



June 1, 2010

Project No. 03141-0104

Ms. Monica Sandoval
Williams Field Services
188 Road 4900
Bloomfield, NM 87413

Phone (505) 632-4625

**RE: 2ND QUARTER GROUNDWATER INVESTIGATION REPORT FOR WILLIAMS FIELD SERVICES
IGNACIO GAS PLANT, MAY 2010**

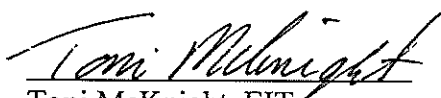
Dear Ms. Sandoval,

Enclosed please find the *2nd Quarter Groundwater Investigation Report* for groundwater sampling performed on May 12, 2010, at the Williams Field Services Ignacio Gas Plant located in the SW ¼ of Section 36, Township 34N, Range 9W, La Plata County, Colorado.

The water levels of eight (8) wells and one (1) piezometer were monitored. The piezometer (PZ-10) was found to be dry. All monitor wells were sampled and analyzed in the field for pH, temperature, and conductivity, and in the laboratory for BTEX via USEPA Method 8021 with the approval of the State of Colorado. All activities and results are discussed in the following report.

We appreciate the opportunity to be of service. If you have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully Submitted,
ENVIROTECH, INC.


Toni McKnight, EIT
Staff Scientist/Geologist
tmcknight@envirotech-inc.com

Enclosures: 2nd Quarter Groundwater Investigation Report

Cc: Client File 03141

**2ND QUARTER GROUNDWATER INVESTIGATION REPORT
WILLIAMS FIELD SERVICES
IGNACIO GAS PLANT
SECTION 36, TOWNSHIP 34N, RANGE 9W
LA PLATA COUNTY, COLORADO**

TABLE OF CONTENTS

INTRODUCTION.....	1
ACTIVITIES PERFORMED.....	1
CONCLUSIONS AND RECOMMENDATIONS.....	2

Figures: Figure 1, Vicinity Map
 Figure 2, Water Level Map
 Figure 3, Benzene Iso-Concentration Map

Tables: Table 1, Laboratory Results of Groundwater Sample Analyses
 Table 2, Water Level Measurements

Appendices: Appendix A, Laboratory Certificates of Analyses
 Appendix B, Field Notes

INTRODUCTION

This report summarizes the groundwater monitoring of eight (8) monitor wells (MW) and one (1) piezometer (PZ) at the Williams Field Services Ignacio Gas Plant. The site is located in the SW ¼ of Section 36, Township 34N, Range 9W, La Plata County, Colorado; see *Figure 1, Vicinity Map*. Activities in this report include sampling, laboratory analysis, documentation, and reporting.

The site has a moderate topographic relief of approximately 80 feet, with the surface gradient to the south and east towards Pine Creek. The site is located on an outcrop of Tertiary age dark marine shale sediments, believed to be the Nacimiento Formation.

ACTIVITIES PERFORMED

A *Sampling and Analysis Plan* was developed according to Section 2.2 of the State of Colorado groundwater protection rules. Prior to sampling, water levels were measured and a minimum of three (3) casing volumes were purged. Samples collected from the monitoring wells were analyzed in the field for pH, temperature, and conductivity and in the laboratory by USEPA Method 8021 for BTEX with the approval of the State of Colorado. Eight (8) wells and one (1) piezometer are located on the site.

On May 12, 2010, samples were collected from the eight (8) monitor wells, with the piezometer (PZ-10) being dry at the time of sampling. Samples were collected from MW-8, MW-11, MW-12, MW-4, MW-9, MW-2, MW-7, and POC-1. The samples were analyzed in the field for pH, temperature, and conductivity, and in the laboratory for BTEX via USEPA Method 8021 with the approval of the State of Colorado.

One (1) monitoring well had a benzene value above the State of Colorado regulatory standard of 5.0 ppb (MW-8 at 325 ppb); see *Figure 3, Benzene Iso-Concentration Map* and *Table 1, Laboratory Results of Groundwater Sample Analyses*. Benzene levels increased in MW-8 since the previous sampling event. MW-8 is located adjacent to the evaporation lagoon. A submersible pump was installed on MW-8 by Williams Field Service to purge groundwater from the well for approximately one (1) hour per day since July 22, 2009; however, groundwater had not been purged for approximately two (2) weeks prior to the sampling event. No other contaminants of concern exceeded State of Colorado water regulation standards in any of the monitoring wells; however, sample results from MW-2 and MW-9 showed low levels of benzene. MW-9 and MW-2 are located down-gradient of the evaporation lagoon. The benzene results observed in these wells were below the 5.0 ppb State of Colorado regulatory standard. Laboratory Certificates of Analyses are included; see *Appendix A, Laboratory Certificates of Analyses*.

The water quality analysis shows high conductivity in the area surrounding the evaporation lagoon. MW-11 and MW-12, the furthest upgradient wells sampled, exhibited conductivity reading of 1.14 mS and 1.55 mS; see *Appendix B, Field Notes*. These readings are

considered to be the background level. Conductivity readings in wells MW-2, MW-4, MW-7, MW-8, and MW-9, which surround the evaporation lagoon, ranged from 3.79 mS to 15.78 mS. The furthest downgradient well, POC-1, exhibited a conductivity reading of 1.29 mS, which is much lower than the elevated conductivity readings around the evaporation lagoon. The POC-1 conductivity readings were similar to the background determined for this site.

A water table map is presented as *Figure 2, Water Level Map* and shows various water gradients ranging from 0.0163 ft/ft at the north edge of the site to 0.163 ft/ft at the southeast edge of the site near Pine Creek. Water table measurements are summarized in *Table 2, Water Level Measurements*.


CONCLUSIONS AND RECOMMENDATIONS

Envirotech, Inc. has completed the quarterly monitoring activities for monitor wells at Williams Field Services Ignacio Gas Plant. At present there does not appear to be any migration of contaminants offsite from the lagoon or plant. Over the previous three (3) sampling events, the benzene levels in MW-8 have decreased significantly from 413.0 ppb to 41.4 ppb. The previous decrease in benzene levels in MW-8 may have been the result of daily purging of groundwater from the well. The increase in benzene levels in MW-8 during the current sampling event may be due to the discontinued purging of groundwater from the well. Over the previous three (3) sampling events, the benzene levels in MW-2 have increased from < 0.2 ppb to 6.5 ppb. The decrease in benzene levels in MW-2 during the current sampling event could be due to the increase in the groundwater elevation. MW-2 is located down-gradient from the evaporative lagoon and MW-8. Envirotech, Inc. recommends the installation of additional monitoring wells around the evaporation lagoon to better delineate possible migration of contaminants offsite from the lagoon or plant. These proposed monitoring wells are PMW-13, PMW-14, PMW-15, and PMW-17; see *Figure 3, Benzene Iso-Concentration Map*. The piezometer (PZ-10) has been dry since 2006 indicating that the evaporative pond may not be leaking. MW-12 appears to have been damaged and the casing is obstructed, not allowing a full three (3) volumes of purge before sampling. Envirotech, Inc. recommends continued sampling until constituents in all monitor wells are below State of Colorado groundwater regulatory levels.

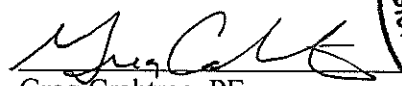
The undersigned has conducted this service at the above referenced site. This work has been conducted and reported in accordance with generally accepted professional practices in geology, engineering, environmental chemistry, and hydrogeology.

Submitted by:

ENVIROTECH, INC.


Toni McKnight, EIT
Staff Engineer/Geologist
tmcknight@envirotech-inc.com

Reviewed by:


Greg Crabtree, PE
Environmental Manager
gcrabtree@envirotech-inc.com



Site Name Williams Field Services/Ignacio Gas Plant
Date May 12, 2010
Project # 03141-0104

Table 1

Laboratory Results of Groundwater Sample Analyses

Colorado B & P Allowable Concentrations		5	1,000	680	10,000	
Well No.	Sample Date	ppb(ug/L)				
		Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX
MW-2	03/21/06	9.6	1.9	3.0	12.2	26.7
	05/05/06	17.6	5.3	2.8	23.2	48.9
	08/01/06	3.5	0.8	0.6	5.2	10.1
	10/31/06	8.0	4.7	2.6	13.4	28.7
	01/23/07	3.4	0.2	< 0.2	3.2	6.8
	07/31/07	0.4	< 0.2	0.2	1.0	1.6
	10/22/07	18.3	< 0.2	0.3	0.6	19.2
	02/11/08	12.2	0.4	< 0.2	0.2	12.8
	04/22/08	< 0.2	< 0.2	< 0.2	< 0.3	< 0.9
	07/23/08	< 0.2	< 0.2	< 0.2	< 0.3	< 0.9
	10/22/08	< 0.2	< 0.2	< 0.2	< 0.3	< 0.9
	01/19/09	2.4	0.7	0.5	1.1	4.7
	04/21/09	2.7	< 0.2	< 0.2	< 0.3	2.7
	07/22/09	4.2	< 0.2	< 0.2	< 0.3	4.2
	09/03/09	< 0.2	< 0.2	< 0.2	< 0.3	< 0.9
	10/27/09	5.1	< 0.2	< 0.2	< 0.3	5.1
	02/09/10	6.5	< 0.2	< 0.2	< 0.3	6.5
	05/12/10	2.3	< 0.2	< 0.2	< 0.3	2.3
MW-4	03/21/06	DRY				
	05/05/06	DRY				
	08/01/06	DRY				
	10/31/06	DRY				
	01/23/07	DRY				
	07/31/07	DRY				
	10/22/07	DRY				
	02/11/08	DRY				
	04/22/08	1.0	2.4	< 0.2	1.3	4.7
	07/23/08	< 0.2	< 0.2	< 0.2	< 0.3	< 0.9
	10/22/08	< 0.2	< 0.2	< 0.2	< 0.3	< 0.9
	01/19/09	2.9	0.8	0.4	1.5	5.6
	04/21/09	< 0.2	< 0.2	< 0.2	< 0.3	< 0.9
	07/22/09	< 0.2	< 0.2	< 0.2	< 0.3	< 0.9
	09/03/09	< 0.2	< 0.2	< 0.2	< 0.3	< 0.9
	10/27/09	DRY				
	02/09/10	DRY				
	05/12/10	< 0.2	< 0.2	< 0.2	< 0.3	< 0.9
MW-7	03/21/06	2.7	0.5	1.4	5.0	9.6
	05/05/06	12.2	1.3	1.0	3.2	17.7
	08/01/06	0.7	0.4	1.0	5.0	7.1
	10/31/06	1.3	1.3	0.8	5.3	8.7
	01/23/07	0.3	< 0.2	0.2	1.5	2.0
	07/31/07	< 0.2	< 0.2	< 0.2	< 0.3	< 0.9
	10/22/07	0.2	< 0.2	< 0.2	< 0.3	0.2
	02/11/08	< 0.2	0.5	0.2	0.7	1.4
	04/22/08	< 0.2	< 0.2	< 0.2	< 0.3	< 0.9
	07/23/08	7.1	0.2	0.2	0.4	7.9
	10/22/08	< 0.2	< 0.2	< 0.2	< 0.3	< 0.9
	01/19/09	1.0	0.3	0.4	0.8	2.5
	04/21/09	< 0.2	< 0.2	< 0.2	< 0.3	< 0.9
	07/22/09	0.3	0.4	0.3	1.2	2.2
	09/03/09	< 0.2	< 0.2	< 0.2	< 0.3	< 0.9
	10/27/09	< 0.2	< 0.2	< 0.2	< 0.3	< 0.9
	02/09/10	< 0.2	< 0.2	< 0.2	< 0.3	< 0.9
	05/12/10	< 0.2	< 0.2	< 0.2	< 0.3	< 0.9

Site Name Williams Field Services/Ignacio Gas Plant
Date May 12, 2010
Project # 03141-0104

Table 1
Laboratory Results of Groundwater Sample Analyses

Colorado E & P Allowable Concentrations		5	1,000	680	10,000	
Well No.	Sample Date	ppb(ug/L)				
		Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX
MW-8	03/21/06	143	168	9.8	93.5	414
	05/05/06	150	181	10.9	102.8	445
	08/01/06	72.2	103.0	5.2	49.8	230
	10/31/06	89.9	165	7.7	79.1	342
	01/23/07	184	227	8.2	84.0	503
	07/31/07	70.3	37.4	5.6	46.2	159.5
	10/22/07	57.9	14.5	3.7	22.6	98.7
	02/11/08	56.7	11.8	3.3	26.3	98.1
	04/22/08	49.5	8.3	2.8	25.1	85.7
	07/23/08	69.3	6.3	4.6	37.9	118.0
	10/22/08	163.0	4.3	9.6	42.7	220.0
	01/19/09	336.0	5.4	18.7	43.5	404
	04/21/09	454.0	1.8	16.6	30.9	503
	07/22/09	492.0	2.4	12.0	16.9	523.0
	09/03/09	413.0	<0.2	9.1	11.6	433.7
	10/27/09	166.0	3.0	0.7	6.9	177.0
	02/09/10	41.4	4.3	1.2	7.9	54.8
	05/12/10	325.0	0.5	1.5	10.0	337.0
MW-9	03/21/06	89.6	21.7	1.6	6.4	119
	05/05/06	79.5	19.1	0.9	9.2	109
	08/01/06	30.5	1.8	0.9	1.6	35
	10/31/06	52.2	1.4	0.3	< 0.3	53.9
	01/23/07	92.2	25.9	3.5	18.3	140
	07/31/07	22.2	< 0.2	0.2	0.2	22.6
	10/22/07	5.2	< 0.2	< 0.2	< 0.3	5.2
	02/11/08	5.1	0.4	< 0.2	< 0.3	5.5
	04/22/08	25.0	50.8	2.9	26.7	105.0
	07/23/08	<0.2	<0.2	<0.2	<0.3	<0.9
	10/22/08	<0.2	<0.2	<0.2	<0.3	<0.9
	01/19/09	<0.2	<0.2	<0.2	<0.3	<0.9
	04/21/09	1.9	< 0.2	< 0.2	< 0.3	1.9
	07/22/09	5.9	0.2	< 0.2	0.8	6.9
	09/03/09	<0.2	<0.2	<0.2	<0.3	<0.9
	10/27/09	1.3	<0.2	<0.2	<0.3	1.3
	02/09/10	1.2	0.2	<0.2	0.3	1.7
	05/12/10	0.8	<0.2	<0.2	<0.3	0.8
PZ-10	03/21/06	DRY				
	05/05/06	DRY				
	08/01/06	DRY				
	10/31/06	DRY				
	01/23/07	DRY				
	07/31/07	DRY				
	10/22/07	DRY				
	02/11/08	DRY				
	04/22/08	DRY				
	07/23/08	DRY				
	10/22/08	DRY				
	01/19/09	DRY				
	04/21/09	DRY				
	07/22/09	DRY				
	09/03/09	DRY				
	10/27/09	DRY				
	02/09/10	DRY				
	05/12/10	DRY				

Site Name Williams Field Services/Ignacio Gas Plant
Date May 12, 2010
Project # 03141-0104

Table 1

Laboratory Results of Groundwater Sample Analyses

Colorado B & P Allowable Concentrations		5	1,000	680	10,000	
Well No.	Sample Date	ppb(ug/L)				
		Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX
MW-11	03/21/06	DRY				
	05/05/06	DRY				
	08/01/06	DRY				
	10/31/06	INSUFFICIENT WATER TO SAMPLE				
	01/23/07	INSUFFICIENT WATER TO SAMPLE				
	07/31/07	DRY				
	10/22/07	DRY				
	01/30/08	< 0.2	< 0.2	< 0.2	< 0.3	< 0.9
	04/22/08	< 0.2	< 0.2	< 0.2	< 0.3	< 0.9
	07/23/08	2.2	4.1	0.3	2.0	8.6
	10/22/08	INSUFFICIENT WATER TO SAMPLE				
	01/19/09	INSUFFICIENT WATER TO SAMPLE				
	04/21/09	< 0.2	< 0.2	< 0.2	< 0.3	< 0.9
	07/22/09	DRY				
	09/03/09	DRY				
	10/27/09	DRY				
	02/09/10	DRY				
	05/12/10	< 0.2	< 0.2	< 0.2	< 0.3	< 0.9
MW-12	03/21/06	0.6	0.6	0.4	1.3	2.9
	05/05/06	3.0	4.3	2.5	40.8	50.6
	08/01/06	1.1	0.8	0.6	2.0	4.5
	10/31/06	15.9	28.3	4.3	14.1	62.6
	01/23/07	0.4	0.3	0.7	9.1	10.5
	07/31/07	< 0.2	< 0.2	< 0.2	0.3	0.3
	10/22/07	< 0.2	< 0.2	< 0.2	< 0.3	< 0.9
	01/30/08	< 0.2	< 0.2	< 0.2	< 0.3	< 0.9
	04/22/08	< 0.2	< 0.2	< 0.2	< 0.3	< 0.9
	07/23/08	0.3	0.3	0.3	0.7	1.6
	10/22/08	< 0.2	< 0.2	0.4	1.1	1.5
	01/19/09	< 0.2	< 0.2	< 0.2	< 0.3	< 0.9
	04/21/09	2.6	0.2	0.2	0.2	3.2
	07/22/09	< 0.2	< 0.2	< 0.2	< 0.3	< 0.9
	09/03/09	< 0.2	< 0.2	< 0.2	< 0.2	< 0.9
	10/27/09	< 0.2	< 0.2	< 0.2	< 0.2	< 0.9
	02/09/10	< 0.2	< 0.2	< 0.2	< 0.2	< 0.9
	05/12/10	< 0.2	< 0.2	< 0.2	< 0.2	< 0.9
POC-1	03/21/06	< 0.2	0.3	0.4	0.9	1.6
	05/05/06	0.5	0.7	2.5	3.8	7.5
	08/01/06	0.2	0.2	< 0.2	1.5	1.9
	10/31/06	< 0.2	< 0.2	< 0.2	2.2	2.2
	01/23/07	< 0.2	0.2	1.4	8.8	10.4
	07/31/07	< 0.2	< 0.2	< 0.2	< 0.3	< 0.9
	10/22/07	< 0.2	< 0.2	< 0.2	< 0.3	< 0.9
	02/11/08	< 0.2	< 0.2	< 0.2	< 0.3	< 0.9
	04/22/08	< 0.2	< 0.2	< 0.2	< 0.3	< 0.9
	07/23/08	< 0.2	< 0.2	< 0.2	< 0.3	< 0.9
	10/22/08	< 0.2	< 0.2	< 0.2	< 0.3	< 0.9
	01/19/09	< 0.2	0.2	0.2	1.1	1.5
	04/21/09	< 0.2	< 0.2	< 0.2	< 0.2	< 0.9
	07/22/09	< 0.2	< 0.2	< 0.2	< 0.2	< 0.9
	09/03/09	< 0.2	< 0.2	< 0.2	< 0.2	< 0.9
	10/27/09	< 0.2	< 0.2	< 0.2	< 0.2	< 0.9
	02/09/10	< 0.2	< 0.2	< 0.2	< 0.2	< 0.9
	05/12/10	< 0.2	< 0.2	< 0.2	< 0.2	< 0.9

Site Name	Williams Field Services/Ignacio Plant
Date	May 12, 2010
Project #	03141-0104

Table 2
Water Level Measurements

Well No.	Date of Measurement	pH (su)	Conductivity @25° C (mmhos/cm)	Top of Casing Elevation (feet)	Depth to Water (feet)	Water Elevation (feet)	Change from Previous Measurement (feet)
MW-2	08/16/05			6552.13	26.06	6526.07	
	03/21/06	6.39	16,660		27.37	6524.76	-1.31
	05/05/06	6.47	15,950		27.57	6524.56	-0.20
	08/01/06	6.50			28.09	6524.04	-0.52
	10/30/06	6.67			27.70	6524.43	0.39
	01/23/07	7.10			24.74	6527.39	2.96
	07/31/07	7.43			27.64	6524.49	-2.90
	10/22/07	6.21			27.64	6524.49	0.00
	02/11/08	6.45			23.33	6528.80	4.31
	04/22/08	5.96			22.30	6529.83	1.03
	07/23/08	6.56			26.20	6525.93	-3.90
	10/22/08	5.97			26.15	6525.98	0.05
	01/19/09	6.68			26.24	6525.89	-0.09
	04/21/09	6.20			25.65	6526.48	0.59
	07/22/09	6.29			27.52	6524.61	-1.87
	09/03/09	6.28			27.90	6524.23	-0.38
	10/27/09	6.51			28.05	6524.08	-0.15
	02/09/10	6.73	13,960		29.25	6522.88	-1.20
	05/12/10	6.32	12,760		25.70	6526.43	3.55
MW-4	08/16/05			6559.30	20.12	6539.18	
	03/21/06				dry at 24'		
	05/05/06				dry at 24'		
	08/02/06				dry at 25.5'		
	10/30/06				dry at 25.75'		
	01/23/07				blocked at 4'		
	07/31/07				dry at 25.8'		
	10/22/07				dry at 24.6'		
	02/11/08				dry at 24.75'		
	04/22/08	6.51			19.65	6539.65	
	07/23/08	7.10			19.95	6539.35	0.30
	10/22/08	6.37			20.71	6538.59	-0.76
	01/19/09	7.51			20.28	6539.02	0.43
	04/21/09	6.82			20.31	6538.99	-0.03
	07/22/09	6.67			22.09	6537.21	-1.78
	09/03/09	7.73			25.40	6533.90	-3.31
	10/27/09				dry at 25.5'		
	02/09/10				dry at 25.65'		
	05/12/10	6.98	15,780		21.75	6537.55	

Site Name	Williams Field Services/Ignacio Plant
Date	May 12, 2010
Project #	03141-0104

Table 2
Water Level Measurements

Well No.	Date of Measurement	pH (su)	Conductivity @25° C (mmhos/cm)	Top of Casing Elevation (feet)	Depth to Water (feet)	Water Elevation (feet)	Change from Previous Measurement (feet)
MW-7	08/16/05			6559.92	22.12	6537.80	
	03/21/06	6.39	17,610		27.01	6532.91	-4.89
	05/05/06	6.65	18,600		27.24	6532.68	-0.23
	08/02/06	6.78			26.12	6533.80	1.12
	10/30/06	6.78			23.43	6536.49	2.69
	01/23/07	7.19			25.26	6534.66	-1.83
	07/31/07	7.57			25.22	6534.70	0.04
	10/22/07	6.52			23.24	6536.68	1.98
	02/11/08	7.05			22.97	6536.95	0.27
	04/22/08	6.54			20.91	6539.01	2.06
	07/23/08	6.62			21.42	6538.50	-0.51
	10/22/08	7.21			21.50	6538.42	-0.08
	01/19/09	6.64			21.11	6538.81	0.39
	04/21/09	6.52			22.40	6537.52	-1.29
	07/22/09	6.33			24.27	6535.65	-1.87
	09/03/09	6.37			24.79	6535.13	-0.52
	10/27/09	6.55			25.30	6534.62	-0.51
	02/09/10	7.02	10,920		22.45	6537.47	2.85
	05/12/10	6.45	7,840		21.25	6538.67	1.20
MW-8	08/16/05			6571.25	22.09	6549.16	
	03/21/06	6.50	32,700		23.08	6548.17	-0.99
	05/05/06	6.66	26,500		22.93	6548.32	0.15
	08/01/06	6.78			23.02	6548.23	-0.09
	10/30/06	7.72			22.05	6549.20	0.97
	01/23/07	7.34			23.01	6548.24	-0.96
	07/31/07	8.01			23.32	6547.93	-0.31
	10/22/07	6.79			23.20	6548.05	0.12
	02/11/08	7.29			22.00	6549.25	1.20
	04/22/08	6.92			21.49	6549.76	0.51
	07/23/08	7.00			22.33	6548.92	-0.84
	10/22/08	7.46			22.74	6548.51	-0.41
	01/19/09	7.40			22.89	6548.36	-0.15
	04/21/09	7.35			22.95	6548.30	-0.06
	07/22/09	7.15			23.34	6547.91	-0.39
	09/03/09	7.00			23.90	6547.35	-0.56
	10/27/09	7.25			23.58	6547.67	0.32
	02/09/10	7.47	3,990		24.00	6547.25	-0.42
	05/12/10	6.81	3,790		22.90	6548.35	1.10

Site Name	Williams Field Services/Ignacio Plant
Date	May 12, 2010
Project #	03141-0104

Table 2
Water Level Measurements

Well No.	Date of Measurement	pH (su)	Conductivity @25° C (mmhos/cm)	Top of Casing Elevation (feet)	Depth to Water (feet)	Water Elevation (feet)	Change from Previous Measurement (feet)
MW-9	08/16/05			6557.48	23.65	6533.83	
	03/21/06	6.27	21,600		26.76	6530.72	-3.11
	05/05/06	6.37	21,700		25.28	6532.20	1.48
	08/01/06	6.24			25.87	6531.61	-0.59
	10/30/06	6.44			24.09	6533.39	1.78
	01/23/07	6.83			24.73	6532.75	-0.64
	07/31/07	6.92			25.74	6531.74	-1.01
	10/22/07	6.49			29.45	6528.03	-3.71
	02/11/08	6.77			28.12	6529.36	1.33
	04/22/08	6.12			22.32	6535.16	5.80
	07/23/08	6.83			24.63	6532.85	-2.31
	10/22/08	6.00			23.22	6534.26	1.41
	01/19/09	6.49			23.09	6534.39	0.13
	04/21/09	6.30			23.00	6534.48	0.09
	07/22/09	6.25			24.03	6533.45	-1.03
	09/03/09	6.34			24.40	6533.08	-0.37
	10/27/09	6.67			24.15	6533.33	0.25
	02/09/10	6.40	7,220		25.45	6532.03	-1.30
	05/12/10	6.26	6,220		22.80	6534.68	2.65
PZ-10	08/16/05			6559.75	dry at 12.5'		
	03/21/06				dry at 12.5'		
	05/05/06				dry at 12.5'		
	08/01/06				dry at 12.7'		
	10/30/06				dry at 12.9'		
	01/23/07				dry at 12.93'		
	07/31/07				dry at 12.92'		
	10/22/07				dry at 12.7'		
	02/11/08				dry at 12.75'		
	04/22/08				dry at 12.65'		
	07/23/08				dry		
	10/22/08				dry at 12.65'		
	01/19/09				dry at 12.65'		
	04/21/09				Dry at 12.65'		
	07/22/09				Dry at 12.65'		
	09/03/09				Dry at 12.65'		
	10/27/09				Dry at 12.60'		
	02/09/10				Dry at 12.65'		
	05/12/10				Dry at 12.65'		

Site Name	Williams Field Services/Ignacio Plant
Date	May 12, 2010
Project #	03141-0104

Table 2

Water Level Measurements

Well No.	Date of Measurement	pH (su)	Conductivity @25° C (mmhos/cm)	Top of Casing Elevation (feet)	Depth to Water (feet)	Water Elevation (feet)	Change from Previous Measurement (feet)
MW-11	08/16/05			6599.56	dry at 30'		
	03/21/06				dry at 30'		
	05/05/06				dry at 30'		
	08/01/06				dry at 33.1'		
	10/30/06				32.78	6566.78	
	01/23/07				33.02	6566.54	-0.24
	07/31/07				dry at 33.1'		
	10/22/07				dry at 32.9'		
	01/30/08	7.11			31.49	6568.07	
	04/22/08	7.29			31.05	6568.51	0.44
	07/23/08	6.90			31.80	6567.76	-0.76
	10/22/08				dry at 32.91		
	01/19/09				dry at 32.9		
	04/21/09	6.97			31.86	6567.70	
	07/22/09				Dry		
	09/03/09				Dry at 32.85'		
	10/27/09				Dry at 32.85'		
	02/09/10				Dry at 32.90'		
	05/12/10	6.67	1,140		31.15	6568.41	
MW-12	09/09/05			6624.90	49.53	6575.37	
	03/21/06	8.46	1,620		48.36	6576.54	1.17
	05/05/06	8.31	1,990		48.48	6576.42	-0.12
	08/01/06	8.32			48.44	6576.46	0.04
	10/30/06	9.07			47.49	6577.41	0.95
	01/23/07	9.04			48.16	6576.74	-0.67
	07/31/07	8.46			48.21	6576.69	-0.05
	10/22/07	7.83			48.53	6576.37	-0.32
	01/30/08	7.61			47.86	6577.04	0.67
	04/22/08	8.05			47.08	6577.82	0.78
	07/23/08	7.72			47.18	6577.72	-0.10
	10/22/08	7.74			47.90	6577.00	-0.72
	01/19/09	8.83			48.09	6576.81	-0.19
	04/21/09	7.89			48.19	6576.71	-0.10
	07/22/09	8.52			48.26	6576.64	-0.07
	09/03/09	7.72			48.30	6576.60	-0.04
	10/27/09	7.26			48.12	6576.78	0.18
	02/09/10	7.44	1,590		48.55	6576.35	-0.43
	05/12/10	7.00	1,550		48.00	6576.90	0.55

Site Name	Williams Field Services/Ignacio Plant
Date	May 12, 2010
Project #	03141-0104

Table 2
Water Level Measurements

Well No.	Date of Measurement	pH (su)	Conductivity @25° C (mmhos/cm)	Top of Casing Elevation (feet)	Depth to Water (feet)	Water Elevation (feet)	Change from Previous Measurement (feet)
POC-1	09/08/05			6475.30	18.39	6456.91	
	03/21/06	7.17	2,990		18.36	6456.94	0.03
	05/05/06	7.16	3,590		18.49	6456.81	-0.13
	08/01/06	7.66			18.52	6456.78	-0.03
	10/30/06	7.39			18.50	6456.80	0.02
	01/23/07	7.75			18.70	6456.60	-0.20
	07/31/07	8.29			18.27	6457.03	0.43
	10/22/07	7.10			18.82	6456.48	-0.55
	02/11/08	8.02			18.78	6456.52	0.04
	04/22/08	7.15			17.01	6458.29	1.77
	07/23/08	7.46			18.39	6456.91	-1.38
	10/22/08	6.86			18.72	6456.58	-0.33
	01/19/09	8.16			18.65	6456.65	0.07
	04/21/09	7.17			18.30	6457.00	0.35
	07/22/09	7.33			18.65	6456.65	-0.35
	09/03/09	7.11			18.86	6456.44	-0.21
	10/27/09	7.93			18.95	6456.35	-0.09
	02/09/10	6.31	1,400		18.95	6456.35	0.00
	05/12/10	6.94	1,290		18.45	6456.85	0.50

**EPA METHOD 8021
 AROMATIC VOLATILE ORGANICS**

Client:	Williams	Project #:	03141-0104
Sample ID:	MW-8	Date Reported:	05-20-10
Chain of Custody:	9343	Date Sampled:	05-12-10
Laboratory Number:	54195	Date Received:	05-12-10
Sample Matrix:	Aqueous	Date Analyzed:	05-19-10
Preservative:	HCl	Analysis Requested:	BTEX
Condition:	Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	325	1	0.2
Toluene	0.5	1	0.2
Ethylbenzene	1.5	1	0.2
p,m-Xylene	8.1	1	0.2
o-Xylene	1.9	1	0.1

Total BTEX **337**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	fluorobenzene	82.5 %
	1,4-difluorobenzene	88.7 %
	4-bromochlorobenzene	104 %

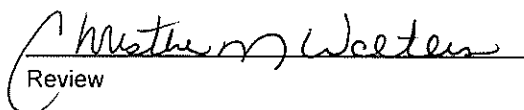
References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **2nd GW Sampling / Ignacio Gas Plant**



Analyst



Review

**EPA METHOD 8021
AROMATIC VOLATILE ORGANICS**

Client:	Williams	Project #:	03141-0104
Sample ID:	MW-11	Date Reported:	05-20-10
Chain of Custody:	9343	Date Sampled:	05-12-10
Laboratory Number:	54196	Date Received:	05-12-10
Sample Matrix:	Aqueous	Date Analyzed:	05-19-10
Preservative:	HCl	Analysis Requested:	BTEX
Condition:	Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	ND	1	0.2
Toluene	ND	1	0.2
Ethylbenzene	ND	1	0.2
p,m-Xylene	ND	1	0.2
o-Xylene	ND	1	0.1

Total BTEX ND

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	fluorobenzene	89.1 %
	1,4-difluorobenzene	93.1 %
	4-bromochlorobenzene	90.7 %

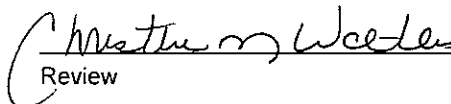
References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: 2nd GW Sampling / Ignacio Gas Plant



Analyst


Review

**EPA METHOD 8021
AROMATIC VOLATILE ORGANICS**

Client: Williams
Sample ID: MW-9
Chain of Custody: 9343
Laboratory Number: 54197
Sample Matrix: Aqueous
Preservative: HCl
Condition: Intact

Project #: 03141-0104
Date Reported: 05-20-10
Date Sampled: 05-12-10
Date Received: 05-12-10
Date Analyzed: 05-19-10
Analysis Requested: BTEX

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	0.8	1	0.2
Toluene	ND	1	0.2
Ethylbenzene	ND	1	0.2
p,m-Xylene	ND	1	0.2
o-Xylene	ND	1	0.1

Total BTEX 0.8


ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	fluorobenzene	91.7 %
	1,4-difluorobenzene	94.5 %
	4-bromochlorobenzene	95.0 %

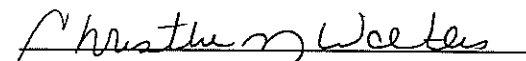
References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using
Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: 2nd GW Sampling / Ignacio Gas Plant



Analyst



Review

**EPA METHOD 8021
AROMATIC VOLATILE ORGANICS**

Client: Williams
Sample ID: MW-12
Chain of Custody: 9343
Laboratory Number: 54198
Sample Matrix: Aqueous
Preservative: HCl
Condition: Intact

Project #: 03141-0104
Date Reported: 05-20-10
Date Sampled: 05-12-10
Date Received: 05-12-10
Date Analyzed: 05-19-10
Analysis Requested: BTEX

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	ND	1	0.2
Toluene	ND	1	0.2
Ethylbenzene	ND	1	0.2
p,m-Xylene	ND	1	0.2
o-Xylene	ND	1	0.1

Total BTEX ND


ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	fluorobenzene	94.5 %
	1,4-difluorobenzene	95.3 %
	4-bromochlorobenzene	116 %

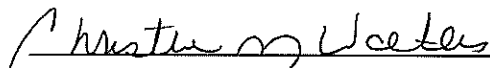
References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: 2nd GW Sampling / Ignacio Gas Plant



Analyst



Review



envirotech
Analytical Laboratory

**EPA METHOD 8021
AROMATIC VOLATILE ORGANICS**

Client:	Williams	Project #:	03141-0104
Sample ID:	P.O.C-1	Date Reported:	05-20-10
Chain of Custody:	9343	Date Sampled:	05-12-10
Laboratory Number:	54199	Date Received:	05-12-10
Sample Matrix:	Aqueous	Date Analyzed:	05-19-10
Preservative:	HCl	Analysis Requested:	BTEX
Condition:	Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	ND	1	0.2
Toluene	ND	1	0.2
Ethylbenzene	ND	1	0.2
p,m-Xylene	ND	1	0.2
o-Xylene	ND	1	0.1

Total BTEX **ND**


ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	fluorobenzene	85.9 %
	1,4-difluorobenzene	99.5 %
	4-bromochlorobenzene	104 %

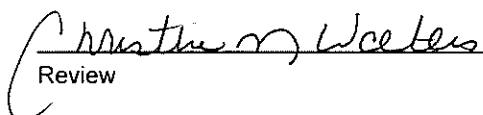
References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **2nd GW Sampling / Ignacio Gas Plant**



Analyst



Review

**EPA METHOD 8021
AROMATIC VOLATILE ORGANICS**

Client:	Williams	Project #:	03141-0104
Sample ID:	MW-7	Date Reported:	05-20-10
Chain of Custody:	9343	Date Sampled:	05-12-10
Laboratory Number:	54200	Date Received:	05-12-10
Sample Matrix:	Aqueous	Date Analyzed:	05-19-10
Preservative:	HCl	Analysis Requested:	BTEX
Condition:	Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	ND	1	0.2
Toluene	ND	1	0.2
Ethylbenzene	ND	1	0.2
p,m-Xylene	ND	1	0.2
o-Xylene	ND	1	0.1

Total BTEX **ND**


ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	fluorobenzene	100 %
	1,4-difluorobenzene	104 %
	4-bromochlorobenzene	119 %

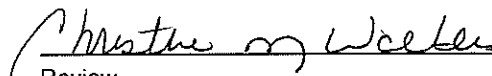
References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **2nd GW Sampling / Ignacio Gas Plant**



 Analyst



 Review



envirotech

Analytical Laboratory

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client: Williams
Sample ID: MW-2
Chain of Custody: 9343
Laboratory Number: 54201
Sample Matrix: Aqueous
Preservative: HCl
Condition: Intact

Project #: 03141-0104
Date Reported: 05-20-10
Date Sampled: 05-12-10
Date Received: 05-12-10
Date Analyzed: 05-19-10
Analysis Requested: BTEX

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	2.3	1	0.2
Toluene	ND	1	0.2
Ethylbenzene	ND	1	0.2
p,m-Xylene	ND	1	0.2
o-Xylene	ND	1	0.1

Total BTEX 2.3

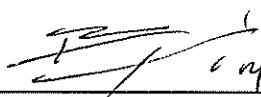
ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	fluorobenzene	102 %
	1,4-difluorobenzene	103 %
	4-bromochlorobenzene	119 %

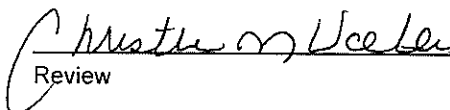
References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: 2nd GW Sampling / Ignacio Gas Plant



Analyst



Review

**EPA METHOD 8021
AROMATIC VOLATILE ORGANICS**

Client:	Williams	Project #:	03141-0104
Sample ID:	MW-4	Date Reported:	05-20-10
Chain of Custody:	9343	Date Sampled:	05-12-10
Laboratory Number:	54202	Date Received:	05-12-10
Sample Matrix:	Aqueous	Date Analyzed:	05-19-10
Preservative:	HCl	Analysis Requested:	BTEX
Condition:	Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	ND	1	0.2
Toluene	ND	1	0.2
Ethylbenzene	ND	1	0.2
p,m-Xylene	ND	1	0.2
o-Xylene	ND	1	0.1

Total BTEX ND

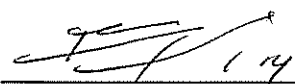
ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	fluorobenzene	100 %
	1,4-difluorobenzene	105 %
	4-bromochlorobenzene	111 %

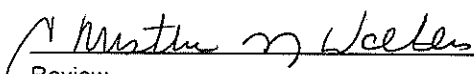
References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: 2nd GW Sampling / Ignacio Gas Plant



Analyst



Review

**EPA METHOD 8021
AROMATIC VOLATILE ORGANICS
QUALITY ASSURANCE REPORT**

Client:	N/A	Project #:	N/A
Sample ID:	05-19-BTEX QA/QC	Date Reported:	05-20-10
Laboratory Number:	54170	Date Sampled:	N/A
Sample Matrix:	Aqueous	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	05-19-10
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff. Accept. Range 0 - 15%	Blank Conc	Detect. Limit
Benzene	1.5725E+006	1.5772E+006	0.30%	ND	0.2
Toluene	9.6527E+005	9.6817E+005	0.30%	ND	0.2
Ethylbenzene	6.4625E+005	6.4819E+005	0.30%	ND	0.2
p,m-Xylene	1.8487E+006	1.8543E+006	0.30%	ND	0.2
o-Xylene	7.2477E+005	7.2695E+005	0.30%	ND	0.1

Duplicate Conc. (ug/L)	Sample	Duplicate	%Diff.	Accept Limit
Benzene	ND	ND	0.0%	0 - 30%
Toluene	ND	ND	0.0%	0 - 30%
Ethylbenzene	ND	ND	0.0%	0 - 30%
p,m-Xylene	ND	ND	0.0%	0 - 30%
o-Xylene	ND	ND	0.0%	0 - 30%

Spike Conc. (ug/L)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Limits
Benzene	ND	50.0	51.3	103%	39 - 150
Toluene	ND	50.0	49.7	99.5%	46 - 148
Ethylbenzene	ND	50.0	42.5	85.0%	32 - 160
p,m-Xylene	0.2	100	108	108%	46 - 148
o-Xylene	ND	50.0	40.9	81.9%	46 - 148

ND - Parameter not detected at the stated detection limit.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
 Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996

Comments: QA/QC for Samples 54170 and 54195 - 54202.

Analyst

Review

CHAIN OF CUSTODY RECORD

09343

Client: Williams			Project Name / Location: 2nd GW Sampling / Ignacio Gas Plant			ANALYSIS / PARAMETERS														
Client Address:			Sampler Name: Toni McKnight			TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	PAH	TPH (418.1)	CHLORIDE				Sample Cool	Sample Intact
Client Phone No.:			Client No.: 03141-0104																	
Sample No./ Identification	Sample Date	Sample Time	Lab No.	Sample Matrix	No./Volume of Containers	Preservative HgCl, HCl														
MW-8	5/12/10	9:50	54195	Soil Sludge Solid Aqueous	2/10A	✓		✓											✓	✓
MW-11	5/12/10	10:28	54196	Soil Sludge Solid Aqueous	2/10A	✓		✓											✓	✓
MW-9	5/12/10	12:45	54197	Soil Sludge Solid Aqueous	2/10A	✓		✓											✓	✓
MW-12	5/12/10	10:50	54198	Soil Sludge Solid Aqueous	2/10A	✓		✓											✓	✓
P.O.C-1	5/12/10	11:28	54199	Soil Sludge Solid Aqueous	2/10A	✓		✓											✓	✓
MW-7	5/12/10	12:04	54200	Soil Sludge Solid Aqueous	2/10A	✓		✓											✓	✓
MW-2	5/12/10	14:00	54201	Soil Sludge Solid Aqueous	2/10A	✓		✓											✓	✓
MW-4	5/12/10	14:40	54202	Soil Sludge Solid Aqueous	2/10A	✓		✓											✓	✓
				Soil Sludge Solid Aqueous																
				Soil Sludge Solid Aqueous																
Relinquished by: (Signature) Toni McKnight				Date 5/12/10	Time 16:05	Received by: (Signature) Chadwick				Date 5/12/10	Time 16:05									
Relinquished by: (Signature)						Received by: (Signature)														
Relinquished by: (Signature)						Received by: (Signature)														



envirotech
Analytical Laboratory

5796 US Highway 64 • Farmington, NM 87401 • 505-632-0615 • lab@envirotech-inc.com

MONITOR WELL DATA

Date: 5/12/10

Project No: 0314/-0104

Project Name: 2nd Qtr Colw Sampling

Chain of Custody No: 09343

Location: Ignacio Gas Plant

Project Manager: Toni McKnight

Sampler: Loni McKnight

MONITOR WELL DATA

[illegible]

-Bailed only 4 gal
Due to damaged casing

Notes: TOC = Top of Casing

Bailed = 3 well volumes:

1.25" well = 0.19 gal/ft.

2.00" well = 0.49 gal/ft.

4.00" well = 1.96 gal/ft.

Note well diameter if not one of the above.

$$\begin{array}{r} 583.75 \\ - 25.70 \\ \hline \end{array}$$
$$\begin{array}{r} 25.60 \\ - 21.75 \\ \hline 3.85 \\ \hline 25.60 \end{array}$$