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

March 11, 2013

Glenn von Gonten
New Mexico Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505

Re: Periodic Progress Report
Benson-Montin-Greer
Highway 537 Truck Receiving Station 2009 Release
Rio Arriba County, New Mexico

Dear Mr. von Gonten:

On behalf of Benson-Montin-Greer Drilling Corporation (BMG), Animas Environmental Services, LLC (AES) has prepared this Periodic Progress Report, which provides details of groundwater monitoring and sampling conducted in December 2012 at the BMG Highway 537 Truck Receiving Station 2009 release location. Sampling was conducted in accordance with recommendations presented in the Site Investigation Report prepared by AES and submitted on April 10, 2009.

1.0 Site 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 transport. Surface ownership in the area where the release occurred includes private land owned by the Schmitz Ranch.

1.1 Site Location

The truck receiving station is located along the south side of NM 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 SW¼ SW¼ NW¼ Section 18, T25N, R3W in Rio Arriba County, New Mexico. Latitude and longitude were recorded as being N36.39866 and W107.19328, respectively. A topographic site location map, based on an excerpt from the United States Geological Survey (USGS) 7.5-minute Schmitz Ranch, Rio Arriba County, New

Mexico topographic quadrangle (USGS 1963), is included as Figure 1. An aerial map with a site plan, including existing monitor wells, is presented as Figure 2.

1.2 Release History

On January 29, 2009, a Western Refining truck driver discovered crude condensate within the bermed area around the storage tanks, on the south side of Tank #1, 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. BMG then contacted Brandon Powell of New Mexico Oil Conservation Division (NMOCD) to provide notification and intended response to the release. 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 feet by 20 feet by 15 feet in depth. AES collected soil samples from the base of the excavation for field screening with a photo-ionization detector (PID) organic vapor meter (OVM). 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). 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.

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

On February 2, 2009, the 6-inch line was repaired, and the excavation was backfilled with clean fill material. Approximately 100 cubic yards of contaminated soil were transported to the TNT Landfarm for disposal.

From February 16 through 20, 2009, site investigation activities were conducted by AES in order to delineate the full extent of petroleum hydrocarbon impact on surface and subsurface soils and groundwater resulting from the release. The investigation procedures

included the installation of 11 monitor wells (MW-1 through MW-11) and collection of soil and groundwater samples. Work was completed in accordance with the *Sampling and Analysis Plan* prepared by AES and dated February 3, 2009, and also in accordance with U.S. Environmental Protection Agency (USEPA) Environmental Response Team's Standard Operating Procedures (SOPs), and applicable American Society of Testing and Materials (ASTM) standards. Details of the site investigation are included in the AES *Site Investigation Report* submitted to NMOCD in April 2009.

2.0 Groundwater Monitoring and Sampling – December 2012

The fourth quarterly groundwater and sampling event of 2012 was conducted by AES personnel on December 4, 2012. Groundwater samples from MW-1, MW-3, MW-8, and MW-9 were laboratory analyzed for BTEX per USEPA Method 8021 and TPH per USEPA Method 8015 at Hall Environmental Analysis Laboratory (Hall) in Albuquerque, New Mexico. No samples were collected from MW-2, MW-4, MW-5 through MW-7, MW-10, and MW-11 because these wells have remained below laboratory detection limits for BTEX and TPH for eight consecutive sampling events.

2.1 Groundwater Measurements and Water Quality Data

During the December 2012 sampling event, groundwater measurements were recorded for MW-1 through MW-11. Average groundwater elevations decreased across the site by an average of 0.19 feet since the September 2012 sampling event and were at their lowest elevations since the monitor wells were installed in 2009. Groundwater gradient was calculated between MW-2 and MW-8, with a magnitude of 0.008 ft/ft to the southwest. Groundwater elevations ranged from 15.48 feet below top of casing (TOC) in MW-6 to 30.58 feet below TOC in MW-11. Groundwater elevation data and contours are presented in Figure 3.

Groundwater quality measurements were recorded for MW-1, MW-3, MW-8, and MW-9. Recorded temperatures ranged from 12.08°C in MW-3 to 12.87°C in MW-9. Groundwater pH measurements ranged from 7.11 to 7.26, and DO concentrations were between 0.69 mg/L in MW-3 and 3.78 mg/L in MW-8. ORP measurements were between -60.5 mV in MW-9 and -3.1 mV in MW-8, and conductivity readings were between 3.045 mS/cm and 4.430 mS/cm. Depth to groundwater measurements and water quality data are presented in Table 1. Water Sample Collection Forms are included in the Appendix.

2.2 Groundwater Analytical Results

Dissolved phase benzene concentrations were below laboratory detection limits (1.0 µg/L and 2.0 µg/L) in each of the wells sampled. Dissolved phase toluene, ethylbenzene, and xylene concentrations were below applicable WQCC standards in each of the wells sampled.

TPH concentrations as GRO above laboratory detection limits were reported in MW-1 (0.19 mg/L) and MW-3 (0.26 mg/L), and TPH concentrations (as DRO and MRO) were reported below the laboratory detection limits in all wells sampled. Tabulated laboratory analytical results are included in Table 2. Contaminant concentrations are included in Figure 4, and Graphs 1 through 4 present groundwater elevations and dissolved phase benzene concentrations for MW-1, MW-3, MW-8, and MW-9, respectively. Laboratory analytical reports for December 2012 are included in the Appendix.

3.0 Conclusions and Recommendations

AES conducted groundwater monitoring and sampling at the BMG Highway 537 Truck Receiving Station on December 4, 2012. Groundwater elevations were found to have decreased in all wells by approximately 0.19 feet since September 2012. Groundwater gradient was calculated to be approximately 0.008 ft/ft in a southeastern direction, which is consistent with historic site data.

Groundwater samples were collected from monitor wells MW-1, MW-3, MW-8, and MW-9. Monitor wells MW-2, MW-4 through MW-7, MW-10, and MW-11 have remained below the Water Quality Control Commission (WQCC) standard for benzene, toluene, ethylbenzene, and xylene and below laboratory detection limits for TPH for eight consecutive sampling events and therefore were not sampled in December 2012.

The dissolved phase benzene concentration in MW-1 was reported below the laboratory detection limit and was also below the WQCC standard of 10 µg/L for the first time since sampling began in 2009. Dissolved phase benzene also decreased to below the laboratory detection limit of 2.0 µg/L in MW-3. This is the sixth consecutive quarter in MW-8 and third consecutive quarter in MW-9 that dissolved phase benzene concentrations have been reported below WQCC standards. Dissolved phase toluene, ethylbenzene, and xylenes have remained below the applicable WQCC standards in all wells. GRO concentrations above the laboratory detection limit were reported in MW-1 and MW-3, with the highest concentration of 0.26 mg/L reported in MW-3. DRO and MRO concentrations were reported below the laboratory detection limits in all wells during the December 2012 sampling event.

Based on laboratory analytical results, AES recommends continuing groundwater monitoring and sampling of monitor wells for MW-1, MW-3, MW-8, and MW-9 on a quarterly basis.

4.0 Scheduled Site Activities

The 1st quarter 2013 groundwater sampling event is scheduled to be conducted in early March 2013.

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

Sincerely,

Landrea R. Cupps

Landrea Cupps
Environmental Scientist

Elizabeth D McNally

Elizabeth McNally, P.E.

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Appendix
Water Sample Collection Forms, December 2012
Hall Analytical Report 1212316

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

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

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

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TABLE 1
SUMMARY OF GROUNDWATER MEASUREMENT AND WATER QUALITY DATA
BMG HWY 537 TRUCK RECEIVING STATION 2009 RELEASE
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-1	11-Sep-09	28.66	7064.66	7036.00	13.15	7.016	0.65	8.60	-118.5
MW-1	15-Jan-10	28.91	7064.66	7035.75	13.30	3.714	2.74	6.79	-167.8
MW-1	15-Oct-10	29.20	7064.66	7035.46	13.77	4.642	1.51	7.14	-17.9
MW-1	21-Jan-11	29.28	7064.66	7035.38	12.42	4.246	1.63	6.92	-85.8
MW-1	12-May-11	28.93	7064.66	7035.73	13.08	3.830	2.95	7.00	-96.1
MW-1	12-Aug-11	29.67	7064.66	7034.99	14.03	4.637	3.83	6.94	-107.9
MW-1	16-Nov-11	29.82	7064.66	7034.84	11.57	4.385	2.89	5.35	-69.7
MW-1	21-Feb-12	29.77	7064.66	7034.89	12.01	4.063	1.09	6.78	-123.9
MW-1	24-May-12	29.77	7064.66	7034.89	12.94	4.563	1.04	6.95	-46.5
MW-1	10-Sep-12	30.14	7064.66	7034.52	14.63	4.705	1.16	7.12	-15.7
MW-1	04-Dec-12	30.33	7064.66	7034.33	12.55	4.430	1.30	7.11	-7.1
MW-2	05-Mar-09	27.69	7064.65	7036.96	12.00	4.567	2.59	6.82	-29.8
MW-2	10-Sep-09	28.38	7064.65	7036.27	12.93	6.480	1.09	7.58	62.2
MW-2	15-Jan-10	28.62	7064.65	7036.03	12.49	3.604	2.10	7.57	-70.3
MW-2	14-Oct-10	28.91	7064.65	7035.74	12.49	3.968	1.71	7.40	98.9
MW-2	21-Jan-11	28.99	7064.65	7035.66	11.44	4.045	1.62	8.56	-6.2
MW-2	12-May-11	28.63	7064.65	7036.02	13.14	4.087	1.43	7.67	-66.7
MW-2	12-Aug-11	29.37	7064.65	7035.28	14.08	4.102	4.36	7.09	160.2
MW-2	16-Nov-11	29.52	7064.65	7035.13	11.60	4.021	2.48	7.51	176.2
MW-2	21-Feb-12	29.46	7064.65	7035.19	NM	NM	NM	NM	NM
MW-2	24-May-12	29.47	7064.65	7035.18	NM	NM	NM	NM	NM
MW-2	10-Sep-12	29.84	7064.65	7034.81	NM	NM	NM	NM	NM
MW-2	04-Dec-12	30.03	7064.65	7034.62	NM	NM	NM	NM	NM
MW-3	05-Mar-09	27.16	7064.01	7036.85	12.29	4.310	2.17	6.66	-28.2

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MW-3	11-Sep-09	27.99	7064.01	7036.02	13.50	6.080	0.53	9.43	-163.6
MW-3	15-Jan-10	28.22	7064.01	7035.79	11.99	3.607	1.85	7.27	-222.5
MW-3	14-Oct-10	28.54	7064.01	7035.47	12.41	4.180	1.46	7.24	-53.1
MW-3	21-Jan-11	28.60	7064.01	7035.41	11.92	4.224	1.60	7.20	-122.5
MW-3	12-May-11	28.21	7064.01	7035.80	12.56	4.172	2.25	7.28	-145.8
MW-3	12-Aug-11	29.02	7064.01	7034.99	13.32	4.372	2.35	7.17	-158.5
MW-3	16-Nov-11	29.14	7064.01	7034.87	10.87	4.326	2.17	6.53	-105.7
MW-3	21-Feb-12	29.07	7064.01	7034.94	11.36	4.481	1.01	7.09	-118.0
MW-3	24-May-12	29.09	7064.01	7034.92	13.30	4.325	0.81	7.07	-70.3
MW-3	10-Sep-12	29.45	7064.01	7034.56	13.26	4.377	2.49	7.23	-42.7
MW-3	04-Dec-12	29.65	7064.01	7034.36	12.08	4.294	0.69	7.26	-46.8
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-4	10-Sep-09	28.12	7063.72	7035.60	13.09	6.337	0.81	6.98	54.6
MW-4	15-Jan-10	28.34	7063.72	7035.38	11.65	3.812	2.78	7.20	-125.1
MW-4	15-Oct-10	28.64	7063.72	7035.08	12.52	4.491	1.42	7.13	42.8
MW-4	21-Jan-11	28.72	7063.72	7035.00	11.90	4.748	1.14	7.19	5.4
MW-4	12-May-11	28.39	7063.72	7035.33	13.11	4.576	2.58	7.29	-25.8
MW-4	12-Aug-11	29.10	7063.72	7034.62	13.89	4.759	3.98	6.85	74.9
MW-4	16-Nov-11	29.26	7063.72	7034.46	11.66	4.725	2.15	7.11	153.0
MW-4	21-Feb-12	29.22	7063.72	7034.50	10.27	4.927	1.02	7.02	-11.3
MW-4	24-May-12	29.23	7063.72	7034.49	13.75	4.687	1.04	6.98	39.3
MW-4	10-Sep-12	29.58	7063.72	7034.14	NM	NM	NM	NM	NM
MW-4	04-Dec-12	29.77	7063.72	7033.95	NM	NM	NM	NM	NM
MW-5	05-Mar-09	28.24	7064.79	7036.55	11.80	6.088	3.89	6.61	-17.3

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MW-5	10-Sep-09	28.87	7064.79	7035.92	12.78	7.785	1.22	7.09	60.5
MW-5	15-Jan-10	29.10	7064.79	7035.69	11.19	4.288	1.93	7.27	-85.8
MW-5	14-Oct-10	29.38	7064.79	7035.41	12.34	4.725	1.24	7.23	98.1
MW-5	21-Jan-11	29.47	7064.79	7035.32	11.93	5.038	2.71	7.31	103.9
MW-5	12-May-11	29.17	7064.79	7035.62	12.40	4.957	2.44	7.42	-44.4
MW-5	12-Aug-11	29.84	7064.79	7034.95	13.73	4.968	3.87	6.83	189.8
MW-5	16-Nov-11	30.00	7064.79	7034.79	11.16	4.814	4.47	7.18	290.4
MW-5	21-Feb-12	29.96	7064.79	7034.83	NM	NM	NM	NM	NM
MW-5	25-May-12	29.96	7064.79	7034.83	NM	NM	NM	NM	NM
MW-5	10-Sep-12	30.31	7064.79	7034.48	NM	NM	NM	NM	NM
MW-5	04-Dec-12	30.52	7064.79	7034.27	NM	NM	NM	NM	NM
MW-6	05-Mar-09	12.67	7049.54	7036.87	9.21	4.967	4.30	6.53	4.6
MW-6	10-Sep-09	13.90	7049.54	7035.64	11.85	6.287	1.15	7.12	75.9
MW-6	15-Jan-10	14.02	7049.54	7035.52	10.81	3.789	2.46	7.35	-66.7
MW-6	15-Oct-10	14.39	7049.54	7035.15	12.45	4.353	1.40	7.24	20.7
MW-6	21-Jan-11	14.42	7049.54	7035.12	11.59	4.516	3.10	7.32	-37.3
MW-6	12-May-11	14.00	7049.54	7035.54	10.69	4.349	1.89	7.47	-24.9
MW-6	12-Aug-11	14.93	7049.54	7034.61	11.99	4.492	4.24	7.56	0.2
MW-6	16-Nov-11	14.99	7049.54	7034.55	12.01	4.398	2.74	6.46	182.1
MW-6	21-Feb-12	14.90	7049.54	7034.64	NM	NM	NM	NM	NM
MW-6	25-May-12	14.92	7049.54	7034.62	NM	NM	NM	NM	NM
MW-6	10-Sep-12	NM	7049.54	NM	NM - Well is Dry				
MW-6	04-Dec-12	15.48	7049.54	7034.06	NM	NM	NM	NM	NM
MW-7	06-Mar-09	26.34	7062.80	7036.46	11.40	4.951	2.17	6.50	-3.3
MW-7	10-Sep-09	27.23	7062.80	7035.57	12.61	6.288	1.03	7.05	51.0

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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-7	15-Jan-10	27.44	7062.80	7035.36	11.02	3.820	2.92	7.27	-66.3
MW-7	14-Oct-10	27.76	7062.80	7035.04	12.79	4.047	1.24	7.19	68.6
MW-7	21-Jan-11	27.82	7062.80	7034.98	10.79	4.205	2.22	7.37	42.0
MW-7	12-May-11	27.46	7062.80	7035.34	12.80	4.118	1.73	7.38	-70.4
MW-7	12-Aug-11	28.24	7062.80	7034.56	13.88	4.119	2.90	7.30	112.8
MW-7	16-Nov-11	28.38	7062.80	7034.42	11.24	4.077	2.75	6.32	168.0
MW-7	21-Feb-12	28.31	7062.80	7034.49	NM	NM	NM	NM	NM
MW-7	24-May-12	28.34	7062.80	7034.46	NM	NM	NM	NM	NM
MW-7	10-Sep-12	28.69	7062.80	7034.11	NM	NM	NM	NM	NM
MW-7	04-Dec-12	28.86	7062.80	7033.94	NM	NM	NM	NM	NM
MW-8	06-Mar-09	27.49	7063.27	7035.78	11.91	4.731	2.14	6.40	-4.4
MW-8	10-Sep-09	28.14	7063.27	7035.13	13.53	5.987	1.12	8.51	-93.2
MW-8	15-Jan-10	28.39	7063.27	7034.88	11.43	2.891	1.86	6.68	-162.2
MW-8	15-Oct-10	28.70	7063.27	7034.57	12.80	4.017	1.21	7.04	-39.1
MW-8	21-Jan-11	28.80	7063.27	7034.47	12.30	4.002	1.55	7.08	-91.2
MW-8	12-May-11	28.52	7063.27	7034.75	13.16	3.966	1.60	7.16	-121.2
MW-8	12-Aug-11	29.19	7063.27	7034.08	13.85	4.194	3.45	6.97	-148.3
MW-8	16-Nov-11	29.35	7063.27	7033.92	11.49	4.218	2.57	6.49	-115.4
MW-8	21-Feb-12	29.31	7063.27	7033.96	12.21	4.500	0.88	6.96	-116.0
MW-8	24-May-12	29.34	7063.27	7033.93	13.43	4.402	0.65	6.93	-41.2
MW-8	10-Sep-12	29.68	7063.27	7033.59	12.98	4.499	1.34	7.12	-27.3
MW-8	04-Dec-12	29.87	7063.27	7033.40	12.53	3.045	3.78	7.13	-3.1
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-9	10-Sep-09	28.19	7062.60	7034.41	13.10	7.257	0.86	7.03	-129.8

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MW-9	15-Jan-10	28.42	7062.60	7034.18	10.89	3.960	2.29	7.13	-187.4
MW-9	15-Oct-10	28.74	7062.60	7033.86	12.85	4.561	1.89	7.17	-74.4
MW-9	21-Jan-11	28.85	7062.60	7033.75	12.67	4.452	1.34	7.16	-90.8
MW-9	12-May-11	28.61	7062.60	7033.99	13.12	4.120	2.31	7.28	-94.1
MW-9	12-Aug-11	29.22	7062.60	7033.38	12.92	4.492	5.42	7.33	-132.7
MW-9	16-Nov-11	29.41	7062.60	7033.19	11.80	4.402	2.67	5.56	-75.1
MW-9	21-Feb-12	29.39	7062.60	7033.21	11.89	4.241	1.37	6.95	-127.0
MW-9	24-May-12	29.39	7062.60	7033.21	13.68	4.470	0.80	7.08	-56.4
MW-9	10-Sep-12	29.73	7062.60	7032.87	13.41	4.439	1.41	7.13	-52.2
MW-9	04-Dec-12	29.90	7062.60	7032.70	12.87	4.374	1.34	7.19	-60.5
MW-10	09-Mar-09	26.25	7063.27	7037.02	10.51	4.572	3.44	6.62	15.6
MW-10	10-Sep-09	27.10	7063.27	7036.17	12.62	5.133	1.83	6.97	80.7
MW-10	15-Jan-10	27.29	7063.27	7035.98	10.82	3.210	2.47	7.10	-99.3
MW-10	14-Oct-10	27.61	7063.27	7035.66	11.98	3.811	1.80	7.22	119.2
MW-10	21-Jan-11	27.66	7063.27	7035.61	10.73	3.946	1.78	7.45	90.1
MW-10	12-May-11	27.28	7063.27	7035.99	12.26	3.839	1.34	7.26	84.9
MW-10	12-Aug-11	28.08	7063.27	7035.19	12.84	3.948	4.99	6.62	175.8
MW-10	16-Nov-11	28.20	7063.27	7035.07	10.81	3.912	2.81	6.17	190.7
MW-10	21-Feb-12	28.13	7063.27	7035.14	NM	NM	NM	NM	NM
MW-10	24-May-12	28.15	7063.27	7035.12	NM	NM	NM	NM	NM
MW-10	10-Sep-12	28.54	7063.27	7034.73	NM	NM	NM	NM	NM
MW-10	04-Dec-12	28.72	7063.27	7034.55	NM	NM	NM	NM	NM
MW-11	09-Mar-09	28.33	7064.10	7035.77	11.47	5.730	3.52	6.63	17.1
MW-11	10-Sep-09	28.88	7064.10	7035.22	13.32	7.785	0.67	7.02	61.2
MW-11	15-Jan-10	29.13	7064.10	7034.97	10.20	3.995	1.86	7.16	-59.2

TABLE 1
SUMMARY OF GROUNDWATER MEASUREMENT AND WATER QUALITY DATA
BMG HWY 537 TRUCK RECEIVING STATION 2009 RELEASE
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-11	14-Oct-10	29.44	7064.10	7034.66	13.00	4.901	1.93	7.20	94.5
MW-11	21-Jan-11	29.53	7064.10	7034.57	11.55	4.937	1.75	7.37	216.0
MW-11	12-May-11	29.25	7064.10	7034.85	12.97	4.701	2.71	7.41	-16.0
MW-11	12-Aug-11	29.89	7064.10	7034.21	12.89	4.872	3.24	7.39	122.2
MW-11	16-Nov-11	30.07	7064.10	7034.03	11.49	4.762	3.61	7.00	307.9
MW-11	21-Feb-12	30.04	7064.10	7034.06	NM	NM	NM	NM	NM
MW-11	24-May-12	30.06	7064.10	7034.04	NM	NM	NM	NM	NM
MW-11	10-Sep-12	30.38	7064.10	7033.72	NM	NM	NM	NM	NM
MW-11	04-Dec-12	30.58	7064.10	7033.52	NM	NM	NM	NM	NM
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 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
BMG HWY 537 TRUCK RECEIVING STATION 2009 RELEASE
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)
Analytical Method		**8021B**	**8021B**	**8021B**	**8021B**	**8015B**	**8015B**	**8015B**
New Mexico WQCC		***10***	***750***	***750***	***620***	***NE***	***NE***	***NE***
MW-1	05-Mar-09	**310**	91	5.1	200	2.1	<1.0	<5.0
MW-1	11-Sep-09	**1,500**	1.1	48	170	4.8	<1.0	<5.0
MW-1	15-Jan-10	**630**	<5.0	19	47	2.1	<1.0	<5.0
MW-1	15-Oct-10	**960**	53	37	94	4.1	<1.0	<5.0
MW-1	21-Jan-11	**3,600**	<10	140	160	10	<1.0	<5.0
MW-1	12-May-11	**7,800**	42	270	33	19	<1.0	<5.0
MW-1	12-Aug-11	**280**	<1.0	18	<2.0	1.2	<1.0	<5.0
MW-1	16-Nov-11	**2,700**	<5.0	76	<10	3.9	<1.0	<5.0
MW-1	21-Feb-12	**360**	<1.0	54	<2.0	1.2	<1.0	<5.0
MW-1	24-May-12	**210**	2.1	31	5.1	0.59	<1.0	<5.0
MW-1	10-Sep-12	**54**	<2.0	36	<4.0	0.45	<1.0	<5.0
MW-1	04-Dec-12	<2.0	<2.0	17	<4.0	0.19	<1.0	<5.0
MW-2	05-Mar-09	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-2	10-Sep-09	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-2	15-Jan-10	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-2	14-Oct-10	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-2	21-Jan-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-2	12-May-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-2	12-Aug-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-2	16-Nov-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-3	05-Mar-09	**400**	**1,100**	110	**1,300**	8.2	3.4	<5.0
MW-3	11-Sep-09	**380**	27	26	61	4.2	9.6	6.0
MW-3	15-Jan-10	**750**	11	34	<20	3.4	7.0	6.1
MW-3	14-Oct-10	**140**	<1.0	6.8	2.8	0.76	1.9	<5.0
MW-3	21-Jan-11	**280**	<1.0	24	9.1	1.7	3.5	<5.0
MW-3	12-May-11	**980**	<1.0	42	<2.0	3.0	4.8	<5.0
MW-3	12-Aug-11	**51**	<1.0	4.2	<2.0	0.38	<1.0	<5.0
MW-3	16-Nov-11	**63**	<1.0	6.0	<2.0	0.46	3.3	<5.0
MW-3	21-Feb-12	4.8	<1.0	<1.0	<2.0	0.18	<1.0	<5.0
MW-3	24-May-12	**50**	<1.0	3.0	<2.0	0.33	<1.0	<5.0
MW-3	10-Sep-12	6.2	<2.0	<2.0	<4.0	0.29	<1.0	<5.0
MW-3	04-Dec-12	<2.0	<2.0	<2.0	<4.0	0.26	<1.0	<5.0
MW-4	05-Mar-09	2.7	1.4	<1.0	<2.0	<0.050	<1.0	<5.0

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
BMG HWY 537 TRUCK RECEIVING STATION 2009 RELEASE
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)
Analytical Method		**8021B**	**8021B**	**8021B**	**8021B**	**8015B**	**8015B**	**8015B**
New Mexico WQCC		***10***	***750***	***750***	***620***	***NE***	***NE***	***NE***
MW-4	06-Apr-09	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-4	10-Sep-09	**13**	<1.0	<1.0	<2.0	0.051	<1.0	<5.0
MW-4	15-Jan-10	8.6	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-4	15-Oct-10	6.3	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-4	21-Jan-11	3.6	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-4	12-May-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-4	12-Aug-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-4	16-Nov-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-4	21-Feb-12	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-4	24-May-12	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-5	05-Mar-09	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-5	10-Sep-09	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-5	15-Jan-10	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-5	14-Oct-10	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-5	21-Jan-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-5	12-May-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-5	12-Aug-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-5	16-Nov-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-6	06-Mar-09	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-6	10-Sep-09	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-6	15-Jan-10	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-6	15-Oct-10	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-6	21-Jan-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-6	12-May-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-6	12-Aug-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-6	16-Nov-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-7	06-Mar-09	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-7	10-Sep-09	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-7	15-Jan-10	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-7	14-Oct-10	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-7	21-Jan-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-7	12-May-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-7	12-Aug-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-7	16-Nov-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0

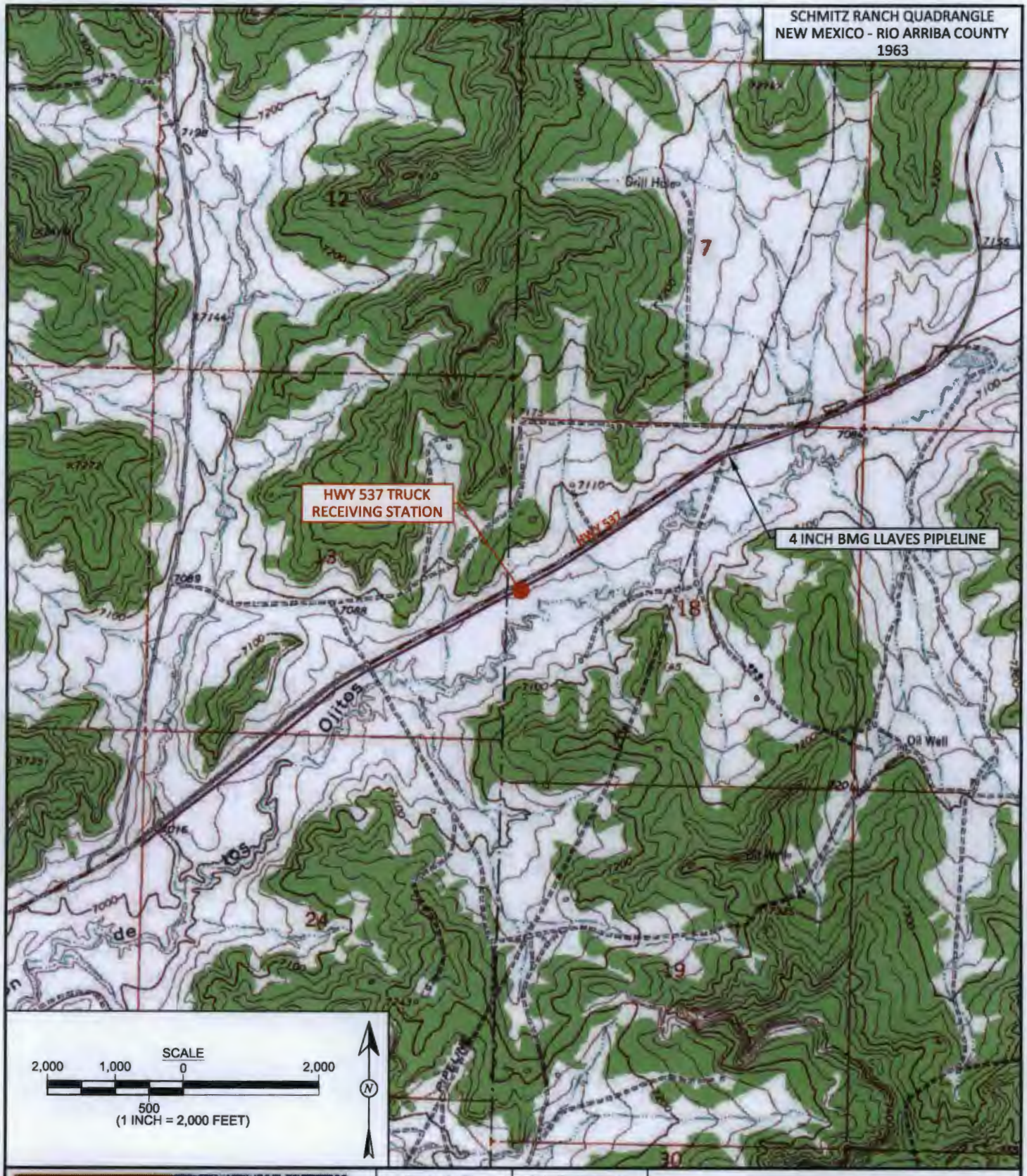
TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
BMG HWY 537 TRUCK RECEIVING STATION 2009 RELEASE
Rio Arriba County, New Mexico

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)
Analytical Method		**8021B**	**8021B**	**8021B**	**8021B**	**8015B**	**8015B**	**8015B**
New Mexico WQCC		***10***	***750***	***750***	***620***	***NE***	***NE***	***NE***
MW-8	06-Mar-09	**160**	170	12	350	2.1	1.5	<5.0
MW-8	11-Sep-09	**1,200**	<20	36	75	4.1	1.1	<5.0
MW-8	15-Jan-10	**56**	<1.0	2.3	2.2	0.24	<1.0	<5.0
MW-8	15-Oct-10	**50**	<1.0	1.7	<2.0	0.21	<1.0	<5.0
MW-8	21-Jan-11	**370**	<1.0	4.6	<2.0	0.58	<1.0	<5.0
MW-8	12-May-11	**430**	<1.0	25	<2.0	1.4	<1.0	<5.0
MW-8	12-Aug-11	2.3	<1.0	<1.0	<2.0	0.070	<1.0	<5.0
MW-8	16-Nov-11	1.5	<1.0	<1.0	<2.0	0.17	<1.0	<5.0
MW-8	21-Feb-12	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-8	24-May-12	<1.0	<1.0	<1.0	<2.0	0.12	<1.0	<5.0
MW-8	10-Sep-12	<1.0	<1.0	<1.0	<2.0	0.16	<1.0	<5.0
MW-8	04-Dec-12	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-9	06-Mar-09	**170**	350	49	530	2.5	<1.0	<5.0
MW-9	06-Apr-09	**82**	62	16	210	1.6	<1.0	<5.0
MW-9	10-Sep-09	**46**	<1.0	3.8	19	0.86	<1.0	<5.0
MW-9	15-Jan-10	**62**	<1.0	4.2	12	0.49	<1.0	<5.0
MW-9	15-Oct-10	**53**	<1.0	2.3	<2.0	0.22	<1.0	<5.0
MW-9	21-Jan-11	**390**	<1.0	5.1	<2.0	0.41	<1.0	<5.0
MW-9	12-May-11	**390**	<1.0	11	<2.0	0.92	<1.0	<5.0
MW-9	12-Aug-11	**120**	<1.0	5.6	<2.0	0.35	<1.0	<5.0
MW-9	16-Nov-11	**200**	<5.0	9.6	<10	0.57	<1.0	<5.0
MW-9	21-Feb-12	**120**	<1.0	4.2	<2.0	0.30	<1.0	<5.0
MW-9	24-May-12	3.8	<1.0	1.4	<2.0	0.076	<1.0	<5.0
MW-9	10-Sep-12	<1.0	<1.0	<1.0	<2.0	0.072	<1.0	<5.0
MW-9	04-Dec-12	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-10	09-Mar-09	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-10	10-Sep-09	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-10	15-Jan-10	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-10	14-Oct-10	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-10	21-Jan-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-10	12-May-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-10	12-Aug-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-10	16-Nov-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
BMG HWY 537 TRUCK RECEIVING STATION 2009 RELEASE
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)
Analytical Method		**8021B**	**8021B**	**8021B**	**8021B**	**8015B**	**8015B**	**8015B**
New Mexico WQCC		***10***	***750***	***750***	***620***	***NE***	***NE***	***NE***
MW-11	09-Mar-09	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-11	10-Sep-09	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-11	15-Jan-10	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-11	14-Oct-10	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-11	21-Jan-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-11	12-May-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-11	12-Aug-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-11	16-Nov-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
Downgradient MW-7*	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



Animas Environmental Services, LLC	**DRAWN BY:** C. Lameman	**DATE DRAWN:** January 10, 2013	**FIGURE 1**
	REVISIONS BY: C. Lameman	**DATE REVISED:** January 10, 2013	**TOPOGRAPHIC SITE LOCATION MAP** BENSON-MONTIN-GREER LLAVES PIPELINE HWY. 537 TRUCK RECEIVING STATION 2009 RELEASE SW ¼ NW ¼ SECTION 18, T25N, R3W RIO ARRIBA COUNTY, NEW MEXICO N36.39866, W107.19328
	CHECKED BY: H. Woods	**DATE CHECKED:** January 10, 2013	
	APPROVED BY: E. McNally	**DATE APPROVED:** January 10, 2013	

FIGURE 2

GENERAL SITE PLAN
BENSON-MONTIN-GREER
LLAVES PIPELINE HWY. 537
TRUCK RECEIVING STATION 2009 RELEASE
SW¼ NW¼ SECTION 18, T25N, R3W
RIO ARRIBA COUNTY, NEW MEXICO
N36.39866, W107.19328

AES
Animas Environmental Services, LLC

DRAWN BY:	DATE DRAWN:
C. Lameman	January 10, 2013
REVISIONS BY:	**DATE REVISED:**
C. Lameman	January 10, 2013
CHECKED BY:	**DATE CHECKED:**
H. Woods	January 10, 2013
APPROVED BY:	**DATE APPROVED:**
E. McNally	January 10, 2013

LEGEND

MONITORING WELL INSTALLED FEBRUARY 2009

AERIAL SOURCE: © 2012 MICROSOFT CORPORATION - AVAILABLE EXCLUSIVELY BY DIGITALGLOBE

STATE HWY. 537
CATTLE GUARD
PIPELINE INLET
9
10
4" DIA. BURIED PIPE
GATE
SOIL BERM
5" DIA. ABOVE GRADE PIPE
4" BURIED PIPE
LAVES PIPELINE
SOIL BERM
MW-5
8
7
6
4
5
3
2
1
METER SKID/PUMPS
MW-2
CATTLE GUARD
MW-11
MW-1
LOCATION OF ⅛" CORROSION HOLE, DISCOVERED ON 01/30/09
PUMPS
GATE
4" DIA. BURIED PIPE
MW-4
MW-10
TRUCK LOADING STATION
MW-3
FENCE
MW-8
MW-7
MW-9
POND
MW-6

N

SCALE
40 20 0 40
10
(1 INCH = 40 FEET)

FIGURE 3

GROUNDWATER ELEVATION CONTOURS, DECEMBER 2012
BENSON-MONTIN-GREER
LLAVES PIPELINE HWY. 537
TRUCK RECEIVING STATION 2009 RELEASE
SW¼ NW¼ SECTION 18, T25N, R3W
RIO ARRIBA COUNTY, NEW MEXICO
N36.39866, W107.19328

Animas Environmental Services, LLC

DRAWN BY:	DATE DRAWN:
C. Lameman	January 10, 2013
REVISIONS BY:	**DATE REVISED:**
C. Lameman	January 10, 2013
CHECKED BY:	**DATE CHECKED:**
H. Woods	January 10, 2013
APPROVED BY:	**DATE APPROVED:**
E. McNally	January 10, 2013

LEGEND

- MONITOR WELL LOCATIONS (INSTALLED FEBRUARY 2009)
- FENCE
- PONDS, WET LANDS, & FLOOD PLANES
- 7034.33 GROUNDWATER ELEVATION IN FEET (A.M.S.L.)
- —7034.0— GROUNDWATER ELEVATION CONTOUR IN FEET (A.M.S.L.)

NOTE: ALL GROUNDWATER ELEVATION MEASUREMENTS WERE MADE ON DECEMBER 4, 2012.

SCALE
40 20 0 40
10
(1 INCH = 40 FEET)

STATE HWY. 537
CATTLE GUARD
GATE
SOIL BERM
METER SKID/PUMPS
PUMPS
GROUNDWATER GRADIENT BETWEEN MW-2 AND MW-8 IS 0.008 FT/FT
MW-5 7034.27
MW-2 7034.62
MW-1 7034.33
MW-11 7033.52
MW-4 7033.95
MW-10 7034.55
MW-3 7034.36
MW-8 7033.40
MW-7 7033.94
MW-9 7032.70
MW-6 7034.06
POND
FENCE
7034.6
7034.4
7034.2
7034.0
7033.8
7033.6
7033.4
7033.2
7033.0
7032.8

FIGURE 4

GROUNDWATER CONTAMINANT CONCENTRATIONS, DECEMBER 2012
BENSON-MONTIN-GREER
LLAVES PIPELINE HWY. 537
TRUCK RECEIVING STATION 2009 RELEASE
SW¼ NW¼ SECTION 18, T25N, R3W
RIO ARRIBA COUNTY, NEW MEXICO
N36.39866, W107.19328

Animas Environmental Services, LLC

DRAWN BY:	DATE DRAWN:
C. Lameman	January 10, 2013
REVISIONS BY:	**DATE REVISED:**
C. Lameman	January 10, 2013
CHECKED BY:	**DATE CHECKED:**
H. Woods	January 10, 2013
APPROVED BY:	**DATE APPROVED:**
E. McNally	January 10, 2013

LEGEND

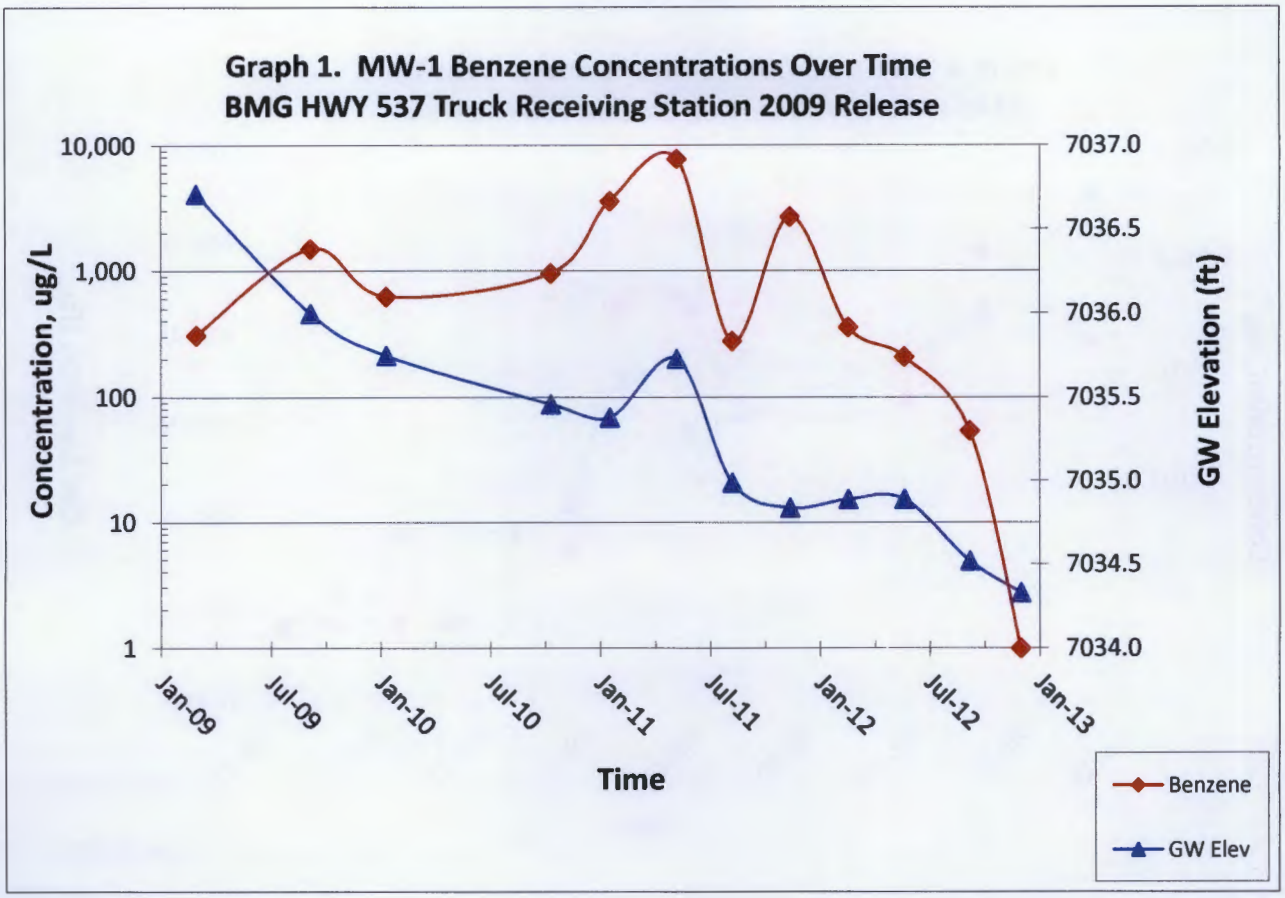
- MONITOR WELL LOCATIONS (INSTALLED FEBRUARY 2009)
- FENCE
- PONDS, WET LANDS, & FLOOD PLANES
- B = BENZENE
- T = TOLUENE
- E = ETHYLBENZENE
- X = XYLENES
- GRO = GASOLINE RANGED ORGANICS
- DRO = DIESEL RANGED ORGANICS
- MRO = MOTOR OIL RANGED ORGANICS
- µg/L = MICROGRAMS PER LITER (PPB)
- < = ANALYTE NOT DETECTED ABOVE LISTED METHOD LIMIT

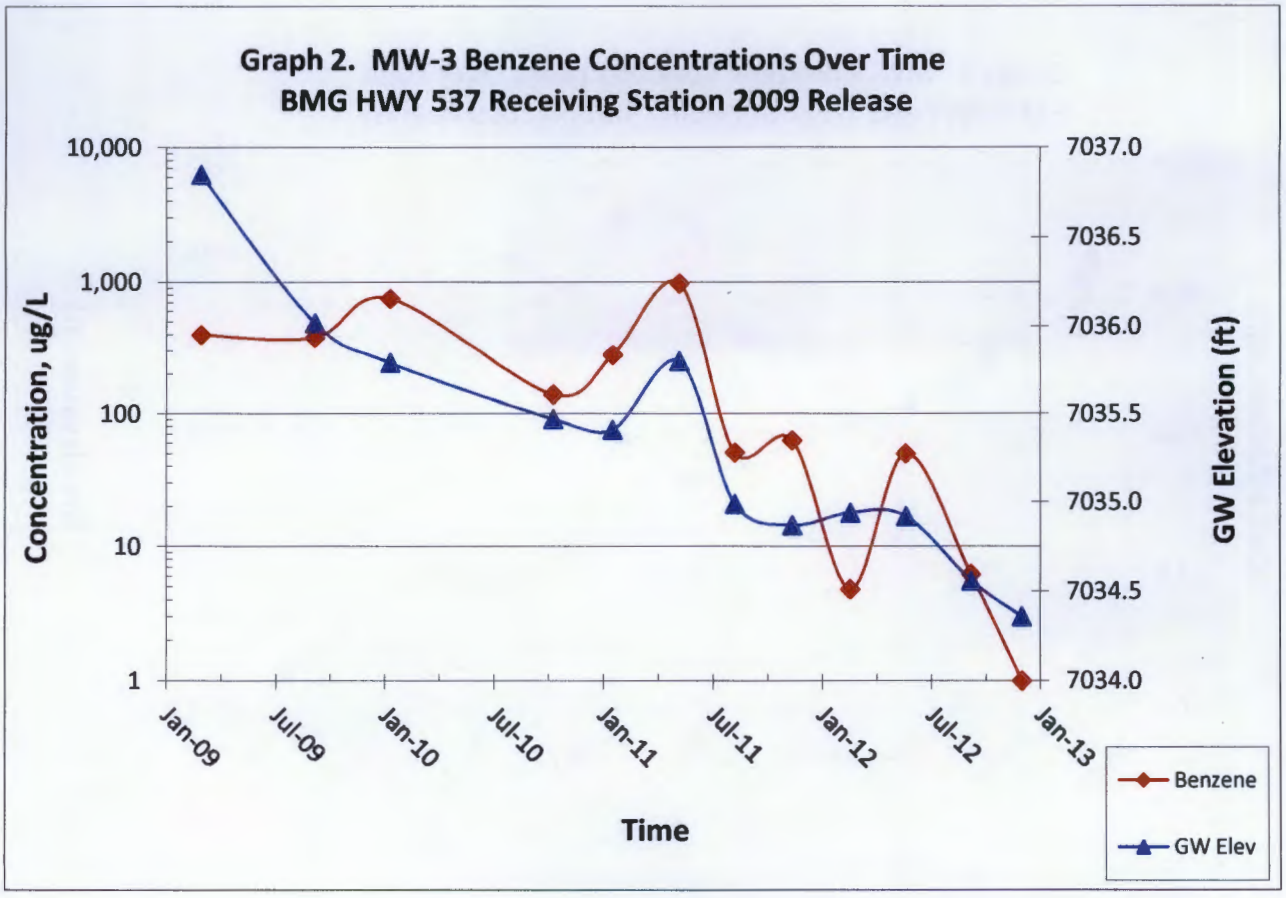
NOTE: ALL SAMPLES COLLECTED ON DECEMBER 4, 2012, AND ANALYZED PER EPA METHOD 8021B AND 8015B.

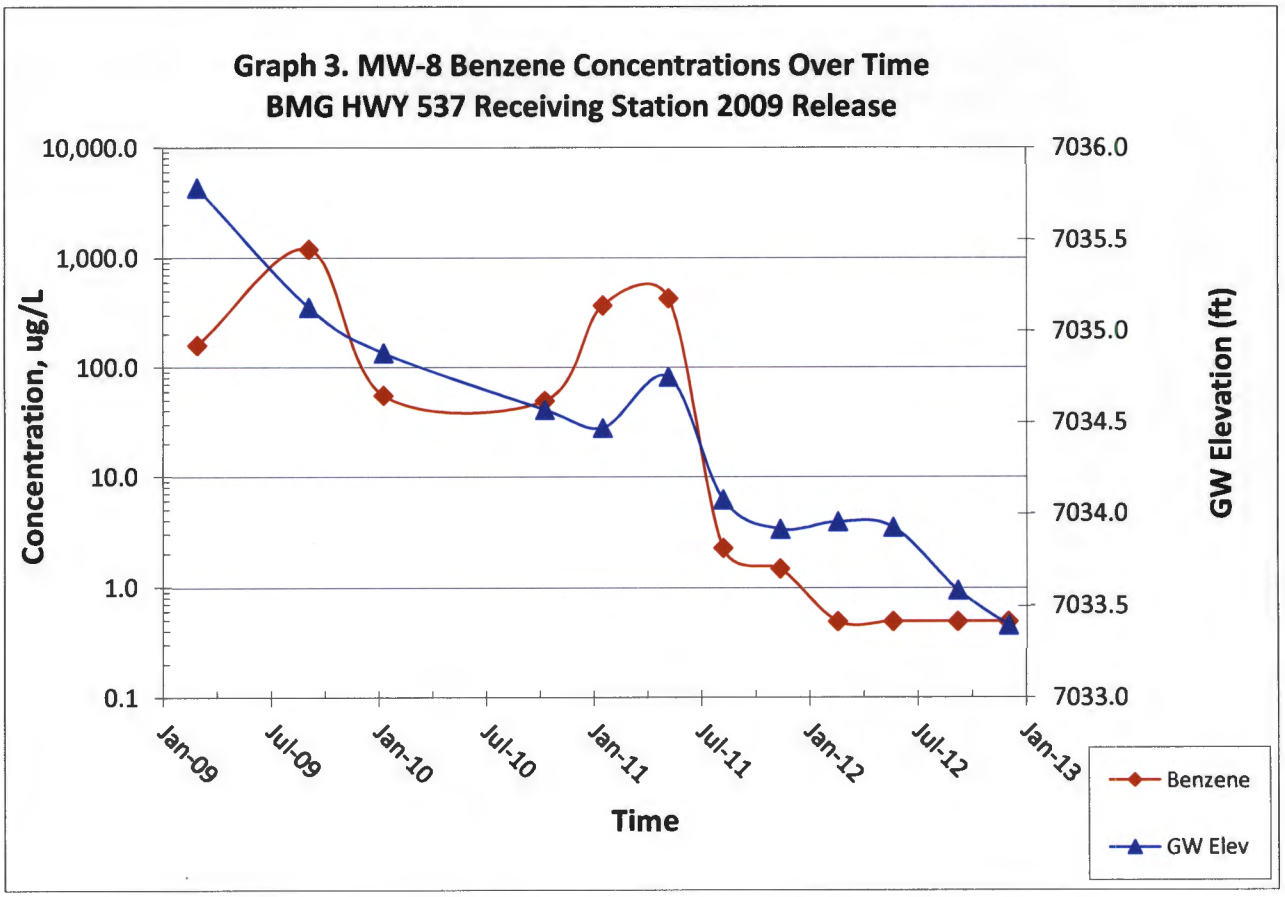
STATE HWY. 537
CATTLE GUARD
GATE
SOIL BERM
9
10
BERM
NOT SAMPLED
MW-5
8
7
6
5
4
3
2
1
METER SKID/PUMPS
MW-2
NOT SAMPLED
MW-1
PUMPS
B = <2.0 µg/L
T = <2.0 µg/L
E = 17 µg/L
X = <4.0 µg/L
GRO = 0.19 µg/L
DRO = <1.0 µg/L
MRO = <5.0 µg/L
CATTLE GUARD
NOT SAMPLED
MW-11
GATE
FENCE
MW-4
NOT SAMPLED
MW-10
NOT SAMPLED
MW-3
B = <2.0 µg/L
T = <2.0 µg/L
E = <2.0 µg/L
X = <4.0 µg/L
GRO = 0.26 µg/L
DRO = <1.0 µg/L
MRO = <5.0 µg/L
B = <1.0 µg/L
T = <1.0 µg/L
E = <1.0 µg/L
X = <2.0 µg/L
GRO = <0.050 µg/L
DRO = <1.0 µg/L
MRO = <5.0 µg/L
MW-8
MW-7
NOT SAMPLED
MW-9
B = <1.0 µg/L
T = <1.0 µg/L
E = <1.0 µg/L
X = <2.0 µg/L
GRO = <0.050 µg/L
DRO = <1.0 µg/L
MRO = <5.0 µg/L
POND
MW-6
NOT SAMPLED

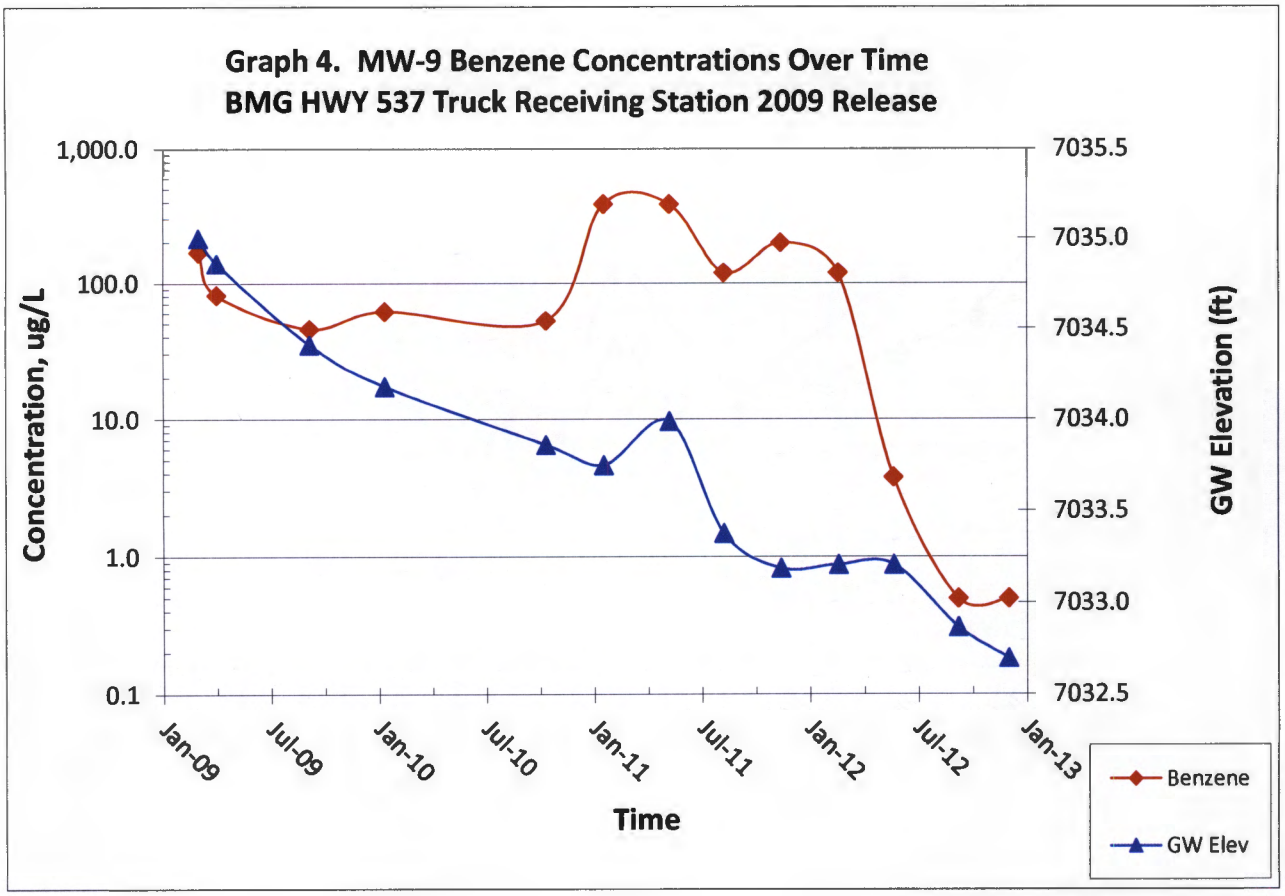
N

SCALE
40 20 0 40
10
(1 INCH = 40 FEET)


Graph 1. MW-1 Benzene Concentrations Over Time
BMG HWY 537 Truck Receiving Station 2009 Release
Concentration, ug/L
10,000
1,000
100
10
1
GW Elevation (ft)
7037.0
7036.5
7036.0
7035.5
7035.0
7034.5
7034.0
Jan-09
Jul-09
Jan-10
Jul-10
Jan-11
Jul-11
Jan-12
Jul-12
Jan-13
Time
Benzene
GW Elev


Graph 2. MW-3 Benzene Concentrations Over Time
BMG HWY 537 Receiving Station 2009 Release
Concentration, ug/L
10,000
1,000
100
10
1
GW Elevation (ft)
7037.0
7036.5
7036.0
7035.5
7035.0
7034.5
7034.0
Jan-09
Jul-09
Jan-10
Jul-10
Jan-11
Jul-11
Jan-12
Jul-12
Jan-13
Time
Benzene
GW Elev


Graph 3. MW-8 Benzene Concentrations Over Time
BMG HWY 537 Receiving Station 2009 Release
10,000.0
1,000.0
100.0
10.0
1.0
0.1
Concentration, ug/L
7036.0
7035.5
7035.0
7034.5
7034.0
7033.5
7033.0
GW Elevation (ft)
Jan-09
Jul-09
Jan-10
Jul-10
Jan-11
Jul-11
Jan-12
Jul-12
Jan-13
Time
Benzene
GW Elev


Graph 4. MW-9 Benzene Concentrations Over Time
BMG HWY 537 Truck Receiving Station 2009 Release
1,000.0
100.0
10.0
1.0
0.1
Concentration, ug/L
7035.5
7035.0
7034.5
7034.0
7033.5
7033.0
7032.5
GW Elevation (ft)
Jan-09
Jul-09
Jan-10
Jul-10
Jan-11
Jul-11
Jan-12
Jul-12
Jan-13
Time
Benzene
GW Elev

DEPTH TO GROUNDWATER MEASUREMENT FORM

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

Project: Groundwater Monitoring
Site: Hwy 537 Truck Station Spill 2009
Location: Rio Arriba County, New Mexico
Tech: L. LamonE

Project No.: AES 090201
Date: 12-4-2012
Time: 1042
Form: 1 of 1

Well I.D.	Time	Depth to NAPL (ft.)	Depth to Water (ft.)	NAPL Thickness (ft.)	Notes / Observations
MW-1	1108		30.33		
MW-2	1110		30.03		
MW-3	1051		29.65		
MW-4	1103		29.77		
MW-5	1105		30.52		
MW-6	1122		15.48		[illegible]
MW-7	1053		28.86		
MW-8	1056		29.87		
MW-9	1114		29.90		
MW-10	1048		28.72		
MW-11	1100		30.58		

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

MONITORING WELL SAMPLING RECORD

Monitor Well No: MW-1

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

Site: Highway 537 Truck Station Spill 2009
Location: Rio Arriba County, New Mexico
Project: Groundwater Monitoring and Sampling
Sampling Technician: L. Lamone
Purge / No Purge: Purge
Well Diameter (in): 2
Initial D.T.W. (ft): 30.33 **Time:** 1108 *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): 30.33 **Time:** 1150 *(taken prior to purging well)*
Final D.T.W. (ft): 30.41 **Time:** 1225 *(taken after sample collection)*
If NAPL Present: D.T.P.:_____ D.T.W.:_____ Thickness:_____ Time:_____

Project No.: AES 090201
Date: 12-4-2012
Arrival Time: 1144
Air Temp:
T.O.C. Elev. (ft): 7064.66
Total Well Depth (ft): 43.65

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
1157	12.81	4.623	1.82	7.64	-174.5	1st Bailer	Clear H2O
1201	12.98	3.796	1.65	7.12	-82.0	1.0 gal	gray H2O slight sheen
1205	12.55	4.676	1.42	7.33	-29.7	2.0 gal	gray H2O sheen
1208	12.66	4.179	5.50	7.29	-11.7	3.0 gal.	gray H2O sheen.
1211	12.66	4.598	1.23	7.24	1.4	4.0 gal	gray H2O sheen
1221	12.68	4.477	2.11	7.16	-9.5	5.0 gal	S S S H2O
1226	12.65	4.430	1.30	7.11	-7.1	6.50 gal	

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

BTEX per EPA Method 8021 (3 40mL Vials w/ HCl preserve)
TPH C6-C36 per EPA Method 8015B (2 40mL Vials w/ HCl preserve)
TPH C6-C36 per EPA Method 8015B (40mL Vial w/ no preservative)

Disposal of Purged Water: On ground
Collected Samples Stored on Ice in Cooler: Yes
Chain of Custody Record Complete: Yes
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments:

13.32 column
2.17 volume
6.50 purged

revised: 08/10/09

If it is necessary to calculate the volume of the monitoring well to determine what volume of groundwater will need to be purged from the well prior to collecting the samples, use the following equation:

Well Volume = (h)(cf)

where:

h = height of water column (feet)
cf = gallons/foot based on well diameter shown below

The gallons/foot for common size monitoring wells are as follows:

Well Diameter (inches)	2"	3"	4"	6"
Volume (gallons/foot)	0.1632	0.3672	0.6528	1.4688

The well volume is typically tripled to determine the volume to be purged.

Show purge volume calculation below:

h = Total Well Depth - Depth To Water = 43.65 - 30.33 =

Well Volume = (h)(cf) = (30.33)(0.1632) = 2.17382

Total Purge Volume = 3(Well Volume) = 6.50

MONITORING WELL SAMPLING RECORD

Monitor Well No: MW-3

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

Site: Highway 537 Truck Station Spill 2009 **Project No.:** AES 090201
Location: Rio Arriba County, New Mexico **Date:** 12-4-2012
Project: Groundwater Monitoring and Sampling **Arrival Time:** 49° F
Sampling Technician: L. Lamone **Air Temp:** 1237
Purge / No Purge: Purge **T.O.C. Elev. (ft):** 7064.01
Well Diameter (in): 2 **Total Well Depth (ft):** 41.1
Initial D.T.W. (ft): 29.65 **Time:** 1051 *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): 29.63 **Time:** 1238 *(taken prior to purging well)*
Final D.T.W. (ft): 30.92 **Time:** 1306 *(taken after sample collection)*
If NAPL Present: **D.T.P.:** _____ **D.T.W.:** _____ **Thickness:** _____ **Time:** _____

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
1247	12.34	4.305	1.53	7.40	-71.7	1st Bailer	gray Sheen
1251	12.24	4.311	0.60	7.26	-82.3	1.0 gal	black H2O sheen
1255	12.12	4.299	0.56	7.27	-73.3	2.0 gal	black H2O Sheen
1258	12.12	4.299	0.98	7.26	-60.6	3.0 gal	black H2O Sheen
1303	12.29	4.305	0.66	7.26	-51.2	4.0 gal	black H2O Sheen
1307	12.08	4.294	0.69	7.26	-46.8	5.65 gal	black H2O Sheen

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

BTEX per EPA Method 8021 (3 40mL Vials w/ HCl preserve)
TPH C6-C36 per EPA Method 8015B (2 40mL Vials w/ HCl preserve)
TPH C6-C36 per EPA Method 8015B (40mL Vial w/ 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 or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments:

11.47 column
1.87 volumn
5.65 Purged

revised: 08/10/09

If it is necessary to calculate the volume of the monitoring well to determine what volume of groundwater will need to be purged from the well prior to collecting the samples, use the following equation:

Well Volume = (h)(cf)

where:

h = height of water column (feet)
cf = gallons/foot based on well diameter shown below

The gallons/foot for common size monitoring wells are as follows:

Well Diameter (inches)	2"	3"	4"	6"
Volume (gallons/foot)	0.1632	0.3672	0.6528	1.4688

The well volume is typically tripled to determine the volume to be purged.

Show purge volume calculation below:

h = Total Well Depth - Depth To Water = 41.10 - _____ =

Well Volume = (h)(cf) = (_____)(_____) =

Total Purge Volume = 3(Well Volume) = _____

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 Truck Station Spill 2009 **Project No.:** AES 090201
Location: Rio Arriba County, New Mexico **Date:** 12-4-2012
Project: Groundwater Monitoring and Sampling **Arrival Time:** 1320
Sampling Technician: Lamone, L **Air Temp:** 47° F
Purge / No Purge: Purge **T.O.C. Elev. (ft):** 7063.27
Well Diameter (in): 2 **Total Well Depth (ft):** 44.1
Initial D.T.W. (ft): 29.87 **Time:** 1056 *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): 29.85 **Time:** 1321 *(taken prior to purging well)*
Final D.T.W. (ft): 30.26 **Time:** 1352 *(taken after sample collection)*
If NAPL Present: **D.T.P.:** _____ **D.T.W.:** _____ **Thickness:** _____ **Time:** _____

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
1329	12.07	4.567	0.96	7.10	-13.8	1st bailer	Clear H2o
1332	12.48	4.541	0.95	7.12	-47.9	1.0 gal	Tan H2o Slight Sheen
1335	12.65	3.661	1.35	7.18	-51.9	2.0 gal	Tan H2o Sheen
1340	12.31	4.038	5.46	7.20	-17.5	3.0 gal	Tan H2o Sheen
1343	12.26	4.524	1.15	7.13	-30.8	4.0 gal	Tan H2o Sheen
1347	12.24	4.577	1.15	7.13	-7.5	5.0 gal.	Tan H2o Sheen
1350	12.52	4.530	0.80	7.10	-16.4	6.0 gal.	Tan H2o Sheen
1354	12.53	3.045	3.78	7.13	-3.1	7.0 gal.	Tan H2o Sheen

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

BTEX per EPA Method 8021 (3 40mL Vials w/ HCl preserve)
TPH C6-C36 per EPA Method 8015B (2 40mL Vials w/ HCl preserve)
TPH C6-C36 per EPA Method 8015B (40mL Vial w/ 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 or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments:

14.25 column
2.33 volume
7.00 purged

revised: 08/10/09

If it is necessary to calculate the volume of the monitoring well to determine what volume of groundwater will need to be purged from the well prior to collecting the samples, use the following equation:

Well Volume = (h)(cf)

where:

h = height of water column (feet)
cf = gallons/foot based on well diameter shown below

The gallons/foot for common size monitoring wells are as follows:

Well Diameter (inches)	2"	3"	4"	6"
Volume (gallons/foot)	0.1632	0.3672	0.6528	1.4688

The well volume is typically tripled to determine the volume to be purged.

Show purge volume calculation below:

h = Total Well Depth - Depth To Water = 44.10 - _____ =

Well Volume = (h)(cf) = (_____)(_____) =

Total Purge Volume = 3(Well Volume) = _____

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 Truck Station Spill 2009 **Project No.:** AES 090201
Location: Rio Arriba County, New Mexico **Date:** 12-4-2012
Project: Groundwater Monitoring and Sampling **Arrival Time:** 1410
Sampling Technician: L. Lamone **Air Temp:** 50°
Purge / No Purge: Purge **T.O.C. Elev. (ft):** 7062.6
Well Diameter (in): 2 **Total Well Depth (ft):** 39.15
Initial D.T.W. (ft): 30.58 **Time:** 1114 *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): 29.90 **Time:** 1411 *(taken prior to purging well)*
Final D.T.W. (ft): 30.15 **Time:** 1433 *(taken after sample collection)*
If NAPL Present: **D.T.P.:**_____ **D.T.W.:**_____ **Thickness:**_____ **Time:**_____

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
1419	12.65	4.438	1.01	7.13	-41.9	1st Bailer	Clear
1423	12.94	4.452	1.28	7.20	-43.9	1.0 gal	Tan Slight Sheen
1426	12.86	4.468	1.18	7.19	-56.7	2.0 gal	Tan Slight Sheen
1430	12.80	4.458	1.34	7.19	-62.0	3.0 gal.	" " "
1434	12.87	4.374	1.34	7.19	-60.5	4.5 gal.	Tan Sheen H2O
							[redacted]

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

BTEX per EPA Method 8021 (3 40mL Vials w/ HCl preserve)
TPH C6-C36 per EPA Method 8015B (2 40mL Vials w/ HCl preserve)
TPH C6-C36 per EPA Method 8015B (40mL Vial w/ 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 or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailer

Notes/Comments:

9.25 column
1.50 volumn
4.50 purged

revised: 08/10/09

If it is necessary to calculate the volume of the monitoring well to determine what volume of groundwater will need to be purged from the well prior to collecting the samples, use the following equation:

Well Volume = (h)(cf)

where:

h = height of water column (feet)
cf = gallons/foot based on well diameter shown below

The gallons/foot for common size monitoring wells are as follows:

Well Diameter (inches)	2"	3"	4"	6"
Volume (gallons/foot)	0.1632	0.3672	0.6528	1.4688

The well volume is typically tripled to determine the volume to be purged.

Show purge volume calculation below:

h = Total Well Depth - Depth To Water = 39.15 - _____ =

Well Volume = (h)(cf) = (_____)(_____) =

Total Purge Volume = 3(Well Volume) = _____

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

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

December 11, 2012

Debbie Watson

Animas Environmental Services
624 East Comanche
Farmington, NM 87401
TEL: (505) 486-4071
FAX (505) 324-2022

RE: BMG Hwy 537 2009 Release OrderNo.: 1212316

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 5 sample(s) on 12/6/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1212316**
Date Reported: **12/11/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: MW-1
Project: BMG Hwy 537 2009 Release
Collection Date: 12/4/2012 12:26:00 PM
Lab ID: 1212316-001 **Matrix:** AQUEOUS **Received Date:** 12/6/2012 9:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **MMD**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	12/7/2012 6:08:03 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	12/7/2012 6:08:03 PM
Surr: DNOP	102	79.5-166		%REC	1	12/7/2012 6:08:03 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	0.19	0.10		mg/L	2	12/7/2012 6:20:17 PM
Surr: BFB	101	51.9-148		%REC	2	12/7/2012 6:20:17 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	2.0		µg/L	2	12/7/2012 6:20:17 PM
Toluene	ND	2.0		µg/L	2	12/7/2012 6:20:17 PM
Ethylbenzene	17	2.0		µg/L	2	12/7/2012 6:20:17 PM
Xylenes, Total	ND	4.0		µg/L	2	12/7/2012 6:20:17 PM
Surr: 4-Bromofluorobenzene	96.0	69.7-152		%REC	2	12/7/2012 6:20:17 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: MW-3
Project: BMG Hwy 537 2009 Release
Collection Date: 12/4/2012 1:07:00 PM
Lab ID: 1212316-002
Matrix: AQUEOUS
Received Date: 12/6/2012 9:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **MMD**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	12/7/2012 6:29:41 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	12/7/2012 6:29:41 PM
Surr: DNOP	106	79.5-166		%REC	1	12/7/2012 6:29:41 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	0.26	0.10		mg/L	2	12/7/2012 6:50:26 PM
Surr: BFB	109	51.9-148		%REC	2	12/7/2012 6:50:26 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	2.0		µg/L	2	12/7/2012 6:50:26 PM
Toluene	ND	2.0		µg/L	2	12/7/2012 6:50:26 PM
Ethylbenzene	ND	2.0		µg/L	2	12/7/2012 6:50:26 PM
Xylenes, Total	ND	4.0		µg/L	2	12/7/2012 6:50:26 PM
Surr: 4-Bromofluorobenzene	96.6	69.7-152		%REC	2	12/7/2012 6:50:26 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: MW-8
Project: BMG Hwy 537 2009 Release
Collection Date: 12/4/2012 1:54:00 PM
Lab ID: 1212316-003
Matrix: AQUEOUS
Received Date: 12/6/2012 9:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **MMD**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	12/7/2012 6:51:18 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	12/7/2012 6:51:18 PM
Surr: DNOP	110	79.5-166		%REC	1	12/7/2012 6:51:18 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	12/7/2012 7:22:51 PM
Surr: BFB	102	51.9-148		%REC	1	12/7/2012 7:22:51 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	1.0		µg/L	1	12/7/2012 7:22:51 PM
Toluene	ND	1.0		µg/L	1	12/7/2012 7:22:51 PM
Ethylbenzene	ND	1.0		µg/L	1	12/7/2012 7:22:51 PM
Xylenes, Total	ND	2.0		µg/L	1	12/7/2012 7:22:51 PM
Surr: 4-Bromofluorobenzene	94.6	69.7-152		%REC	1	12/7/2012 7:22:51 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: MW-9
Project: BMG Hwy 537 2009 Release
Collection Date: 12/4/2012 2:34:00 PM
Lab ID: 1212316-004 **Matrix:** AQUEOUS **Received Date:** 12/6/2012 9:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **MMD**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	12/7/2012 7:12:53 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	12/7/2012 7:12:53 PM
Surr: DNOP	106	79.5-166		%REC	1	12/7/2012 7:12:53 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	12/7/2012 10:57:32 PM
Surr: BFB	100	51.9-148		%REC	1	12/7/2012 10:57:32 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	1.0		µg/L	1	12/7/2012 10:57:32 PM
Toluene	ND	1.0		µg/L	1	12/7/2012 10:57:32 PM
Ethylbenzene	ND	1.0		µg/L	1	12/7/2012 10:57:32 PM
Xylenes, Total	ND	2.0		µg/L	1	12/7/2012 10:57:32 PM
Surr: 4-Bromofluorobenzene	95.2	69.7-152		%REC	1	12/7/2012 10:57:32 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: Trip Blank
Project: BMG Hwy 537 2009 Release
Collection Date:
Lab ID: 1212316-005
Matrix: TRIP BLANK
Received Date: 12/6/2012 9:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	1.0		µg/L	1	12/7/2012 11:27:45 PM
Toluene	ND	1.0		µg/L	1	12/7/2012 11:27:45 PM
Ethylbenzene	ND	1.0		µg/L	1	12/7/2012 11:27:45 PM
Xylenes, Total	ND	2.0		µg/L	1	12/7/2012 11:27:45 PM
Surr: 4-Bromofluorobenzene	93.5	69.7-152		%REC	1	12/7/2012 11:27:45 PM

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212316**

11-Dec-12

Client: Animas Environmental Services

Project: BMG Hwy 537 2009 Release

Sample ID **MB-5160**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **5160**	RunNo: **7361**
Prep Date: **12/7/2012**	Analysis Date: **12/7/2012**	SeqNo: **213899** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.0		1.000		103	79.5	166			

Sample ID **LCS-5160**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **5160**	RunNo: **7361**
Prep Date: **12/7/2012**	Analysis Date: **12/7/2012**	SeqNo: **213900** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.6	1.0	5.000	0	112	64.4	132			
Surr: DNOP	0.48		0.5000		96.6	79.5	166			

Sample ID **LCSD-5160**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **5160**	RunNo: **7361**
Prep Date: **12/7/2012**	Analysis Date: **12/7/2012**	SeqNo: **213901** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.5	1.0	5.000	0	109	64.4	132	2.75	20	
Surr: DNOP	0.49		0.5000		97.9	79.5	166	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212316**

11-Dec-12

Client: Animas Environmental Services

Project: BMG Hwy 537 2009 Release

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R7391**	RunNo: **7391**
Prep Date:	Analysis Date: **12/7/2012**	SeqNo: **214089** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	19		20.00		95.6	51.9	148			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R7391**	RunNo: **7391**
Prep Date:	Analysis Date: **12/7/2012**	SeqNo: **214090** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.57	0.050	0.5000	0	115	75.9	119			
Surr: BFB	20		20.00		98.9	51.9	148			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212316**

11-Dec-12

Client: Animas Environmental Services

Project: BMG Hwy 537 2009 Release

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **R7391**	RunNo: **7391**
Prep Date:	Analysis Date: **12/7/2012**	SeqNo: **214172** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	20		20.00		97.7	69.7	152			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **R7391**	RunNo: **7391**
Prep Date:	Analysis Date: **12/7/2012**	SeqNo: **214173** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	101	80	120			
Toluene	21	1.0	20.00	0	103	80	120			
Ethylbenzene	21	1.0	20.00	0	105	80	120			
Xylenes, Total	64	2.0	60.00	0	107	80	120			
Surr: 4-Bromofluorobenzene	20		20.00		103	69.7	152			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Animas Environmental — Work Order Number: 1212316

Received by/date: AG 12/06/12

Logged By: Lindsay Mangin 12/6/2012 9:55:00 AM

Completed By: Lindsay Mangin 12/6/2012 1:49:36 PM

Reviewed By: IO 12/06/2012

Chain of Custody

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

Log In

4. Coolers are present? (see 19. for cooler specific information)	Yes ☑	No ☐	NA ☐
5. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
7. Sample(s) in proper container(s)?	Yes ☑	No ☐	
8. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
12. Were any sample containers received broken?	Yes ☐	No ☑	
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15. Is it clear what analyses were requested?	Yes ☑	No ☐	
16. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

18. Additional remarks:

19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.5	Good	Yes			

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Client: Animas Environmental Services	X Standard ☐ Rush
Mailing Address: 624 E Comanche, Farmington NM 87401	Project Name: BMG Hwy 537 2009 Release
Phone #: 505-564-2281	Project #: AES 090201
email or Fax#: 505-324-2022	Project Manager: Deborah Watson
QA/QC Package: X Standard ☐ Level 4 (Full Validation)	Sampler: L. Lamone
Accreditation: ☐ NELAP ☐ Other	On Ice: Yes
☐ EDD (Type)	Sample Temperature:

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type		BTEX 8021	TPH 8015 (C6 - C36) (GRO, DRO, MRO)	Air Bubbles (Y or N)
12-4-2012	1226	H_2O	MW-1	Glass 4 - 40 mL	3 - HCl 1 - Non	-001	X	X	
12-4-2012	1307	H_2O	MW-3	Glass 4 - 40 mL	3 - HCl 1 - Non	-002	X	X	
12-4-2012	1354	H_2O	MW-8	Glass 4 - 40 mL	3 - HCl 1 - Non	-003	X	X	
12-4-2012	1434	H_2O	MW-9	Glass 4 - 40 mL	3 - HCl 1 - Non	-004	X	X	
		H_2O	Trip Blank	Glass 2 - 40 mL	HCl	-005	X		

Date	Time	Relinquished by:	Received by:	Date	Time
12/5/12	1108			12/5/12	1108
12/5/12	1710			12/06/12	0955

Remarks:

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