

**3R-449**

**Q4 2011**

**Groundwater  
Monitoring Report**

**Date:  
2011**



December 6, 2011

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

District Copy  
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OIL CONS. DIV.

DIST. 3

RE: **4th Quarter 2011 Groundwater Monitoring Report for Williams Four Corners, LLC, Sammons #2 Pipeline December 2009 Release, Flora Vista, San Juan County, New Mexico**

Dear Mr. von Gonten:

Animas Environmental Services, LLC (AES), on behalf of Williams Four Corners, LLC, has prepared this 4<sup>th</sup> *Quarter Groundwater Monitoring Report* for the Sammons #2 Pipeline December 2009 Release in accordance with New Mexico Oil Conservation Division (NMOCD) and New Mexico Environment Department (NMED) Ground Water Quality Bureau (GWQB) regulations. The subject site is located near Flora Vista, San Juan County, New Mexico.

A fourth quarterly groundwater monitoring and sampling event was completed November 8, 2011, in accordance with a workplan previously prepared by AES and dated March 3, 2011. The workplan was submitted to the NMOCD for review prior to implementing the proposed scope of work.

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## 1.0 Site Information

### 1.1 Site Location

The general project area is located in a rural area approximately 0.1 mile east of County Road 3000 on private property owned by Ms. Helen Clark. The spill location is located approximately 140 feet southeast of a wetland area that is adjacent to the Animas River. The project area is described legally as within the SE¼ NE¼ Section 32, T30N, R12W, in Flora Vista, San Juan County, New Mexico. Longitude and latitude were recorded as being N36°46'18.240" and W108°06'54.540". A topographic site location map is included as Figure 1, and a General Site Plan is presented as Figure 2.





## 1.2 Spill History

On December 3, 2009, trenching operations during routine pipeline replacement activities uncovered petroleum hydrocarbon contaminated soils. Williams was in the process of replacing an in-service 2-inch diameter natural gas pipeline with a new 4-inch diameter natural gas pipeline. The pipeline connects the Sammons 2 well locations, which are owned by Conoco Phillips. The volume of natural gas condensate released into the surrounding environment and the length of time that the 2-inch diameter pipeline was leaking are unknown.

Initial remedial activities were completed between December 7 and 17, 2009, and included excavation of approximately 1,884 cubic yards of petroleum contaminated soil (PCS) and removal of 1,122 barrels (bbls) of petroleum contaminated groundwater. Petroleum contaminated soil and groundwater were transported to Industrial Ecosystems, Inc. (IEI) on Crouch Mesa, San Juan County, for disposal. Soil excavation and removal activities were documented in the *Remedial Activities Report for Sammons #2 Pipeline 2009 Spill*, prepared by AES and dated January 11, 2010.

Six 1-inch diameter groundwater monitoring wells were installed and sampled at the site in April 2010. Analytical results from groundwater samples collected during the April 2010 sampling event showed benzene concentrations exceeded the New Mexico Water Quality Control Commission (WQCC) standard of 10 µg/L in one well, MW-1 (11 µg/L). The remaining wells had benzene, toluene, ethylbenzene, and xylene (BTEX) concentrations either below laboratory detection limits or well below applicable WQCC standards.

Diesel and motor oil range organics were below laboratory detection limits for all wells sampled. Low level gasoline range organics (GRO) were detected in MW-2, MW-4, MW-5, and MW-6. Based on the laboratory results, AES recommended continued quarterly groundwater monitoring at the site for at least a year.

Groundwater investigation details are included within the *Site Investigation Report* prepared by AES and dated May 5, 2010. Subsequent quarterly groundwater monitoring events were conducted in July and October 2010, and January, April, and August 2011. Groundwater monitor reports were prepared and submitted in August and November 2010 and in February, May, and August 2011.



## 2.0 Groundwater Monitoring and Sampling November 2011

On November 8, 2011, groundwater monitoring and sampling activities were conducted by AES. Work was completed in accordance with the workplan prepared by AES and dated March 3, 2011, 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.

### 2.1 Notification

AES notified Mark Potochnik of Williams and Nick Clark, land owner, via telephone before initiating sampling activities. AES also notified NMOCD via electronic mail prior to the scheduled field work.

### 2.2 Groundwater Monitor Well Monitoring and Sampling

AES personnel completed groundwater monitoring and sampling of the wells on November 8, 2011. Groundwater samples were collected with new disposable bailers from a total of six monitor wells and transferred into appropriate sample containers, labeled accordingly, and documented on Water Sample Collection Forms.

Prior to sample collection, water quality measurements were recorded and included depth to groundwater, pH, temperature, conductivity, dissolved oxygen (DO), and oxidation reduction potential (ORP). Depth to groundwater was measured with a Keck Water Level Indicator, and water quality data was measured with a YSI Water Quality Meter. Samples were shipped in insulated coolers containing ice at less than 6 °C to Hall Environmental Analytical Laboratory (Hall) in Albuquerque, New Mexico.

#### 2.2.1 Laboratory Analyses - Groundwater

All groundwater analytical samples were analyzed for BTEX per USEPA Method 8021B.

#### 2.2.2 Measurement Data

Depths to groundwater varied across the site and were observed to range from 0.35 feet below top of casing (TOC) in MW-6 to 1.89 feet below TOC in MW-1. The groundwater gradient was calculated to be approximately 0.01 ft/ft to the northwest, which is consistent with previous site data. Note that the site is considered to be groundwater under the direct influence (GUDI) of the Animas River.

Following depth to water measurement, each well was purged with a disposable bailer until recorded temperature, pH, conductivity, and DO measurements were stabilized. All data was recorded onto Water Sample Collection Forms. Groundwater temperature ranged from 6.33°C to 11.93°C, and conductivity ranged from 0.750 mS to 8.303 mS. DO



concentrations were between 0.37 mg/L in MW-3 and 2.02 mg/L in MW-1, and pH ranged from 6.78 to 7.46. Although DO was recorded during field activities, it should be noted that due to the use of bailers, the accuracy of dissolved oxygen measurements is limited. Depth to groundwater measurements and water quality data are summarized in Table 1, and groundwater elevation contours are presented in Figure 2. Water Sample Collection forms are presented in Appendix A.

### **2.2.3 Groundwater Analytical Results**

Analytical results from groundwater samples collected during the November 2011 sampling event showed that BTEX concentrations were reported below the laboratory detection limits and applicable WQCC regulatory limits in all monitor wells (MW-1 through MW-6). Groundwater analytical laboratory reports are presented in Appendix A.

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## **3.0 Conclusion and Recommendations**

AES personnel conducted groundwater monitoring and sampling at the location of the Sammons #2 Pipeline December 2009 Release in November 2011. Depths to groundwater varied across the site and were observed to exist at about 0.35 to 1.89 feet below TOC, and groundwater gradient was calculated to be approximately 0.01 ft/ft to the northwest, which is consistent with previous site data.

Groundwater analytical results showed that contaminants of concern (BTEX) were below applicable WQCC standards. Dissolved phase benzene concentrations in MW-2 have remained below the WQCC standard for six consecutive quarters. Remaining wells, MW-1, MW-3, MW-4, MW-5, and MW-6, have remained below applicable WQCC standards for seven consecutive quarters.

Based on the presented information and in accordance with per the subject workplan, AES will continue quarterly sampling for one additional event for MW-1, MW-3, MW-4, MW-5, and MW-6 to ensure eight consecutive quarters of groundwater contaminant concentrations below WQCC standards. Additionally, MW-2 will be sampled for an additional two quarters to ensure eight consecutive quarters below WQCC standards. The next sampling event is tentatively scheduled for February 2012.

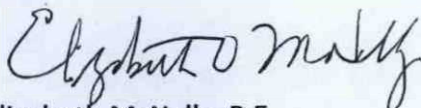
If you have any questions regarding site conditions or this report, please do not hesitate to contact Tami Ross or Elizabeth McNally at (505) 564-2281.



Sincerely,



Corwin Lameman  
Geologist Intern



Elizabeth McNally, P.E.  
New Mexico Registration #15799

Attachments:

Tables

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

Figures

- Figure 1. Topographic Site Location Map  
Figure 2. General Site Plan and Groundwater Elevations, November 2011  
Figure 3. Groundwater Analytical Results, November 2011

Appendix A

- Water Sample Collection Forms  
Groundwater Analytical Laboratory Reports

cc: Mr. Brandon Powell  
New Mexico Oil Conservation Division  
1000 Rio Brazos Road  
Aztec, New Mexico 87410



Mr. Mark Potochnik  
Williams -Midstream  
188 CR 4900  
Bloomfield, NM 87413

Mr. Nick Clark  
719 Otten Street  
Aztec, NM 87410

Files:2011/Williams/Sammons#2/Groundwater/Reports/4th Qtr Investigation Report 120611



TABLE 1  
SUMMARY OF GROUNDWATER MEASUREMENT AND WATER QUALITY DATA  
Williams Four Corners #2 Pipeline December 2009 Release  
Flora Vista, San Juan County, New Mexico

<i>Well ID</i>	<i>Date Sampled</i>	<i>Depth to Water (ft)</i>	<i>Surveyed TOC (ft)</i>	<i>GW Elev. (ft)</i>	<i>Temperature (C)</i>	<i>Conductivity (mS)</i>	<i>DO (mg/L)</i>	<i>pH</i>	<i>ORP (mV)</i>
MW-1	20-Apr-10	2.43	5427.26	5424.83	10.19	4.392	0.43	7.05	35.1
MW-1	20-Jul-10	2.05	5427.26	5425.21	14.75	1.108	1.76	7.14	-89.7
MW-1	28-Oct-10	1.95	5427.26	5425.31	11.84	3.797	0.67	7.03	-71.0
MW-1	25-Jan-11	3.21	5427.26	5424.05	6.45	3.357	2.77	7.40	-13.8
MW-1	27-Apr-11	1.97	5427.26	5425.29	10.16	3.472	3.92	7.12	-6.7
MW-1	11-Aug-11	2.68	5427.26	5424.58	15.31	0.885	0.92	6.98	-111.0
MW-1	08-Nov-11	1.89	5427.26	5425.37	10.66	2.674	2.02	6.78	-102.8
MW-2	20-Apr-10	1.11	5424.98	5423.87	10.37	1.670	0.20	7.39	-132.7
MW-2	20-Jul-10	0.91	5424.98	5424.07	19.09	0.930	1.84	7.26	-99.3
MW-2	28-Oct-10	0.92	5424.98	5424.06	11.52	0.719	0.22	7.45	-103.5
MW-2	25-Jan-11	1.74	5424.98	5423.24	4.55	1.621	2.20	7.59	-66.8
MW-2	27-Apr-11	0.95	5424.98	5424.03	9.69	1.659	1.76	7.31	-102.5
MW-2	11-Aug-11	1.34	5424.98	5423.64	17.21	0.753	0.24	7.05	-144.7
MW-2	08-Nov-11	0.83	5424.98	5424.15	8.61	1.746	0.64	7.36	-115.3
MW-3	20-Apr-10	1.77	5425.44	5423.67	9.73	2.005	0.24	7.21	-69.0
MW-3	20-Jul-10	1.56	5425.44	5423.88	17.89	0.842	1.52	7.22	-85.6
MW-3	28-Oct-10	1.66	5425.44	5423.78	12.61	0.670	0.18	7.43	-108.4
MW-3	25-Jan-11	2.36	5425.44	5423.08	6.13	1.438	1.70	7.63	-63.5
MW-3	27-Apr-11	1.61	5425.44	5423.83	10.70	1.481	1.80	7.34	-111.5
MW-3	11-Aug-11	1.95	5425.44	5423.49	17.42	0.683	0.22	7.03	-127.2
MW-3	08-Nov-11	1.56	5425.44	5423.88	10.66	0.750	0.37	7.46	-156.1
MW-4	20-Apr-10	1.59	5424.38	5422.79	9.60	2.174	0.22	7.29	-88.4
MW-4	20-Jul-10	1.44	5424.38	5422.94	16.39	1.061	1.29	7.17	-87.7
MW-4	28-Oct-10	1.39	5424.38	5422.99	14.48	1.026	0.22	7.28	-111.1
MW-4	25-Jan-11	1.84	5424.38	5422.54	6.88	1.465	2.55	7.52	-56.2



TABLE 1  
SUMMARY OF GROUNDWATER MEASUREMENT AND WATER QUALITY DATA  
Williams Four Corners #2 Pipeline December 2009 Release  
Flora Vista, San Juan County, New Mexico

<i>Well ID</i>	<i>Date Sampled</i>	<i>Depth to Water (ft)</i>	<i>Surveyed TOC (ft)</i>	<i>GW Elev. (ft)</i>	<i>Temperature (C)</i>	<i>Conductivity (mS)</i>	<i>DO (mg/L)</i>	<i>pH</i>	<i>ORP (mV)</i>
MW-4	27-Apr-11	1.40	5424.38	5422.98	11.21	1.560	1.40	7.35	-136.8
MW-4	11-Aug-11	1.77	5424.38	5422.61	17.12	0.960	0.12	6.96	-135.2
MW-4	08-Nov-11	1.26	5424.38	5423.12	11.93	1.125	0.68	7.26	-145.8
MW-5	20-Apr-10	1.00	5424.17	5423.17	9.88	3.140	0.21	7.37	-102.6
MW-5	20-Jul-10	0.86	5424.17	5423.31	20.50	1.440	1.03	6.98	-93.5
MW-5	28-Oct-10	0.75	5424.17	5423.42	15.62	1.650	0.30	7.09	-91.7
MW-5	25-Jan-11	1.32	5424.17	5422.85	6.15	1.707	2.94	7.49	-53.3
MW-5	27-Apr-11	0.84	5424.17	5423.33	10.69	1.948	0.73	7.22	-111.1
MW-5	11-Aug-11	1.33	5424.17	5422.84	18.48	1.647	0.16	6.75	-127.8
MW-5	08-Nov-11	0.60	5424.17	5423.57	10.51	8.303	0.60	7.14	-98.7
MW-6	20-Apr-10	1.04	5424.91	5423.87	11.09	2.277	0.22	7.28	-113.6
MW-6	20-Jul-10	0.89	5424.91	5424.02	21.57	1.399	1.06	6.93	-82.3
MW-6	28-Oct-10	0.68	5424.91	5424.23	11.93	1.482	0.21	7.12	-89.6
MW-6	25-Jan-11	1.51	5424.91	5423.40	4.67	1.726	6.51	7.47	-30.9
MW-6	27-Apr-11	0.81	5424.91	5424.10	11.76	1.662	2.38	7.20	-96.5
MW-6	11-Aug-11	1.43	5424.91	5423.48	22.41	1.657	0.60	6.70	-121.0
MW-6	08-Nov-11	0.35	5424.91	5424.56	6.33	6.248	0.67	7.43	-58.9



TABLE 2  
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS  
Williams Four Corners #2 Pipeline December 2009 Release  
Flora Vista, San Juan County, New Mexico

Well ID	Date Sampled	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	GRO (C6-C10)	DRO (C10-C22)	MRO (C22-C32)
		(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)
<b>Analytical Method</b>		<b>8260B/8021</b>	<b>8260B/8021</b>	<b>8260B/8021</b>	<b>8260B/8021</b>	<b>8015</b>	<b>8015</b>	<b>8015</b>
<b>WQCC Standard</b>		<b>10</b>	<b>750</b>	<b>750</b>	<b>620</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>
MW-1	20-Apr-10	<1.0	<1.0	<1.0	<1.5	<0.050	<1.0	<5.0
MW-1	20-Jul-10	<1.0	<1.0	<1.0	<1.5	<0.050	<1.0	<5.0
MW-1	28-Oct-10	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-1	25-Jan-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-1	27-Apr-11	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
MW-1	11-Aug-11	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
MW-1	08-Nov-11	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
MW-2	20-Apr-10	11	<1.0	2.4	22	1.1	<1.0	<5.0
MW-2	20-Jul-10	<1.0	<1.0	<1.0	<1.5	<0.050	<1.0	<5.0
MW-2	28-Oct-10	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-2	25-Jan-11	2.6	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-2	27-Apr-11	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
MW-2	11-Aug-11	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
MW-2	08-Nov-11	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
MW-3	20-Apr-10	<1.0	<1.0	<1.0	<1.5	<0.050	<1.0	<5.0
MW-3	20-Jul-10	<1.0	<1.0	<1.0	<1.5	<0.050	<1.0	<5.0
MW-3	28-Oct-10	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-3	25-Jan-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-3	27-Apr-11	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
MW-3	11-Aug-11	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
MW-3	08-Nov-11	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
MW-4	20-Apr-10	9.9	<1.0	<1.0	<1.5	0.074	<1.0	<5.0
MW-4	20-Jul-10	<1.0	<1.0	<1.0	<1.5	<0.050	<1.0	<5.0
MW-4	28-Oct-10	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-4	25-Jan-11	2.5	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-4	27-Apr-11	2.1	<1.0	<1.0	<2.0	NA	NA	NA
MW-4	11-Aug-11	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
MW-4	08-Nov-11	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
MW-5	20-Apr-10	9.7	<1.0	<1.0	<1.5	0.055	<1.0	<5.0
MW-5	20-Jul-10	<1.0	<1.0	<1.0	<1.5	<0.050	<1.0	<5.0
MW-5	28-Oct-10	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-5	25-Jan-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-5	27-Apr-11	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
MW-5	11-Aug-11	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
MW-5	08-Nov-11	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
MW-6	20-Apr-10	4.6	<1.0	11	47	3.2	<1.0	<5.0
MW-6	20-Jul-10	<1.0	<1.0	<1.0	<1.5	0.079	<1.0	<5.0

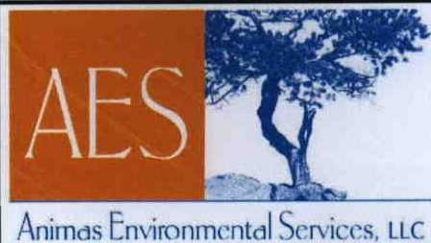
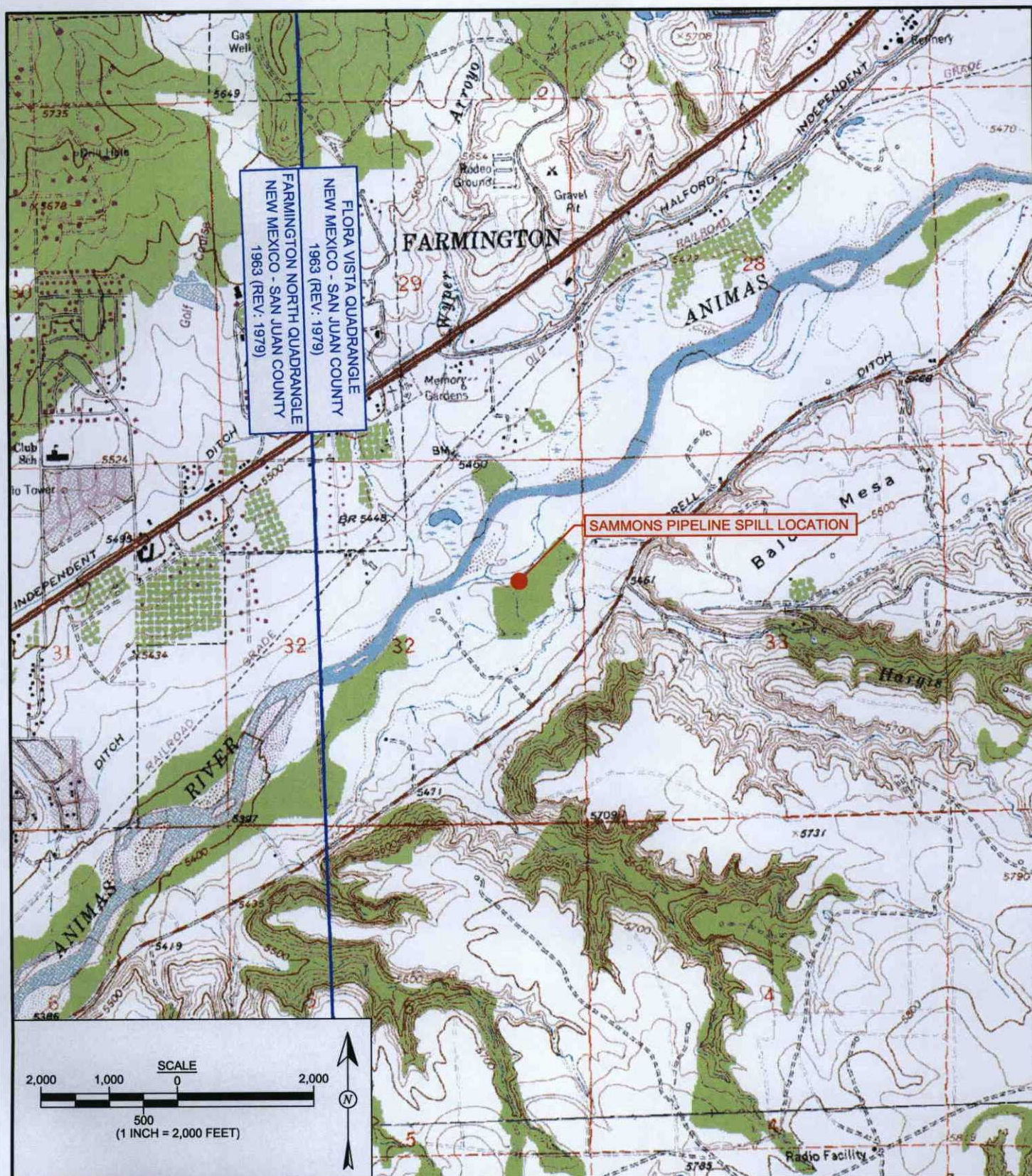


TABLE 2  
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS  
Williams Four Corners #2 Pipeline December 2009 Release  
Flora Vista, San Juan County, New Mexico

Well ID	Date Sampled	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	GRO (C6-C10)	DRO (C10-C22)	MRO (C22-C32)
		(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)
<b>Analytical Method</b>		8260B/8021	8260B/8021	8260B/8021	8260B/8021	8015	8015	8015
<b>WQCC Standard</b>		10	750	750	620	NE	NE	NE
MW-6	28-Oct-10	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-6	25-Jan-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-6	27-Apr-11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
MW-6	11-Aug-11	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
MW-6	08-Nov-11	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
Field Blank	22-Apr-10	<1.0	<1.0	<1.0	<1.5	NA	NA	NA

Notes: < - Analyte below laboratory detection limit  
NA - Not Analyzed  
NE - Not Established

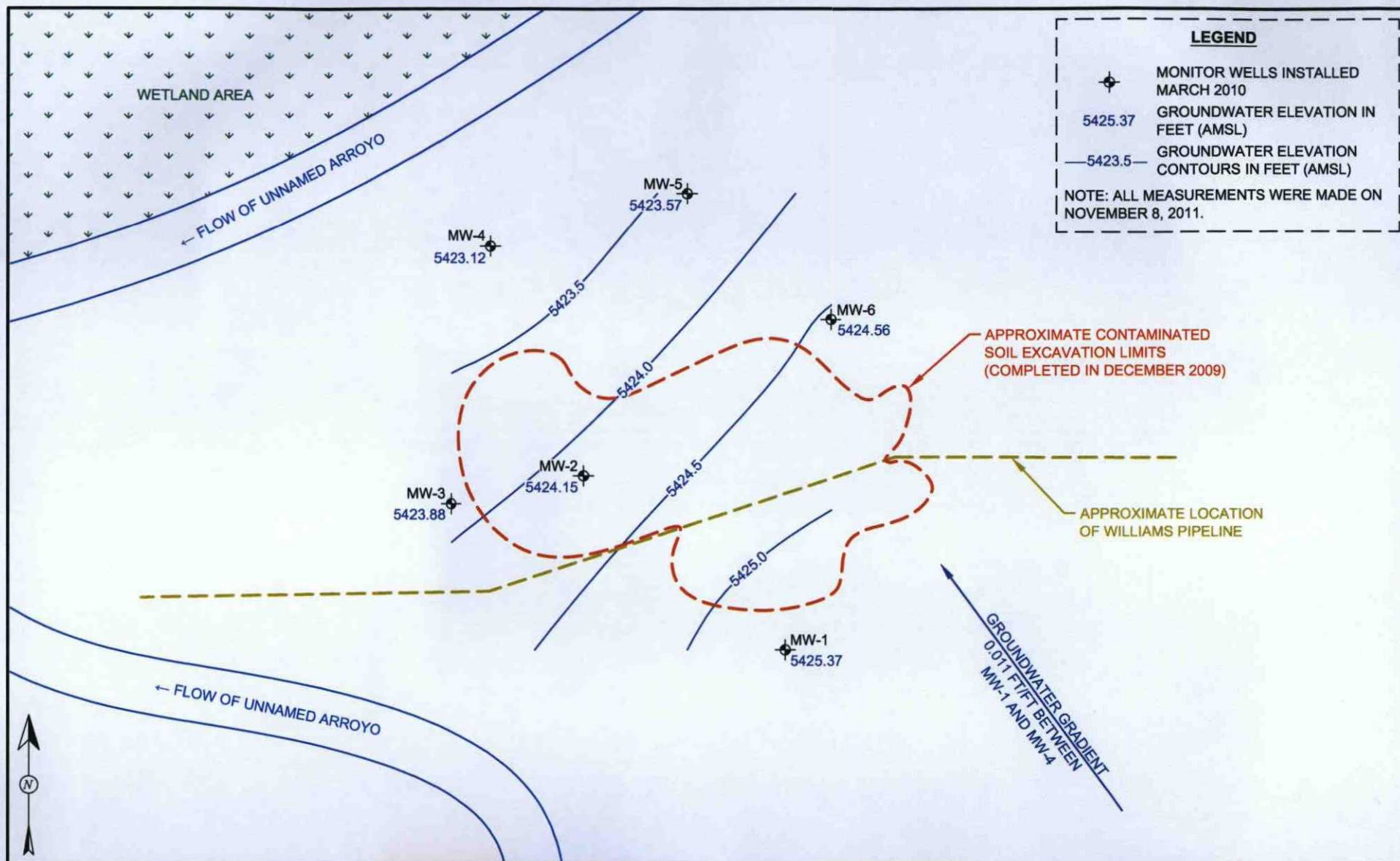




<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> December 29, 2009
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> November 11, 2011
<b>CHECKED BY:</b> E. McNally	<b>DATE CHECKED:</b> December 6, 2011
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> December 6, 2011

**TOPOGRAPHIC SITE LOCATION MAP**  
 WILLIAMS FOUR CORNERS, LLC  
 SAMMONS #2 PIPELINE DECEMBER 2009 RELEASE  
 FARMINGTON, SAN JUAN COUNTY, NEW MEXICO  
 N36°45'18.240" , W108°06'54.540"





**DRAWN BY:**  
C. Lameman

**DATE DRAWN:**  
April 13, 2010

**REVISIONS BY:**  
C. Lameman

**DATE REVISED:**  
November 11, 2011

**CHECKED BY:**  
E. McNally

**DATE CHECKED:**  
December 6, 2011

**APPROVED BY:**  
E. McNally

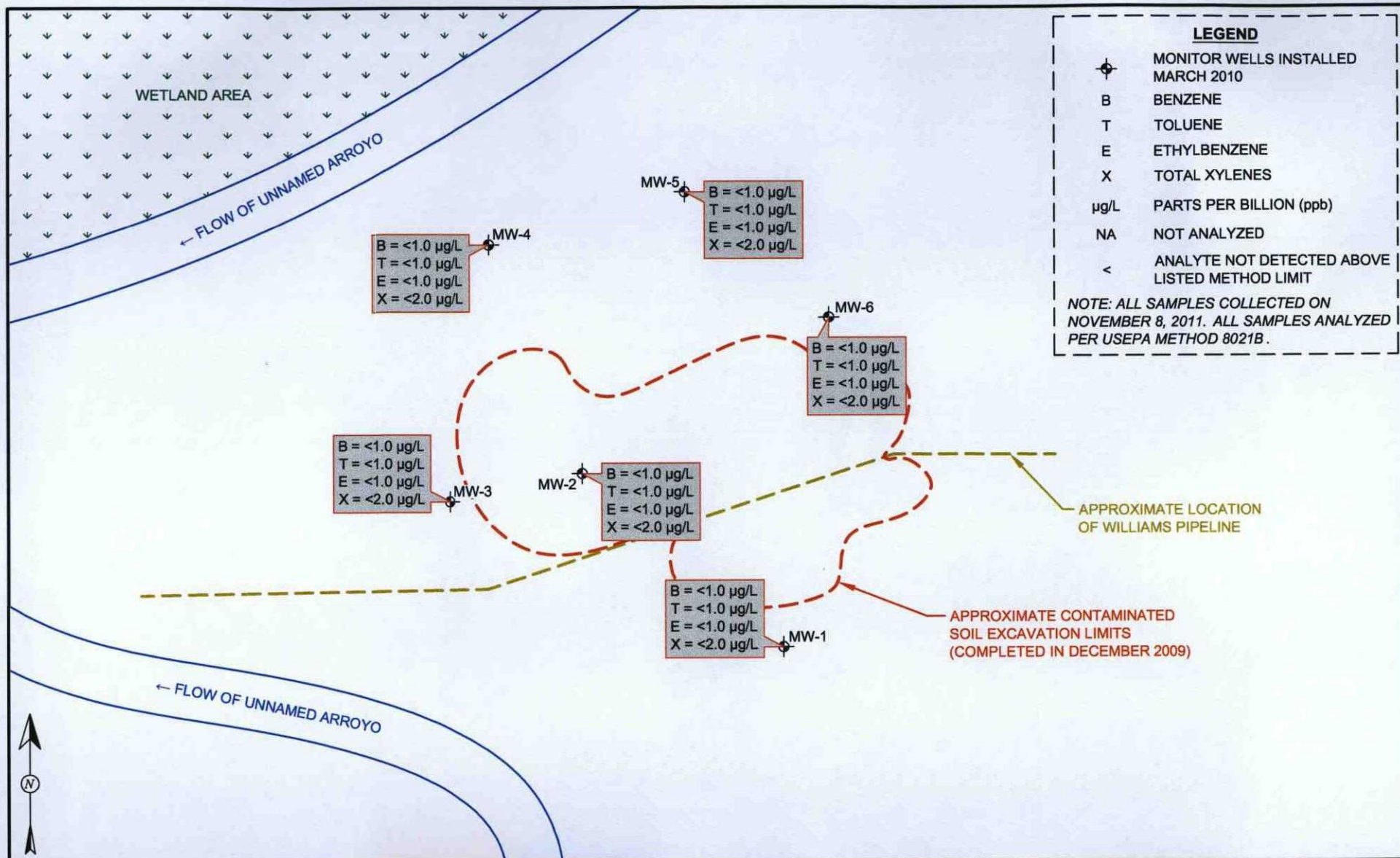
**DATE APPROVED:**  
December 6, 2011

## FIGURE 2

### GENERAL SITE PLAN AND GROUNDWATER ELEVATION CONTOURS NOVEMBER 2011

WILLIAMS FOUR CORNERS, LLC  
SAMMONS #2 PIPELINE DECEMBER 2009 RELEASE  
FARMINGTON, SAN JUAN COUNTY, NEW MEXICO  
N36°46'18.240" , W108°06'54.540"





**FIGURE 3**

**GROUNDWATER ANALYTICAL RESULTS  
NOVEMBER 2011**

WILLIAMS FOUR CORNERS, LLC  
 SAMMONS #2 PIPELINE DECEMBER 2009 RELEASE  
 FARMINGTON, SAN JUAN COUNTY, NEW MEXICO  
 N36°46'18.240" , W108°06'54.540"



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

Form: 1 of 1

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



# MONITORING WELL SAMPLING RECORD

Animas Environmental Services

Monitor Well No: **MW-1**

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

Site: Williams Sammons #2 Pipeline Spill  
Location: Flora Vista, San Juan County, New Mexico  
Project: Groundwater Monitoring and Sampling  
Sampling Technician: N. Williams

Project No.: AES 091204

Date: 11-8-11

Arrival Time: 1151

Air Temp: 45°F

T.O.C. Elev. (ft): 5427.26

Total Well Depth (ft): 5.9

Purge / No Purge: Purge

Well Diameter (in): 1

Initial D.T.W. (ft): Time: (taken at initial gauging of all wells)

Confirm D.T.W. (ft): 1.89 Time: 1154 (taken prior to purging well)

Final D.T.W. (ft): Time: (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) <del>(mS)</del>	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
<del>1200</del> 1208	10.37	3.912	3.90	6.95	-91.0	1/6 gal	
1208	10.29	3.142	4.40	6.90	-94.9	1/6	
1210	10.58	2.955	3.29	6.84	-98.8	1/6	
1212	10.62	2.791	2.57	6.82	-101.0	1/6	
1214	10.63	2.709	2.23	6.80	-102.2	1/6	
1216	10.66	2.674	2.02	6.78	-102.8	1/6	
1221							Samples collected

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

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

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

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

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

Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM

Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter  
and New Disposable Bailor

Notes/Comments:



# MONITORING WELL SAMPLING RECORD

Animas Environmental Services

Monitor Well No: MW-2

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

Site: Williams Sammons #2 Pipeline Spill

Project No.: AES 091204

Location: Flora Vista, San Juan County, New Mexico

Date: 11-8-11

Project: Groundwater Monitoring and Sampling

Arrival Time: 1226

Sampling Technician: N. Willis

Air Temp: 45°F

Purge / No Purge: Purge

T.O.C. Elev. (ft): 5424.98

Well Diameter (in): 1

Total Well Depth (ft): 5.96

Initial D.T.W. (ft): \_\_\_\_\_ Time: \_\_\_\_\_ (taken at initial gauging of all wells)

Confirm D.T.W. (ft): 0.83 Time: 1227 (taken prior to purging well)

Final D.T.W. (ft): \_\_\_\_\_ Time: \_\_\_\_\_ (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) ( <del>ms</del> )	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1233	7.74	3.005	1.55	7.40	-63.5	0.25 gal.	
1235	8.32	2.329	0.85	7.40	-82.3	0.25	
1237	8.42	2.059	0.67	7.39	-94.9	0.25	
1239	8.51	1.894	0.61	7.38	-104.5	0.25	
1241	8.57	1.810	0.61	7.37	-110.5	0.25	
1243	8.61	1.746	0.64	7.36	-115.3	0.25	
1248							Samples Collected

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

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

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

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

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

Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM

Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter  
and New Disposable Bailor

Notes/Comments:



# MONITORING WELL SAMPLING RECORD

Animas Environmental Services

Monitor Well No: MW-3

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

Site: Williams Sammons #2 Pipeline Spill  
Location: Flora Vista, San Juan County, New Mexico  
Project: Groundwater Monitoring and Sampling  
Sampling Technician: N. Wilco  
Purge / No Purge: Purge  
Well Diameter (in): 1  
Initial D.T.W. (ft):            Time:             
Confirm D.T.W. (ft): 1.56 Time: 12:53  
Final D.T.W. (ft):            Time:             
If NAPL Present: D.T.P.:            D.T.W.:            Thickness:            Time:           

Project No.: AES 091204  
Date: 11-8-11  
Arrival Time: 12:52  
Air Temp: 45°F  
T.O.C. Elev. (ft): 5425.44  
Total Well Depth (ft): 5.9  
(taken at initial gauging of all wells)  
(taken prior to purging well)  
(taken after sample collection)

## Water Quality Parameters - Recorded During Well Purging

Time	Temp (deg C)	Conductivity (µS) (mS)	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1259	10.50	0.763	0.70	7.58	-132.7	1/6 gal.	
1301	10.59	0.759	0.53	7.55	-140.1	1/6	
1303	10.60	0.757	0.44	7.53	-145.1	1/6	
1305	10.63	0.754	0.37	7.50	-150.4	1/6	
1307	10.66	0.753	0.36	7.49	-152.3	1/6	
1309	10.65	0.752	0.36	7.48	-154.4	1/6	
1311	10.66	0.750	0.37	7.46	-156.1	1/6	
1315							Samples collected

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

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

Disposal of Purged Water:           

Collected Samples Stored on Ice in Cooler:           

Chain of Custody Record Complete:           

Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM

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

Notes/Comments:



# MONITORING WELL SAMPLING RECORD

Animas Environmental Services

Monitor Well No: MW-4

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

Site: Williams Sammons #2 Pipeline Spill  
Location: Flora Vista, San Juan County, New Mexico  
Project: Groundwater Monitoring and Sampling  
Sampling Technician: N. Willis  
Purge / No Purge: Purge  
Well Diameter (in): 1  
Initial D.T.W. (ft): Time:  
Confirm D.T.W. (ft): 1.26 Time: 1322  
Final D.T.W. (ft): Time:  
If NAPL Present: D.T.P.: Time:

Project No.: AES 091204  
Date: 11-8-11  
Arrival Time: 1321  
Air Temp: 45°F  
T.O.C. Elev. (ft): 5424.38  
Total Well Depth (ft): 5.84  
(taken at initial gauging of all wells)  
(taken prior to purging well)  
(taken after sample collection)  
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
1328	11.62	1.133	0.64	7.36	-122.2	1/6 gal	
1330	11.54	1.131	0.51	7.32	-130.5	1/6	
1332	11.81	1.128	0.43	7.30	-136.2	1/6	
1334	11.85	1.127	0.42	7.29	-139.4	1/6	
1336	11.92	1.127	0.46	7.27	-141.9	1/6	
1338	11.95	1.126	0.58	7.26	-144.0	1/6	
1340	11.93	1.125	0.68	7.26	-145.8	1/6	
1343							Samples Collected

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

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

Disposal of Purged Water:

Collected Samples Stored on Ice in Cooler:

Chain of Custody Record Complete:

Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM

Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter  
and New Disposable Bailor

Notes/Comments:



MONITORING WELL SAMPLING RECORD							
Monitor Well No.: MW-5			Animas Environmental Services 624 E. Comanche, Farmington NM 87401 Tel. (505) 564-2281 Fax (505) 324-2022				
Site: Williams Sammons #2 Pipeline Spill			Project No.: AES 091204				
Location: Flora Vista, San Juan County, New Mexico			Date: 11-8-11				
Project: Groundwater Monitoring and Sampling			Arrival Time: 1349				
Sampling Technician: N. Willis			Air Temp: 46°F				
Purge / No Purge: Purge			T.O.C. Elev. (ft): 5424.17				
Well Diameter (in): 1			Total Well Depth (ft): 5.91				
Initial D.T.W. (ft): _____			(taken at initial gauging of all wells)				
Confirm D.T.W. (ft): 0.60			Time: 1351 (taken prior to purging well)				
Final D.T.W. (ft): _____			Time: _____ (taken after sample collection)				
If NAPL Present:			D.T.P.: _____	D.T.W.: _____	Thickness: _____ Time: _____		
Water Quality Parameters - Recorded During Well Purgings							
Time	Temp (deg C)	Conductivity ( $\mu S$ ) ( $mS$ )	DO (mg/L)	pH	ORP (mV)	PURGED VOLUME (see reverse for calc.)	Notes/Observations
1356	9.50	11.28	0.97	6.93	-74.7	1/6 gal.	
1358	9.82	11.27	0.76	6.98	-84.2	1/6 gal.	
1400	10.11	10.86	0.63	7.00	-90.5	1/6	
1402	10.29	10.37	0.68	7.04	-94.6	1/6	
1404	10.40	9.784	0.90	7.06	-96.9	1/6	
1406	10.44	9.279	0.78	7.10	-97.7	1/6	
1408	10.50	8.754	0.67	7.12	-98.2	1/6	
1410	10.51	8.303	0.60	7.14	-98.7	1/6	
1413	_____	_____	_____	_____	_____	_____	Samples collected
Analytical Parameters (include analysis method and number and type of sample containers)							
BTEX Only per EPA Method 8021 (3 - 40 mL Vials w/ HCl preserve)							
Disposal of Purged Water: _____							
Collected Samples Stored on Ice in Cooler: _____							
Chain of Custody Record Complete: _____							
Analytical Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM							
Equipment Used During Sampling: Keck Water Level or Keck Interface Level, YSI Water Quality Meter and New Disposable Bailor							
Notes/Comments:  							

~~revised: 00/10/09~~



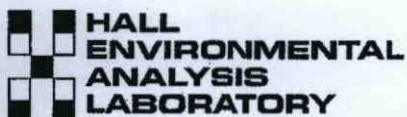
Monitor Well No: **MW-6**

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

D.T.W.:                      Thickness:                      Time:

## Notes/Comments:





## COVER LETTER

Thursday, November 17, 2011

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

TEL: (505) 564-2281

FAX (505) 324-2022

RE: Sammons #2 Pipeline

Order No.: 1111438

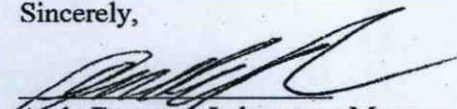
Dear Tami Ross:

Hall Environmental Analysis Laboratory, Inc. received 7 sample(s) on 11/9/2011 for the analyses presented in the following report.

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

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,



Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901  
AZ license # AZ0682



**Hall Environmental Analysis Laboratory, Inc.**Date: 17-Nov-11  
Analytical ReportCLIENT: Animas Environmental Services  
Lab Order: 1111438  
Project: Sammons #2 Pipeline  
Lab ID: 1111438-01Client Sample ID: MW-1  
Collection Date: 11/8/2011 12:21:00 PM  
Date Received: 11/9/2011  
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		µg/L	1	11/11/2011 6:27:06 PM
Toluene	ND	1.0		µg/L	1	11/11/2011 6:27:06 PM
Ethylbenzene	ND	1.0		µg/L	1	11/11/2011 6:27:06 PM
Xylenes, Total	ND	2.0		µg/L	1	11/11/2011 6:27:06 PM
Surr: 4-Bromofluorobenzene	96.8	76.5-115		%REC	1	11/11/2011 6:27:06 PM

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

Page 1 of 7



**Hall Environmental Analysis Laboratory, Inc.**

Date: 17-Nov-11

Analytical Report

CLIENT: Animas Environmental Services

Client Sample ID: MW-2

Lab Order: 1111438

Collection Date: 11/8/2011 12:48:00 PM

Project: Sammons #2 Pipeline

Date Received: 11/9/2011

Lab ID: 1111438-02

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		µg/L	1	11/11/2011 8:27:14 PM
Toluene	ND	1.0		µg/L	1	11/11/2011 8:27:14 PM
Ethylbenzene	ND	1.0		µg/L	1	11/11/2011 8:27:14 PM
Xylenes, Total	ND	2.0		µg/L	1	11/11/2011 8:27:14 PM
Surr: 4-Bromofluorobenzene	95.9	76.5-115		%REC	1	11/11/2011 8:27:14 PM

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
NC Non-Chlorinated  
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits

Page 2 of 7



**Hall Environmental Analysis Laboratory, Inc.**

Date: 17-Nov-11

Analytical Report

CLIENT: Animas Environmental Services

Client Sample ID: MW-3

Lab Order: 1111438

Collection Date: 11/8/2011 1:15:00 PM

Project: Sammons #2 Pipeline

Date Received: 11/9/2011

Lab ID: 1111438-03

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		µg/L	1	11/11/2011 8:57:13 PM
Toluene	ND	1.0		µg/L	1	11/11/2011 8:57:13 PM
Ethylbenzene	ND	1.0		µg/L	1	11/11/2011 8:57:13 PM
Xylenes, Total	ND	2.0		µg/L	1	11/11/2011 8:57:13 PM
Surr: 4-Bromofluorobenzene	93.1	76.5-115		%REC	1	11/11/2011 8:57:13 PM

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
NC Non-Chlorinated  
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits

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**Hall Environmental Analysis Laboratory, Inc.**

Date: 17-Nov-11

Analytical Report

CLIENT: Animas Environmental Services

Client Sample ID: MW-4

Lab Order: 1111438

Collection Date: 11/8/2011 1:43:00 PM

Project: Sammons #2 Pipeline

Date Received: 11/9/2011

Lab ID: 1111438-04

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		µg/L	1	11/14/2011 1:48:23 PM
Toluene	ND	1.0		µg/L	1	11/14/2011 1:48:23 PM
Ethylbenzene	ND	1.0		µg/L	1	11/14/2011 1:48:23 PM
Xylenes, Total	ND	2.0		µg/L	1	11/14/2011 1:48:23 PM
Surr: 4-Bromofluorobenzene	94.6	76.5-115		%REC	1	11/14/2011 1:48:23 PM

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
NC Non-Chlorinated  
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits

Page 4 of 7



**Hall Environmental Analysis Laboratory, Inc.**

Date: 17-Nov-11

Analytical Report

CLIENT: Animas Environmental Services

Client Sample ID: MW-5

Lab Order: 1111438

Collection Date: 11/8/2011 2:13:00 PM

Project: Sammons #2 Pipeline

Date Received: 11/9/2011

Lab ID: 1111438-05

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		µg/L	1	11/11/2011 9:57:23 PM
Toluene	ND	1.0		µg/L	1	11/11/2011 9:57:23 PM
Ethylbenzene	ND	1.0		µg/L	1	11/11/2011 9:57:23 PM
Xylenes, Total	ND	2.0		µg/L	1	11/11/2011 9:57:23 PM
Surr: 4-Bromofluorobenzene	76.5	76.5-115		%REC	1	11/11/2011 9:57:23 PM

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
NC Non-Chlorinated  
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits

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**Hall Environmental Analysis Laboratory, Inc.**

Date: 17-Nov-11

**Analytical Report****CLIENT:** Animas Environmental Services**Client Sample ID:** TRIP BLANK**Lab Order:** 1111438**Collection Date:****Project:** Sammons #2 Pipeline**Date Received:** 11/9/2011**Lab ID:** 1111438-07**Matrix:** TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: RAA
Benzene	ND	1.0		µg/L	1	11/11/2011 10:57:20 PM
Toluene	ND	1.0		µg/L	1	11/11/2011 10:57:20 PM
Ethylbenzene	ND	1.0		µg/L	1	11/11/2011 10:57:20 PM
Xylenes, Total	ND	2.0		µg/L	1	11/11/2011 10:57:20 PM
Surr: 4-Bromofluorobenzene	95.9	76.5-115		%REC	1	11/11/2011 10:57:20 PM

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
NC Non-Chlorinated  
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits

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## QA/QC SUMMARY REPORT

Client: Animas Environmental Services  
 Project: Sammons #2 Pipeline

Work Order: 1111438

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
<b>Method: EPA Method 8021B: Volatiles</b>											
<b>Sample ID: 1111438-01A MSD</b>		<i>MSD</i>									
						Batch ID: R49068	Analysis Date: 11/11/2011 7:27:10 PM				
Benzene	19.29	µg/L	1.0	20	0.12	95.9	76.6	119	1.27	16.4	
Toluene	18.75	µg/L	1.0	20	0	93.8	77.3	118	3.00	13.9	
Ethylbenzene	18.98	µg/L	1.0	20	0	94.9	76.6	114	3.09	13.5	
Xylenes, Total	57.97	µg/L	2.0	60	0	96.6	82	113	3.33	12.9	
<b>Sample ID: b 14</b>		<i>MBLK</i>									
						Batch ID: R49068	Analysis Date: 11/11/2011 7:57:12 PM				
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	2.0								
<b>Sample ID: 100NG BTEX LCS</b>		<i>LCS</i>									
						Batch ID: R49068	Analysis Date: 11/11/2011 4:57:11 PM				
Benzene	19.42	µg/L	1.0	20	0.55	94.3	80	120			
Toluene	19.80	µg/L	1.0	20	0	99.0	80	120			
Ethylbenzene	19.79	µg/L	1.0	20	0	98.9	80	120			
Xylenes, Total	60.17	µg/L	2.0	60	0	100	80	120			
<b>Sample ID: 1111438-01A MS</b>		<i>MS</i>									
						Batch ID: R49068	Analysis Date: 11/11/2011 6:57:04 PM				
Benzene	19.54	µg/L	1.0	20	0.12	97.1	76.6	119			
Toluene	19.33	µg/L	1.0	20	0	96.6	77.3	118			
Ethylbenzene	19.58	µg/L	1.0	20	0	97.9	76.6	114			
Xylenes, Total	59.93	µg/L	2.0	60	0	99.9	82	113			

## Qualifiers:

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

Page 1



# Hall Environmental Analysis Laboratory, Inc.

## Sample Receipt Checklist

Client Name ANIMAS ENVIRONMENTAL

Date Received:

11/9/2011

Work Order Number 1111438

Received by: MMG

Checklist completed by:

Sample ID labels checked by:

Initials

Matrix:

Carrier name: Courier

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

Number of preserved bottles checked for pH:

<2 >12 unless noted below.

Container/Temp Blank temperature?

1.0°

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

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

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

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

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



# Chain-of-Custody Record

Client: Animas Environmental Services

Mailing Address 624 E Comanche Farmington NM  
87401

Phone #: 505-327-1624

email or Fax#: 505-324-2022

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

Sammons #2 Pipeline

Project #:

AES 091204

Project Manager:

Tami Ross  
~~Deborah Watson~~

Sampler:

N. Willis

On Ice: ☒ Yes ☐ No

Sample Temperature: 10°C

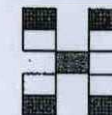
Container Type and #

Preservative Type

HEAL No

11/1/18

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No
11-8-11	1221	H <sub>2</sub> O	MW-1	3 - 40 mL glass	HCl	1
11-8-11	1248	H <sub>2</sub> O	MW-2	" "	" "	2
11-8-11	1315	H <sub>2</sub> O	MW-3	" "	" "	3
11-8-11	1343	H <sub>2</sub> O	MW-4	" "	" "	4
11-8-11	1413	H <sub>2</sub> O	MW-5	" "	" "	5
11-8-11	1442	H <sub>2</sub> O	MW-6	" "	" "	6



**HALL ENVIRONMENTAL  
ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

## Analysis Request

BTEX Only (8021)

Air Bubbles (Y or N)

Date: 11-8-11 Time: 1536 Relinquished by: N. Willis

Received by: Christine Walters

Date: 11/8/11 Time: 1536

Remarks:

Date: 11/8/11 Time: 1545 Relinquished by: Christine Walters

Received by: Michelle Garcia

Date: 11/9/11 Time: 10:00

BTEX Only

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.