3R - 448

2008 GWMR

10/30/2008

Animas Environmental Services, LLC

624 E. Comanche. Farmington, NM 87401. TEL 505-564-2281. FAX 505-324-2022. www.animasenvironmental.com

October 30, 2008

Wayne Price Oil Conservation Division 1220 S. St. Francis Drive Santa Fe, NM 87505

Dixon Sandoval Jicarilla Apache Nation Environmental Protection Office P.O. Box 507 Dulce, NM 87528

Re: Periodic Progress Report for the Benson-Montin-Greer Highway 537 Truck Receiving Station Llaves Pipeline 2007 Oil Spill, Rio Arriba County, New Mexico

Dear Sirs:

Animas Environmental Services, LLC (AES), on behalf of Benson-Montin-Greer Drilling Corporation (BMG), conducted groundwater sampling of monitoring wells at the BMG Highway 537 Truck Receiving Station 2007 Spill Location on September 25, 2008. Work was conducted in accordance with a Sampling and Analysis Plan (SAP) submitted to the Jicarilla Apache Nation Environmental Protection Office (JEPO) and the U.S. Environmental Protection Agency (USEPA) on April 4, 2007.

The release originated in March 2007 on the Schmitz Ranch within the SW¼ NW¼ of Section 18, T25N, R3W (latitude and longitude recorded as N36° 23' 59.781" and W107° 11' 26.450"). Petroleum hydrocarbons flowed into the Los Ojitos Arroyo and then downstream to a livestock pond located on Jicarilla Apache Nation Land within the SE¼ SE¼ of Section 13, T25N, R4W (latitude and longitude recorded as N36° 23' 40.417" and W107° 11' 53.337"), Rio Arriba County, New Mexico. The locations of the release and flow route are shown on Figures 1 and 1a.

1.0 Site History

On March 7, 2007, Schmitz Ranch personnel observed oil leaking into the Los Ojitos Canyon Arroyo. BMG personnel discovered that a small corrosion hole in the Llaves Pipeline, which runs parallel to the south side of Highway 537, was the source of the leaking oil, and the pipeline was removed from service until the pipeline was repaired and clean up action was completed.



Approximately 25,230 cubic yards of petroleum-contaminated soils were excavated from the origin of the oil pipeline leak toward the Los Ojitos Arroyo and within the arroyo during March and April 2007. The soils were then transported off-site to a New Mexico Oil Conservation Division (NMOCD) permitted facility, the Schmitz Ranch Landfarm. Confirmation samples were collected by AES personnel for soil confirmation during excavation activities and surface water at Vigil Pond on April 3, 2007. Excavation and clean up efforts are discussed in detail within the SAP prepared by AES and dated April 5, 2007, which was submitted to the JEPO and USEPA.

On July 16 and 17, 2007, AES installed 11 monitoring wells along the route of the release in order to define the lateral and vertical extent of near surface and subsurface soil contamination. Analytical results from groundwater samples collected during the March 2008 sampling event show that benzene, toluene, ethylbenzene, and xylene (BTEX) and total petroleum hydrocarbons (TPH) C₆-C₃₆ concentrations in all wells sampled remained below laboratory detection limits. Note that two wells, MW-9 and MW-10, were not sampled during the March 2008 sampling event. Details of groundwater sampling were presented within the AES *Groundwater Monitoring Report*, dated April 23, 2008.

2.0 Groundwater Monitoring and Sampling

AES personnel conducted groundwater monitoring and sampling at the project area on September 25, 2008. Groundwater samples were laboratory analyzed for BTEX and TPH per EPA Methods 8021/8015 at Hall Environmental Analysis Laboratory (Hall), Albuquerque, New Mexico.

2.1 Groundwater Measurements and Water Quality Data

During the September 2008 sampling event, groundwater measurements and water quality data were recorded for MW-1 through MW-10. Water quality data for MW-11 were not recorded because the well was destroyed. Groundwater elevations were measured with a Keck water level with an accuracy to 0.01 foot and found to range from 7,031.88 feet below ground surface (bgs) in MW-1 up to 7,052.36 feet bgs in MW-8. Groundwater elevations were noted to have decreased from the March 2008 sampling event.

Water quality measurements were made with an YSI Water Quality Meter, and temperature ranged from 14.35°C in MW-3 to 16.77°C in MW-8. pH ranged from 6.50 to 7.17, and dissolved oxygen concentrations ranged between 1.56 mg/L in MW-8 and 6.48 mg/L in MW-2. Oxidation reduction potential (ORP) measurements were between -5.8 mV to 60.1 mV, and conductivity readings were between 2.090 mS and 19.17 mS. Depth to groundwater measurements and water quality data are presented in Table 1. Water Sample Collection Forms are included as Appendix A.

2.2 Groundwater Analytical Results

Groundwater samples were collected from MW-1 through MW-10 for laboratory analysis on September 25, 2008. Well MW-11 was found to have been destroyed and therefore was not sampled. In each of the wells sampled, analytical results for BTEX showed that concentrations remained below laboratory detection limits, and therefore also below applicable New Mexico Water Quality Control Commission (WQCC) standards for BTEX. TPH concentrations were also below laboratory detection limits in each of the wells sampled.

Tabulated laboratory analytical results are included in Table 2, and ILaboratory analytical reports are attached as Appendix B.

3.0 Conclusions and Recommendations

Petroleum hydrocarbon impacts to groundwater have not been detected since the monitor wells were installed in July 2007. Groundwater laboratory analytical results continued to show non-detectable concentrations of BTEX and TPH in September 2008. AES has scheduled one more quarterly sampling event to be conducted in December 2008 or January 2009. If BTEX and TPH concentrations continue to be non-detect, AES recommends that the site be considered for no further action status.

If you have any questions about site conditions or this report, please feel free to contact Elizabeth McNally or Ross Kennemer at (505) 564-2281.

Sincerely,

Sandrea R. Cupps
Lany Cupps
Project Manager

Lighth Man My My
Elizabeth McNally, P.E.

Attachment:

Figure 1. Site Plan

Table 1. Summary of Groundwater Measurement Data Table 2. Summary of Groundwater Analytical Results

Appendix A. Water Sample Collection Forms Appendix B. Laboratory Analytical Reports

Cc:

Brandon Powell

New Mexico Oil Conservation Division

1000 Rio Brazos Rd. Aztec, NM 87410

Mike Dimond

Benson-Montin-Greer Drilling Corp.

4900 College Blvd Farmington NM 87402

File: 2008\BMG\Hwy. 537 2007-2006 Spills\Reports\gc Letter Report 101608

Periodic Progress Report October 30, 2008

SUMMARY OF GROUNDWATER MEASUREMENT AND WATER QUALITY DATA BMG HWY 537 LLAVES PIPELINE 2007 OIL SPILL TABLE 1

Rio Arriba County, New Mexico

Well ID	Date Sampled	Depth to Water (ft)	Surveyed TOC (ft)	GW Elev. (ft)	표	Conductivity (mS)	DO (mg/L)	Temperature (C)	ORP (mV)
MW-1	10-Aug-07	47.38	7079.00	7031.62	7.36	1.998	3.62	16.61	-121.0
MW-1	27-Mar-08	36.97	7079.00	7042.03	7.78	3.419	5.62	13.48	122.3
MW-1	25-Sep-08	47.12	7079.00	7031.88	7.02	3.859	2.31	16.76	30.0
MW-2	10-Aug-07	36.53	7086.00	7049.47	7.44	2.216	2.34	17.09	-138.0
MW-2	27-Mar-08	36.19	7086.00	7049.81	7.13	4.089	1.16	13.05	76.6
MW-2	25-Sep-08	36.34	7086.00	7049.66	6.88	3.415	6.48	15.05	60.1
MW-3	10-Aug-07	29.35	7070.00	7040.65	7.57	1.797	2.41	16.91	-165.1
MW-3	27-Mar-08	28.94	7070.00	7041.06	7.38	2.735	0.86	13.16	9.79
MW-3	25-Sep-08	NM	7070.00	NM	6.74	2.776	2.61	14.35	50.1
MW-4	10-Aug-07	22.34	7068.00	7045.66	7.49	1.517	2.40	14.47	-164.6
MW-4	27-Mar-08	26.92	7068.00	7041.08	7.46	2.340	1.89	12.40	76.1
MW-4	25-Sep-08	27.21	7068.00	7040.79	6.89	2.434	3.70	14.76	43.1
MW-5	10-Aug-07	20.44	7058.00	7037.56	7.81	7.155	2.40	15.72	-122.0
MW-5	28-Mar-08	19.80	7058.00	7038.20			NM - LOW YIEI	1ELD	
MW-5	25-Sep-08	20.26	7058.00	7037.74	6.97	19.17	1.62	16.26	9.6
9-WM	10-Aug-07	22.32	7060.00	7037.68	7.47	1.842	2.11	17.01	-138.7
MW-6	28-Mar-08	21.61	7060.00	7038.39	7.34	3.261	3.22	14.11	303.9
MW-6	25-Sep-08	22.45	7060.00	7037.55	92.9	3.092	2.92	16.55	32.4
MW-7	13-Aug-07	13.31	7065.00	7051.69		NS - BEI	NTONITE FC	NS - BENTONITE FOUND IN WELL	
MW-7	28-Mar-08	12.11	7065.00	7052.89			NM - LOW YIELD	(IELD	
MW-7	25-Sep-08	13.64	7065.00	7051.36	6.98	3.308	3.19	15.65	44.9

SUMMARY OF GROUNDWATER MEASUREMENT AND WATER QUALITY DATA **BMG HWY 537 LLAVES PIPELINE 2007 OIL SPILL TABLE 1**

Rio Arriba County, New Mexico

Well ID	Date	Depth to	Surveyed GW Elev.	GW Elev.		Conductivity	DO	Temperature	ORP
	Sampled	Water (ft)	TOC (ft)	(tt)	Н	(mS)	(mg/L)	(C)	(mV)
8-WM	13-Aug-07	13.39	2066.00	7052.61	7.33	1.550	3.02	15.97	-26.6
8-WM	28-Mar-08	11.44	7066.00	7054.56			NM - LOW YIELD	IELD	
8-WM	25-Sep-08	13.55	7066.00	7052.45	6.50	2.090	1.56	16.77	17.4
6-MW	13-Aug-07		7063.00	7063.00			NS - WELL DRY	DRY	
6-MW	28-Mar-08		7063.00	7063.00		SN SN	NS - WELL DAMAGED	MAGED	
6-MW	25-Sep-08	12.74	7063.00	7050.26	6.85	14.65	3.62	16.54	40.5
MW-10	10-Aug-07	5.95	7045.00	7039.05	7.17	2.727	2.17	21.07	-138.0
MW-10	28-Mar-08	5.57	7045.00	7039.43		SN N	NS - WELL DAMAGED	MAGED	
MW-10	25-Sep-08	8.66	7045.00	7036.34	7.17	9.857	2.41	14.83	-5.8
MW-11	10-Aug-07	16.78	7042.00	7025.22	7.45	10.34	11.21	22.98	-135.7
MW-11	28-Mar-08	11.59	7042.00	7030.41	7.07	10.14	5.78	10.38	495.8
MW-11	28-Mar-08	11.59	7042.00	7030.41		SN	NS - WELL DESTROYED	TROYED	

NS = NOT SAMPLED NM = NOT MEASURED NOTE:

TABLE 2 SUMMARY OF GROUNDWATER ANALYTICAL RESULTS BMG HWY 537 LLAVES PIPELINE 2007 OIL SPILL

Rio Arriba County, New Mexico

Sample	Date	1110 74	iiba ooaii	ty, New Me Ethyl-	Total		
Sample		Benzene	Toluene	-	Xylenes	DRO	GRO
I.D.	Sampled			benzene			
Analytic	al Method	(μg/L) 8021B	(μg/L) 8021B	(μg/L) 8021B	(μg/L) 8021B	(mg/L) 8015B	(mg/L) 8015B
						NE	NE
	ico WQCC	10	750	750	620		
MW-1	10-Aug-07	<1.0	<1.0	<1.0	<2.0	<1.0	<0.050
MW-1	27-Mar-08	<1.0	<1.0	<1.0	<2.0	<1.0	<0.050
MW-1	25-Sep-08	<1.0	<1.0	<1.0	<2.0	<1.0	<0.050
							0.050
MW-2	10-Aug-07	<1.0	<1.0	<1.0	<2.0	<1.0	<0.050
MW-2	27-Mar-08	<1.0	<1.0	<1.0	<2.0	<1.0	<0.050
MW-2	25-Sep-08	<1.0	<1.0	<1.0	<2.0	<1.0	<0.050
							2.252
MW-3	10-Aug-07	<1.0	<1.0	<1.0	<2.0	<1.0	<0.050
MW-3	27-Mar-08	<1.0	<1.0	<1.0	<2.0	<1.0	<0.050
MW-3	25-Sep-08	<1.0	<1.0	<1.0	<2.0	<1.0	<0.050
							0.000
MW-4	10-Aug-07	<1.0	<1.0	<1.0	<2.0	<1.0	<0.050
MW-4	27-Mar-08	<1.0	<1.0	<1.0	<2.0	<1.0	<0.050
MW-4	25-Sep-08	<1.0	<1.0	<1.0	<2.0	<1.0	<0.050
MW-5	13-Aug-07	<1.0	<1.0	<1.0	<2.0	<1.0	<0.050
MW-5	28-Mar-08	<1.0	<1.0	<1.0	<2.0	<1.0	<0.050
MW-5	25-Sep-08	<1.0	<1.0	<1.0	<2.0	<1.0	<0.050
MW-6	13-Aug-07	<1.0	<1.0	<1.0	<2.0	<1.0	<0.050
MW-6	28-Mar-08	<1.0	<1.0	<1.0	<2.0	<1.0	<0.050
MW-6	25-Sep-08	<1.0	<1.0	<1.0	<2.0	<1.0	<0.050
							L
MW-7	13-Aug-07			3 - Bentonite			
MW-7	28-Mar-08	<1.0	<1.0	<1.0	<2.0	<1.0	<0.050
MW-7	25-Sep-08	<1.0	<1.0	<1.0	<2.0	<1.0	<0.050
MW-8	13-Aug-07	<1.0	<1.0	<1.0	<2.0	<1.0	<0.050
MW-8	28-Mar-08	<1.0	<1.0	<1.0	<2.0	<1.0	<0.050
MW-8	25-Sep-08	<1.0	<1.0	<1.0	<2.0	<1.0	<0.050
				L	L		
MW-9	13-Aug-07			NS - W			
MW-9	28-Mar-08			NS - Well		· · · · · · · · · · · · · · · · · · ·	
MW-9	25-Sep-08	<1.0	<1.0	<1.0	<2.0	<1.0	<0.050
MW-10	10-Aug-07	<1.0	<1.0	<1.0	<2.0	<1.0	<0.050
MW-10	28-Mar-08		r	NS - Well			
MW-10	25-Sep-08	<1.0	<1.0	<1.0	<2.0	<1.0	<0.050
MW-11	13-Aug-07	<1.0	<1.0	<1.0	<2.0	1.4	<0.050
MW-11	28-Mar-08	<1.0	<1.0	<1.0	<2.0	<1.0	<0.050
MW-11	25-Sep-08			NS - Well	Destroyed		

NOTE: NS = Not Sampled

			2.2500		A i.e.	- Caralana na canto	I Camalaga		
MONITO	RING WE	LL SAMPLIN	G RECO	RD	Anım	as Environmenta	Services		
Monitor W	ell No:	MW-1			624 E. 0	Comanche, Farmington	NM 87401		
					<u>-</u>	5) 564-2281 Fax (505)	324-2022		
		37 Station Spill		_	Proje	ct No.: AES 070302	•		
		County, New Me	xico	-		Date: 9-25-08	-		
		er Monitoring		-	Arrival		-		
	Technician: / No Purge:			- т	O.C. Ele	Temp: 75°F	-		
_	ameter (in):			-	Vell Dep	` '	-		
		47.12	Time:	150		(taken at initial gauging	g of all wells)		
Confirm	D.T.W. (ft):		Time:			(taken prior to purging	•		
Final	D.T.W. (ft):		Time:			(taken after sample co	llection) -		
	,	Water Quality	Paramete	ers - Rec	orded	During Well Purging	J		
	Temp	Conductivity	DO		ORP	PURGED VOLUME			
Time	(deg C)	(µS) (mS)	(mg/L)	pН	(mV)	(see reverse for calc.)	Notes/Observations		
1510	16.76	3.859	2,31	7.02	30.0	0.25			
1516	10.10						Samples Collected		
1216							Samples Shedles		
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,							
Analyti	cal Parame	eters (include	analysis	method	and nu	mber and type of sa	mple containers)		
		BTEX per EPA	Method 802	21 (2 40m	L Vials w	// HCI)			
		TPH C ₆ -C ₃₆ per							
		TPH C ₆ -C ₃₆ per	EPA Metho	od 8015B	(40mL \	√ials no poly)			
	D	isposal of Purg	ed Water:						
Collect		s Stored on Ice							
	•	stody Record (•						
	J	-		Hall Envi	ronmenta	al Analysis Laboratory,	Albuquerque, NM		
Equipment	Used Durin	g Sampling:				, YSI Water Quality Met			
- •		0 1 2				ble Bailer			
Notes/Com	ments								
		2///			- "-				
					-				

MONITO	RING WE	LL SAMPLIN	G RECO	RD	Anim	as Environmenta	I Services			
Monitor W	ell No:	MW-2			624 E. (Comanche, Farmington	NM 87401			
			-			5) 564-2281 Fax (505)				
Site:	Highway 53	7 Station Spill		_	Proje	ct No.: AES 070302	_			
		County, New Me	xico			Date: 9-25-08	-			
-		er Monitoring		-		Time: 613	•			
	Technician:		٥		Air	Temp: <u>68°</u> F	-			
_	/ No Purge:				O.C. Ele		-			
	ameter (in):	2	Times	-	Nell Dep		of all walls)			
	D.T.W. (ft): D.T.W. (ft):	36,34	Time: Time:	101	8	(taken at initial gauging (taken prior to purging	•			
	D.T.W. (ft):		. Time:			_(taken phor to purging _(taken after sample col	,			
		Matar Quality		ore Per	ordod	During Well Purging				
	 		· · · · · · · · · · · · · · · · · · ·	ers - Rec						
	Temp	Conductivity	DO		ORP	PURGED VOLUME				
Time	(deg C)	(μS) (mS)	(mg/L)	pH	(mV)		Notes/Observations			
1021	15.05	3.415	6.48	6.88	60,1	0.25				
1026							Samples collected			
							,			
				ļ <u> </u>						
Analyti	cal Parame	eters (include	analysis	method	and nu	mber and type of sa	mple containers)			
, ,										
		BTEX per EPA								
		TPH C ₆ -C ₃₆ per								
		TPH C ₆ -C ₃₆ per	EPA Metho	od 8015B	(40mL \	Vials no poly)				
	D	isposal of Purg	ed Water:							
Collect	ted Samples	Stored on Ice	in Cooler:							
	=	stody Record								
	Onam or oc	•		Hall Envi	ironment	al Analysis Laboratory,	Albuquerque NM			
	Hood Durin		aboratory.							
Equipment	Usea Dunn	ig Sampling:				I, YSI Water Quality Met	lei,			
WW				and New	Disposa	able Bailer				
Notes/Com	ments									

MONITO	RING WE	LL SAMPLIN	G RECO	RD	Anim	as Environmenta	l Services		
Monitor W	ell No:	MW-3			624 E. (Comanche, Farmington	NM 87401		
			•		Tel. (50	05) 564-2281 Fax (505) 3	324-2022		
Site:	Highway 5	37 Station Spill			Proje	ect No.: AES 070302			
		County, New Me	xico	-	_	Date: 9-25-08			
		ter Monitoring		-		i Time: 1/0 47	•		
•		: N. W. illis		-	Air	Temp: 68°F	•		
	/ No Purge:			т.	O.C. Ele	ev. (ft):	•		
Well Dia	ameter (in):	2		Total V	Well Dep	oth (ft):	•		
	D.T.W. (ft):		Time:	- 1044	-	(taken at initial gauging	g of all wells)		
Confirm	D.T.W. (ft):		Time:	, -		(taken prior to purging			
	D.T.W. (ft):		Time:			_(taken after sample col	•		
	1	Water Quality	Paramete	ers - Rec	corded	During Well Purging	J		
	Temp	Conductivity	DO		ORP	PURGED VOLUME			
Time	(deg C)	(μS) (mS)	(mg/L)	рН	(mV)	(see reverse for calc.)	Notes/Observations		
1048	1435	2.776	2.61	6.74	50,1	0.25			
	1170	2,112	L, O.	0. 1			a Prod		
1053							Samples collected		
			<u> </u>	<u> </u>	<u> '</u>				
									
		<u> </u>							
Analytic	cal Parame	eters (include	analysis	method	and nu	ımber and type of sa	mple containers)		
		BTEX per EPA	Method 802	21 (2 40m	L Vials v	v/ HCl)			
		TPH C ₆ -C ₃₆ per	EPA Metho	od 8015B	(2 40mL	Vials w/ HCI)			
		TPH C ₆ -C ₃₆ per	EPA Metho	od 8015B	(40mL \	√ials no poly)			
	D	isposal of Purg	ed Water:						
Collect		s Stored on Ice	•						
	•	ustody Record (-						
-	Chain or ou	-	•			1 A refusio Laboratory	A U NIM		
	1 Donate	_	•			al Analysis Laboratory, A			
Equipment	Used Durin	ng Sampling: _				I, YSI Water Quality Met	er,		
				and New	Disposa	able Bailer			
Notes/Com	ments								

MONITO	RING WE	LL SAMPLIN	G RECO	RD	Anim	as Environmenta	l Services			
Monitor W	ell No:	MW-4			624 E.	Comanche, Farmington	NN 87401			
			-			5) 564-2281 Fax (505)				
		37 Station Spill		_	Proje	ct No.: AES 070302				
		County, New Me	xico	_		Date: 9-25-08	-			
		er Monitoring		-		Time: 1106	-			
	Technician: / No Purge:		5			Temp: 68°F	-			
	no Purge: ameter (in):				.O.C. Ele Vell Dep		-			
•	D.T.W. (ft):		Time:		-	(taken at initial gauging	- n of all wells)			
	D.T.W. (ft):		Time:			(taken prior to purging	•			
	D.T.W. (ft):		Time:			(taken after sample co	•			
	,	Water Quality	Paramete	ers - Red	corded	During Well Purging	1			
	Temp	Conductivity	DO		ORP	PURGED VOLUME				
Time	(deg C)	(µS) (mS)	(mg/L)	pН	(mV)	(see reverse for calc.)	Notes/Observations			
1112	14.76	2.434	3.70	6.89	43.1	0.25				
1118							Samples collected			
							30,000			
					<u> </u>					
Analyti	cal Parame	eters (include	analysis	method	and nu	mber and type of sa	mple containers)			
		BTEX per EPA	Method 802	21 (2 40m	L Vials w	v/ HCl)				
		TPH C ₆ -C ₃₆ per	EPA Metho	od 8015B	(2 40mL	. Vials w/ HCI)				
		TPH C ₆ -C ₃₆ per	EPA Metho	od 8015B	(40mL \	Vials no poly)				
	D	isposal of Purg	ed Water:							
Collect		Stored on Ice								
	-	stody Record	•							
	O 01 01	-		Hall Envi	ronment	al Analysis Laboratory,	Albuguergue, NM			
Fauinment	Used Durin	g Sampling:				, YSI Water Quality Met				
		.gpg.				ble Bailer				
Notes/Com	ments									
				···	· · · · · · · · ·					

MONITO	RING WE	LL SAMPLIN	G RECO	RD	Anim	as Environmenta	Services			
Monitor W	/ell No:	MW-5			624 E.	Comanche, Farmington	NM 87401			
						5) 564-2281 Fax (505)	324-2022			
		37 Station Spill		_	Proje	ct No.: AES 070302				
L		County, New Mex	xico	-	A	Date: 9-25-08	-			
-	Technician:	er Monitoring N . ຟ) ເ((ເຣ		-		Time: <u> フェリ</u> Temp: オルド	-			
	/ No Purge:		•	- т.	.O.C. Ele		•			
_	iameter (in):				Nell Dep		-			
Initial	I D.T.W. (ft):	70.26	Time:		-	(taken at initial gauging	g of all wells)			
	D.T.W. (ft):		Time:			(taken prior to purging	•			
Final	D.T.W. (ft):		Time:			(taken after sample co	lection) -			
		Water Quality	Paramete	ers - Rec	orded	During Well Purging	ı			
	Temp	Conductivity	DO		ORP	PURGED VOLUME				
Time	(deg C)	(µS)_(mS)	(mg/L)	рН	(mV)	(see reverse for calc.)	Notes/Observations			
1231	16.26	19.17	1.62	6.97	9.9	Villagallons				
1237					 -		Samples collected			
Analyti	cal Parame	eters (include	analysis	method	and nu	mber and type of sa	mple containers)			
		BTEX per EPA	Method 802	21 (2 40m	L Vials v	v/ HCI)				
		TPH C ₆ -C ₃₆ per								
		TPH C ₆ -C ₃₆ per	EPA Metho	od 8015B	(40mL \	Vials no poly)				
	Di	isposal of Purg	ed Water:							
Collect	ted Samples	Stored on Ice i	in Cooler:							
	Chain of Cu	ıstody Record C	Complete:							
		Analytical La	boratory:	Hall Envir	ronmenta	al Analysis Laboratory, A	Albuquerque, NM			
Equipment	Used Durin	g Sampling: _		Keck Wat	ter Level	, YSI Water Quality Met	er,			
				and New	Disposa	ble Bailer				
Notes/Com	ments									
						·				

MONITO	RING WE	LL SAMPLIN	G RECO	RD	Anim	as Environmenta	l Services		
Monitor W	ell No:	MW-6			624 E.	Comanche, Farmington	NM 87401		
						05) 564-2281 Fax (505)			
		37 Station Spill		_	Proje	ct No.: AES 070302			
		County, New Me	xico	_	4ia (Date: 9-25-08	-		
		er Monitoring				Time:	_		
	/ No Purge:		3	- т	Air O.C. Ele		-		
	ameter (in):				Well Dep		-		
	D.T.W. (ft):		Time:	120		(taken at initial gauging	g of all wells)		
	D.T.W. (ft):		Time:			(taken prior to purging	well)		
Final	D.T.W. (ft):		Time:			(taken after sample co	llection) -		
		Water Quality	Paramete	ers - Red	corded	During Well Purging	1		
	Temp	Conductivity	DO		ORP	PURGED VOLUME			
Time	(deg C)	(µS) (mS)	(mg/L)	pН	(mV)	(see reverse for calc.)	Notes/Observations		
1209	16.55	3.092	2.92	6.76	32,4	116 gallon			
1215							Samples collected		
						·			
Analyti	cal Parame	eters (include	analysis	method	and nu	mber and type of sa	mple containers)		
		BTEX per EPA							
		TPH C ₆ -C ₃₆ per							
		TPH C ₆ -C ₃₆ per			·				
	D	isposal of Purg	ed Water:						
Collect		s Stored on Ice	•						
	-	ustody Record (-						
	Oliulii C. C.	•	-	Hall Envi	ronment	al Analysis Laboratory,	Albuquerque NM		
Equipment	Head Durin	ng Sampling:				, YSI Water Quality Met			
-quipinent	Osca Danni	g camping				ble Bailer	CI,		
Notes/Com	monts			direction.	Вюроса	olo Dano.			
rotes/ com	ments								
									
	77.								

MONITO	RING WE	LL SAMPLIN	G RECO	RD	Anim	as Environmenta	l Services			
Monitor W	eli No:	MW-7			624 E.	Comanche, Farmington	NM 87401			
						5) 564-2281 Fax (505)	324-2022			
		7 Station Spill		_	Proje	ct No.: AES 070302				
		County, New Me	xico	-		Date: 9-25-08	-			
		er Monitoring		_		Time: 1249	-			
			لمانالان			Temp: 7/04	•			
_	/ No Purge: ameter (in):				.O.C. Ele Vell Dep		-			
	D.T.W. (ft):		Time:	125		(taken at initial gauging	- n of all wells)			
	D.T.W. (ft):		Time:			(taken prior to purging				
1	D.T.W. (ft):		Time:			(taken after sample co	-			
		Water Quality	Paramete	ers - Rec	orded	During Well Purging	l .			
	Temp	Conductivity	DO		ORP	PURGED VOLUME				
Time	(deg C)	(µS) (mS)	(mg/L)	pН	(mV)	(see reverse for calc.)	Notes/Observations			
1256	15.65	3.308	3.19	6,98	44.9	16 galon				
1302						7.0	Samples collected			
1302							Samples collected			
						<u> </u>				

		l								
Analyti	cai Parame	eters (include	analysis	method	and nu	mber and type of sa	mple containers)			
		BTEX per EPA								
		TPH C ₆ -C ₃₆ per	~							
		TPH C ₆ -C ₃₆ per	EPA Metho	od 8015B	(40mL \	/ials no poly)				
	Di	isposal of Purg	ed Water:							
Collect	ed Samples	Stored on Ice	in Cooler:							
	Chain of Cu	stody Record (Complete:							
		Analytical La	aboratory:	Hall Envi	ronmenta	al Analysis Laboratory,	Albuguergue, NM			
Equipment	Used Durin	g Sampling:	-			, YSI Water Quality Met				
		_				ble Bailer				
Notes/Com	ments		·							
13100/00/11										
	······································									

MONITO	RING WE	LL SAMPLIN	G RECO	RD	Anim	as Environmenta	I Services			
Monitor W	/ell No:	MW- 8			624 E.	Comanche, Farmington	NM 87401			
						05) 564-2281 Fax (505)	324-2022			
		37 Station Spill			Proje	ct No.: AES 070302	_			
		County, New Me	xico	_	•	Date: 9-25-05	-			
		er Monitoring		_		Tomp: 13/2	-			
	/ No Purge:	No Purge		- т	Air O.C. Ele	Temp: 740F	-			
-	ameter (in):				.∪.⊍. ⊑ie Well Dep		-			
	D.T.W. (ft):		Time:	1316		(taken at initial gauging	of all wells)			
	D.T.W. (ft):		Time:	1014	2	(taken prior to purging	•			
•	D.T.W. (ft):		Time:			(taken after sample col	•			
	1	Water Quality	Paramete	ers - Rec	orded	During Well Purging	J			
	Temp	Conductivity	DO		ORP	PURGED VOLUME				
Time	(deg C)	(µS) (mS)	(mg/L)	рН	(mV)	(see reverse for calc.)	Notes/Observations			
1319	16.77	2.090	1.56	6.50	17.4	16 galons				
1325						U	Sandes collected			
Analyti	cal Paramo	eters (include	analysis	method	and nu	mber and type of sa	mple containers)			
		BTEX per EPA I	Method 802	21 (2 40m	L Vials v	v/ HCl)				
		TPH C ₆ -C ₃₆ per	EPA Metho	od 8015B	(2 40mL	Vials w/ HCI)				
		TPH C ₆ -C ₃₆ per	EPA Metho	od 8015B	(40mL \	Vials no poly)				
	D	isposal of Purg	jed Water:							
Collect	ted Samples	s Stored on Ice	in Cooler:							
	Chain of Cu	ustody Record (Complete:							
		Analytical La	aboratory:	Hall Envi	ronment	al Analysis Laboratory,	Albuquerque, NM			
Equipment	Used Durir	ng Sampling:		Keck Wa	ter Leve	I, YSI Water Quality Met	ter,			
				and New	Disposa	able Bailer				
Notes/Com	ıments									
-										

MONITO	RING WE	LL SAMPLIN	G RECO	RD	Anim	as Environmenta	l Services		
Monitor W	ell No:	MW-9			624 E. (Comanche, Farmington	NM 87401		
			•			5) 564-2281 Fax (505) 3	324-2022		
		37 Station Spill			Proje	ct No.: AES 070302	-		
		County, New Me	xico	-		Date: <u>9-25-08</u>	-		
-		er Monitoring		-	Arrival		-		
	Technician: / No Purge:		<u>s</u>	. т	O.C. Ele	Temp: 73°F	-		
	ameter (in):			-	Vell Dep	` '			
	D.T.W. (ft):		Time:	134	-	(taken at initial gauging	g of all wells)		
	D.T.W. (ft):		Time:		<u> </u>	(taken prior to purging	•		
	D.T.W. (ft):		Time:			(taken after sample col	•		
	,	Water Quality	Paramete	rs - Rec	orded	During Well Purging	j		
	Temp	Conductivity	DO		ORP	PURGED VOLUME			
Time	(deg C)	(μS) (mS)	(mg/L)	pН	(mV)	(see reverse for calc.)	Notes/Observations		
1345	16.54	14.65	3.62	6.85	40.5	16 gallons			
13452							Samples collected		
10.50							7		
Analyti	cal Parame	eters (include	analysis i	method	and nu	mber and type of sa	mple containers)		
Allalyti		·					inple containers)		
		BTEX per EPA I							
		TPH C ₆ -C ₃₆ per			·				
		TPH C ₆ -C ₃₆ per	EPA Metho	0 80 158	(40mL \	viais no poly)			
	D	isposal of Purg	ed Water:						
Collect	ed Samples	Stored on Ice	in Cooler: ₋						
	Chain of Cu	stody Record (Complete:						
		Analytical La	aboratory:	Hall Envi	ronmenta	al Analysis Laboratory, /	Albuquerque, NM		
Equipment	Used Durin	g Sampling:		Keck Wa	ter Level	, YSI Water Quality Met	er,		
				and New	Disposa	ble Bailer			
Notes/Com	ments								

MONITO	RING WE	LL SAMPLIN	G RECO	RD	Anim	as Environmenta	l Services
Monitor W	ell No:	MW-10			624 E. (Comanche, Farmington	NM 87401
						5) 564-2281 Fax (505)	324-2022
		37 Station Spill		_	Proje	ct No.: AES 070302	
		County, New Mex	xico	_	••	Date: 9-25-08	· •
		er Monitoring		-		Time: 1408	-
Sampling Technician: ハ・ルルス Purge / No Purge: No Purge				- т	Air O.C. Ele	Temp: 75°F	
	ameter (in):			_	Well Dep	` '	
Initial	D.T.W. (ft):	8.66	Time:	1414		(taken at initial gauging	of all wells)
Confirm	D.T.W. (ft):		Time:			(taken prior to purging	well)
Final	D.T.W. (ft):		Time:			(taken after sample col	lection) -
		Water Quality	Paramete	ers - Rec	corded	During Well Purging	J
	Temp	Conductivity	DO		ORP	PURGED VOLUME	
Time	(deg C)	(µS) (mS)	(mg/L)	pН	(mV)	(see reverse for calc.)	Notes/Observations
1417	14.83	9.857	2.41	7.17	-5.8	Via gallon	
1425							4. Nec collabol
,,,,,,							Scinples callected
							
				 			
		 					
	 						
	——						
Analyti	cal Parame	eters (include	analysis	method	and nu	mber and type of sa	mple containers)
Analy	 						,
		BTEX per EPA					
		TPH C ₆ -C ₃₆ per					
		TPH C ₆ -C ₃₆ per	EPA Metric	00 80 100	(40mL v	Viais no poly)	
	D	isposal of Purg	ed Water:				
Collect	ed Samples	s Stored on Ice i	in Cooler;				
	Chain of Cu	ustody Record (Complete:				
		Analytical La	aboratory:	Hall Envi	ronment	al Analysis Laboratory, A	Albuquerque, NM
Equipment	Used Durin	ng Sampling: _		Keck Wa	ter Level	I, YSI Water Quality Met	ter,
				and New	Disposa	able Bailer	
Notes/Com	ments						

MONITO	RING WE	LL SAMPLIN	G RECO	RD	Anim	as Environmenta	l Services		
Monitor W	ell No:	MW-11				Comanche, Farmington			
					Tel. (50	5) 564-2281 Fax (505)	324-2022		
Site:	Highway 53	37 Station Spill		_	Proje	ct No.: AES 070302			
		County, New Me	xico	_					
		er Monitoring		Arrival Time:					
Sampling Technician:				_	Air	Temp:	_		
Purge	/ No Purge:	No Purge		_ T	.O.C. Ele	ev. (ft):			
Well Di	ameter (in):	0.75		Total \	Nell Dep	oth (ft):			
Initial	D.T.W. (ft):		Time:	_		(taken at initial gauging	of all wells)		
	D.T.W. (ft):		Time:			(taken prior to purging	well)		
	D.T.W. (ft):		Time:			(taken after sample co			
Water Quality Parameters - Recorded During Well Purging									
	Temp	Conductivity	DO		ORP	PURGED VOLUME			
Time	(deg C)	(µS) (mS)	(mg/L)	рН	(mV)	(see reverse for calc.)	 Notes/Observations		
	(409 07	(μο) (ο)	(9,2)	Pii		(occ reverse for care.)	110100,0200,144,0110		
			 		 	^			
					-	 			
	/_/_			A	1				
			1		 [
				1	16				
		1							
)							
				-,					
				·					
Apalyti	cal Parame	otors (include	analysis i	mothod	and nu	mber and type of sa	mple containers)		
Allalyti	- arann	·					imple containers)		
		BTEX per EPA							
		TPH C ₆ -C ₃₆ per							
					(40IIIL \	viais no poly)			
		isposal of Purg	•						
	-	Stored on Ice i	•						
•	Chain of Cu	stody Record (•						
		-	٠.			al Analysis Laboratory, A			
Equipment	Used Durin	g Sampling: _				, YSI Water Quality Met	er,		
				and New	Disposa	ble Bailer			
Notes/Com	ments								
				- "					



COVER LETTER

Wednesday, October 15, 2008

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

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

RE: BMG Highway 537 06'&07' Spill

Dear Ross Kennemer:

Order No.: 0809663

Hall Environmental Analysis Laboratory, Inc. received 11 sample(s) on 9/30/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

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

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

Sincerely,

Andy Freeman, Business Manager Nancy McDuffie, Laboratory Manager

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



Date: 15-Oct-08

CLIENT:

Animas Environmental Services

Lab Order:

0809663

BMG Highway 537 06'&07' Spill

Project: Lab ID:

0809663-01

Client Sample ID: MW-1

Collection Date: 9/25/2008 3:16:00 PM

Date Received: 9/30/2008

Analyses	Result	PQL (Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE				VII. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.	Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	10/4/2008
Motor Oil Range Organics (MRO)	ND	5.0	. mg/L	1	10/4/2008
Surr: DNOP	123	58-140	%REC	1	10/4/2008
EPA METHOD 8015B: GASOLINE RAN	IGE				Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1 -	10/8/2008 6:38:52 PM
Surr: BFB	82.9	59.9-122	%REC	1	10/8/2008 6:38:52 PM
EPA METHOD 8021B: VOLATILES					Analyst: DAM
Benzene	ND	1.0	µg/L	1	10/8/2008 6:38:52 PM
Toluene	ND	1.0	μg/L	1 .	10/8/2008 6:38:52 PM
Ethylbenzene	ND	1.0	µg/L	1	10/8/2008 6:38:52 PM
Xylenes, Total	ND '	2.0	μg/L	1	10/8/2008 6:38:52 PM
Surr: 4-Bromofluorobenzene	90.7	65.9-130	%REC	1	10/8/2008 6:38:52 PM

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

Date: 15-Oct-08

CLIENT:

Animas Environmental Services

Lab Order:

0809663

0009003

BMG Highway 537 06'&07' Spill

Project: Lab ID:

0809663-02

Client Sample ID: MW-2

Collection Date: 9/25/2008 10:26:00 AM

Date Received: 9/30/2008

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE					Analyst: SCC
Diesel Range Organics (DRO)	· ND	1.0	mg/L	1	10/4/2008
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	10/4/2008
Surr: DNOP	126	58-140	%REC	1	10/4/2008
EPA METHOD 8015B: GASOLINE RANG	E .				Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	10/8/2008 7:09:22 PM
Surr: BFB	84.8	59.9-122	%REC	.1	10/8/2008 7:09:22 PM
EPA METHOD 8021B: VOLATILES					Analyst: DAM
Benzene	· ND	1.0	μg/L	1	10/8/2008 7:09:22 PM
Toluene	ND	1.0	μg/L	1	10/8/2008 7:09:22 PM
Ethylbenzene	ND	1.0	μg/L	1	10/8/2008 7:09:22 PM
Xylenes, Total	ND	2.0	μg/L	1	10/8/2008 7:09:22 PM
Surr: 4-Bromofluorobenzene	94.7	65.9-130	%REC	1 .	10/8/2008 7:09:22 PM

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

Date: 15-Oct-08

CLIENT:

Animas Environmental Services

Lab Order: Project:

0809663

BMG Highway 537 06'&07' Spill

Lab ID:

0809663-03

Client Sample ID: MW-3

Collection Date: 9/25/2008 10:53:00 AM

Date Received: 9/30/2008

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE					Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	· 1	10/4/2008
Motor Oil Range Organics (MRO)	ND	- 5.0	mg/L	. 1	10/4/2008
Surr: DNOP	121	58-140	%REC	1	10/4/2008
EPA METHOD 8015B: GASOLINE RANG	SE .				Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	10/8/2008 7:39:52 PM
Surr: BFB	84.8	59.9-122	%REC	1	10/8/2008 7:39:52 PM
EPA METHOD 8021B: VOLATILES					Analyst: DAM
Benzene	ND	1.0	µg/L	1	10/8/2008 7:39:52 PM
Toluene	ND	1.0	µg/L	. 1	10/8/2008 7:39:52 PM
Ethylbenzene	ND	1.0	μg/L	1	10/8/2003 7:39:52 PM
Xylenes, Total	ND	2.0	µg/L	1	10/8/2003 7:39:52 PM
Surr: 4-Bromofluorobenzene	97.0	65.9-130	%REC	1	10/8/2003 7:39:52 PM

- Value exceeds Maximum Contaminant Level
- Value above quantitation range Ε
- Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Date: 15-Oct-08

CLIENT:

Animas Environmental Services

Lab Order:

0809663

Project:

BMG Highway 537 06'&07' Spill

Lab ID:

0809663-04

Client Sample ID: MW-4

Collection Date: 9/25/2008 11:18:00 AM

Date Received: 9/30/2008 Matrix: AQUEOUS

Result PQL Qual Units Analyses DF Date Analyzed EPA METHOD 8015B: DIESEL RANGE Analyst: SCC Diesel Range Organics (DRO) ND 1.0 mġ/L 1 10/4/2008 Motor Oil Range Organics (MRO) ND 5.0 mg/L 1 10/4/2008 Surr: DNOP 125 58-140 %REC 10/4/2008 **EPA METHOD 8015B: GASOLINE RANGE** Analyst: DAM Gasoline Range Organics (GRO) ND 0.050 mg/L 10/8/2008 8:10:14 PM Surr: BFB 80.3 59.9-122 %REC 10/8/2008 8:10:14 PM

•					
EPA METHOD 8021B: VOLATILES					Analyst: DAM
Benzene	ND	1.0	μg/L	1	10/8/2008 8:10:14 PM
Toluene	ND	1.0	µg/L	1	10/8/2008 8:10:14 PM
Ethylbenzene	ND	1.0	μg/L	1	10/8/2008 8:10:14 PM
Xylenes, Total	ND	2.0	μg/L	1 .	10/8/2008 8:10:14 PM
Surr: 4-Bromofluorobenzene	87.7	65.9-130	%REC	1	10/8/2008 8:10:14 PM

S Spike recovery outside accepted recovery limits

RL Reporting Limit

Value exceeds Maximum Contaminant Level

E Value above quantitation range

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

Date: 15-Oct-08

CLIENT:

Animas Environmental Services

Lab Order:

0809663

BMG Highway 537 06'&07' Spill

Project: Lab ID:

0809663-05

Client Sample ID: MW-5

Collection Date: 9/25/2008 12:37:00 PM

Date Received: 9/30/2008

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	10/4/2008
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/4/2008
Surr: DNOP	129	58-140		%REC	1	10/4/2008
EPA METHOD 8015B: GASOLINE RANG	GE					Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	10/8/2008 8:40:47 PM
Surr: BFB	82.8	59.9-122		%REC	1	10/8/2008 8:40:47 PM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Benzene	ND	1.0		µg/L	1	10/8/2003 8:40:47 PM
Toluene	ND	1.0		µg/L	1	10/8/2003 8:40:47 PM
Ethylbenzene	ND	1,0		μg/L	1	10/8/2003 8:40:47 PM
Xylenes, Total	ND	2.0		μg/L	1	10/8/2003 8:40:47 PM
Surr: 4-Bromofluorobenzene	92.6	65.9-130		%REC	1	10/8/2003 8:40:47 PM

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

Date: 15-Oct-08

CLIENT:

Animas Environmental Services

Lab Order:

0809663

.

BMG Highway 537 06'&07' Spill

Project: Lab ID:

0809663-06

Client Sample ID: MW-6

Collection Date: 9/25/2008 12:15:00 PM

Date Received: 9/30/2008

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE	· · · · · · · · · · · · · · · · · · ·				Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	10/4/2008
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	10/4/2008
Surr: DNOP	126	58-140	%REC	1	10/4/2008
EPA METHOD 8015B: GASOLINE RANGE					Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	10/8/2008 11:12:35 PM
Surr. BFB	81.1	59.9-122	%REC	1	10/8/2008 11:12:35 PM
EPA METHOD 8021B: VOLATILES					Analyst: DAM
Benzene	ND	1.0	μ g/ L	1	10/8/2008 11:12:35 PM
Toluene	ND	1.0	µg/L	1	10/8/2008 11:12:35 PM
Ethylbenzene	ND	1.0	μg/L	1	10/8/2008 11:12:35 PM
Xylenes, Total	ND	2.0	µg/L	. 1	10/8/2008 11:12:35 PM
Surr: 4-Bromofluorobenzene	90.5	65.9-130	%REC	1	10/8/2008 11:12:35 PM

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

Date: 15-Oct-08

CLIENT:

Animas Environmental Services

Lab Order:

0809663

Project:

BMG Highway 537 06'&07' Spill

Lab ID:

0809663-07

Client Sample ID: MW-7

Collection Date: 9/25/2008 1:02:00 PM

Date Received: 9/30/2008

Analyses	Result	PQL	Qual Units	DF .	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE					Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	. 1	10/4/20()8
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	10/4/2008
Surr: DNOP	117	58-140	%REC	1	10/4/2008
EPA METHOD 8015B: GASOLINE RANG	GE				Analyst: DAM
Gasoline Range Organics (GRO)	· ND	0.050	mg/L	1	10/8/2008 11:43:04 PM
Surr: BFB	84.9	59.9-122	%REC	1	10/8/2008 11:43:04 PM
EPA METHOD 8021B: VOLATILES					Analyst: DAM
Benzene	ND	1.0	μg/L	1	10/8/2008 11:43:04 PM
Toluene	ND	1.0	μg/L	1	10/8/2008 11:43:04 PM
Ethylbenzene	ND	1.0	μg/L	1	10/8/2008 11:43:04 PM
Xylenes, Total	ND	2.0	µg/L	1	10/8/2008 11:43:04 PM
Surr: 4-Bromofluorobenzene	94.4	65.9-130	%REC	: 1	10/8/2008 11:43:04 PM

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

Date: 15-Oct-08

CLIENT:

Animas Environmental Services

Lab Order:

0809663

0003003

BMG Highway 537 06'&07' Spill

Project: Lab ID:

0809663-08

Client Sample ID: MW-8

Collection Date: 9/25/2008 1:25:00 PM

Date Received: 9/30/2008

Matrix: AQUEOUS

Analyses	Result	PQL (Qual Units	. DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE					Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	10/4/2008
Motor Oil Range Organics (MRO)	ND	5.0	mg/L	1	10/4/2008
Surr: DNOP	120	58-140	%REC	. 1	10/4/2008
EPA METHOD 8015B: GASOLINE RAN	GE		•		Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	10/9/2008 12:13:27 AM
Surr: BFB	83.1	59.9-122	%REC	1	10/9/2008 12:13:27 AM
EPA METHOD 8021B: VOLATILES					Analyst: DAM
Benzene	ND	1.0	μg/L	1	10/9/2008 12:13:27 AM
Toluene	ND	1.0	μg/L	1	10/9/2008 12:13:27 AM
Ethylbenzene	ND	· 1.0	μg/L	1	10/9/2008 12:13:27 AM
Xylenes, Total	ND	2.0	μg/L	1	10/9/2008 12:13:27 AM
Surr: 4-Bromofluorobenzene	93.9	65.9-130	%REC	1	10/9/2008 12:13:27 AM

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

Page 8 of 11

Date: 15-Oct-08

CLIENT:

Animas Environmental Services

Lab Order:

0809663

BMG Highway 537 06'&07' Spill

Project: Lab ID:

0809663-09

Client Sample ID: MW-9

Collection Date: 9/25/2008 1:52:00 PM

Date Received: 9/30/2008

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE					Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	10/4/2008
Motor Oil Range Organics (MRO)	ND	5.Ó	mg/L	1	10/4/2008
Surr: DNOP	120	58-140	%REC	1	10/4/2008
EPA METHOD 8015B: GASOLINE RAN	IGE				Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	10/9/2003 12:43:54 AM
Surr: BFB	85.3	59.9-122	%REC	1	10/9/2003 12:43:54 AM
EPA METHOD 8021B: VOLATILES	•				Analyst: DAM
Benzene	ND	1.0	μg/L	1	10/9/2008 12:43:54 AM
Toluene	ND	1.0	µg/L·	1	10/9/2008 12:43:54 AM
Ethylbenzene	ND	1.0	µg/L	1	10/9/2008 12:43:54 AM
Xylenes, Total	ND	2.0	μg/L	1	10/9/2008 12:43:54 AM
Surr: 4-Bromofluorobenzene	96.2	65.9-130	%REC	1	10/9/2008 12:43:54 AM

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

Date: 15-Oct-08

CLIENT:

Animas Environmental Services

Lab Order:

0809663

Project:

BMG Highway 537 06'&07' Spill

Lab ID:

0809663-10

Client Sample ID: MW-10

Collection Date: 9/25/2008 2:25:00 PM

Date Received: 9/30/2008

Matrix: AQUEOUS

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE	:				Analyst: SCC
Diesel Range Organics (DRO)	· ND	1.0	mg/L	1	10/4/2008
Motor Oil Range Organics (MRO)	ND	5.0	m g/L	1	10/4/2008
Surr: DNOP	118	58-140	%REC	1	10/4/2008
EPA METHOD 8015B: GASOLINE RAN	NGE				Analyst: DAM
Gasoline Range Organics (GRO)	МÐ	0.050	mg/L	1	10/9/2008 1:14:20 AM
Surr: BFB	82.1	59.9-122	%REC	1	10/9/2008 1:14:20 AM
EPA METHOD 8021B: VOLATILES					Analyst: DAM
Benzene	ND	1.0	μ g/L	1	10/9/2008 1:14:20 AM
Toluene	ND	1.0	μg/L	1	10/9/2008 1:14:20 AM
Ethylbenzene	ND	1.0	µg/L	1	10/9/2008 1:14:20 AM
Xylenes, Total	. ND	2.0	μ g/L	1	10/9/2008 1:14:20 AM
Surr: 4-Bromofluorobenzene	91.0	65.9-130	%REC	1	10/9/2008 1:14:20 AM

S Spike recovery outside accepted recovery limits

RL Reporting Limit

Page 10 of 11

Value exceeds Maximum Contaminant Level

E Value above quantitation range

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

Date: 15-Oct-08

CLIENT:

Animas Environmental Services

Lab Order:

0809663

BMG Highway 537 06'&07' Spill

Project: Lab ID:

0809663-11

Client Sample 1D: Field Blank

Collection Date: 9/24/2008 6:20:00 AM

Date Received: 9/30/2008

Analyses	Result	PQL	Qual Units	DF	Date Analyzed				
EPA METHOD 8021B: VOLATILES					Analyst: DAM				
Benzene	ND	1.0	μg/L	1	10/8/2008 12:31:28 PM				
Toluene	ND	1.0	μg/ L	. 1	10/8/2008 12:31:28 PM				
Ethylbenzene	ND	1.0	μg/L	1	10/8/2008 12:31:28 PM				
Xylenes, Total	ND	2.0	μg/L	1	10/8/2008 12:31:28 PM				
Surr: 4-Bromofluorobenzene	90.9	65.9-130	%REC	1	10/8/2003 12:31:28 PM				

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

Date: 15-Oct-08

QA/QC SUMMARY REPORT

Client:

Animas Environmental Services

Project:

BMG Highway 537 06'&07' Spill

Work Order:

0809663

							
Analyte	Result	Units	PQL	%Rec	LowLimit HighLimit	%RPD RPI	DLimit Qual
Method: EPA Method 8015B: D	iesel Range					/	
Sample ID: MB-17240		MBLK			Batch ID: 17240	Analysis Date:	10/2/2008
Diesel Range Organics (DRO)	ND	mg/L	1.0				
Motor Oil Range Organics (MRO)	ND	mg/L	5.0				
Sample ID: LCS-17240		LCS			Batch ID: 17240	Analysis Date:	10/2/2008
Diesel Range Organics (DRO)	5.738	mg/L	1.0	115	74 157		
Motor Oil Range Organics (MRO)	ND	mg/L	5.0				
Sample ID: LCSD-17240		LCSD			Batch ID: 17240	Analysis Date:	10/2/2008
Diesel Range Organics (DRO)	5.685	mg/L	1.0	114	74 157		
Motor Oil Range Organics (MRO)	ND	mg/L	5.0				
Method: EPA Method 8015B: G	asoline Ran	ae					
Sample ID: 0809663-10A MSD		MSD			Batch ID: R30593	Analysis Date:	10/9/2008 5:17:17 AM
Gasoline Range Organics (GRO)	0.4438	mg/L	0.050	88.8	80 115	3.28 8.3	9
Sample ID: B		MBLK			Batch ID: R30593	Analysis Date:	10/8/2008 12:01:03 PM
Gasoline Range Organics (GRO)	ND	mg/L	0.050			e e e e e e e e e e e e e e e e e e e	
Sample ID: 2.5UG GRO LCS		LCS			Batch ID: R30593	Analysis Date:	10/9/2008 5:47:36 AM
Gasoline Range Organics (GRO)	0.4572	mg/L	0.050	91.4	80 115	•	
Sample ID: 2.5UG GRO LCS		LCS	0.000	•	Batch ID: R30593	Analysis Date:	10/9/2008 2:26:28 PM
Gasoline Range Organics (GRO)	0.5470	mg/L	0.050	109	80 115		
Sample ID: 0809663-10A MS	0.0470	MS	0.000	103	Batch ID: R30593	Analysis Date:	10/9/2008 4:46:56 AM
Gasoline Range Organics (GRO)	0.4586	mg/L	0.050	91.7	80 115		
Sacomic Mange Organics (ONO)	0.4300	mg/L	0.000	31.7	00 115		

Qualifiers:

S Spike recovery outside accepted recovery limits

E Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

Date: 15-Oct-08

QA/QC SUMMARY REPORT

Client:

Animas Environmental Services

Project:

BMG Highway 537 06'&07' Spill

Work Order:

0809663

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD F	RPDLimit Qual
Method: EPA Method 8021B: V	olatiles							
Sample ID: 0809663-10A MSD		MSD			Batch JD	R30593	Analysis Date	: 10/9/2008 5:17:17 AM
Benzene	6.136	μg/L	1.0	110	85.9	. 113	2.47	27
Toluene	42.28	μg/L	1.0	106	86.4	113	1.61	19
Ethylbenzene	8.404	μ g/L	1.0	105	83.5	118	2.75	10
Xylenes, Total	49.07	μ g/L	2.0	107	83.4	122	3.40	.13
Sample ID: B		MBLK			Batch ID	: R30593	Analysis Date	: 10/8/2008 12:01:03 PM
Benzene	ND	µg/L	1.0					
Toluene	ND	µg/L	1.0					
Ethylbenzene	ND	µ g/L	. 1.0					
Xylenes, Total	ND	µg/L	2.0					
Sample ID: 100NG BTEX LCS		LCS			Batch ID	R30593	Analysis Date	: 10/9/2008 6:17:58 AM
Benzene	20.21	μ g /L	1.0	101	85.9	113		
Toluene	20.71	µg/L	1.0	104	86.4	113		
Ethylbenzene	20.63	µg/L	1.0	103	83.5	118		
Xylenes, Total	61.67	μg/L	2.0	103	83.4	122		
Sample ID: 100NG BTEX LCS		LCS			Batch ID	R30593	Analysis Date	10/9/2008 6:17:58 AM
Benzene «	20.21	μg/L	1.0	101	85.9	113		
Foluene	20.71	μg/L	1.0	104	86.4	113		
Ethylbenzene	20.63	µg/L	1.0	103	83.5	118		
Kylenes, Total	61.67	µg/L	2.0	103	83.4	122		
Sample ID: 0809663-10A MS		MS			Batch ID	R30593	Analysis Date:	10/9/2008 4:46:56 AM
Benzene	5.986	μg/L	1.0	107	85.9	113		
Toluene	42.96	μg/L	1.0	107	86.4	113		
Ethylbenzene	8.638	µg/L	1.0	108	83.5	118		
Kylenes, Total	50.77	µg/L	2.0	110	83.4	122		

Qualifiers:

E Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

Sample Receipt Checklist

Client Name ANIMAS ENVIRONMENTAL				Date Receiv	ed:		9/30/2008	
Work Order Number 0809663 Checklist completed by: Signature	· · · · · · · · · · · · · · · · · · ·	1	H bete	Received to	y: AMF labels checked		initials ()	
Matrix:	Carrier name	Clier	nt drop-of	<u>f</u>				
Shipping container/cooler in good condition?		Yes	V	No 🗆	Not Present		•	
Custody seals intact on shipping container/coole	er?	Yes	\checkmark	No 🗔	Not Present		Not Shipped	
Custody seals intact on sample bottles?		Yes		No 🗀	N/A	V		
Chain of custody present?		Yes	\checkmark	No 🗆				
Chain of custody signed when relinquished and	received?	Yes	$ \mathbf{V} $	No 🗌				
Chain of custody agrees with sample labels?		Yes	\checkmark	No 🗌				
Samples in proper container/bottle?		Yes	V	No 🗌				
Sample containers intact?		Yes	V	No 🗌				
Sufficient sample volume for indicated test?		Yes	\checkmark	No 🗀				
All samples received within holding time?		Yes	\checkmark	No 🔲				
Water - VOA vials have zero headspace?	No VOA vials submi	itted		Yes 🗹	No 🗌			
Water - Preservation labels on bottle and cap ma	atch?	Yes		No 🗀	N/A 🗹			
Water - pH acceptable upon receipt?		Yes		No 🗀	N/A 🗹			
Container/Temp Blank temperature?			4°	<6° C Acceptal	ble			
COMMENTS:				If given sufficien	it time to cool.			
•								
			==:			==		
			•					
Client contacted I	Date contacted:			Pers	son contacted			
Contacted by:	Regarding:							
Comments:								
Corrective Action								

1026 Mul-4 Sample Request Description Time Sample Request Description	INTERNACTIONS INTERNACTIONS	ANALYSIS LABORATORY	www.hallenvironmental.com	40寸 ちば 4901 Hawkins NE - Albuquerque, NM 87109	Tel. 505-345-3975 Fax 505-345-4107	Anal	(Vin	1208) 10 28£ 9[G\2	MB-5 PH (Gal) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1	11 + 3 80158 1418.1 1504.1 1504.1 18260 1095, N	hod thoot thoot thoo thoo thoo thoo thoo	HEAL No. HEAL No. HEAL No. TOTAL Met BUEX +1 TOTAL Met BATEX +1		-2 X X	-3 X X		-> X X X S	~ X X >>	X X Z-	-8 X X X	XXX	-/o X X 0/-	X		Remarks: nmw ACC StandardS	<u> </u>	100 miles 100 miles
F-Custody Record Tum-Around Tum-Around Tum-Around Project Name: E. Comanche BAG Hu. SSSSST4-2281 SSMPILE Request ID Type and # MMJ-1 MMJ-2 MMJ-4 MMJ-4 MMJ-6 MMJ-10 S-40mb MMJ-10		□ Rush		06'407' Spill			(Aju	(802)	Hd (C	IT + 3	вти	HEAL No. ++	- Hel - I X	X X Z-	X X3 X X	X X X	X X S	x x >>	X X L-	× × × 8 -	× × †	-Hel -/O X X	Hol -11 X		Pr. Remarks:	80/25/6	
1053 Mul-6	cord			BMG	O! Project #:		Project Mar		10,			Container Type and #		2							\neg		2-,	_	The state of the s		1 (10001)
Client: A Address: Address: Address: Date Date Bate: CANOR Pare: C	ain-of-Custody Re	nimas Emiranmenta	vices, L.C.	i i	MN W	(50<)	ax#: <	iĝe:		□ EDD (Туре)				-		-					_	_	Trip		Relinquished by:	Time: Relinquished by:	700VVVV

HALL ENVIRONMENTAL	ANALYSIS LABORATORY	www.hallenvironmental.com	4901 Hawkins NE - Albuquerque, NM 87109	Tel. 505-345-3975 Fax 505-345-4107	Analysis Request	(*0	PO4,5	(1) (0) (1) (1) (1)	6 504 b 6 504	Metho Metho Metho ANG (F,C S,T) s	EDB (EDC (EDC (EDC (EDC (EDC (EDC (EDC (EDC									×				Remarks: NMW &CC StandordS		Ded Wa Greenbaunch	ntracted data will be cle
	lsh		06 407 Spill			(Aju	(802)	Hd	L + 38	ITM +	HEAL NO.	X	X	X	X	×	X	X	X	X	X	×		()	MAN	Laning	If necessary, samples submitted to Hall Environmental ridy lid subcontracted to other accredited laboratories. This serves as notice of this possibility. Any
Turn-Around Time:	☑ Standard □ Rush	Project Name:	18MG HWY 537		04030	Project Manager:	Ross Kenne	Sampler: N. (1):(1)		Container		5-40ML 4- Hel									5-40mt 4-Hel		o	Received by:	カ・グ		subcontracted to other accredited labor
Chain-of-Custody Record	invitanmental	11.6	١.	i .	N		□ Level 4 (Full Validation)				Sample Request ID	1-MW	MW- Z	MK1-3	H-MW	MM-S	9-MW	MW-7	M.W-8	M-19-	01-CIW	Trio Blanks		Relinquished by:	North William	Sold of the Control o	Submitted to Hall Environmental may to
Chain-of-C	Client: Animas Environmental	Services	Address: 624 后	Farminatan	Phone #: (50≤)	email or Fax#: 250	QA/QC Package:	□ Other	□ EDD (Type)	-	Date	9151 80/54	1026	1053	8 1	1237	1215	1302	1325	1352	SZH 80/57	-			130/08/08/0	9/30/08 690	If necessary, samples

