of-Custody Record				
Client: <u>Animes Environmental Services</u>				
Mailing Address: <u>624 E. Comanche</u>				
<u>Farmington NM 87401</u>				
Phone #: <u>(505) 564-2281</u>				
email or Fax#: <u>(505) 324-2022</u>				
QA/QC Package:				
<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation) <input type="checkbox"/> Other _____ <input type="checkbox"/> EDD (Type) _____				
Date	Time	Matrix	Sample Request ID	
2-18-09	0852	Soil	MW-6 @ 10'	<div style="display: flex; justify-content: space-between;"> <div>           Turn-Around Time:   <input checked="" type="checkbox"/> Standard    <input type="checkbox"/> Rush            Project Name:            BMO Hwy. 537 Truck Receiving Station            2009 Spill            Project #:             Project Manager:  <u>Ross Kenner</u>            Sampler: <u>Ross Kenner</u> </div> <div>           Office: <u>Des Moines</u>            Sample Temperature: <u>3</u>            Preservative Type: <u>None</u>            Kit: <u>091002070</u> </div> </div>
2-18-09	0858	Soil	MW-6 @ 15'	
2-18-09	1055	Soil	MW-7 @ 18'	
2-18-09	1105	Soil	MW-7 @ 29'	
2-18-09	1323	Soil	MW-8 @ 20'	
2-18-09	1335	Soil	MW-8 @ 26'	
2-18-09	1531	Soil	MW-9 @ 20'	
2-18-09	1544	Soil	MW-9 @ 28'	
Relinquished by: <u>Ross Kenner</u> Date: <u>2-19-09</u> Time: <u>0730</u>				Received by: <u>[Signature]</u> Date: <u>2/19/09</u> Time: <u>1400</u>

## Project #:

Project Manager: Ross Kenner  
 Sampler: Ross Kenner  
 Onsite: Yes 11/11/13  
 Sample Temperature: 13

Container Type and #	Preservative Type	HEALTHCARE
----------------------	-------------------	------------

meth pres kit	meth/40C	
		1
		2
		3
		4
		5
		6
		7
		8
		9
		10


Received by: 	Date	Time
Received by: 	21/9/09	1430

4901 Hawkins NE - Albuquerque, NM 87109  
Tel. 505-345-3975 Fax 505-345-4107  
www.hallenvironmental.com

[illegible]

Remarks:

Date:	Time:	Relinquished by:	Received by:	Date:	Time:
-19-09	0730	Roskemen	[Signature]	2/19/09	1400
Date:	Time:	Relinquished by:	Received by:	Date:	Time:

## COVER LETTER

Thursday, February 26, 2009

Ross Kennemer  
Animas Environmental Services  
624 East Comanche  
Farmington, NM 87401

TEL: (505) 564-2281

FAX (505) 324-2022

RE: BMG HWY 537 Truck Receiving Station 2009 Spill

Order No.: 0902233

Dear Ross Kennemer:

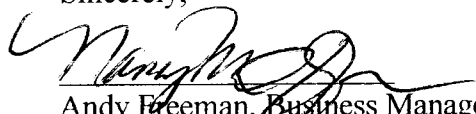
Hall Environmental Analysis Laboratory, Inc. received 4 sample(s) on 2/23/2009 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,



Andy Freeman, Business Manager  
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425

AZ license # AZ0682

ORELAP Lab # NM100001

Texas Lab# T104704424-08-TX



**Hall Environmental Analysis Laboratory, Inc.**

Date: 26-Feb-09

<b>CLIENT:</b>	Animas Environmental Services	<b>Client Sample ID:</b> MW-10 @ 25'
<b>Lab Order:</b>	0902233	<b>Collection Date:</b> 2/20/2009 8:53:00 AM
<b>Project:</b>	BMG HWY 537 Truck Receiving Station 2009	<b>Date Received:</b> 2/23/2009
<b>Lab ID:</b>	0902233-01	<b>Matrix:</b> MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/25/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/25/2009
Surr: DNOP	105	61.7-135		%REC	1	2/25/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/24/2009 9:45:47 PM
Surr: BFB	94.9	58.8-123		%REC	1	2/24/2009 9:45:47 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	ND	0.050		mg/Kg	1	2/24/2009 9:45:47 PM
Toluene	ND	0.050		mg/Kg	1	2/24/2009 9:45:47 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/24/2009 9:45:47 PM
Xylenes, Total	ND	0.10		mg/Kg	1	2/24/2009 9:45:47 PM
Surr: 4-Bromofluorobenzene	98.1	66.8-139		%REC	1	2/24/2009 9:45:47 PM

<b>Qualifiers:</b>	<b>*</b>	Value exceeds Maximum Contaminant Level	<b>B</b>	Analyte detected in the associated Method Blank
	<b>E</b>	Estimated value	<b>H</b>	Holding times for preparation or analysis exceeded
	<b>J</b>	Analyte detected below quantitation limits	<b>MCL</b>	Maximum Contaminant Level
	<b>ND</b>	Not Detected at the Reporting Limit	<b>RL</b>	Reporting Limit
	<b>S</b>	Spike recovery outside accepted recovery limits		

**Hall Environmental Analysis Laboratory, Inc.**

Date: 26-Feb-09

**CLIENT:** Animas Environmental Services **Client Sample ID:** MW-10 @ 30'  
**Lab Order:** 0902233 **Collection Date:** 2/20/2009 9:03:00 AM  
**Project:** BMG HWY 537 Truck Receiving Station 2009 **Date Received:** 2/23/2009  
**Lab ID:** 0902233-02 **Matrix:** MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/25/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/25/2009
Surr: DNOP	104	61.7-135		%REC	1	2/25/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/24/2009 10:16:14 PM
Surr: BFB	93.3	58.8-123		%REC	1	2/24/2009 10:16:14 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	ND	0.050		mg/Kg	1	2/24/2009 10:16:14 PM
Toluene	ND	0.050		mg/Kg	1	2/24/2009 10:16:14 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/24/2009 10:16:14 PM
Xylenes, Total	ND	0.10		mg/Kg	1	2/24/2009 10:16:14 PM
Surr: 4-Bromofluorobenzene	96.5	66.8-139		%REC	1	2/24/2009 10:16:14 PM

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
RL Reporting Limit

**Hall Environmental Analysis Laboratory, Inc.**

Date: 26-Feb-09

<b>CLIENT:</b>	Animas Environmental Services	<b>Client Sample ID:</b>	MW-11 @ 28'
<b>Lab Order:</b>	0902233	<b>Collection Date:</b>	2/20/2009 11:18:00 AM
<b>Project:</b>	BMG HWY 537 Truck Receiving Station 2009	<b>Date Received:</b>	2/23/2009
<b>Lab ID:</b>	0902233-03	<b>Matrix:</b>	MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/25/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/25/2009
Surr: DNOP	96.1	61.7-135		%REC	1	2/25/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/24/2009 10:46:42 PM
Surr: BFB	92.5	58.8-123		%REC	1	2/24/2009 10:46:42 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	ND	0.050		mg/Kg	1	2/24/2009 10:46:42 PM
Toluene	ND	0.050		mg/Kg	1	2/24/2009 10:46:42 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/24/2009 10:46:42 PM
Xylenes, Total	ND	0.10		mg/Kg	1	2/24/2009 10:46:42 PM
Surr: 4-Bromofluorobenzene	93.4	66.8-139		%REC	1	2/24/2009 10:46:42 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

**Hall Environmental Analysis Laboratory, Inc.**

Date: 26-Feb-09

<b>CLIENT:</b>	Animas Environmental Services	<b>Client Sample ID:</b> MW-11 @ 34'
<b>Lab Order:</b>	0902233	<b>Collection Date:</b> 2/20/2009 11:23:00 AM
<b>Project:</b>	BMG HWY 537 Truck Receiving Station 2009	<b>Date Received:</b> 2/23/2009
<b>Lab ID:</b>	0902233-04	<b>Matrix:</b> MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/25/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/25/2009
Surr: DNOP	99.6	61.7-135		%REC	1	2/25/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/24/2009 11:17:03 PM
Surr: BFB	92.2	58.8-123		%REC	1	2/24/2009 11:17:03 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	ND	0.050		mg/Kg	1	2/24/2009 11:17:03 PM
Toluene	ND	0.050		mg/Kg	1	2/24/2009 11:17:03 PM
Ethylbenzene	ND	0.050		mg/Kg	1	2/24/2009 11:17:03 PM
Xylenes, Total	ND	0.10		mg/Kg	1	2/24/2009 11:17:03 PM
Surr: 4-Bromofluorobenzene	94.0	66.8-139		%REC	1	2/24/2009 11:17:03 PM

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Estimated value	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

## QA/QC SUMMARY REPORT

Client: Animas Environmental Services  
 Project: BMG HWY 537 Truck Receiving Station 2009

Work Order: 0902233

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
<b>Method: EPA Method 8015B: Diesel Range Organics</b>									
Sample ID: 0902233-01AMSD		MSD				Batch ID: 18383	Analysis Date:		2/25/2009
Diesel Range Organics (DRO)	51.81	mg/Kg	10	104	67.4	117	6.04	17.4	
Sample ID: MB-18383		MBLK				Batch ID: 18383	Analysis Date:		2/25/2009
Diesel Range Organics (DRO)	ND	mg/Kg	10						
Motor Oil Range Organics (MRO)	ND	mg/Kg	50						
Sample ID: LCS-18383		LCS				Batch ID: 18383	Analysis Date:		2/25/2009
Diesel Range Organics (DRO)	49.64	mg/Kg	10	99.3	64.6	116			
Sample ID: LCSD-18383		LCSD				Batch ID: 18383	Analysis Date:		2/25/2009
Diesel Range Organics (DRO)	48.14	mg/Kg	10	96.3	64.6	116	3.05	17.4	
Sample ID: 0902233-01AMS		MS				Batch ID: 18383	Analysis Date:		2/25/2009
Diesel Range Organics (DRO)	48.77	mg/Kg	10	97.5	67.4	117			

<b>Method: EPA Method 8015B: Gasoline Range</b>									
Sample ID: 0902233-01A MSD		MSD				Batch ID: R32532	Analysis Date:		2/25/2009 12:18:09 AM
Gasoline Range Organics (GRO)	29.21	mg/Kg	5.0	117	69.5	120	2.60	11.6	
Sample ID: 5ML RB		MBLK				Batch ID: R32532	Analysis Date:		2/24/2009 9:35:50 AM
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0						
Sample ID: 2.5UG GRO LCS		LCS				Batch ID: R32532	Analysis Date:		2/24/2009 5:41:52 PM
Gasoline Range Organics (GRO)	28.84	mg/Kg	5.0	115	64.4	133			
Sample ID: 0902233-01A MS		MS				Batch ID: R32532	Analysis Date:		2/24/2009 11:47:32 PM
Gasoline Range Organics (GRO)	29.98	mg/Kg	5.0	120	69.5	120			

<b>Method: EPA Method 8021B: Volatiles</b>									
Sample ID: 0902233-02A MSD		MSD				Batch ID: R32532	Analysis Date:		2/25/2009 1:18:56 AM
Benzene	0.9731	mg/Kg	0.050	97.3	78.8	132	1.25	27	
Toluene	1.017	mg/Kg	0.050	102	78.9	112	0.148	19	
Ethylbenzene	1.092	mg/Kg	0.050	109	69.3	125	1.69	10	
Xylenes, Total	3.280	mg/Kg	0.10	109	73	128	1.68	13	
Sample ID: 5ML RB		MBLK				Batch ID: R32532	Analysis Date:		2/24/2009 9:35:50 AM
Benzene	ND	mg/Kg	0.050						
Toluene	ND	mg/Kg	0.050						
Ethylbenzene	ND	mg/Kg	0.050						
Xylenes, Total	ND	mg/Kg	0.10						
Sample ID: 100NG BTEX LCS		LCS				Batch ID: R32532	Analysis Date:		2/24/2009 6:12:17 PM
Benzene	0.9255	mg/Kg	0.050	92.6	78.8	132			
Toluene	0.9720	mg/Kg	0.050	97.2	78.9	112			
Ethylbenzene	1.019	mg/Kg	0.050	102	69.3	125			
Xylenes, Total	3.118	mg/Kg	0.10	104	73	128			
Sample ID: 0902233-02A MS		MS				Batch ID: R32532	Analysis Date:		2/25/2009 12:48:30 AM
Benzene	0.9610	mg/Kg	0.050	96.1	78.8	132			
Toluene	1.016	mg/Kg	0.050	102	78.9	112			
Ethylbenzene	1.074	mg/Kg	0.050	107	69.3	125			
Xylenes, Total	3.225	mg/Kg	0.10	107	73	128			

## Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Sample Receipt Checklist

Client Name ANIMAS ENVIRONMENTAL

Date Received:

2/23/2009

Work Order Number 0902233

Received by: AT

Checklist completed by:

Signature

Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name Client drop-off

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒

No ☐

Not Present ☐

Not Shipped ☐

Custody seals intact on sample bottles?

Yes ☒

No ☐

N/A ☐

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☒

Yes ☐

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☐

No ☐

N/A ☒

Water - pH acceptable upon receipt?

Yes ☐

No ☐

N/A ☒

Container/Temp Blank temperature?

1°

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted \_\_\_\_\_ Date contacted: \_\_\_\_\_ Person contacted \_\_\_\_\_

Contacted by: \_\_\_\_\_ Regarding: \_\_\_\_\_

Comments: \_\_\_\_\_

Corrective Action \_\_\_\_\_





# AES



Animas Environmental Services, LLC

## LOG OF: MW-1

(Page 1 of 1)

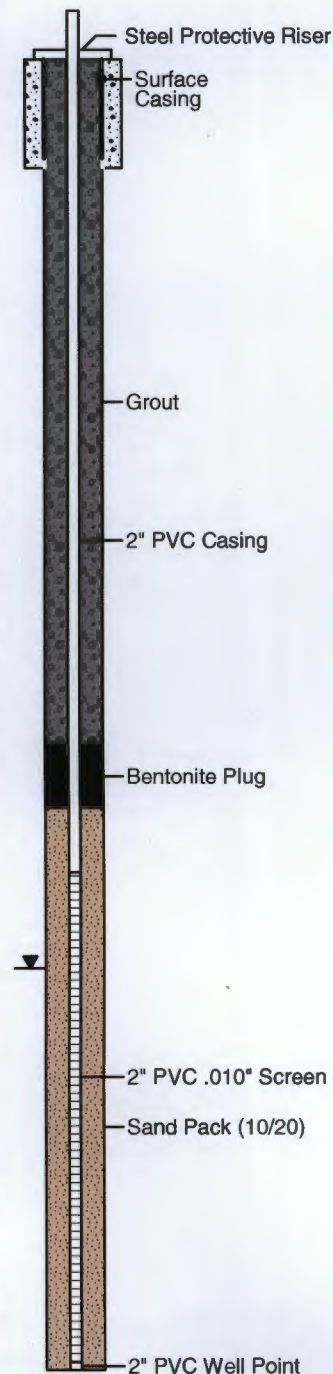
BMG Hwy 537 Truck Station 2009 Spill  
Los Ojitos Canyon, Rio Arriba County  
New Mexico

Date Started : 02/16/09  
Date Completed : 02/16/09  
Hole Diameter : 7.25 in.  
Drilling Method : C.M.E 75 H.S.A.  
Sampling Method : 1.5" x 24" Split Spoon

Northing : 1965633.78  
Easting : 1362755.95  
Survey By : Arrow Engineers  
Logged By : D. Watson

Depth in Feet	Surf. Elev. 7061.11	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0	7061			Excavation Backfill, sand, fine, brown, moist		
2	7059					
4	7057					
6	7055	SP				
8	7053					
10	7051					
12	7049	SC		Clayey Sand, brown, moist. No hydrocarbon staining.		
14	7047	CM		Silty Clay, brown, moist. No hydrocarbon staining but slight odor.		163
16	7045			Sand with minor clay, red-brown, moist.		
18	7043	SP				
20	7041	SP/CH		Sand grading to clay (alternating layers), red-brown, moist.		1247
22	7039	SC		Some hydrocarbon odor and black staining. Sand with minor clay fraction. Strong hydrocarbon odor and black staining.		
24	7037			Clayey Sand, brown, moist. Strong hydrocarbon odor and black staining.		
26	7035	SM		Silty Sand, fine, moist. Strong hydrocarbon odor and black staining.		571
28	7033			Sandy, Silty clay, brown, very moist. Strong hydrocarbon odor and some black staining.		
30	7031					865
32	7029	SC				
34	7027					
36	7025					
38	7023					
40						

Well: MW-1  
Elev.: 7064.66





# AES



Animas Environmental Services, LLC

## LOG OF: MW-2

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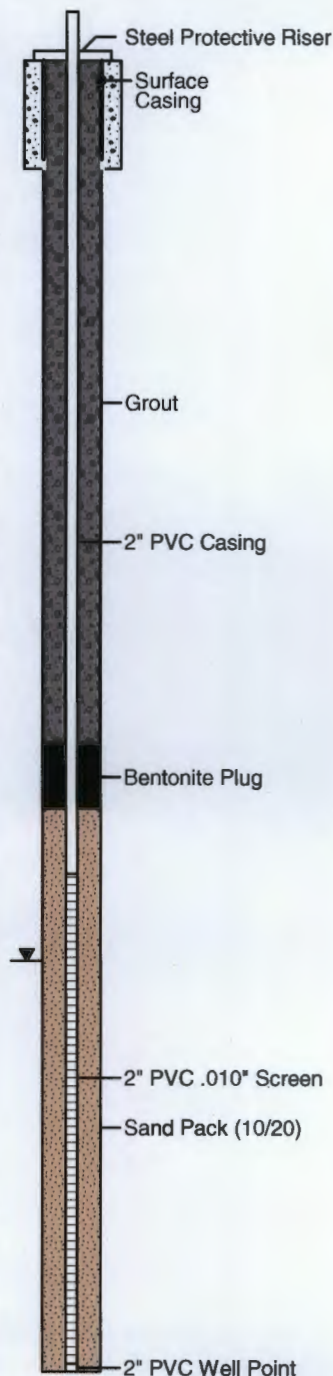
BMG Hwy 537 Truck Station 2009 Spill  
Los Ojitos Canyon, Rio Arriba County  
New Mexico

Date Started : 02/17/09  
Date Completed : 02/17/09  
Hole Diameter : 7.25 in.  
Drilling Method : C.M.E 75 H.S.A.  
Sampling Method : 1.5" x 24" Split Spoon

Northing : 1965668.54  
Easting : 1362807.24  
Survey By : Arrow Engineers  
Logged By : D. Watson

Depth in Feet	Surf. Elev. 7061.34	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0	7061	SS		Sandstone, tan-brown		
2	7059	SM		Silty Sand, tan, some organic material. No hydrocarbon odor or staining.		
4	7057	SM		Sandy Silt with minor clay fraction, red-brown, moist.		0.4
6	7055	SL		Silty, Sandy Clay, red-brown, moist. No hydrocarbon odor or staining.		
8	7053			Silty, Sandy Clay, higher clay content than above, sand fraction coarse, red-brown, moist.		0.0
10	7051			No hydrocarbon odor or staining.		
12	7049	SM				
14	7047					0.6
16	7045					
18	7043					
20	7041	SP		Sand, coarse, tan-brown, moist. No hydrocarbon odor or staining.		4.4
22	7039	SM		Clayey, Silty Sand, red-brown, moist. No hydrocarbon odor or staining.		
24	7037	SP		Sand, coarse, red-tan, moist. No hydrocarbon odor or staining.		4.9
26	7035			Silty, Sandy Clay, brown, moist. No hydrocarbon odor or staining.		
28	7033	SM				0.0
30	7031					
32	7029	CL/SL		Silty Clay, brown, saturated.		
34	7027			Silty, Sandy Clay, brown, moist. No hydrocarbon odor or staining.		
36	7025	CL				
38	7023					
40						

Well: MW-2  
Elev.: 7064.65





# AES



Animas Environmental Services, LLC

## LOG OF: MW-3

(Page 1 of 1)

BMG Hwy 537 Truck Station 2009 Spill  
Los Ojitos Canyon, Rio Arriba County  
New Mexico

Date Started : 02/16/09  
Date Completed : 02/16/09  
Hole Diameter : 7.25 in.  
Drilling Method : C.M.E 75 H.S.A.  
Sampling Method : 1.5" x 24" Split Spoon

Northing : 1965582.87  
Easting : 1362789.15  
Survey By : Arrow Engineers  
Logged By : D. Watson

Depth in Feet	Surf. Elev. 7060.68	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)	
0	7060	SP		Sand with tan sandstone fragments, tan-brown, moist. No hydrocarbon odor or staining.			Well: MW-3 Elev.: 7064.01
2	7058	SC		Clayey Sand, dark brown, moist, some organic matter. No hydrocarbon odor or staining.			
4	7056	SM		Silty Sand, minor clay fraction, tan-brown, moist. No hydrocarbon staining or odor.			Steel Protective Riser
6	7054	SM		Silty Sand, minor clay fraction, red-brown, moist. No hydrocarbon odor or staining.			
8	7052	SM		Silty Sand, minor clay fraction, red-brown, moist. No hydrocarbon odor or staining.		0.5	Surface Casing
10	7050	SM		Silty Sand, minor clay fraction, red-brown, moist. No hydrocarbon odor or staining.			
12	7048	CL		Clay, brown, moist. No hydrocarbon odor or staining.			Grout
14	7046	CL		Clay, brown, moist. No hydrocarbon odor or staining.		11.1	
16	7044	CL		Clay, brown, moist. No hydrocarbon odor or staining.			2" PVC Casing
18	7042	SP		Sand, grading from coarse to fine, red-tan, moist. No hydrocarbon odor or staining			
20	7040	SP		Sand, coarse, minor clay fraction, red-tan, very moist. No Hydrocarbon odor or staining.		7.6	Bentonite Plug
22	7038	CL		Silty Clay, brown, moist. Slight hydrocarbon odor at 24.5 -25'. No staining.			
24	7036	SC		Clayey Sand, tan, wet. Contains free oil and very strong odor.		1246	2" PVC .010" Screen
26	7034	SC/ML		Alternating layers of silty clay and sandy clay, brown, wet. Some hydrocarbon odor.		1028	
28	7032	SC/ML		Alternating layers of silty clay and sandy clay, brown, wet. Some hydrocarbon odor.			Sand Pack (10/20)
30	7030	SC/ML		Alternating layers of silty clay and sandy clay, brown, wet. Some hydrocarbon odor.			
32	7028	SC/ML		Alternating layers of silty clay and sandy clay, brown, wet. Some hydrocarbon odor.			2" PVC Well Point
34	7026	SC/ML		Alternating layers of silty clay and sandy clay, brown, wet. Some hydrocarbon odor.			
36	7024	SC/ML		Alternating layers of silty clay and sandy clay, brown, wet. Some hydrocarbon odor.			
38	7022	SC/ML		Alternating layers of silty clay and sandy clay, brown, wet. Some hydrocarbon odor.			
40							

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# AES



Animas Environmental Services, LLC

## LOG OF: MW-4

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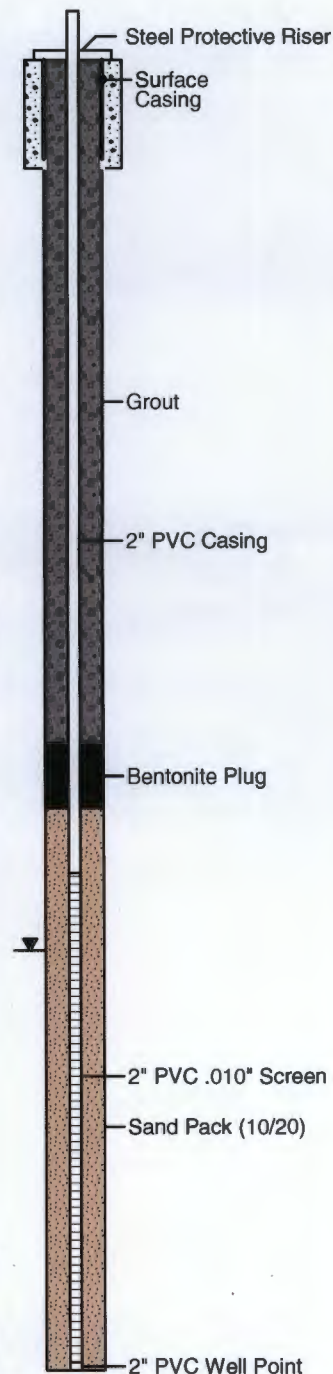
BMG Hwy 537 Truck Station 2009 Spill  
Los Ojitos Canyon, Rio Arriba County  
New Mexico

Date Started : 02/17/09  
Date Completed : 02/17/09  
Hole Diameter : 7.25 in.  
Drilling Method : C.M.E 75 H.S.A.  
Sampling Method : 1.5" x 24" Split Spoon

Northing : 1965601.71  
Easting : 1362707.92  
Survey By : Arrow Engineers  
Logged By : D. Watson

Depth in Feet	Surf. Elev. 7060.52	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0	7060	SS		Sandstone, weathered, tan-green, coarse, dry		
2	7058	SM		Silty Sand, red-brown, moist. No hydrocarbon odor or staining.		
4	7056	SM		Silty, Sandy Clay, some organic material, brown, moist. No hydrocarbon odor or staining.		
6	7054			Clay, red-brown, moist. No hydrocarbon odor or staining.		
8	7052	CL				
10	7050				3.1	
12	7048	CM		Silty Clay, red-brown, moist. No hydrocarbon odor or staining.		
14	7046	SM		Silty Sand, fine, red-brown, moist. No hydrocarbon odor or staining.	2.3	
16	7044					
18	7042	SM		Clayey, Silty Sand, red-brown, moist. No hydrocarbon odor or staining.		
20	7040	SM		Silty Sand, minor clay fraction, red-brown, moist. No hydrocarbon odor or staining.	38.4	
22	7038	SP		Sand, fine, red-tan, moist.		
24	7036	CM		Silty Clay, red-brown, moist. Hydrocarbon odor and some staining last 3".		
26	7034	SM		Silty, Sandy Clay, very moist. Dark hydrocarbon staining and strong odor.	1358 1202	
28	7032			Clayey Silt, some organic material, red-brown, moist. Moderate hydrocarbon odor and minor staining.		
30	7030					
32	7028	CM				
34	7026					
36	7024					
38	7022					
40						

Well: MW-4  
Elev.: 7063.72





# AES



Animas Environmental Services, LLC

## LOG OF: MW-5

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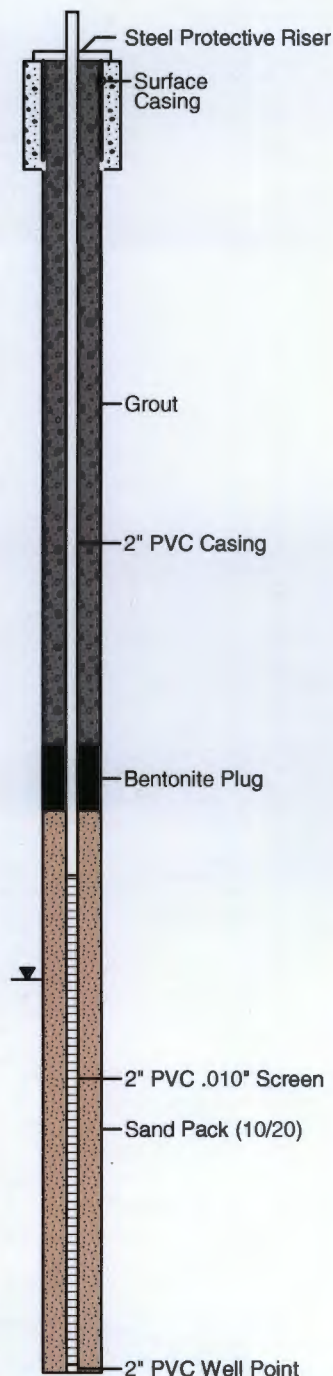
BMG Hwy 537 Truck Station 2009 Spill  
Los Ojitos Canyon, Rio Arriba County  
New Mexico

Date Started : 02/17/09  
Date Completed : 02/17/09  
Hole Diameter : 7.25 in.  
Drilling Method : C.M.E 75 H.S.A.  
Sampling Method : 1.5" x 24" Split Spoon

Northing : 1965684.00  
Easting : 1362726.46  
Survey By : Arrow Engineers  
Logged By : D. Watson

Depth in Feet	Surf. Elev. 7061.49	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0	7061	SS		Sandstone, fine, tan, dry.		
2	7059					
4	7057			Silty Sand, minor clay fraction, fine, red-brown, moist. No hydrocarbon odor or staining.		1.3
6	7055					
8	7053					
10	7051	SM				1.9
12	7049					
14	7047					1.4
16	7045					
18	7043					
20	7041	SM		Silty Sand, minor clay fraction, coarser grain, red-brown, moist. No hydrocarbon odor or staining.		2.3
22	7039			Silty, Sandy Clay, red-brown, moist. No hydrocarbon odor or staining.		
24	7037					
26	7035	SM				8.7
28	7033					
30	7031					0.7
32	7029	CH		Clay, red-brown, saturated. No Hydrocarbon odor or staining.		0.8
34	7027					
36	7025					
38	7023	SM				
40						

Well: MW-5  
Elev.: 7064.79



# AES



Animas Environmental Services, LLC

## LOG OF: MW-6

(Page 1 of 1)

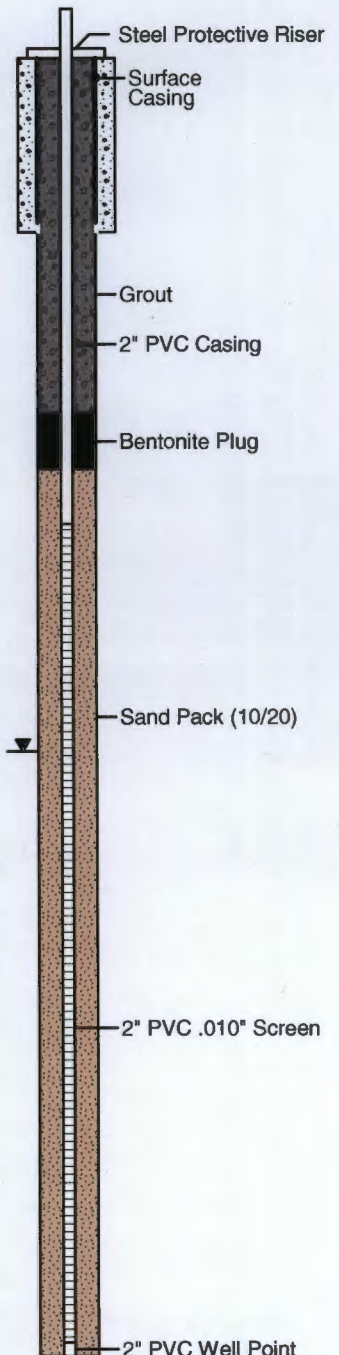
BMG Hwy 537 Truck Station 2009 Spill  
Los Ojitos Canyon, Rio Arriba County  
New Mexico

Date Started : 02/18/09  
Date Completed : 02/18/09  
Hole Diameter : 7.25 in.  
Drilling Method : C.M.E 75 H.S.A.  
Sampling Method : 1.5" x 24" Split Spoon

Northing : 1965478.91  
Easting : 1362807.15  
Survey By : Arrow Engineers  
Logged By : R. Kennemer

Depth in Feet	Surf. Elev. 7046.04	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0	7046	SM		Silty, Sandy Clay, high vegetation and organic content, tan-brown, moist.		
2	7044	SM		Silty Sand, very fine, tan-brown, no organic material, less moist. No hydrocarbon staining or odor.		
4	7042	SM		Sand, medium, tan-red, dry, loose. No hydrocarbon staining or odor.		0.1
6	7040	SP		Clayey Sand, brown, soft, very moist. No hydrocarbon staining or odor.		
8	7038	SC		Clay, brown, stiff, very moist. No hydrocarbon staining or odor.		0.0
10	7036	CL		Clayey Sand, tan-brown, very soft, fully saturated. No hydrocarbon staining or odor.		0.0
12	7034	SC				
14	7032	SC				
16	7030	SC				
18	7028	SC				
20	7026	SC				
22	7024	SC				
24						

Well: MW-6  
Elev.: 7049.54





# AES



Animas Environmental Services, LLC

## LOG OF: MW-7

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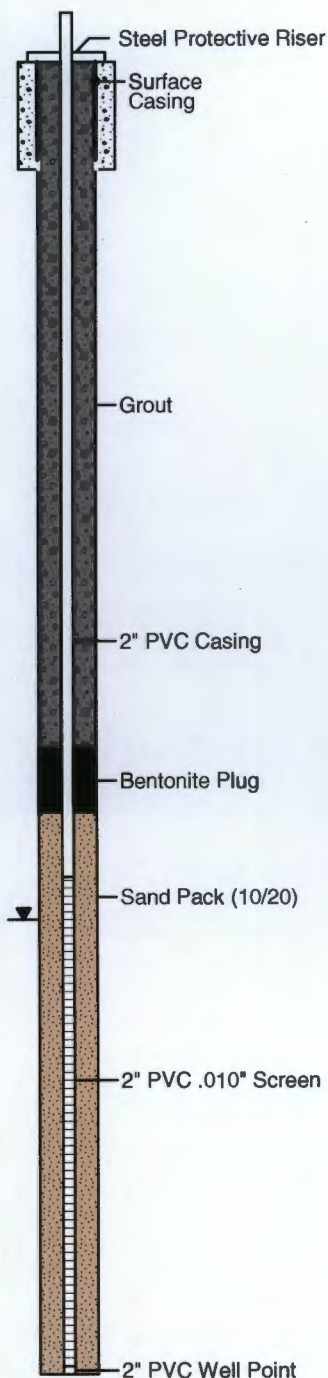
BMG Hwy 537 Truck Station 2009 Spill  
Los Ojitos Canyon, Rio Arriba County  
New Mexico

Date Started : 02/18/09  
Date Completed : 02/18/09  
Hole Diameter : 7.25 in.  
Drilling Method : C.M.E 75 H.S.A.  
Sampling Method : 1.5" x 24" Split Spoon

Northing : 1965525.63  
Easting : 1362716.44  
Survey By : Arrow Engineers  
Logged By : R. Kennemer

Depth in Feet	Surf. Elev. 7059.76	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0	7059	SM		Silty Sand, minor clay fraction, red-brown, moist. No hydrocarbon staining or odor.		
2	7057					
4	7055					0.2
6	7053	SC		Clayey Sand, red-brown, moist. No hydrocarbon staining or odor.		
8	7051					
10	7049	SM		Silty Sand, red-brown, dry. No hydrocarbon staining or odor.		0.1
12	7047	SC		Clayey Sand, red-brown, hard, dry. No hydrocarbon staining or odor.		
14	7045					0.1
16	7043	SM		Silty Sand, tan-red, loose, dry. No hydrocarbon staining or odor.		
18	7041	SC		Clayey Silty Sand, red-brown, moist. No hydrocarbon odor or staining.		0.1
20	7039					
22	7037	CM		Clayey, Silty Sand, red-brown, moist, stiff. No hydrocarbon staining or odor.		
24	7035					0.2
26	7033					
28	7031					0.1
30	7029					
32	7027	CL		Clay, tan-brown, very moist. No hydrocarbon staining or odor.		
34	7025					
36	7023					
38	7021					
40						

Well: MW-7  
Elev.: 7062.80





# AES



Animas Environmental Services, LLC

## LOG OF: MW-8

(Page 1 of 1)

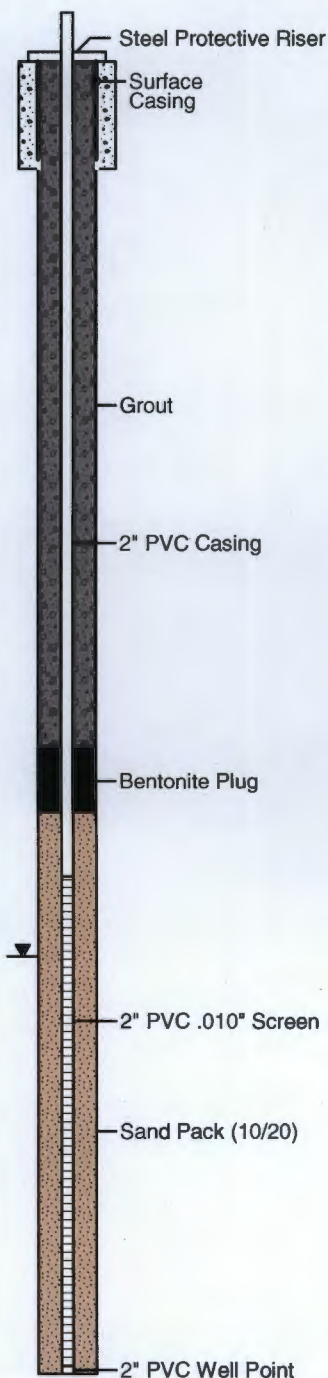
BMG Hwy 537 Truck Station 2009 Spill  
Los Ojitos Canyon, Rio Arriba County  
New Mexico

Date Started : 02/18/09  
Date Completed : 02/18/09  
Hole Diameter : 7.25 in.  
Drilling Method : C.M.E 75 H.S.A.  
Sampling Method : 1.5" x 24" Split Spoon

Northing : 1965568.59  
Easting : 1362655.55  
Survey By : Arrow Engineers  
Logged By : R. Kennemer

Depth in Feet	Surf. Elev. 7059.76	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0	7059	SM		Silty Sand, minor clay fraction, red-brown, moist. No hydrocarbon staining or odor.		0.1
2	7057					
4	7055					
6	7053					
8	7051			Silty Sand, tan-red, moist. No hydrocarbon staining or odor.		
10	7049			Silty Sand, minor clay fraction, red-brown, moist. No hydrocarbon staining or odor.		13.4
12	7047	CL		Clay, red-brown, stiff, moist. No hydrocarbon staining or odor.		
14	7045	SM		Silty Sand, red-brown, loose, moist. No hydrocarbon staining or odor.		14.1
16	7043					
18	7041					
20	7039			Silty Sand, minor clay fraction, red-brown, loose, moist. No hydrocarbon staining or odor.		15.2
22	7037	SP		Sand, red-brown, loose and moist. No hydrocarbon staining or odor.		
24	7035					164.7
26	7033	SP		Silty, Sandy Clay, brown, stiff, moist. No hydrocarbon staining but some odor.		1,763
28	7031	CL		Sand, very moist. Free oil, strong hydrocarbon odor and black staining.		
30	7029			Clay, brown, stiff, very moist. Some hydrocarbon odor but no staining.		31.2
32	7027					
34	7025					
36	7023					
38	7021					
40						

Well: MW-8  
Elev.: 7063.27



# AES



Animas Environmental Services, LLC

## LOG OF: MW-9

(Page 1 of 1)

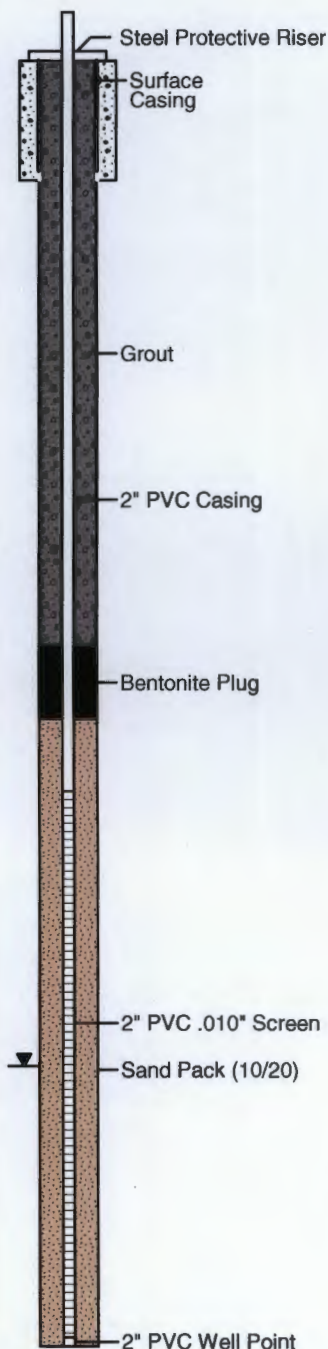
BMG Hwy 537 Truck Station 2009 Spill  
Los Ojitos Canyon, Rio Arriba County  
New Mexico

Date Started : 02/18/09  
Date Completed : 02/18/09  
Hole Diameter : 7.25 in.  
Drilling Method : C.M.E 75 H.S.A.  
Sampling Method : 1.5" x 24" Split Spoon

Northing : 1965241.90  
Easting : 1362608.90  
Survey By : Arrow Engineers  
Logged By : R. Kennemer

Depth in Feet	Surf. Elev. 7059.34	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0	7059	SM		Silty Sand, minor clay fraction, red-brown, moist. No hydrocarbon staining or odor.	0.6	
2	7057					
4	7055					
6	7053	SM		Silty Sand, tan-red, moist. No hydrocarbon staining or odor.	0.2	
8	7051					
10	7049					
12	7047	CL		Clay, red-brown, moist. No hydrocarbon staining or odor.	7.6	
14	7045					
16	7043					
18	7041	SM		Silty Sand, red-brown, moist. No hydrocarbon staining or odor.	11.1	
20	7039					
22	7037					
24	7035	SC		Clay, brown, stiff, moist. No hydrocarbon staining or odor.	34.9	
26	7033			Clayey Sand, brown, moist. No hydrocarbon staining or odor.		
28	7031					
30	7029	CL		Clay, brown, very stiff, moist. No hydrocarbon staining or odor.		
32	7027					
34	7025					
36						

Well: MW-9  
Elev.: 7062.60





# AES



Animas Environmental Services, LLC

## LOG OF: MW-10

(Page 1 of 1)

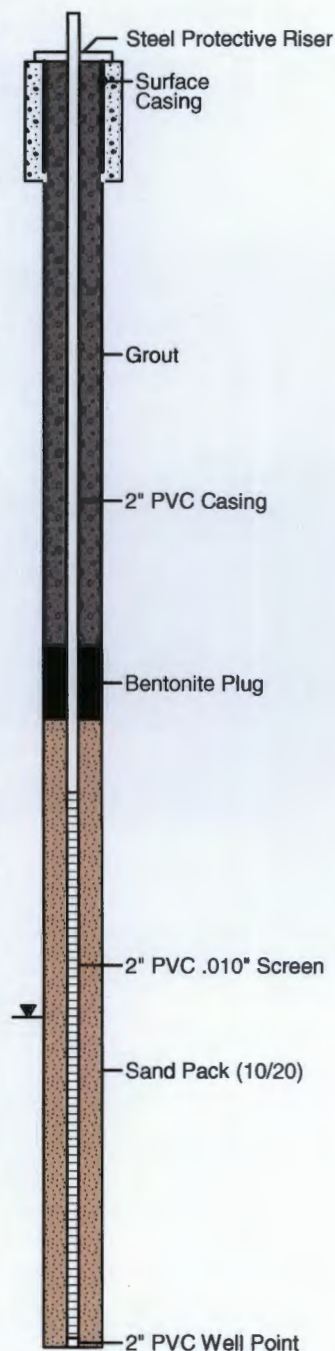
BMG Hwy 537 Truck Station 2009 Spill  
Los Ojitos Canyon, Rio Arriba County  
New Mexico

Date Started : 02/20/09  
Date Completed : 02/20/09  
Hole Diameter : 7.25 in.  
Drilling Method : C.M.E 75 H.S.A.  
Sampling Method : 1.5" x 24" Split Spoon

Northing : 1965601.58  
Easting : 1362580.66  
Survey By : Arrow Engineers  
Logged By : R. Kennemer

Depth in Feet	Surf. Elev. 7060.56	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0	7060	SM		Silty Sand, minor clay fraction, red-brown, moist. No hydrocarbon staining or odor.		
2	7058					
4	7056					
6	7054					
8	7052	SC		Silty Sand, red-brown, moist. No hydrocarbon staining or odor.	0.3	
10	7050					
12	7048			Clayey Sand, red-brown, moist. No hydrocarbon staining or odor.		
14	7046					
16	7044	SC			0.2	
18	7042					
20	7040					
22	7038					
24	7036	SC		Silty Sand, red-brown, moist. No hydrocarbon staining or odor.	1.6	
26	7034			Clayey Sand, red-brown, moist. No hydrocarbon staining or odor.		
28	7032					
30	7030			Clayey Sand, red-brown, very moist. No hydrocarbon staining or odor.		
32	7028	CL		Clay, brown, very stiff, moist. No hydrocarbon staining or odor.	4.7	
34	7026					
36						

Well: MW-10  
Elev.: 7063.27



# AES



Animas Environmental Services, LLC

## LOG OF: MW-11

(Page 1 of 1)

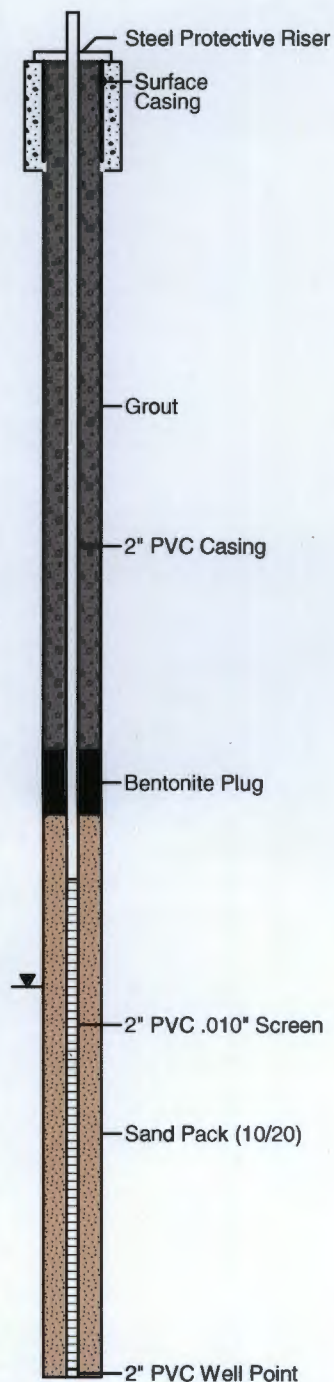
BMG Hwy 537 Truck Station 2009 Spill  
Los Ojitos Canyon, Rio Arriba County  
New Mexico

Date Started : 02/20/09  
Date Completed : 02/20/09  
Hole Diameter : 7.25 in.  
Drilling Method : C.M.E 75 H.S.A.  
Sampling Method : 1.5" x 24" Split Spoon

Northing : 1965640.03  
Easting : 1362626.05  
Survey By : Arrow Engineers  
Logged By : R. Kenemer

Depth in Feet	Surf. Elev. 7061.09	USCS	GRAPHIC	DESCRIPTION	Blow Count	PID (ppm)
0	7061	SS		Sandstone, weathered, tan-red, soft, moist. No hydrocarbon staining or odor.		
2	7059					
4	7057	SM		Silty Sand, red-brown, moist. No hydrocarbon staining or odor.		
6	7055					
8	7053	SM		Silty Sand, with minor clay fraction, red-brown, moist. No hydrocarbon staining or odor.		
10	7051				0.4	
12	7049			Silty, Sandy Clay, red-brown, moist. No hydrocarbon staining or odor.		
14	7047					
16	7045	SM			0.1	
18	7043					
20	7041				1.3	
22	7039					
24	7037	SM		Silty Sand, red-brown, loose, moist. No hydrocarbon staining or odor.	1.1	
26	7035					
28	7033	CL		Clay, brown, stiff, moist. No hydrocarbon staining or odor.	0.6	
30	7031					
32	7029					
34	7027	SM		Silty Sand, red-brown, very moist. No hydrocarbon staining or odor.	1.7	
36	7025					
38	7023	CL		Clay, brown, stiff, wet. No hydrocarbon staining or odor.		
40						

Well: MW-11  
Elev.: 7064.10





# GROUNDWATER MONITORING WELL DEVELOPMENT FORM

## Animas Environmental Services

624 E. Comanche, Farmington NM 87401  
Tel. (505) 564-2281 Fax (505) 324-2022

Project: Site Investigation  
Site: BM6 HWY 537 Truck Receiving Station  
Location: \_\_\_\_\_  
Tech: R. Kennemer

Project No.: \_\_\_\_\_  
Date: 2-28-09  
Time: 0900  
Form: 1 of 2

Well I.D.	Depth to NAPL (ft.)	Depth to Water (ft.)	Purged Volume (gal.)	Method / Notes / Observations
MW-11		28.47	25	TD=42.60' Casing A.G.S.= 3'
Well I.D.	Depth to NAPL (ft.)	Depth to Water (ft.)	Purged Volume (gal.)	Method / Notes / Observations
MW-9		27.74	40	TD=39.15' Casing A.G.S.= 3.25'
Well I.D.	Depth to NAPL (ft.)	Depth to Water (ft.)	Purged Volume (gal.)	Method / Notes / Observations
MW-10		26.34'	40	TD=38.80' Casing A.G.S.= 2.70'
Well I.D.	Depth to NAPL (ft.)	Depth to Water (ft.)	Purged Volume (gal.)	Method / Notes / Observations
MW-2		27.84	40	TD=44.20 Casing A.G.S.= 3.30'
Well I.D.	Depth to NAPL (ft.)	Depth to Water (ft.)	Purged Volume (gal.)	Method / Notes / Observations
MW-6		12.65	40	TD=23.55' Casing A.G.S.= 3.50
Well I.D.	Depth to NAPL (ft.)	Depth to Water (ft.)	Purged Volume (gal.)	Method / Notes / Observations
MW-5		28.47	30	TD=44.50' Casing A.G.S.= 3.30
Well I.D.	Depth to NAPL (ft.)	Depth to Water (ft.)	Purged Volume (gal.)	Method / Notes / Observations
MW-7		26.45	40	TD=44.60 Casing A.G.S.= 3.00'

Pugged Water Storage, Transport, and Disposal Information:

# GROUNDWATER MONITORING WELL DEVELOPMENT FORM

## Animas Environmental Services

624 E. Comanche, Farmington NM 87401

Tel. (505) 564-2281 Fax (505) 324-2022

Project: Site Investigation  
 Site: Bmb HWY 537 Truck Receiving Station  
 Location: \_\_\_\_\_  
 Tech: R. Kennemer

Project No.: \_\_\_\_\_  
 Date: 2-28-09  
 Time: \_\_\_\_\_  
 Form: 2 of 2

Well I.D.	Depth to NAPL (ft.)	Depth to Water (ft.)	Purged Volume (gal.)	Method / Notes / Observations
MW-8		27.73	40	TD = 44.10' Casing A.G.S. = 3.50'
Well I.D.	Depth to NAPL (ft.)	Depth to Water (ft.)	Purged Volume (gal.)	Method / Notes / Observations
MW-4		27.56	40	TD = 44.00' Casing A.G.S. = 3.20'
Well I.D.	Depth to NAPL (ft.)	Depth to Water (ft.)	Purged Volume (gal.)	Method / Notes / Observations
MW-3		27.34	40	TD = 41.10' Casing A.G.S. = 3.32'
Well I.D.	Depth to NAPL (ft.)	Depth to Water (ft.)	Purged Volume (gal.)	Method / Notes / Observations
MW-1		28.17	40	TD = 43.65' Casing A.G.S. = 3.55'
Well I.D.	Depth to NAPL (ft.)	Depth to Water (ft.)	Purged Volume (gal.)	Method / Notes / Observations
Well I.D.	Depth to NAPL (ft.)	Depth to Water (ft.)	Purged Volume (gal.)	Method / Notes / Observations
Well I.D.	Depth to NAPL (ft.)	Depth to Water (ft.)	Purged Volume (gal.)	Method / Notes / Observations

Pugged Water Storage, Transport, and Disposal Information:



Wells measured with KECK water level or KECK interface tape, decontaminated between each well measurement.



**MONITORING WELL SAMPLING RECORD**

Animas Environmental Services

Monitor Well No: **MW-4**

624 E. Comanche, Farmington NM 87401

Tel. (505) 564-2281 Fax (505) 324-2022

Site: Highway 537 Station Spill '09

Project No.: AES 090201

Location: Rio Arriba County, New Mexico

Date: **3-5-09**

Project: Groundwater Monitoring

Arrival Time: **1220**Sampling Technician: **N. Williams**Air Temp: **43°F**

Purge / No Purge: Purge

T.O.C. Elev. (ft):

Well Diameter (in): **2**Total Well Depth (ft): **43.95**Initial D.T.W. (ft): **27.39**Time: **0950** (taken at initial gauging of all wells)

Confirm D.T.W. (ft):

Time: (taken prior to purging well)

Final D.T.W. (ft):

Time: (taken after sample collection)

**Water Quality Parameters - Recorded During Well Purging**

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1228	13.70	4.759	2.09	6.67	-40.1	0.25	
1232	13.06	4.760	2.07	6.62	-33.4	1.75	
1237	12.77	4.753	1.78	6.60	-32.2	1.75	
1240	12.57	4.763	1.75	6.59	-33.7	1.5	
1245	12.36	4.762	1.87	6.62	-31.5	1.5	
1249	12.36	4.760	1.72	6.58	-29.2	1.5	
1254							Samples Collected

**Analytical Parameters (include analysis method and number and type of sample containers)**

BTEX per EPA Method 8021 (3 40mL Vials w/ HCl preserve)

TPH C<sub>6</sub>-C<sub>36</sub> per EPA Method 8015B (2 40mL Vials w/ HCl preserve)

Disposal of Purged Water:

Collected Samples Stored on Ice in Cooler:

Chain of Custody Record Complete:

Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM

Equipment Used During Sampling: Keck Water Level, YSI Water Quality Meter,  
and New Disposable Bailer

Notes/Comments

# MONITORING WELL SAMPLING RECORD

Animas Environmental Services

Monitor Well No: MW-1

624 E. Comanche, Farmington NM 87401

Tel. (505) 564-2281 Fax (505) 324-2022

Site: Highway 537 Station Spill '09  
 Location: Rio Arriba County, New Mexico  
 Project: Groundwater Monitoring  
 Sampling Technician: N. Willis  
 Purge / No Purge: Purge  
 Well Diameter (in): 2  
 Initial D.T.W. (ft): \_\_\_\_\_ Time: \_\_\_\_\_  
 Confirm D.T.W. (ft): 27.95 Time: 0831  
 Final D.T.W. (ft): \_\_\_\_\_ Time: \_\_\_\_\_

Project No.: AES 090201  
 Date: 3-5-09  
 Arrival Time: 0822  
 Air Temp: 43°F  
 T.O.C. Elev. (ft): \_\_\_\_\_  
 Total Well Depth (ft): 43.64  
 (taken at initial gauging of all wells)  
 (taken prior to purging well)  
 (taken after sample collection)

## Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
0842	13.40	5.215	3.17	6.90	-66.1	0.25	
0847	12.18	5.216	2.28	6.70	-48.6	1.5	
0853	12.24	5.172	1.70	6.62	-40.0	1.5	
0859	12.17	5.186	1.75	6.58	-36.6	1.5	
0904	12.15	5.194	1.77	6.57	-36.4	1.5	
0909	12.29	5.231	1.27	6.64	-36.1	1.5	
0914							Samples Collected

## Analytical Parameters (include analysis method and number and type of sample containers)

BTEX per EPA Method 8021 (3 40mL Vials w/ HCl preserve)

TPH C<sub>6</sub>-C<sub>36</sub> per EPA Method 8015B (2 40mL Vials w/ HCl preserve)

Disposal of Purged Water: \_\_\_\_\_

Collected Samples Stored on Ice in Cooler: \_\_\_\_\_

Chain of Custody Record Complete: \_\_\_\_\_

Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM

Equipment Used During Sampling: Keck Water Level, YSI Water Quality Meter,  
and New Disposable Bailer

Notes/Comments

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**MONITORING WELL SAMPLING RECORD**

Animas Environmental Services

Monitor Well No: **MW-2**

624 E. Comanche, Farmington NM 87401

Tel. (505) 564-2281 Fax (505) 324-2022

Site: Highway 537 Station Spill '09  
Location: Rio Arriba County, New Mexico  
Project: Groundwater Monitoring  
Sampling Technician: A. W. Webb  
Purge / No Purge: Purge  
Well Diameter (in): 2  
Initial D.T.W. (ft): 27.68 Time: 0938  
Confirm D.T.W. (ft): 27.69 Time: 1047  
Final D.T.W. (ft): \_\_\_\_\_ Time: \_\_\_\_\_

Project No.: AES 090201

Date: 3-5-09Arrival Time: 1044Air Temp: 43°F

T.O.C. Elev. (ft): \_\_\_\_\_

Total Well Depth (ft): 44.16

(taken at initial gauging of all wells)

(taken prior to purging well)

(taken after sample collection)

**Water Quality Parameters - Recorded During Well Purging**

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1053	12.48	4,418	6.08	6.96	-45.9	0.25	
1058	12.36	4,497	4.34	6.93	-33.9	1.5	
1103	12.14	4,569	2.53	6.88	-30.1	1.5	
1108	12.01	4,578	2.23	6.85	-28.0	1.5	
1112	11.87	4,587	2.14	6.83	-26.4	1.5	
1117	12.00	4,567	2.59	6.82	-29.8	1.5	
1122							Samples Collected

**Analytical Parameters (include analysis method and number and type of sample containers)**

BTEX per EPA Method 8021 (3 40mL Vials w/ HCl preserve)

TPH C<sub>6</sub>-C<sub>36</sub> per EPA Method 8015B (2 40mL Vials w/ HCl preserve)

Disposal of Purged Water: \_\_\_\_\_

Collected Samples Stored on Ice in Cooler: \_\_\_\_\_

Chain of Custody Record Complete: \_\_\_\_\_

Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM

Equipment Used During Sampling: \_\_\_\_\_  
Keck Water Level, YSI Water Quality Meter,  
and New Disposable Bailer

Notes/Comments

**MONITORING WELL SAMPLING RECORD**

Animas Environmental Services

Monitor Well No: MW-3

624 E. Comanche, Farmington NM 87401

Tel. (505) 564-2281 Fax (505) 324-2022

Site: Highway 537 Station Spill '09Project No.: AES 090201Location: Rio Arriba County, New MexicoDate: 3-5-09Project: Groundwater MonitoringArrival Time: 1136Sampling Technician: N. WillisAir Temp: 43°FPurge / No Purge: Purge

T.O.C. Elev. (ft): \_\_\_\_\_

Well Diameter (in): 2Total Well Depth (ft): 44.00Initial D.T.W. (ft): 27.16Time: 0944 (taken at initial gauging of all wells)

Confirm D.T.W. (ft): \_\_\_\_\_

Time: \_\_\_\_\_ (taken prior to purging well)

Final D.T.W. (ft): \_\_\_\_\_

Time: \_\_\_\_\_ (taken after sample collection)

**Water Quality Parameters - Recorded During Well Purging**

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1143	12.91	4.289	3.79	6.83	-33.1	0.25	
1148	12.12	4.309	3.13	6.73	-30.0	1.75	
1154	12.43	4.320	1.65	6.71	-30.4	1.75	
1158	12.16	4.321	1.94	6.67	-27.4	1.5	
1202	12.16	4.318	1.78	6.64	-28.2	1.5	
1205	12.29	4.310	2.17	6.66	-28.2	1.5	
1210							Samples Collected

**Analytical Parameters (include analysis method and number and type of sample containers)**

BTEX per EPA Method 8021 (3 40mL Vials w/ HCl preserve)

TPH C<sub>6</sub>-C<sub>36</sub> per EPA Method 8015B (2 40mL Vials w/ HCl preserve)

Disposal of Purged Water: \_\_\_\_\_

Collected Samples Stored on Ice in Cooler: \_\_\_\_\_

Chain of Custody Record Complete: \_\_\_\_\_

Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM

Equipment Used During Sampling: \_\_\_\_\_

Keck Water Level, YSI Water Quality Meter,  
and New Disposable Bailer

Notes/Comments



**MONITORING WELL SAMPLING RECORD**

Animas Environmental Services

Monitor Well No: MW-5

624 E. Comanche, Farmington NM 87401

Tel. (505) 564-2281 Fax (505) 324-2022

Site: Highway 537 Station Spill '09  
Location: Rio Arriba County, New Mexico  
Project: Groundwater Monitoring  
Sampling Technician: N. Willis  
Purge / No Purge: Purge  
Well Diameter (in): 2  
Initial D.T.W. (ft): 28.24 Time: 0956  
Confirm D.T.W. (ft): \_\_\_\_\_ Time: \_\_\_\_\_  
Final D.T.W. (ft): \_\_\_\_\_ Time: \_\_\_\_\_

Project No.: AES 090201Date: 3-5-09Arrival Time: 1305Air Temp: 43°F

T.O.C. Elev. (ft): \_\_\_\_\_

Total Well Depth (ft): 44.08

(taken at initial gauging of all wells)

(taken prior to purging well)

(taken after sample collection)

**Water Quality Parameters - Recorded During Well Purging**

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1310	12.66	6.125	4.42	6.61	-24.7	0.25	
1315	12.19	6.321	5.39	6.58	-20.9	1.5	
1320	12.10	6.303	5.26	6.63	-20.8	1.5	
1325	11.98	6.100	3.40	6.60	-27.4	1.5	
1330	12.01	6.165	3.97	6.60	-21.8	1.5	
1335	11.80	6.088	3.89	6.61	-17.3	1.5	
1340	_____	_____	_____	_____	_____	_____	Samples Collected

**Analytical Parameters (include analysis method and number and type of sample containers)**

BTEX per EPA Method 8021 (3 40mL Vials w/ HCl preserve)

TPH C<sub>6</sub>-C<sub>36</sub> per EPA Method 8015B (2 40mL Vials w/ HCl preserve)

Disposal of Purged Water: \_\_\_\_\_

Collected Samples Stored on Ice in Cooler: \_\_\_\_\_

Chain of Custody Record Complete: \_\_\_\_\_

Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM

Equipment Used During Sampling: \_\_\_\_\_

Keck Water Level, YSI Water Quality Meter,and New Disposable Bailer

Notes/Comments

**MONITORING WELL SAMPLING RECORD**

Animas Environmental Services

Monitor Well No: **MW-6**

624 E. Comanche, Farmington NM 87401

Tel. (505) 564-2281 Fax (505) 324-2022

Site: Highway 537 Station Spill '09  
Location: Rio Arriba County, New Mexico  
Project: Groundwater Monitoring  
Sampling Technician: N. W. Webb  
Purge / No Purge: Purge  
Well Diameter (in): 2  
Initial D.T.W. (ft): 12.67 Time: 1026  
Confirm D.T.W. (ft): \_\_\_\_\_ Time: \_\_\_\_\_  
Final D.T.W. (ft): \_\_\_\_\_ Time: \_\_\_\_\_

Project No.: AES 090201

Date: 3-6-08Arrival Time: 0841Air Temp: 40°F

T.O.C. Elev. (ft): \_\_\_\_\_

Total Well Depth (ft): 23.57

(taken at initial gauging of all wells)

(taken prior to purging well)

(taken after sample collection)

**Water Quality Parameters - Recorded During Well Purging**

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
0904	09.06	5.046	6.13	6.77	3.3	0.25	
0907	8.67	4.924	6.49	6.66	6.0	1	
0911	8.72	5.330	6.57	6.55	7.6	1	
0914	9.21	4.966	4.54	6.60	6.6	1	
0918	09.28	4.963	4.25	6.58	5.0	1	
0921	9.21	4.967	4.30	6.53	4.6	1	
0928							Samples Collected

**Analytical Parameters (include analysis method and number and type of sample containers)**

BTEX per EPA Method 8021 (3 40mL Vials w/ HCl preserve)

TPH C<sub>6</sub>-C<sub>36</sub> per EPA Method 8015B (2 40mL Vials w/ HCl preserve)

Disposal of Purged Water: \_\_\_\_\_

Collected Samples Stored on Ice in Cooler: \_\_\_\_\_

Chain of Custody Record Complete: \_\_\_\_\_

Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM

Equipment Used During Sampling: \_\_\_\_\_  
Keck Water Level, YSI Water Quality Meter,  
and New Disposable Bailer

Notes/Comments

**MONITORING WELL SAMPLING RECORD**

Animas Environmental Services

Monitor Well No: MW-7

624 E. Comanche, Farmington NM 87401

Tel. (505) 564-2281 Fax (505) 324-2022

Site: Highway 537 Station Spill '09  
Location: Rio Arriba County, New Mexico  
Project: Groundwater Monitoring  
Sampling Technician: N. Wilcox  
Purge / No Purge: Purge  
Well Diameter (in): 2  
Initial D.T.W. (ft): 26.34 Time: 1020  
Confirm D.T.W. (ft): \_\_\_\_\_ Time: \_\_\_\_\_  
Final D.T.W. (ft): \_\_\_\_\_ Time: \_\_\_\_\_

Project No.: AES 090201Date: 3-6-09Arrival Time: 0945Air Temp: 40°F

T.O.C. Elev. (ft): \_\_\_\_\_

Total Well Depth (ft): 44.16

(taken at initial gauging of all wells)

(taken prior to purging well)

(taken after sample collection)

**Water Quality Parameters - Recorded During Well Purging**

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
0947	10.86	4.987	3.41	6.58	0.9	0.25	
0951	11.18	5.103	2.23	6.58	-3.7	1	
0954	11.19	5.098	2.17	6.57	-4.0	1	
0957	10.93	5.028	2.66	6.52	-4.2	1	
1000	11.18	4.959	1.92	6.50	-4.4	1	
1003	11.23	4.970	2.23	6.50	-3.5	1	
1006	11.18	4.967	2.39	6.49	-2.9	1	
1009	11.34	4.951	1.82	6.49	-3.3	1	
1012	11.40	4.959	2.01	6.49	-3.0	1	
1015	11.40	4.951	2.17	6.50	-3.3	0.75	
1022	_____	_____	_____	_____	_____	_____	Samples Collected

**Analytical Parameters (include analysis method and number and type of sample containers)**

BTEX per EPA Method 8021 (3 40mL Vials w/ HCl preserve)

TPH C<sub>6</sub>-C<sub>36</sub> per EPA Method 8015B (2 40mL Vials w/ HCl preserve)

Disposal of Purged Water: \_\_\_\_\_

Collected Samples Stored on Ice in Cooler: \_\_\_\_\_

Chain of Custody Record Complete: \_\_\_\_\_

Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM

Equipment Used During Sampling: \_\_\_\_\_

Keck Water Level, YSI Water Quality Meter,and New Disposable Bailer

Notes/Comments

# MONITORING WELL SAMPLING RECORD

Animas Environmental Services

Monitor Well No: MW-8

624 E. Comanche, Farmington NM 87401

Tel. (505) 564-2281 Fax (505) 324-2022

Site: Highway 537 Station Spill '09  
 Location: Rio Arriba County, New Mexico  
 Project: Groundwater Monitoring  
 Sampling Technician: N. Willis  
 Purge / No Purge: Purge  
 Well Diameter (in): 2  
 Initial D.T.W. (ft): 27.49  
 Confirm D.T.W. (ft):   
 Final D.T.W. (ft):

Project No.: AES 090201  
 Date: 3-6-09  
 Arrival Time: 1038  
 Air Temp: 40°F  
 T.O.C. Elev. (ft):   
 Total Well Depth (ft): 44.13  
 Time: 1004 (taken at initial gauging of all wells)  
 Time:  (taken prior to purging well)  
 Time:  (taken after sample collection)

## Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1043	12.07	4.691	4.33	6.42	0.7	0.25	
1046	12.04	4.790	3.81	6.42	-1.5	1	
1049	11.89	4.786	3.50	6.41	-2.4	1	
1052	11.88	4.762	2.99	6.40	-2.8	1	
1055	11.87	4.743	2.65	6.39	-3.4	1	
1058	11.79	4.722	2.18	6.39	-3.5	1	
1101	11.82	4.730	2.55	6.39	-3.5	1	
1104	11.94	4.720	2.25	6.40	-4.0	1	
1107	11.91	4.731	2.14	6.40	-4.4	1	
1112							Samples Collected

## Analytical Parameters (include analysis method and number and type of sample containers)

BTEX per EPA Method 8021 (3 40mL Vials w/ HCl preserve)

TPH C<sub>6</sub>-C<sub>36</sub> per EPA Method 8015B (2 40mL Vials w/ HCl preserve)

Disposal of Purged Water:

Collected Samples Stored on Ice in Cooler:

Chain of Custody Record Complete:

Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM

Equipment Used During Sampling:

Keck Water Level, YSI Water Quality Meter,  
and New Disposable Bailer

Notes/Comments

**MONITORING WELL SAMPLING RECORD**

Animas Environmental Services

Monitor Well No: **MW-10**

624 E. Comanche, Farmington NM 87401

Tel. (505) 564-2281 Fax (505) 324-2022

Site: Highway 537 Station Spill '09  
Location: Rio Arriba County, New Mexico  
Project: Groundwater Monitoring  
Sampling Technician: N. Willis  
Purge / No Purge: Purge  
Well Diameter (in): 2  
Initial D.T.W. (ft): 26.25 Time: 1034  
Confirm D.T.W. (ft): \_\_\_\_\_ Time: \_\_\_\_\_  
Final D.T.W. (ft): \_\_\_\_\_ Time: \_\_\_\_\_

Project No.: AES 090201Date: 3-8-09Arrival Time: 0840Air Temp: 43°F 34°F

T.O.C. Elev. (ft): \_\_\_\_\_

Total Well Depth (ft): 38.44

(taken at initial gauging of all wells)

(taken prior to purging well)

(taken after sample collection)

**Water Quality Parameters - Recorded During Well Purging**

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
0843	11.52	4.428	5.44	7.12	-9.1	0.25	
0846	11.18	4.404	5.01	6.88	10.6	1	
0849	11.06	4.516	4.68	6.77	14.9	1	
0852	11.23	4.563	4.32	6.72	16.0	1	
0854	11.10	4.569	4.10	6.69	16.1	1	
0857	11.23	4.531	3.81	6.67	16.3	1	
0859	10.51	4.572	3.44	6.62	15.6	0.75	
0907	_____	_____	_____	_____	_____	_____	Samples Collected

**Analytical Parameters (include analysis method and number and type of sample containers)**

BTEX per EPA Method 8021 (3 40mL Vials w/ HCl preserve)

TPH C<sub>6</sub>-C<sub>36</sub> per EPA Method 8015B (2 40mL Vials w/ HCl preserve)

Disposal of Purged Water: \_\_\_\_\_

Collected Samples Stored on Ice in Cooler: \_\_\_\_\_

Chain of Custody Record Complete: \_\_\_\_\_

Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM

Equipment Used During Sampling: \_\_\_\_\_

Keck Water Level, YSI Water Quality Meter,and New Disposable Bailer

Notes/Comments

**MONITORING WELL SAMPLING RECORD**

Animas Environmental Services

Monitor Well No: MW-11

624 E. Comanche, Farmington NM 87401

Tel. (505) 564-2281 Fax (505) 324-2022

Site: Highway 537 Station Spill '09  
Location: Rio Arriba County, New Mexico  
Project: Groundwater Monitoring  
Sampling Technician: N. Willis  
Purge / No Purge: Purge  
Well Diameter (in): 2  
Initial D.T.W. (ft): 24.33 Time: 1002  
Confirm D.T.W. (ft): \_\_\_\_\_ Time: \_\_\_\_\_  
Final D.T.W. (ft): \_\_\_\_\_ Time: \_\_\_\_\_

Project No.: AES 090201Date: ~~3-6-09~~ 3-9-09Arrival Time: 0915Air Temp: ~~42°F~~ 34°F

T.O.C. Elev. (ft): \_\_\_\_\_

Total Well Depth (ft): 43.54

(taken at initial gauging of all wells)

(taken prior to purging well)

(taken after sample collection)

**Water Quality Parameters - Recorded During Well Purging**

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
0921	11.41	5.660	3.80	6.61	24.3	0.25	
0924	11.59	5.710	4.82	6.64	21.6	1	
0927	11.80	5.715	4.80	6.64	19.9	1	
0930	11.64	5.714	4.17	6.64	19.0	1	
0934	11.26	5.720	2.99	6.63	18.9	1	
0938	11.50	5.712	3.30	6.63	18.4	1	
0941	11.66	5.723	4.19	6.63	18.2	1	
0944	11.77	5.720	3.85	6.64	17.4	1	
0946	11.47	5.730	3.52	6.63	17.1	0.25	
0954	—	—	—	—	—	—	Samples Collected

**Analytical Parameters (include analysis method and number and type of sample containers)**

BTEX per EPA Method 8021 (3 40mL Vials w/ HCl preserve)

TPH C<sub>6</sub>-C<sub>36</sub> per EPA Method 8015B (2 40mL Vials w/ HCl preserve)

Disposal of Purged Water: \_\_\_\_\_

Collected Samples Stored on Ice in Cooler: \_\_\_\_\_

Chain of Custody Record Complete: \_\_\_\_\_

Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM

Equipment Used During Sampling: \_\_\_\_\_

Keck Water Level, YSI Water Quality Meter,  
and New Disposable Bailer

Notes/Comments







**MONITORING WELL SAMPLING RECORD**

Animas Environmental Services

Monitor Well No: MW-4

624 E. Comanche, Farmington NM 87401

Tel. (505) 564-2281 Fax (505) 324-2022

Site: Highway 537 Station SpillProject No.: AFS-070302Location: Rio Arriba County, New MexicoDate: 4-6-09Project: Groundwater MonitoringArrival Time: 0945 43Sampling Technician: N. WillisAir Temp: 32°FPurge / No Purge: Purge

T.O.C. Elev. (ft): \_\_\_\_\_

Well Diameter (in): 2Total Well Depth (ft): 43.95

Initial D.T.W. (ft): \_\_\_\_\_

Time: \_\_\_\_\_ (taken at initial gauging of all wells)

Confirm D.T.W. (ft): 27.58Time: 0944 (taken prior to purging well)

Final D.T.W. (ft): \_\_\_\_\_

Time: \_\_\_\_\_ (taken after sample collection)

**Water Quality Parameters - Recorded During Well Purging**

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
0946	12.69	4.628	2.37	6.77	20.1	0.25	
0952	12.18	4.595	2.50	6.73	20.9	1.5	
0957	12.27	4.587	1.92	6.73	17.9	1.5	
1001	12.19	4.598	2.05	6.72	17.1	1.5	
1004	12.27	4.596	1.94	6.73	16.9	1.5	
1008	12.27	4.589	1.84	6.72	17.0	1.5	
1011	11.87	4.599	2.06	6.75	18.0	0.5	
1016							Samples Collected

**Analytical Parameters (include analysis method and number and type of sample containers)**

BTEX per EPA Method 8021 (2 40mL Vials w/ HCl)

TPH C<sub>6</sub>-C<sub>36</sub> per EPA Method 8015B (2 40mL Vials w/ HCl)TPH C<sub>6</sub>-C<sub>36</sub> per EPA Method 8015B ( 40mL Vials no preservative)

Disposal of Purged Water: \_\_\_\_\_

Collected Samples Stored on Ice in Cooler: \_\_\_\_\_

Chain of Custody Record Complete: \_\_\_\_\_

Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM

Equipment Used During Sampling: \_\_\_\_\_

Keck Water Level, YSI Water Quality Meter,and New Disposable Bailor

Notes/Comments

# MONITORING WELL SAMPLING RECORD

Animas Environmental Services

Monitor Well No: MW-9

624 E. Comanche, Farmington NM 87401

Tel. (505) 564-2281 Fax (505) 324-2022

Site: Highway 537 Station Spill

Project No.: AES-070302

Location: Rio Arriba County, New Mexico

Date: 4-6-09

Project: Groundwater Monitoring

Arrival Time: 0856

Sampling Technician: N. Willis

Air Temp: 29°F

Purge / No Purge: Purge

T.O.C. Elev. (ft): \_\_\_\_\_

Well Diameter (in): 2

Total Well Depth (ft): 38.81

Initial D.T.W. (ft): \_\_\_\_\_ Time: \_\_\_\_\_

(taken at initial gauging of all wells)

Confirm D.T.W. (ft): 27.74 Time: 0901

(taken prior to purging well)

Final D.T.W. (ft): \_\_\_\_\_ Time: \_\_\_\_\_

(taken after sample collection)

## Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
0906	12.32	5.567	3.51	7.04	12.9	0.25	
0910	12.13	5.322	3.13	6.88	19.9	1	
0913	11.96	5.226	2.82	6.80	23.7	1	
0917	12.02	5.201	2.64	6.76	24.7	1	
0920	12.07	5.200	2.29	6.73	25.3	1	
0925	11.86	5.174	2.24	6.72	25.2	1	
0930	_____	_____	_____	_____	_____	_____	Samples Collected

## Analytical Parameters (include analysis method and number and type of sample containers)

BTEX per EPA Method 8021 (2 40mL Vials w/ HCl)

TPH C<sub>6</sub>-C<sub>36</sub> per EPA Method 8015B (2 40mL Vials w/ HCl)

TPH C<sub>6</sub>-C<sub>36</sub> per EPA Method 8015B ( 40mL Vials no preservative)

Disposal of Purged Water: \_\_\_\_\_

Collected Samples Stored on Ice in Cooler: \_\_\_\_\_

Chain of Custody Record Complete: \_\_\_\_\_

Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM

Equipment Used During Sampling: \_\_\_\_\_

Keck Water Level, YSI Water Quality Meter,

and New Disposable Bailer

Notes/Comments


## COVER LETTER

Friday, March 20, 2009

Ross Kennemer  
Animas Environmental Services  
624 East Comanche  
Farmington, NM 87401

TEL: (505) 564-2281

FAX (505) 324-2022

RE: Hwy 537 '09 Spill

Order No.: 0903121

Dear Ross Kennemer:

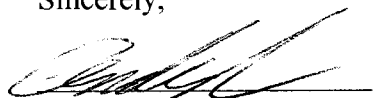
Hall Environmental Analysis Laboratory, Inc. received 13 sample(s) on 3/9/2009 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,



Andy Freeman, Business Manager  
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425

AZ license # AZ0682

ORELAP Lab # NM100001

Texas Lab# T104704424-08-TX



**Hall Environmental Analysis Laboratory, Inc.****Date:** 20-Mar-09

**CLIENT:** Animas Environmental Services  
**Lab Order:** 0903121  
**Project:** Hwy 537 '09 Spill  
**Lab ID:** 0903121-01

**Client Sample ID:** Field Blank  
**Collection Date:** 3/5/2009 8:16:00 AM  
**Date Received:** 3/9/2009  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	ND	1.0		µg/L	1	3/16/2009 3:49:08 PM
Toluene	ND	1.0		µg/L	1	3/16/2009 3:49:08 PM
Ethylbenzene	ND	1.0		µg/L	1	3/16/2009 3:49:08 PM
Xylenes, Total	ND	2.0		µg/L	1	3/16/2009 3:49:08 PM
Surr: 4-Bromofluorobenzene	92.7	65.9-130		%REC	1	3/16/2009 3:49:08 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit



**Hall Environmental Analysis Laboratory, Inc.**

Date: 20-Mar-09

**CLIENT:** Animas Environmental Services  
**Lab Order:** 0903121  
**Project:** Hwy 537 '09 Spill  
**Lab ID:** 0903121-02

**Client Sample ID:** MW-1  
**Collection Date:** 3/5/2009 9:14:00 AM  
**Date Received:** 3/9/2009  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/9/2009
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/9/2009
Surr: DNOP	137	58-140		%REC	1	3/9/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	2.1	0.050		mg/L	1	3/16/2009 4:19:29 PM
Surr: BFB	94.7	59.9-122		%REC	1	3/16/2009 4:19:29 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	310	10		µg/L	10	3/17/2009 12:07:28 PM
Toluene	91	1.0		µg/L	1	3/16/2009 4:19:29 PM
Ethylbenzene	5.1	1.0		µg/L	1	3/16/2009 4:19:29 PM
Xylenes, Total	200	2.0		µg/L	1	3/16/2009 4:19:29 PM
Surr: 4-Bromofluorobenzene	107	65.9-130		%REC	1	3/16/2009 4:19:29 PM

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
RL Reporting Limit

**Hall Environmental Analysis Laboratory, Inc.**

Date: 20-Mar-09

**CLIENT:** Animas Environmental Services  
**Lab Order:** 0903121  
**Project:** Hwy 537 '09 Spill  
**Lab ID:** 0903121-03

**Client Sample ID:** MW-2  
**Collection Date:** 3/5/2009 11:22:00 AM  
**Date Received:** 3/9/2009  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/9/2009
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/9/2009
Surr: DNOP	133	58-140		%REC	1	3/9/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/16/2009 4:49:56 PM
Surr: BFB	78.5	59.9-122		%REC	1	3/16/2009 4:49:56 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	ND	1.0		µg/L	1	3/17/2009 12:37:58 PM
Toluene	ND	1.0		µg/L	1	3/17/2009 12:37:58 PM
Ethylbenzene	ND	1.0		µg/L	1	3/17/2009 12:37:58 PM
Xylenes, Total	ND	2.0		µg/L	1	3/17/2009 12:37:58 PM
Surr: 4-Bromofluorobenzene	90.8	65.9-130		%REC	1	3/17/2009 12:37:58 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

**Hall Environmental Analysis Laboratory, Inc.**

Date: 20-Mar-09

**CLIENT:** Animas Environmental Services  
**Lab Order:** 0903121  
**Project:** Hwy 537 '09 Spill  
**Lab ID:** 0903121-04

**Client Sample ID:** MW-3  
**Collection Date:** 3/5/2009 12:10:00 PM  
**Date Received:** 3/9/2009  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE</b>						Analyst: SCC
Diesel Range Organics (DRO)	3.4	1.0		mg/L	1	3/9/2009
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/9/2009
Surr: DNOP	128	58-140		%REC	1	3/9/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	8.2	1.0		mg/L	20	3/17/2009 1:10:54 PM
Surr: BFB	88.1	59.9-122		%REC	20	3/17/2009 1:10:54 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	400	20		µg/L	20	3/17/2009 1:10:54 PM
Toluene	1100	20		µg/L	20	3/17/2009 1:10:54 PM
Ethylbenzene	110	20		µg/L	20	3/17/2009 1:10:54 PM
Xylenes, Total	1300	40		µg/L	20	3/17/2009 1:10:54 PM
Surr: 4-Bromofluorobenzene	101	65.9-130		%REC	20	3/17/2009 1:10:54 PM

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
RL Reporting Limit

**Hall Environmental Analysis Laboratory, Inc.**

Date: 20-Mar-09

CLIENT: Animas Environmental Services

Client Sample ID: MW-4

Lab Order: 0903121

Collection Date: 3/5/2009 12:54:00 PM

Project: Hwy 537 '09 Spill

Date Received: 3/9/2009

Lab ID: 0903121-05

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/9/2009
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/9/2009
Surr: DNOP	133	58-140		%REC	1	3/9/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/17/2009 1:41:26 PM
Surr: BFB	82.5	59.9-122		%REC	1	3/17/2009 1:41:26 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	2.7	1.0		µg/L	1	3/17/2009 1:41:26 PM
Toluene	1.4	1.0		µg/L	1	3/17/2009 1:41:26 PM
Ethylbenzene	ND	1.0		µg/L	1	3/17/2009 1:41:26 PM
Xylenes, Total	ND	2.0		µg/L	1	3/17/2009 1:41:26 PM
Surr: 4-Bromofluorobenzene	87.9	65.9-130		%REC	1	3/17/2009 1:41:26 PM

Qualifiers: \* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
RL Reporting Limit

# Hall Environmental Analysis Laboratory, Inc.

Date: 20-Mar-09

**CLIENT:** Animas Environmental Services  
**Lab Order:** 0903121  
**Project:** Hwy 537 '09 Spill  
**Lab ID:** 0903121-06

**Client Sample ID:** MW-5  
**Collection Date:** 3/5/2009 1:40:00 PM  
**Date Received:** 3/9/2009  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/9/2009
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/9/2009
Surr: DNOP	123	58-140		%REC	1	3/9/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/16/2009 10:25:01 PM
Surr: BFB	86.3	59.9-122		%REC	1	3/16/2009 10:25:01 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	ND	1.0		µg/L	1	3/16/2009 10:25:01 PM
Toluene	ND	1.0		µg/L	1	3/16/2009 10:25:01 PM
Ethylbenzene	ND	1.0		µg/L	1	3/16/2009 10:25:01 PM
Xylenes, Total	ND	2.0		µg/L	1	3/16/2009 10:25:01 PM
Surr: 4-Bromofluorobenzene	90.4	65.9-130		%REC	1	3/16/2009 10:25:01 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

**Hall Environmental Analysis Laboratory, Inc.**

Date: 20-Mar-09

**CLIENT:** Animas Environmental Services  
**Lab Order:** 0903121  
**Project:** Hwy 537 '09 Spill  
**Lab ID:** 0903121-07

**Client Sample ID:** MW-6  
**Collection Date:** 3/6/2009 9:28:00 AM  
**Date Received:** 3/9/2009  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/9/2009
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/9/2009
Surr: DNOP	128	58-140		%REC	1	3/9/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/16/2009 10:55:20 PM
Surr: BFB	86.8	59.9-122		%REC	1	3/16/2009 10:55:20 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	ND	1.0		µg/L	1	3/16/2009 10:55:20 PM
Toluene	ND	1.0		µg/L	1	3/16/2009 10:55:20 PM
Ethylbenzene	ND	1.0		µg/L	1	3/16/2009 10:55:20 PM
Xylenes, Total	ND	2.0		µg/L	1	3/16/2009 10:55:20 PM
Surr: 4-Bromofluorobenzene	90.7	65.9-130		%REC	1	3/16/2009 10:55:20 PM

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
RL Reporting Limit



**Hall Environmental Analysis Laboratory, Inc.**

Date: 20-Mar-09

**CLIENT:** Animas Environmental Services  
**Lab Order:** 0903121  
**Project:** Hwy 537 '09 Spill  
**Lab ID:** 0903121-08

**Client Sample ID:** MW-7  
**Collection Date:** 3/6/2009 10:22:00 AM  
**Date Received:** 3/9/2009  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/9/2009
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/9/2009
Surr: DNOP	132	58-140		%REC	1	3/9/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/16/2009 11:25:47 PM
Surr: BFB	85.9	59.9-122		%REC	1	3/16/2009 11:25:47 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	ND	1.0		µg/L	1	3/16/2009 11:25:47 PM
Toluene	ND	1.0		µg/L	1	3/16/2009 11:25:47 PM
Ethylbenzene	ND	1.0		µg/L	1	3/16/2009 11:25:47 PM
Xylenes, Total	ND	2.0		µg/L	1	3/16/2009 11:25:47 PM
Surr: 4-Bromofluorobenzene	89.0	65.9-130		%REC	1	3/16/2009 11:25:47 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

**Hall Environmental Analysis Laboratory, Inc.**

Date: 20-Mar-09

CLIENT: Animas Environmental Services

Client Sample ID: MW-8

Lab Order: 0903121

Collection Date: 3/6/2009 11:12:00 AM

Project: Hwy 537 '09 Spill

Date Received: 3/9/2009

Lab ID: 0903121-09

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE</b>						Analyst: SCC
Diesel Range Organics (DRO)	1.5	1.0		mg/L	1	3/9/2009
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/9/2009
Surr: DNOP	135	58-140		%REC	1	3/9/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	2.1	0.050		mg/L	1	3/16/2009 11:56:10 PM
Surr: BFB	94.8	59.9-122		%REC	1	3/16/2009 11:56:10 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	160	10		µg/L	10	3/17/2009 2:14:43 PM
Toluene	170	10		µg/L	10	3/17/2009 2:14:43 PM
Ethylbenzene	12	10		µg/L	10	3/17/2009 2:14:43 PM
Xylenes, Total	350	20		µg/L	10	3/17/2009 2:14:43 PM
Surr: 4-Bromofluorobenzene	103	65.9-130		%REC	10	3/17/2009 2:14:43 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

**Hall Environmental Analysis Laboratory, Inc.**

Date: 20-Mar-09

**CLIENT:** Animas Environmental Services  
**Lab Order:** 0903121  
**Project:** Hwy 537 '09 Spill  
**Lab ID:** 0903121-10

**Client Sample ID:** MW-9  
**Collection Date:** 3/6/2009 12:00:00 PM  
**Date Received:** 3/9/2009  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/9/2009
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/9/2009
Surr: DNOP	138	58-140		%REC	1	3/9/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	2.5	0.050		mg/L	1	3/17/2009 12:26:40 AM
Surr: BFB	84.9	59.9-122		%REC	1	3/17/2009 12:26:40 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	170	10		µg/L	10	3/17/2009 2:47:53 PM
Toluene	350	10		µg/L	10	3/17/2009 2:47:53 PM
Ethylbenzene	49	10		µg/L	10	3/17/2009 2:47:53 PM
Xylenes, Total	530	20		µg/L	10	3/17/2009 2:47:53 PM
Surr: 4-Bromofluorobenzene	106	65.9-130		%REC	10	3/17/2009 2:47:53 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

**Hall Environmental Analysis Laboratory, Inc.**

Date: 20-Mar-09

**CLIENT:** Animas Environmental Services  
**Lab Order:** 0903121  
**Project:** Hwy 537 '09 Spill  
**Lab ID:** 0903121-11

**Client Sample ID:** MW-10  
**Collection Date:** 3/9/2009 9:07:00 AM  
**Date Received:** 3/9/2009  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/13/2009
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/13/2009
Surr: DNOP	132	58-140		%REC	1	3/13/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/17/2009 12:57:11 AM
Surr: BFB	88.2	59.9-122		%REC	1	3/17/2009 12:57:11 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	ND	1.0		µg/L	1	3/17/2009 3:18:25 PM
Toluene	ND	1.0		µg/L	1	3/17/2009 3:18:25 PM
Ethylbenzene	ND	1.0		µg/L	1	3/17/2009 3:18:25 PM
Xylenes, Total	ND	2.0		µg/L	1	3/17/2009 3:18:25 PM
Surr: 4-Bromofluorobenzene	84.6	65.9-130		%REC	1	3/17/2009 3:18:25 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

**Hall Environmental Analysis Laboratory, Inc.**

Date: 20-Mar-09

**CLIENT:** Animas Environmental Services  
**Lab Order:** 0903121  
**Project:** Hwy 537 '09 Spill  
**Lab ID:** 0903121-12

**Client Sample ID:** MW-11  
**Collection Date:** 3/9/2009 9:54:00 AM  
**Date Received:** 3/9/2009  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/13/2009
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/13/2009
Surr: DNOP	136	58-140		%REC	1	3/13/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/17/2009 1:27:42 AM
Surr: BFB	85.7	59.9-122		%REC	1	3/17/2009 1:27:42 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	ND	1.0		µg/L	1	3/17/2009 3:48:54 PM
Toluene	ND	1.0		µg/L	1	3/17/2009 3:48:54 PM
Ethylbenzene	ND	1.0		µg/L	1	3/17/2009 3:48:54 PM
Xylenes, Total	ND	2.0		µg/L	1	3/17/2009 3:48:54 PM
Surr: 4-Bromofluorobenzene	94.6	65.9-130		%REC	1	3/17/2009 3:48:54 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

**Hall Environmental Analysis Laboratory, Inc.**

Date: 20-Mar-09

**CLIENT:** Animas Environmental Services  
**Lab Order:** 0903121  
**Project:** Hwy 537 '09 Spill  
**Lab ID:** 0903121-13

**Client Sample ID:** MW-7 of '06-'07 Spill  
**Collection Date:** 3/9/2009 10:58:00 AM  
**Date Received:** 3/9/2009  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/13/2009
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/13/2009
Surr: DNOP	127	58-140		%REC	1	3/13/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/17/2009 1:58:09 AM
Surr: BFB	86.7	59.9-122		%REC	1	3/17/2009 1:58:09 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	ND	1.0		µg/L	1	3/17/2009 1:58:09 AM
Toluene	ND	1.0		µg/L	1	3/17/2009 1:58:09 AM
Ethylbenzene	ND	1.0		µg/L	1	3/17/2009 1:58:09 AM
Xylenes, Total	ND	2.0		µg/L	1	3/17/2009 1:58:09 AM
Surr: 4-Bromofluorobenzene	89.0	65.9-130		%REC	1	3/17/2009 1:58:09 AM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit



## QA/QC SUMMARY REPORT

Client: Animas Environmental Services  
 Project: Hwy 537 '09 Spill

Work Order: 0903121

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
<b>Method: EPA Method 8015B: Diesel Range</b>									
Sample ID: MB-18496		MBLK			Batch ID: 18496		Analysis Date:		3/9/2009
Diesel Range Organics (DRO)	ND	mg/L	1.0						
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Sample ID: MB-18518		MBLK			Batch ID: 18518		Analysis Date:		3/13/2009
Diesel Range Organics (DRO)	ND	mg/L	1.0						
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Sample ID: LCS-18496		LCS			Batch ID: 18496		Analysis Date:		3/9/2009
Diesel Range Organics (DRO)	5.645	mg/L	1.0	113	74	157			
Sample ID: LCS-18518		LCS			Batch ID: 18518		Analysis Date:		3/13/2009
Diesel Range Organics (DRO)	5.665	mg/L	1.0	113	74	157			
Sample ID: LCSD-18496		LCSD			Batch ID: 18496		Analysis Date:		3/9/2009
Diesel Range Organics (DRO)	5.834	mg/L	1.0	117	74	157	3.29	23	
Sample ID: LCSD-18518		LCSD			Batch ID: 18518		Analysis Date:		3/13/2009
Diesel Range Organics (DRO)	6.467	mg/L	1.0	129	74	157	13.2	23	
<b>Method: EPA Method 8015B: Gasoline Range</b>									
Sample ID: 0903121-03A MSD		MSD			Batch ID: R32793		Analysis Date:		3/16/2009 7:52:29 PM
Gasoline Range Organics (GRO)	0.5694	mg/L	0.050	108	80	115	4.13	8.39	
Sample ID: 5ML RB		MBLK			Batch ID: R32793		Analysis Date:		3/16/2009 9:00:09 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Sample ID: 2.5UG GRO LCS		LCS			Batch ID: R32793		Analysis Date:		3/17/2009 4:32:45 AM
Gasoline Range Organics (GRO)	0.5342	mg/L	0.050	107	80	115			
Sample ID: 0903121-03A MS		MS			Batch ID: R32793		Analysis Date:		3/16/2009 7:21:55 PM
Gasoline Range Organics (GRO)	0.5934	mg/L	0.050	113	80	115			
<b>Method: EPA Method 8021B: Volatiles</b>									
Sample ID: 0903121-02A MSD		MSD			Batch ID: R32793		Analysis Date:		3/16/2009 6:51:30 PM
Ethylbenzene	26.71	µg/L	1.0	108	83.5	118	0.894	10	
Sample ID: 5ML RB		MBLK			Batch ID: R32793		Analysis Date:		3/16/2009 9:00:09 AM
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Sample ID: 100NG BTEX LCS		LCS			Batch ID: R32793		Analysis Date:		3/17/2009 4:02:13 AM
Benzene	20.87	µg/L	1.0	104	85.9	113			
Toluene	22.01	µg/L	1.0	110	86.4	113			
Ethylbenzene	21.49	µg/L	1.0	107	83.5	118			
Xylenes, Total	64.51	µg/L	2.0	108	83.4	122			
Sample ID: 0903121-02A MS		MS			Batch ID: R32793		Analysis Date:		3/16/2009 6:21:04 PM
Ethylbenzene	26.95	µg/L	1.0	109	83.5	118			

## Qualifiers:

E Estimated value  
 J Analyte detected below quantitation limits  
 R RPD outside accepted recovery limits  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Sample Receipt Checklist

Client Name ANIMAS ENVIRONMENTAL

Date Received:

3/9/2009

Work Order Number 0903121

Received by: ARS

Checklist completed by:

Signature

Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name: Greyhound

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	Not Shipped <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Water - VOA vials have zero headspace?	No VOA vials submitted <input type="checkbox"/>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - Preservation labels on bottle and cap match?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	

Container/Temp Blank temperature?

1°

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding:

Comments:

Received remaining samples on 3/11. MS 3/11

Corrective Action







## COVER LETTER

Thursday, April 09, 2009

Ross Kennemer  
Animas Environmental Services  
624 East Comanche  
Farmington, NM 87401

TEL: (505) 564-2281  
FAX (505) 324-2022

RE: HWY 537 '09 Spill (BMG)

Order No.: 0904104

Dear Ross Kennemer:

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 4/8/2009 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", written over a horizontal line.

Andy Freeman, Business Manager  
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425  
AZ license # AZ0682  
ORELAP Lab # NM100001  
Texas Lab# T104704424-08-TX



**Hall Environmental Analysis Laboratory, Inc.**

Date: 09-Apr-09

**CLIENT:** Animas Environmental Services  
**Lab Order:** 0904104  
**Project:** HWY 537 '09 Spill (BMG)  
**Lab ID:** 0904104-01

**Client Sample ID:** MW-9  
**Collection Date:** 4/6/2009 9:30:00 AM  
**Date Received:** 4/8/2009  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	4/8/2009
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/8/2009
Surr: DNOP	118	58-140		%REC	1	4/8/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	1.6	0.050		mg/L	1	4/8/2009 1:04:32 PM
Surr: BFB	95.0	59.9-122		%REC	1	4/8/2009 1:04:32 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	82	1.0		µg/L	1	4/8/2009 1:04:32 PM
Toluene	62	1.0		µg/L	1	4/8/2009 1:04:32 PM
Ethylbenzene	16	1.0		µg/L	1	4/8/2009 1:04:32 PM
Xylenes, Total	210	2.0		µg/L	1	4/8/2009 1:04:32 PM
Surr: 4-Bromofluorobenzene	104	65.9-130		%REC	1	4/8/2009 1:04:32 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit



**Hall Environmental Analysis Laboratory, Inc.**

Date: 09-Apr-09

**CLIENT:** Animas Environmental Services  
**Lab Order:** 0904104  
**Project:** HWY 537 '09 Spill (BMG)  
**Lab ID:** 0904104-02

**Client Sample ID:** MW-4  
**Collection Date:** 4/6/2009 10:16:00 AM  
**Date Received:** 4/8/2009  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	4/8/2009
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/8/2009
Surr: DNOP	121	58-140		%REC	1	4/8/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	4/8/2009 12:03:20 PM
Surr: BFB	90.6	59.9-122		%REC	1	4/8/2009 12:03:20 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	ND	1.0		µg/L	1	4/8/2009 12:03:20 PM
Toluene	ND	1.0		µg/L	1	4/8/2009 12:03:20 PM
Ethylbenzene	ND	1.0		µg/L	1	4/8/2009 12:03:20 PM
Xylenes, Total	ND	2.0		µg/L	1	4/8/2009 12:03:20 PM
Surr: 4-Bromofluorobenzene	92.5	65.9-130		%REC	1	4/8/2009 12:03:20 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Page 2 of 3

**Hall Environmental Analysis Laboratory, Inc.**

Date: 09-Apr-09

**CLIENT:** Animas Environmental Services  
**Lab Order:** 0904104  
**Project:** HWY 537 '09 Spill (BMG)  
**Lab ID:** 0904104-03

**Client Sample ID:** Trip Blank  
**Collection Date:**  
**Date Received:** 4/8/2009  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	4/8/2009 1:34:55 PM
Surr: BFB	82.8	59.9-122		%REC	1	4/8/2009 1:34:55 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: DAM
Benzene	ND	1.0		µg/L	1	4/8/2009 1:34:55 PM
Toluene	ND	1.0		µg/L	1	4/8/2009 1:34:55 PM
Ethylbenzene	ND	1.0		µg/L	1	4/8/2009 1:34:55 PM
Xylenes, Total	ND	2.0		µg/L	1	4/8/2009 1:34:55 PM
Surr: 4-Bromofluorobenzene	82.0	65.9-130		%REC	1	4/8/2009 1:34:55 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Page 3 of 3

## QA/QC SUMMARY REPORT

Client: Animas Environmental Services

Project: HWY 537 '09 Spill (BMG)

Work Order: 0904104

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
<b>Method: EPA Method 8015B: Diesel Range</b>									
Sample ID: MB-18768		MBLK							
					Batch ID: 18768		Analysis Date:		4/8/2009
Diesel Range Organics (DRO)	ND	mg/L	1.0						
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Sample ID: LCS-18768		LCS							
					Batch ID: 18768		Analysis Date:		4/8/2009
Diesel Range Organics (DRO)	6.247	mg/L	1.0	125	74	157			
Sample ID: LCSD-18768		LCSD							
					Batch ID: 18768		Analysis Date:		4/8/2009
Diesel Range Organics (DRO)	6.252	mg/L	1.0	125	74	157	0.0720	23	
<b>Method: EPA Method 8015B: Gasoline Range</b>									
Sample ID: 6ML RB		MBLK							
					Batch ID: R33149		Analysis Date:		4/8/2009 9:30:49 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Sample ID: 2.5UG GRO LCS		LCS							
					Batch ID: R33149		Analysis Date:		4/8/2009 5:39:14 PM
Gasoline Range Organics (GRO)	0.5468	mg/L	0.050	109	80	115			
Sample ID: 2.5UG GRO LCSD		LCSD							
					Batch ID: R33149		Analysis Date:		4/8/2009 6:09:43 PM
Gasoline Range Organics (GRO)	0.5290	mg/L	0.050	106	80	115	3.27	8.39	
<b>Method: EPA Method 8021B: Volatiles</b>									
Sample ID: 5ML RB		MBLK							
					Batch ID: R33149		Analysis Date:		4/8/2009 9:30:49 AM
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Sample ID: 100NG BTEX LCS		LCS							
					Batch ID: R33149		Analysis Date:		4/8/2009 6:40:07 PM
Benzene	20.84	µg/L	1.0	104	85.9	113			
Toluene	21.64	µg/L	1.0	108	86.4	113			
Ethylbenzene	20.96	µg/L	1.0	105	83.5	118			
Xylenes, Total	62.38	µg/L	2.0	104	83.4	122			
Sample ID: 100NG BTEX LCSD		LCSD							
					Batch ID: R33149		Analysis Date:		4/8/2009 7:10:39 PM
Benzene	19.93	µg/L	1.0	99.6	85.9	113	4.48	27	
Toluene	20.09	µg/L	1.0	100	86.4	113	7.43	19	
Ethylbenzene	19.94	µg/L	1.0	99.7	83.5	118	4.99	10	
Xylenes, Total	59.96	µg/L	2.0	99.9	83.4	122	3.96	13	

## Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name ANIMAS ENVIRONMENTAL

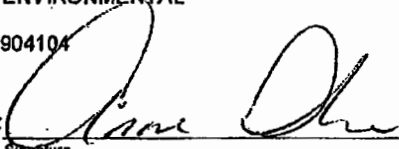
Date Received:

4/8/2009

Work Order Number 0904104

Received by: AT

Checklist completed by:

  
Signature

Sample ID labels checked by:

  
Initials

4/12/09  
Date

Matrix:

Carrier name Greyhound

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	Not Shipped <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Water - VOA vials have zero headspace?	No VOA vials submitted <input type="checkbox"/>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - Preservation labels on bottle and cap match?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	

Container/Temp Blank temperature?

6° <6° C Acceptable  
If given sufficient time to cool.

COMMENTS:

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Client contacted \_\_\_\_\_ Date contacted: \_\_\_\_\_ Person contacted \_\_\_\_\_

Contacted by: \_\_\_\_\_ Regarding: \_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Corrective Action \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

