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08 / 28 / 2013

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August 28, 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 for the 1st Quarter 2013 in March 2013 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. BMG personnel arrived on-site 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 (10 feet by 20 feet by 15 feet in depth) around the buried 6-inch line. 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.

The release was the result of a corrosion hole along the bottom of the pipe near the truck loading pumps. Because it was determined that the leak had impacted soils to at least 15 feet bgs, and due to the presence of tanks, buried pipe, buried conduit, and fixed pumps and meters within the release area, BMG and AES, in consultation with NMOCD, concluded that an assessment of the release area by installing soil borings and monitor wells would be the most appropriate assessment method.

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

2.0 Groundwater Monitoring and Sampling – March 2013

The first quarterly groundwater and sampling event of 2013 was conducted by AES personnel on March 26, 2013. 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 March 2013 sampling event, groundwater measurements were recorded for MW-1 through MW-11. Average groundwater elevations increased across the site by an average of 0.46 feet since the December 2012 sampling event. 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 14.79 feet below top of casing (TOC) in MW-6 to 30.23 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 11.93°C in MW-3 to 12.65°C in MW-8. Groundwater pH measurements ranged from 6.72 to 7.46, and DO concentrations were between 1.24 mg/L in MW-9 and 5.85 mg/L in MW-3. ORP measurements were between -15.8 mV in MW-9 and 59.3 mV in MW-3, and conductivity readings were between 2.337 mS/cm and 4.556 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, 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-3 (0.23 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 March 2013 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 March 26, 2013. Groundwater elevations were found to have increased in all wells by approximately 0.46 feet since December 2012. Groundwater gradient was calculated to be approximately 0.008 ft/ft in a southwestern direction, which is consistent with historic site data.

Groundwater samples were collected from four monitor wells, including 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 New Mexico Water Quality Control Commission (WQCC) standards for benzene, toluene, ethylbenzene, and xylene and below laboratory detection limits for TPH for eight consecutive sampling events and therefore were not sampled in March 2013.

The dissolved phase benzene concentration in MW-1 was reported below the WQCC standard of 10 µg/L for the second consecutive quarter and the third consecutive quarter in MW-3, seventh consecutive quarter in MW-8, and fourth consecutive quarter in MW-9. 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-3 with 0.23 mg/L. DRO and MRO concentrations were reported below the laboratory detection limits in all wells during the March 2013 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 second quarter 2013 groundwater sampling event was conducted in June 2013, and report preparation is in progress.

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

Sincerely,

Stephanie Lynn, EIT
Environmental Engineer

Elizabeth McNally, P.E.

Tables

Table 1. Summary of Groundwater Measurement and Water Quality Data
Table 2. Summary of Groundwater Analytical Results

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Figure 2. Aerial Map with General Site Plan
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Figure 4. Groundwater Contaminant Concentrations, March 2013

Graphs

Graph 1. MW-1 Groundwater Elevations and Benzene Concentrations, March 2013
Graph 2. MW-3 Groundwater Elevations and Benzene Concentrations, March 2013
Graph 3. MW-8 Groundwater Elevations and Benzene Concentrations, March 2013
Graph 4. MW-9 Groundwater Elevations and Benzene Concentrations, March 2013

Appendix

Water Sample Collection Forms, March 2013
Hall Analytical Report 1303A39

cc: Mike Dimond
Benson-Montin-Greer Drilling Corp.
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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-1	26-Mar-13	29.87	7064.66	7034.79	12.20	4.556	1.66	6.72	-5.9
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-2	26-Mar-13	29.60	7064.65	7035.05	NM	NM	NM	NM	NM

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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-3	05-Mar-09	27.16	7064.01	7036.85	12.29	4.310	2.17	6.66	-28.2
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-3	26-Mar-13	29.12	7064.01	7034.89	11.93	2.337	5.85	7.46	59.3
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

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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-4	04-Dec-12	29.77	7063.72	7033.95	NM	NM	NM	NM	NM
MW-4	26-Mar-13	29.33	7063.72	7034.39	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
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-5	26-Mar-13	30.14	7064.79	7034.65	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

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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-6	26-Mar-13	14.79	7049.54	7034.75	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
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-7	26-Mar-13	28.33	7062.80	7034.47	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

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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-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-8	26-Mar-13	29.47	7063.27	7033.80	12.65	4.449	4.10	6.95	22.0
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
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-9	26-Mar-13	29.56	7062.60	7033.04	12.57	4.396	1.24	6.72	-15.8
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

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-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-10	26-Mar-13	28.20	7063.27	7035.07	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
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
MW-11	26-Mar-13	30.23	7064.10	7033.87	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

Average GW Elev.:
7034.43

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-1	26-Mar-13	1.2	<1.0	1.8	<2.0	<0.050	<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-3	26-Mar-13	2.5	<1.0	<1.0	<2.0	0.23	<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	05-Mar-09	2.7	1.4	<1.0	<2.0	<0.050	<1.0	<5.0
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

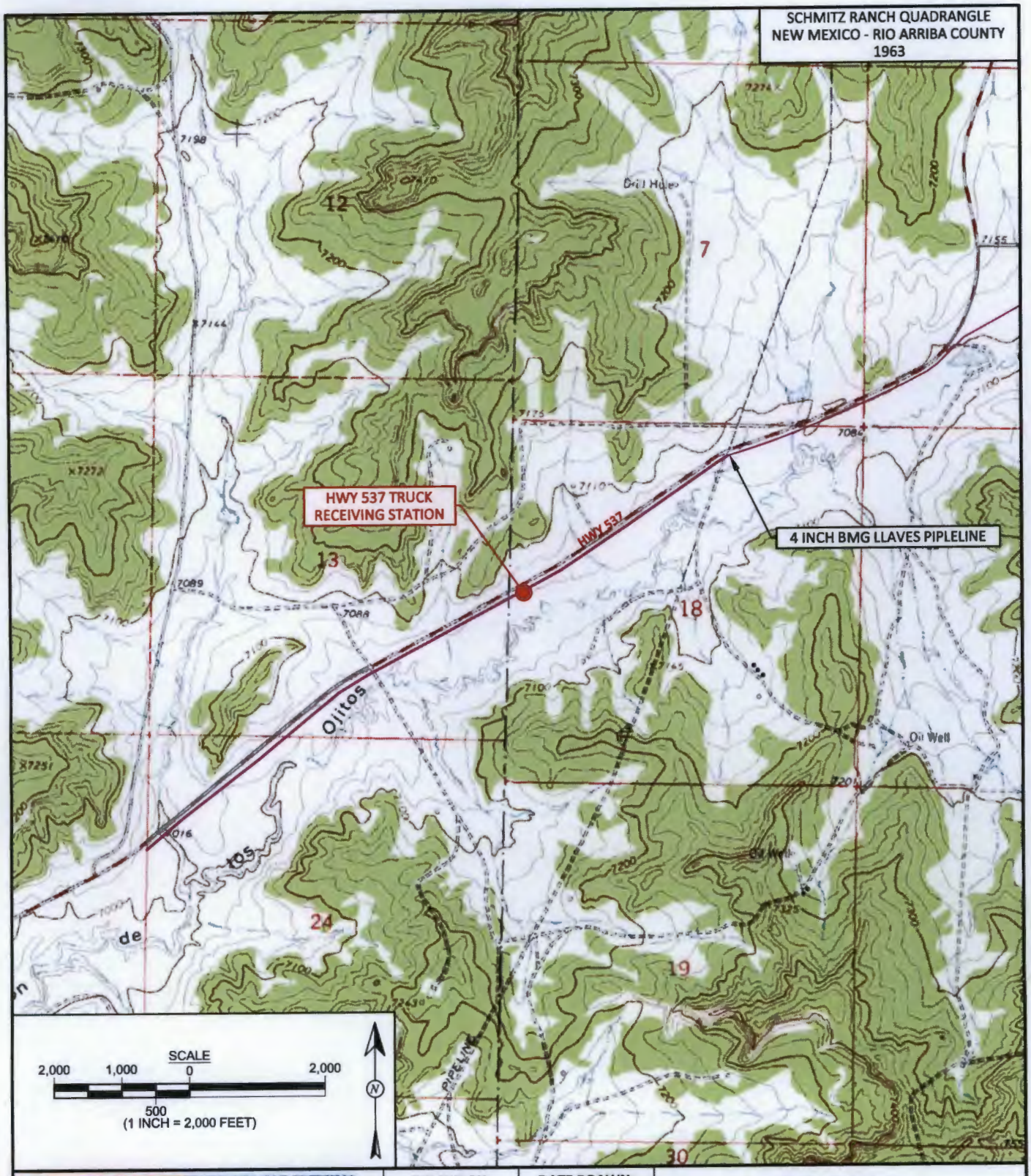
TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
BMG HWY 537 TRUCK RECEIVING STATION 2009 RELEASE
Rio Arriba County, New Mexico

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-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
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-8	26-Mar-13	<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-9	26-Mar-13	<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

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-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
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



DRAWN BY: C. Lameman	**DATE DRAWN:** January 10, 2013	**FIGURE 1**
REVISIONS BY: C. Lameman	**DATE REVISED:** April 8, 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: D. Watson	**DATE CHECKED:** April 8, 2013	
APPROVED BY: E. McNally	**DATE APPROVED:** April 8, 2013	

AES
Animas Environmental Services, LLC

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

Animas Environmental Services, LLC

DRAWN BY:	DATE DRAWN:
C. Lameman	January 10, 2013
REVISIONS BY:	**DATE REVISED:**
C. Lameman	April 8, 2013
CHECKED BY:	**DATE CHECKED:**
D. Watson	April 8, 2013
APPROVED BY:	**DATE APPROVED:**
E. McNally	April 8, 2013

LEGEND

MONITORING WELL INSTALLED FEBRUARY 2009

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

N

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

FIGURE 3

GROUNDWATER ELEVATION CONTOURS, MARCH 2013
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	April 8, 2013
CHECKED BY:	**DATE CHECKED:**
D. Watson	April 8, 2013
APPROVED BY:	**DATE APPROVED:**
E. McNally	April 8, 2013

LEGEND

- MONITOR WELL LOCATIONS (INSTALLED FEBRUARY 2009)
- FENCE
- PONDS, WET LANDS, & FLOOD PLANES
- 7034.79 GROUNDWATER ELEVATION IN FEET (A.M.S.L.)
- —7034.5— GROUNDWATER ELEVATION CONTOUR IN FEET (A.M.S.L.)

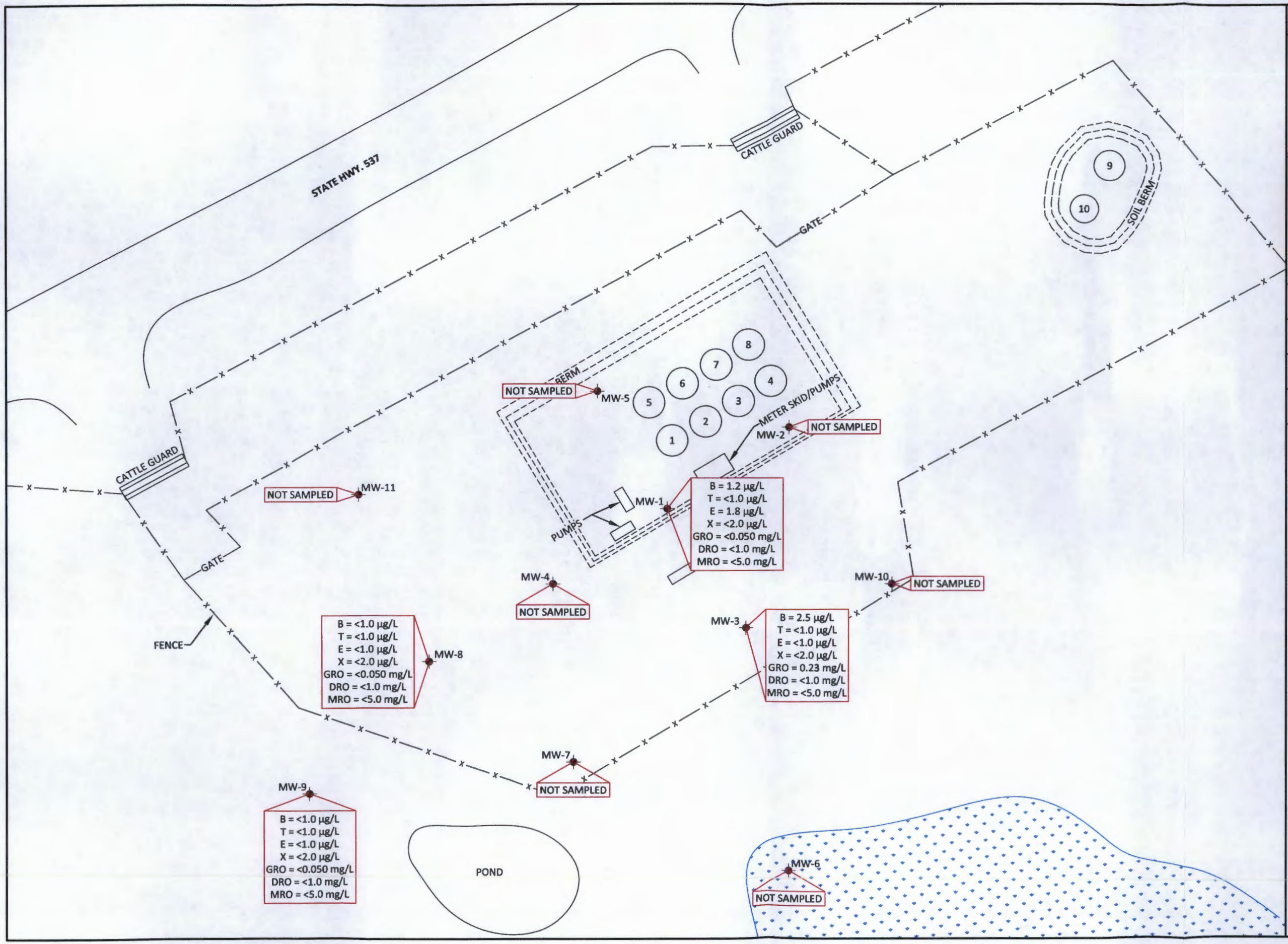
NOTE: ALL GROUNDWATER ELEVATION MEASUREMENTS WERE MADE ON MARCH 26, 2013.

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-1 7034.79
MW-2 7035.05
MW-3 7034.89
MW-4 7034.39
MW-5 7034.65
MW-6 7034.75
MW-7 7034.47
MW-8 7033.80
MW-9 7033.04
MW-10 7035.07
MW-11 7033.87
7035.0
7034.5
7034.0
7033.5
POND
FENCE

FIGURE 4

GROUNDWATER CONTAMINANT CONCENTRATIONS, MARCH 2013
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	April 8, 2013
CHECKED BY:	**DATE CHECKED:**
D. Watson	April 8, 2013
APPROVED BY:	**DATE APPROVED:**
E. McNally	April 8, 2013

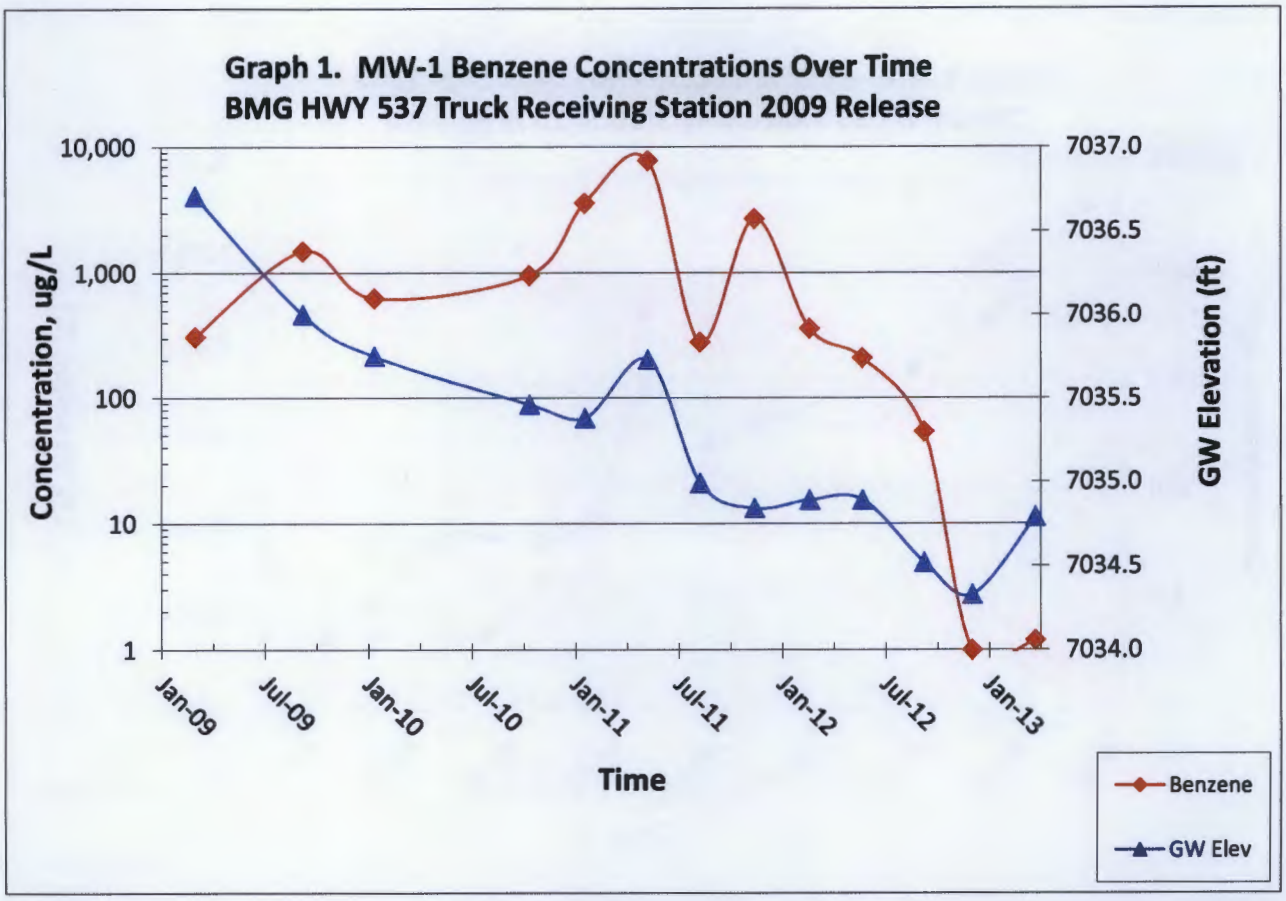
LEGEND

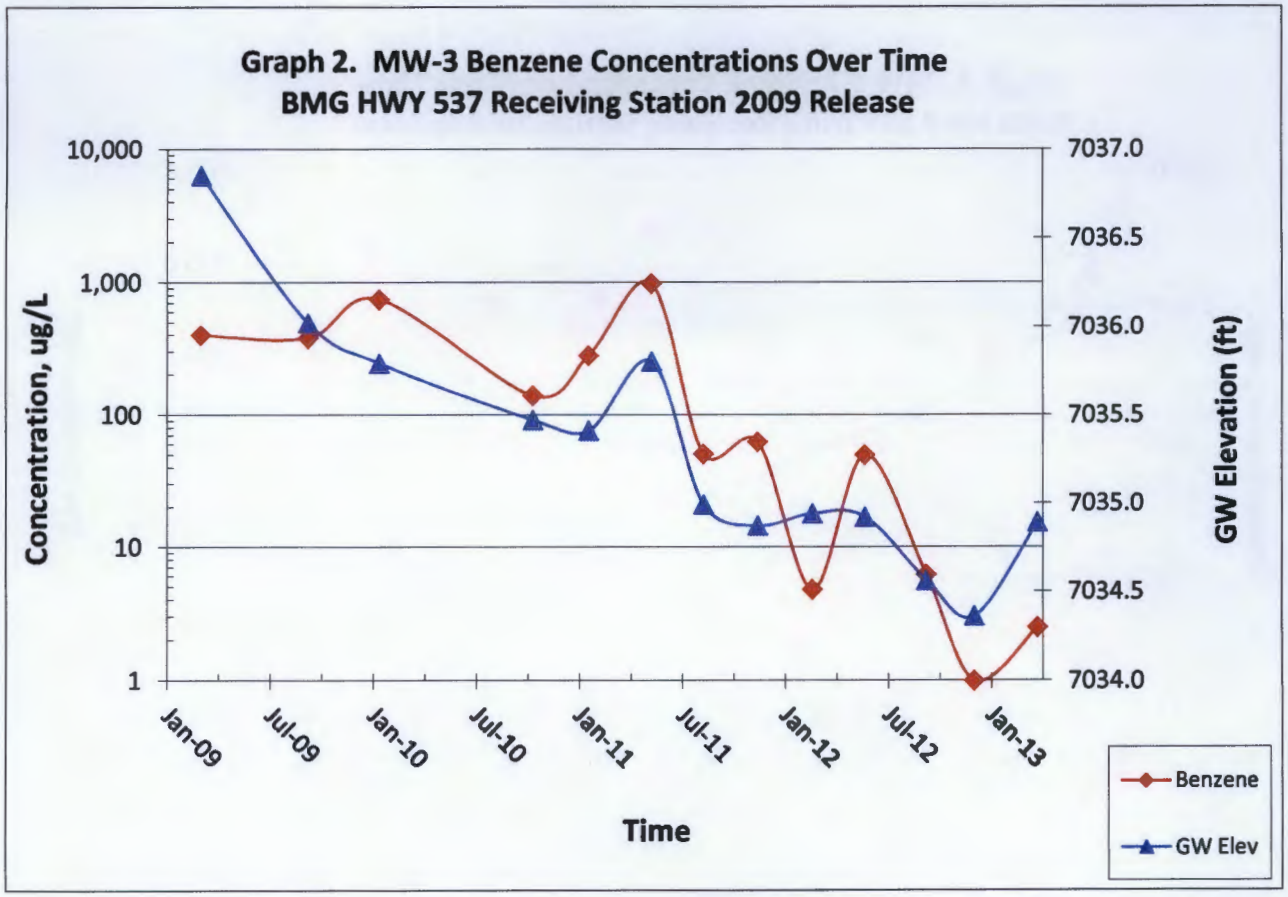
	MONITOR WELL LOCATIONS (INSTALLED FEBRUARY 2009)
x	FENCE
	PONDS, WET LANDS, & FLOOD PLANES
B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	XYLENES
GRO	GASOLINE RANGED ORGANICS
DRO	DIESEL RANGED ORGANICS
MRO	MOTOR OIL RANGED ORGANICS
µg/L	MICROGRAMS PER LITER (PPB)
<	ANALYTE NOT DETECTED ABOVE LISTED METHOD LIMIT

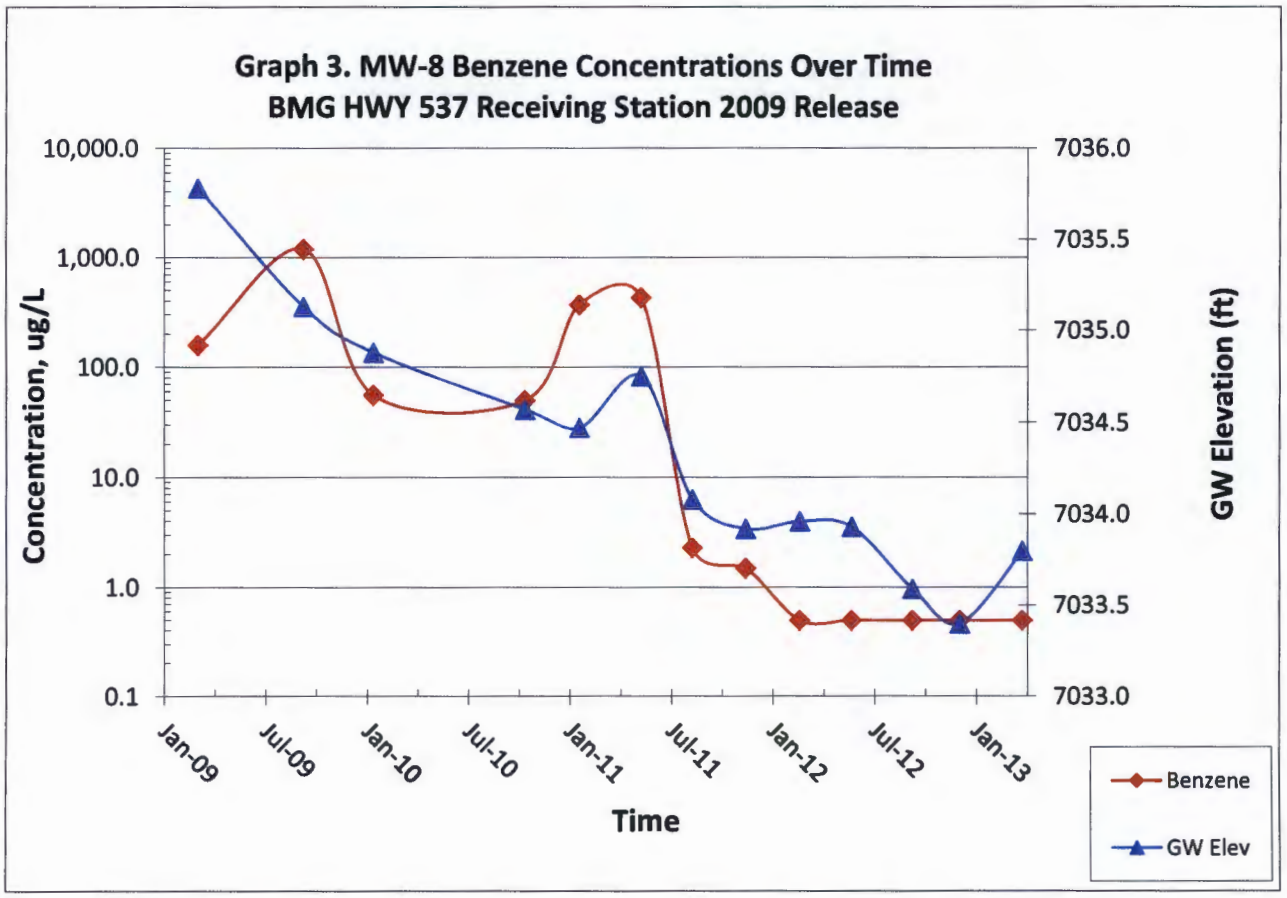
NOTE: ALL SAMPLES COLLECTED ON MARCH 26, 2013, AND ANALYZED PER EPA METHOD 8021B AND 8015B.

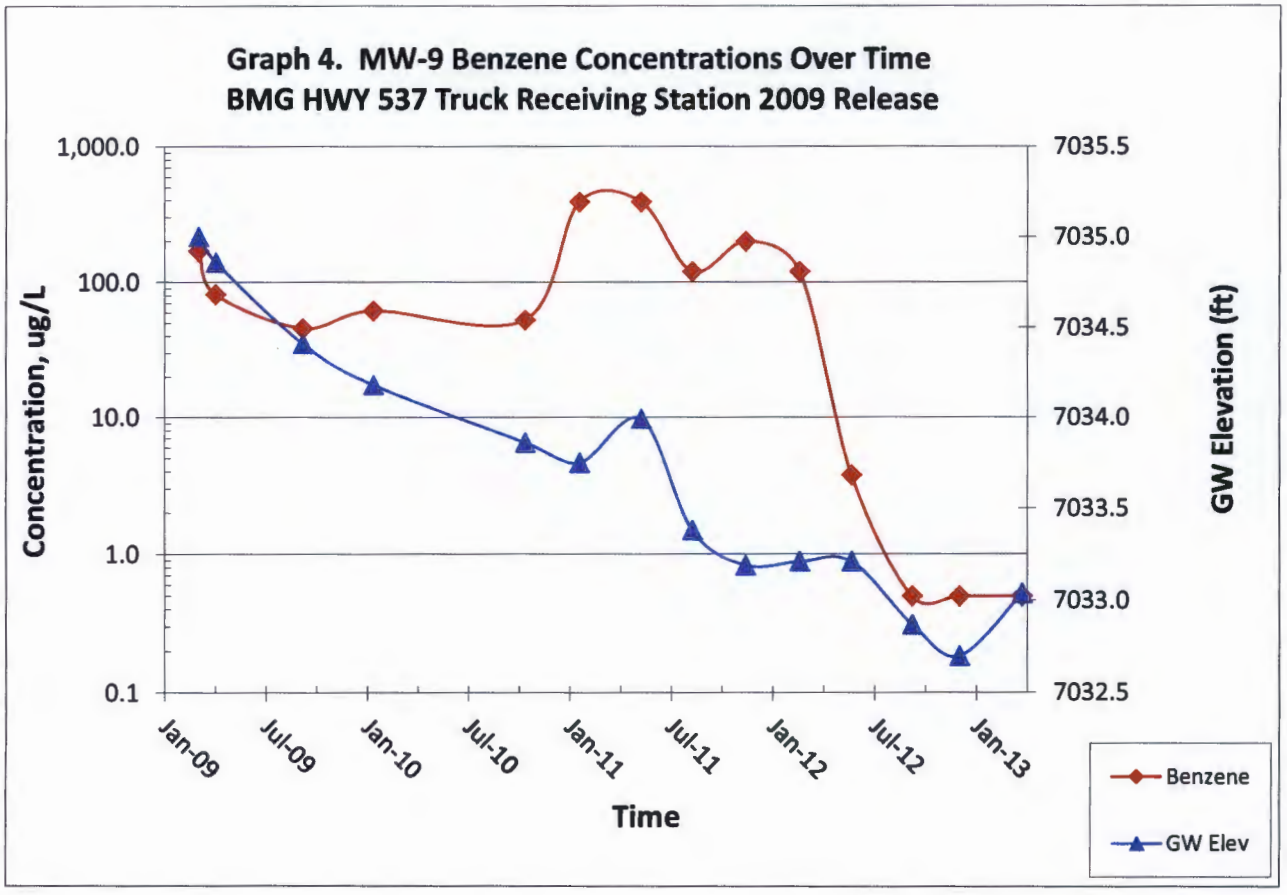
N

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: 3/26/2013
Time: 1140
Form: 1 of 1

Well I.D.	Time	Depth to NAPL (ft.)	Depth to Water (ft.)	NAPL Thickness (ft.)	Notes / Observations
MW-1	1219		29.87		2" well 42" Above ground
MW-2	1220		29.60		2" well 43" Above ground
MW-3	1151		29.12		2" well 40" Above ground.
MW-4	1158		29.33		2" well 40" Above ground
MW-5	1216		30.14		2" well 40" Above ground
MW-6	12.11		14.79		2" well 42" Above ground
MW-7	1155		28.33		2" well 39" Above ground
MW-8	1201		29.47		2" well 41" Above ground
MW-9	1207		29.56		2" well 40" Above ground
MW-10	1147		28.20		2" well 3' Above ground
MW-11	1203		30.23		2" well 37" Above ground

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 **Project No.:** AES 090201
Location: Rio Arriba County, New Mexico **Date:** 3/26/2013
Project: Groundwater Monitoring and Sampling **Arrival Time:** 1427 (1453 sample)
Sampling Technician: L.L. **Air Temp:** 52° F @ windy
Purge / No Purge: Purge **T.O.C. Elev. (ft):** 7064.66
Well Diameter (in): 2 **Total Well Depth (ft):** 43.65
Initial D.T.W. (ft): 29.87 **Time:** 1219 *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): 29.88 **Time:** 1429 *(taken prior to purging well)*
Final D.T.W. (ft): 29.98 **Time:** 1451 *(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
1435	12.95	4.130	4.52	6.36	-44.0	1st Bailer	clear H2O
1439	12.69	4.080	2.36	6.47	-51.2	1.0 gal.	Tan H2O
1444	12.41	4.441	1.56	6.72	-34.2	3.0 gal.	Tan tint Slight Sheen
1449	12.29	4.571	1.75	6.76	-9.9	5.0 gal	Tan H2O
1453	12.20	4.556	1.64	6.72	-5.9	6.75 gal	Tan tint 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: on to 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:
13.77 column
2.25 volume
6.75 gal. purged

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
Location: Rio Arriba County, New Mexico
Project: Groundwater Monitoring and Sampling
Sampling Technician: L. Lamone

Project No.: AES 090201
Date: 3/26/2013
Arrival Time: 1340 (1411 Sample)
Air Temp: Windy 42° F
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): 29.12 **Time:** 1151 *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): 29.12 **Time:** 1342 *(taken prior to purging well)*
Final D.T.W. (ft): 29.84 **Time:** 1407 *(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
1349	12.65	4.149	3.20	7.21	40.1	1st Bailer	Clear
1354	12.33	4.149	2.16	7.29	64.4	1.0 gal.	gray H2O slight sheen
1359	12.20	4.076	6.40	7.49	71.4	3.0 gal	Black H2O sheen
1404	12.16	4.118	2.70	7.00	40.6	5.0 gals	Black H2O sheen
1411	11.93	2.337	5.85	7.46	59.3	6.0 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: onto 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:
11.98 Column
1.96 volume
6.0 gal. purged

revised: 08/10/09

MONITORING WELL SAMPLING RECORD

Monitor Well No: MW-8

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:** 3/26/2013

Project: Groundwater Monitoring and Sampling **Arrival Time:** 1245 (1323 Sample)

Sampling Technician: L. Lamone **Air Temp:** Cool Windy 37°F

Purge / No Purge: Purge **T.O.C. Elev. (ft):** ~~7062.80~~ 7063.27

Well Diameter (in): 2 **Total Well Depth (ft):** ~~30.00~~ 44.1

Initial D.T.W. (ft): 29.~~62~~47 **Time:** ~~1202~~ 1201 *(taken at initial gauging of all wells)*

Confirm D.T.W. (ft): 29.46 **Time:** 1246 *(taken prior to purging well)*

Final D.T.W. (ft): 29.51 **Time:** 1330 *(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
1255	13.48	4.443	2.29	6.70	32.0	1st Bailer	Clear H2O
1302	13.44	4.429	1.73	6.73	7.2	1.0 gal.	Brown H2O
1309	13.47	4.459	2.28	6.80	25.9	3.0 gal	Brown H2O
1315	13.23	4.471	1.61	6.72	36.91	5.0 gal	Brown H2O
1323	12.65	4.449	4.10	6.95	22.0	7.0 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 to 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:

9.[illegible] Column 14.64 column

1.[illegible] Volume 2.39 Volume

4.[illegible] gal. Purged 7.0 gal. purged

revised: 08/10/09

MONITORING WELL SAMPLING RECORD

Monitor Well No: MW #9

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: Brandon
Purge / No Purge: Purge
Well Diameter (in): 2

Project No.: AES 090201
Date: 3/26/2013
Arrival Time: 1515 (1543 Sample)
Air Temp: 56°F Windy
T.O.C. Elev. (ft): 7062.6
Total Well Depth (ft): 39.15

Initial D.T.W. (ft): 29.56 **Time:** 1207 *(taken at initial gauging of all wells)*
Confirm D.T.W. (ft): 29.55 **Time:** 1520 *(taken prior to purging well)*
Final D.T.W. (ft): 29.70 **Time:** 1541 *(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
1525	12.96	4.199	2.52	6.97	-19.0	1st Bailer	lt tan H2O
1528	12.79	4.322	528	6.95	-15.0	1.0 gal	lt tan H2O
1531	12.64	4.370	2.64	7.16	-33.8	2.0 gal	lt tan H2O
1533	12.61	4.285	1.88	7.13	-32.4	3.0 gal	lt tan H2O
1538	12.51	4.397	1.70	6.79	-16.3	4.0 gal	lt tan H2O
1543	12.57	4.396	1.24	6.72	-15.8	4.75 gal	lt tan H2O

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:

9.60 column
1.57 volume
4.75 gal. purged

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

April 03, 2013

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.: 1303A39

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 5 sample(s) on 3/27/2013 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 **1303A39**
Date Reported: **4/3/2013**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Project: BMG Hwy 537 2009 Release
Lab ID: 1303A39-001 **Matrix:** AQUEOUS

Client Sample ID: MW-1
Collection Date: 3/26/2013 2:53:00 PM
Received Date: 3/27/2013 9:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **GSA**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	4/1/2013 4:23:00 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/1/2013 4:23:00 PM
Surr: DNOP	119	75.4-146		%REC	1	4/1/2013 4:23:00 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/27/2013 11:03:27 PM
Surr: BFB	80.3	51.9-148		%REC	1	3/27/2013 11:03:27 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	1.2	1.0		µg/L	1	3/27/2013 11:03:27 PM
Toluene	ND	1.0		µg/L	1	3/27/2013 11:03:27 PM
Ethylbenzene	1.8	1.0		µg/L	1	3/27/2013 11:03:27 PM
Xylenes, Total	ND	2.0		µg/L	1	3/27/2013 11:03:27 PM
Surr: 4-Bromofluorobenzene	83.8	69.4-129		%REC	1	3/27/2013 11:03:27 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: 3/26/2013 2:11:00 PM
Lab ID: 1303A39-002 **Matrix:** AQUEOUS **Received Date:** 3/27/2013 9:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **GSA**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	4/1/2013 4:50:48 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/1/2013 4:50:48 PM
Surr: DNOP	95.9	75.4-146		%REC	1	4/1/2013 4:50:48 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	0.23	0.050		mg/L	1	3/28/2013 12:29:18 AM
Surr: BFB	99.6	51.9-148		%REC	1	3/28/2013 12:29:18 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	2.5	1.0		µg/L	1	3/28/2013 12:29:18 AM
Toluene	ND	1.0		µg/L	1	3/28/2013 12:29:18 AM
Ethylbenzene	ND	1.0		µg/L	1	3/28/2013 12:29:18 AM
Xylenes, Total	ND	2.0		µg/L	1	3/28/2013 12:29:18 AM
Surr: 4-Bromofluorobenzene	82.7	69.4-129		%REC	1	3/28/2013 12:29:18 AM

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: 3/26/2013 1:23:00 PM
Lab ID: 1303A39-003 **Matrix:** AQUEOUS **Received Date:** 3/27/2013 9:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **GSA**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	4/1/2013 5:18:32 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/1/2013 5:18:32 PM
Surr: DNOP	125	75.4-146		%REC	1	4/1/2013 5:18:32 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/28/2013 12:57:56 AM
Surr: BFB	80.0	51.9-148		%REC	1	3/28/2013 12:57:56 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	1.0		µg/L	1	3/28/2013 12:57:56 AM
Toluene	ND	1.0		µg/L	1	3/28/2013 12:57:56 AM
Ethylbenzene	ND	1.0		µg/L	1	3/28/2013 12:57:56 AM
Xylenes, Total	ND	2.0		µg/L	1	3/28/2013 12:57:56 AM
Surr: 4-Bromofluorobenzene	80.6	69.4-129		%REC	1	3/28/2013 12:57:56 AM

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: 3/26/2013 3:43:00 PM
Lab ID: 1303A39-004 **Matrix:** AQUEOUS **Received Date:** 3/27/2013 9:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **GSA**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	4/1/2013 5:46:03 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/1/2013 5:46:03 PM
Surr: DNOP	114	75.4-146		%REC	1	4/1/2013 5:46:03 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/28/2013 1:26:31 AM
Surr: BFB	74.8	51.9-148		%REC	1	3/28/2013 1:26:31 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	1.0		µg/L	1	3/28/2013 1:26:31 AM
Toluene	ND	1.0		µg/L	1	3/28/2013 1:26:31 AM
Ethylbenzene	ND	1.0		µg/L	1	3/28/2013 1:26:31 AM
Xylenes, Total	ND	2.0		µg/L	1	3/28/2013 1:26:31 AM
Surr: 4-Bromofluorobenzene	79.4	69.4-129		%REC	1	3/28/2013 1:26:31 AM

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: 1303A39-005
Matrix: TRIP BLANK
Received Date: 3/27/2013 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	3/28/2013 4:18:31 PM
Toluene	ND	1.0		µg/L	1	3/28/2013 4:18:31 PM
Ethylbenzene	ND	1.0		µg/L	1	3/28/2013 4:18:31 PM
Xylenes, Total	ND	2.0		µg/L	1	3/28/2013 4:18:31 PM
Surr: 4-Bromofluorobenzene	79.8	69.4-129		%REC	1	3/28/2013 4:18:31 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#: **1303A39**

03-Apr-13

Client: Animas Environmental Services

Project: BMG Hwy 537 2009 Release

Sample ID **MB-6755**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **6755**	RunNo: **9559**
Prep Date: **4/1/2013**	Analysis Date: **4/1/2013**	SeqNo: **272748** 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	1.1		1.000		111	75.4	146			

Sample ID **LCS-6755**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **6755**	RunNo: **9559**
Prep Date: **4/1/2013**	Analysis Date: **4/1/2013**	SeqNo: **272749** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.7	1.0	5.000	0	115	64.4	132			
Surr: DNOP	0.57		0.5000		115	75.4	146			

Sample ID **LCSD-6755**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **6755**	RunNo: **9559**
Prep Date: **4/1/2013**	Analysis Date: **4/1/2013**	SeqNo: **272750** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.8	1.0	5.000	0	115	64.4	132	0.341	20	
Surr: DNOP	0.59		0.5000		117	75.4	146	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
- RL Reporting Detection Limit
- 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
- S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1303A39**

03-Apr-13

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: **R9474**	RunNo: **9474**
Prep Date:	Analysis Date: **3/27/2013**	SeqNo: **270509** 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	16		20.00		77.7	51.9	148			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R9474**	RunNo: **9474**
Prep Date:	Analysis Date: **3/27/2013**	SeqNo: **270510** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.53	0.050	0.5000	0	106	73.2	124			
Surr: BFB	17		20.00		84.5	51.9	148			

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R9484**	RunNo: **9484**
Prep Date:	Analysis Date: **3/28/2013**	SeqNo: **271158** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	15		20.00		74.3	51.9	148			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R9484**	RunNo: **9484**
Prep Date:	Analysis Date: **3/28/2013**	SeqNo: **271159** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	16		20.00		82.4	51.9	148			

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#: **1303A39**

03-Apr-13

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: **R9474**	RunNo: **9474**
Prep Date:	Analysis Date: **3/27/2013**	SeqNo: **270595** 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	17		20.00		85.6	69.4	129			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **R9474**	RunNo: **9474**
Prep Date:	Analysis Date: **3/27/2013**	SeqNo: **270596** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	100	80	120			
Toluene	21	1.0	20.00	0	104	80	120			
Ethylbenzene	21	1.0	20.00	0	105	80	120			
Xylenes, Total	63	2.0	60.00	0	105	80	120			
Surr: 4-Bromofluorobenzene	18		20.00		88.7	69.4	129			

Sample ID **1303A39-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **MW-1**	Batch ID: **R9474**	RunNo: **9474**
Prep Date:	Analysis Date: **3/27/2013**	SeqNo: **270607** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	1.179	101	80	120			
Toluene	20	1.0	20.00	0	101	80	120			
Ethylbenzene	23	1.0	20.00	1.796	104	80	120			
Xylenes, Total	61	2.0	60.00	0	102	80	120			
Surr: 4-Bromofluorobenzene	17		20.00		83.8	69.4	129			

Sample ID **1303A39-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **MW-1**	Batch ID: **R9474**	RunNo: **9474**
Prep Date:	Analysis Date: **3/28/2013**	SeqNo: **270608** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	1.179	98.1	80	120	2.48	20	
Toluene	20	1.0	20.00	0	97.6	80	120	3.19	20	
Ethylbenzene	22	1.0	20.00	1.796	101	80	120	2.51	20	
Xylenes, Total	60	2.0	60.00	0	99.4	80	120	2.34	20	
Surr: 4-Bromofluorobenzene	17		20.00		85.5	69.4	129	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
- RL Reporting Detection Limit
- 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
- S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1303A39**

03-Apr-13

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: **R9484**	RunNo: **9484**
Prep Date:	Analysis Date: **3/28/2013**	SeqNo: **271172** 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	16		20.00		80.5	69.4	129			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **R9484**	RunNo: **9484**
Prep Date:	Analysis Date: **3/28/2013**	SeqNo: **271173** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	103	80	120			
Toluene	20	1.0	20.00	0	102	80	120			
Ethylbenzene	21	1.0	20.00	0	104	80	120			
Xylenes, Total	62	2.0	60.00	0	104	80	120			
Surr: 4-Bromofluorobenzene	17		20.00		86.3	69.4	129			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- 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
- S Spike Recovery outside accepted recovery limits

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: **Animas Environmental** Work Order Number: **1303A39** RcptNo: **1**

Received by/date: AG 03/27/13

Logged By: **Michelle Garcia** 3/27/2013 9:55:00 AM

Completed By: **Michelle Garcia** 3/27/2013 10:19:55 AM

Reviewed By: LO 03/27/2013

Chain of Custody

1. Custody seals intact on sample bottles?	Yes	No	Not Present ✔
2. Is Chain of Custody complete?	Yes ✔	No	Not Present
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ✔	No	NA
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ✔	No	NA
6. Sample(s) in proper container(s)?	Yes ✔	No	
7. Sufficient sample volume for indicated test(s)?	Yes ✔	No	
8. Are samples (except VOA and ONG) properly preserved?	Yes ✔	No	
9. Was preservative added to bottles?	Yes	No ✔	NA
10. VOA vials have zero headspace?	Yes	No	No VOA Vials ✔
11. Were any sample containers received broken?	Yes	No ✔	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ✔	No	# of preserved bottles checked for pH: (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ✔	No	Adjusted?
14. Is it clear what analyses were requested?	Yes ✔	No	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ✔	No	Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes No NA ✔

Person Notified: Date:

By Whom: Via: eMail Phone Fax In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: Animas Environmental Services	☒ 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: ☒ Standard ☐ Level 4 (Full Validation)	Sampler: Lamone, L.
Accreditation: ☐ NELAP ☐ Other	On Ice: ☒ Yes ☐ No
☐ EDD (Type)	Sample Temperature: 4

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1303439	Analysis Request: BTEX 8021	TPH 8015 (C6 - C36) (GRO, DRO, MRO)	Air Bubbles (Y or N)
3/26/2013	1453	H_2O	MW-1	Glass 6 - 40 mL	5 - HCl 1 - Non	-001	X	X	
3/26/2013	1411	H_2O	MW-3	Glass 6 - 40 mL	5 - HCl 1 - Non	-002	X	X	
3/26/2013	1323	H_2O	MW-8	Glass 6 - 40 mL	5 - HCl 1 - Non	-003	X	X	
3/26/2013	1543	H_2O	MW-9	Glass 6 - 40 mL	5 - HCl 1 - Non	-004	X	X	
3/26/2013	1544	H_2O	Trip Blank	Glass 2 - 40 mL	HCl	-005	X		

Date:	Time:	Relinquished by:	Received by:	Date	Time
3/27/13	1605			3/27/13	605
Date:	Time:	Relinquished by:	Received by:	Date	Time
				03/27/13	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.