3R - <u>304</u>

REPORTS

DATE: 2000



Environmental Services 187 County Road 4980 Bloomfield, New Mexico 87413 (505) 632-4409 (505) 632-4405

September 18, 2000

Mr. William Olson

2040 South Pacheco

Oil Conservation Division

Santa Fe, New Mexico 87505

Hydrologist

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ENVIRONMENTAL BUREAU

RE: 2000 SAN JUAN BASIN ANNUAL GROUNDWATER REPORT

Dear Mr. Olson:

Enclosed for your review is the 2000 San Juan Basin Annual Groundwater Report prepared by Williams for work conducted by Public Service New Mexico (PNM). The report presents monitoring data for twenty-two sites having petroleum hydrocarbon impacted groundwater, which resulted from the past use of unlined surface impoundments. The reporting period begins in the second quarter of 1999 and ends in the second quarter of 2000. The sites included in the report are listed in Table 1, attached.

The natural gas production and gathering facilities at which the impacted groundwater sites are located were formerly owned and operated by PNM. The facilities became assets of Williams upon purchase of the Gas Company of New Mexico (GCNM) from PNM. PNM had retained certain environmental liabilities associated with the assets including obligations for unlined surface impoundment impacts to soil and groundwater. Subsequent negotiations between PNM and Williams resulted in an agreement whereby Williams would complete further investigations and remediation at sites not previously closed by PNM. The agreement also states that Williams will complete work at sites where PNM has identified soil or groundwater contamination or otherwise initiated remedial actions.

During PNM's tenure, management of sites with hydrocarbon impacted groundwater was directed by their Ground Water Management Plan. This plan specified general procedures for site investigation, remediation, and reporting. The plan called for PNM to prepare an annual report summarizing the results of groundwater monitoring at each site. The report was to be submitted each April 1st and include data collected during the second, third and fourth quarters of the previous year and data from the first quarter of the reporting year.



MR. WILLIAM OLSON SEPTEMBER 18, 2000 PAGE 2 OF 3

Anticipating termination of their environmental obligations, PNM requested on March 4, 2000 an extension for submittal of the 2000 annual report so that they could also include data collected during the second quarter of 2000. Although PNM completed collection of monitoring data for the second quarter of 2000, they did not prepare and submit an annual report. Williams has prepared the 2000 annual report in an effort to maintain project continuity and to provide closure to PNM's management of the project.

As with most projects of this magnitude, first hand knowledge is paramount to prepare a thorough summary of site activities. Given the limited firsthand knowledge of project workings, Williams is in the unenviable position of trying to glean information from only the paper record. As such, the 2000 report simply transmits the PNM-collected data to OCD in what we hope is a concise and useable format. Initially, it was Williams' goal to provide more comprehensive reporting on the status of each site, however, preliminary evaluation of the data soon revealed that accurate interpretations could not be formulated in a timely manner.

Williams is continuing to review and evaluate the data provided by PNM to determine the best course for future actions at the sites. Preliminary review has revealed several high priority needs. For the majority of sites, accurate surveys are needed along with development of site base maps and a comprehensive database to facilitate project management. Moreover, sites with free product should be evaluated to determine the efficacy of free-product recovery and whether or not all source contributions are known.

Organization of the report follows the same format used by PNM. Data for each site is contained in a separate tabbed section labeled with the site name. Each section contains a data summary table listing each monitoring well. The absence or presence of free product is indicated on the table and the concentrations of the BTEX compounds for the reporting period are noted. Following the data summary table are the actual laboratory analytical reports. In an effort to make this document more manageable, the laboratory quality control reports have not been included. These reports will of course remain a part of the project file and be made available for review upon request. In addition to the analytical data, a contour map depicting the elevation of the water table as interpolated from water-level data is also included. When possible, hydrographs illustrating the seasonal fluctuations in water-table elevations are presented.





MR. WILLIAM OLSON SEPTEMBER 18, 2000 PAGE 3 OF 3

Thank you for your understanding of the Williams position and the time to review this submittal. Mr. Jim Struhs has been assigned the role of Project Hydrogeologist and as such will be involved in many of the day to day project operations. If you have any questions regarding the report, you may call me at (505) 632-4409 or Jim at (505) 632-4457.

Best regards,

MAB.Z

Mark B. Harvey Project Manager Mark.Harvey@Williams.com

Attachment Enclosure

c: Denny Foust, OCD Aztec District Office Bill Liess, BLM Farmington District Office Allen Talley, Williams

James P. Struhs Project Hydrogeologist Jim.Struhs@Williams.com

Table 1. List of Sites for Period Q2/1999 to Q2/2000

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Name Section Township Range Letter Notified Wells 1999 1999 Drip 22 29N 10W F 9-Jul-99 28-Jul-99 58-Aug-99 5-Aug-99 Ph Drip 31 27N 8W J 19-Feb-99 6-Apr-99 28-Apr-99 28-Sep-99 Pit 11 31N 12W F 30-Sep-99 13-Sep-99 28-Apr-99 28-Sep-99 Pit 4 25N 6W D 7-Jul-97 2-Mar-99 28-Jul-99 28-Jul-99 Pit 4 25N 6W D 7-Jul-97 27-Apr-99 21-Sep-99 Pit 4 27 BW C 12-Jul-97 27-Apr-99 28-Jul-99 Pit 4 27 BW C 12-Jul-97 27-Apr-99 28-Jul-99 28-Jul-99 Pit 27 8W C 17-Jul-97 27-Apr-99 28-Jul-99 28-Jul-99 Pit 31N 11W </th <th></th> <th></th> <th></th> <th></th> <th>Unit</th> <th>ocp</th> <th>Installed</th> <th>2nd QTR</th> <th>3rd QTR</th> <th>4th QTR</th> <th>1st QTR</th> <th>2nd QTR</th>					Unit	ocp	Installed	2nd QTR	3rd QTR	4th QTR	1st QTR	2nd QTR
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1 11 28N 1 10W 0 6-Sen-96 19-Nov-96 20-Anr-99 2-Aug-99	Wilmerding 1M	10	31N	13W	ပ	5-Jun-98	1-Jul-98	1-Jun-99	10-Aug-99	12-Oct-99	1-Feb-00	1-May-00
20-60-1-2 02-00-1-21 02-00-00 02-00-00 02-00-00-00-00-00-00-00-00-00-00-00-00-0	Zachry 18E	11	28N	10W	0	6-Sep-96	19-Nov-96	20-Apr-99	2-Aug-99	1-Nov-99	31-Jan-00	26-Apr-00



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SEP 20 2000

ENVIRONMENTAL BUREAU OIL CONSERVATION DIVISION

Annual Groundwater Report 2000

San Juan Basin, New Mexico Inlined Surface Impoundments

Site Summary Report

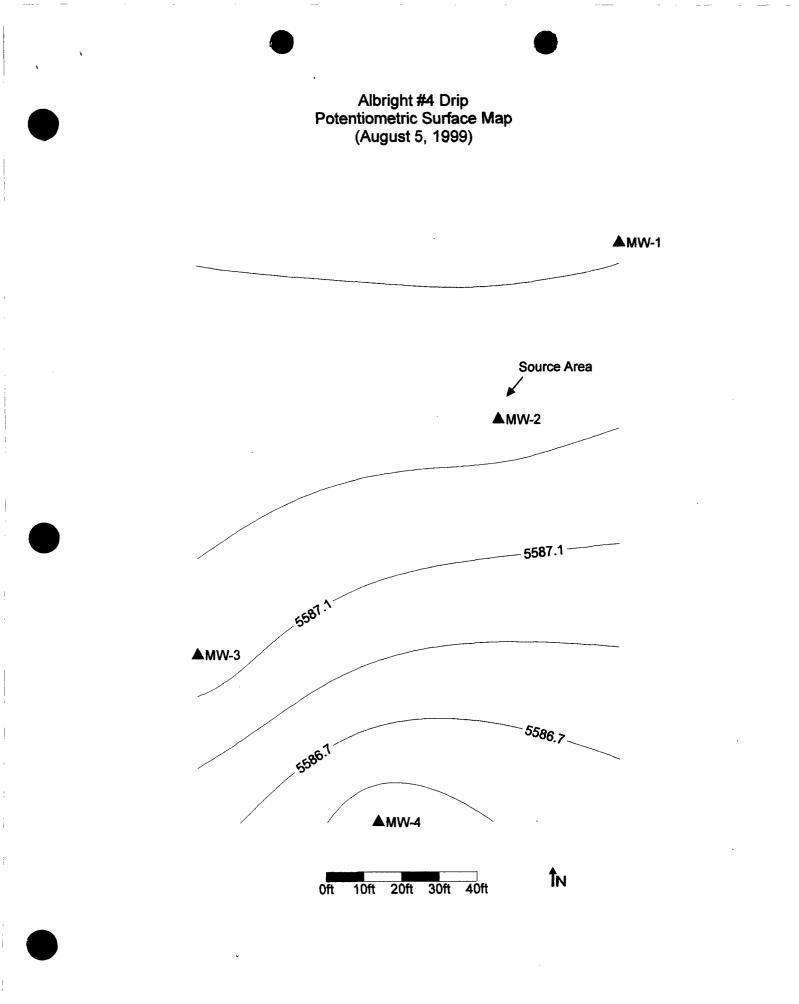
Site Name: Albright #4 Drip

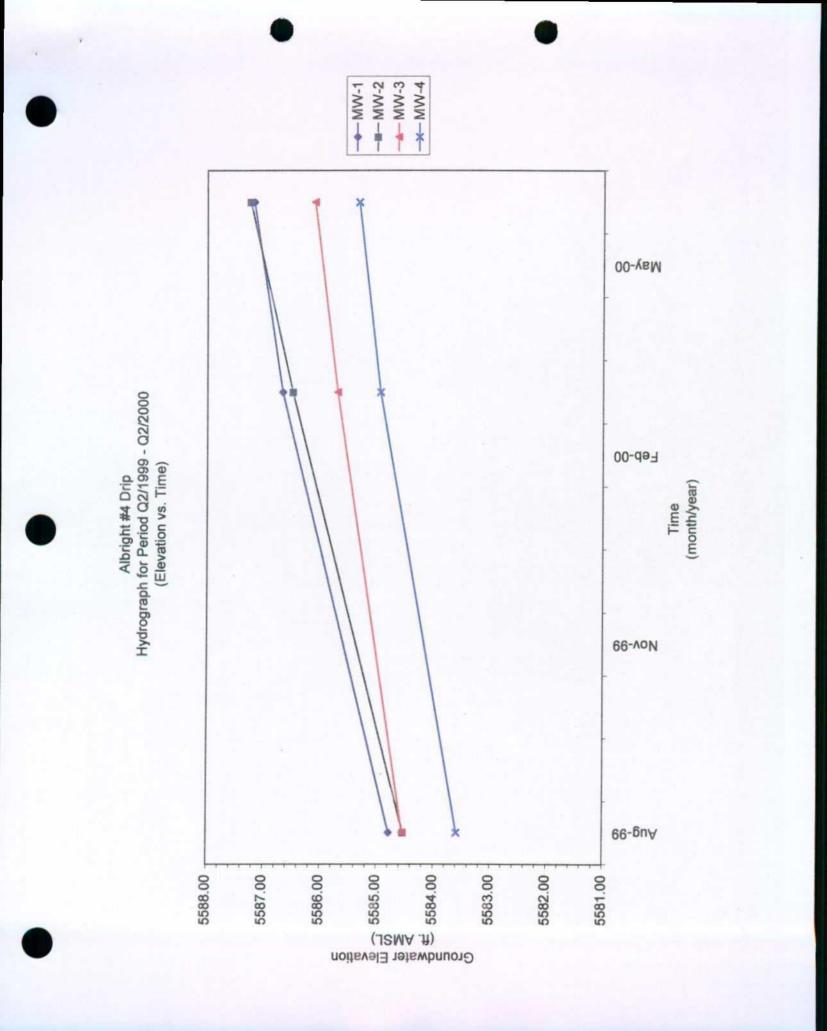
Reporting Period: 2nd Qtr 1999 - 2nd Qtr 2000

Location: Unit F, Sec 22, Twn 29N, Rng 10W Canyon: Operator: Williams Vulnerable Class: OCD Ranking: 20 Lead Agency: NMOCD

Status Narrative

This site has five monitoring wells installed. A total of four quarters of monitoring data have been collected to date. The areal extent of contamination has been defined and the direction of ground water flow has been established. Currently, only monitoring well MW-2 (located in the source area) contains contaminant concentrations in excess of WQCC standards.





			Free	Product	Ana	lytes (va	lues in u	g/L)
Well ID	Sample ID	Sample Date	Present Yes/No	Thickness (ft.)	benzene	toluene	ethylbenzene	total xylenes
	9908051320	5-Aug-99	N		<0.5	<0.5		and the second second second
MW-1	9912061257	6-Dec-99	N		<0.5	1	<0.5	the second se
1414 4-1	0003051332	5-Mar-00	N		<0.5	<0.5	<0.5	
	0006071157	7-Jun-00	N		<0.5	<0.5	<0.5	<1.5
	9908051400	5-Aug-99	Ň		230	8	52	740
ABA/ D	9912061322	6-Dec-99	N		170	3	39	68
MW-2	0003051355	5-Mar-00	N		26	<0.5	23	65
	0006071212	7-Jun-00	N		10	<0.5	9.3	23.8
	9908051430	5-Aug-99	N		<0.5	<0.5	<0.5	<1.5
MW-3	9912061340	6-Dec-99	N		<0.5	1	<0.5	<1.5
10100-3	0003051410	5-Mar-00	N		<0.5	<0.5	<0.5	<1.5
	0006071226	7-Jun-00	Ň		<0.5	<0.5	<0.5	<1.5
	9908051520	5-Aug-99	N		<0.5	<0.5	<0.5	<1.5
MW-4	9912061353	6-Dec-99	N		<0.5	0.8	<0.5	<1.5
1010 0-4	0003051426	5-Mar-00	N		<0.5	<0.5	1	<1.5
	0006071237	7-Jun-00	N		<0.5	<0.5	1	<1.5
	NS	5-Aug-99	N					
MW-5	9912061415	6-Dec-99	N		160	4.6	56	61.7
0-9919	0003051456	5-Mar-00	N		26	<0.5	24	67
	0006071248	7-Jun-00	N		<0.5	1.5	0.8	<1.5

Albright 4 Drip Summary of Groundwater Analytical Data (Q2/1999 - Q2/2000)

ND = analyte not detected above method detection limit

NS = well not sampled for specified analytes



Toluene

Ethylbenzene

m,p-Xylene

o-Xylene

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 31-Aug-99

08/12/1999

08/12/1999

08/12/1999

08/12/1999

1

1

1

1

Client: Work Order: Lab ID:	PNM - Public Ser 9908012 9908012-01A	vice Company of N Matrix: AQUEC		Clie	ent Sample	nfo: Albright ID: 9908051 ate: 08/05/19	•
Project:	Albright #4 Drip				COC Reco	ord: 7820	
Parameter		Result	PQL	Qual	Units	DF	Date Analyzed
	ATILES BY GC/PID	SV	V8021B				Analyst: DC
Benzene		ND	0.5		µg/L	1	08/12/1999

0.5

0.5

0.5

1

µg/L

µg/L

µg/L

µg/L

ND

ND

ND

ND

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range

Surr: - Surrogate

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- Technology Blunding Industry with the Environment -

l of l

o-Xylene



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 31-Aug-99

08/16/1999

5

Client: Work Order: Lab ID: Project:	PNM - Public Ser 9908012 9908012-02A Albright #4 Drip	vice Company of N Matrix: AQUE0		Clie	ent Sample	ate: 08/05/19	t #4 Drip 1400; MW-2 999 2:00:00 PM
Parameter		Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOL	ATILES BY GC/PID		N8021B				Analyst: DC
Benzene		230	2.5		µg/L	5	08/16/1999
Toluene		7.7	2.5		µg/L	5	08/16/1999
Ethylbenzene		52	2.5		µg/L	5	08/16/1999
m,p-Xylene		740	5		µg/L	5	08/16/1999

2.5

µg/L

ND

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range

Surr: - Surrogate

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

I of I



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 31-Aug-99

Client:		vice Company of NM		Client Sample		•	•
Work Order: Lab ID:	9908012 9908012-03A	Matrix: AQUEOU	5	Client Samp Collection			1430; MW-3 999 2:30:00 PM
Project:	Albright #4 Drip			COC Re	cord:	7820	
Parameter		Result	PQL	Qual Units		DF	Date Analyzed

AROMATIC VOLATILES BY GC/PID	SM	/8021B			Analyst: DC
Benzene	ND	0.5	µg/L	1	08/12/1999
Toluene	ND	0.5	µg/L	1	08/12/1999
Ethylbenzene	ND	0.5	µg/L	1	08/12/1999
m,p-Xylene	ND	1	µg/L	1	08/12/1999
o-Xylene	ND	0.5	µg/L	1	08/12/1999

Qualifiers:

- PQL Practical Quantitation Limit
 - ND Not Detected at Practical Quantitation Limit
 - J Analyte detected below Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range
- Surr: Surrogate





LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 31-Aug-99

08/12/1999

1

Client: Work Order: Lab ID: Project:	PNM - Public Ser 9908012 9908012-04A Albright #4 Drip	vice Company of I Matrix: AQUE		Clie	ent Sample		•
Parameter		Result	PQL	Qual	Units	DF	Date Analyzed
	ATILES BY GC/PID	SI	W8021B				Analyst: DC
Benzene		ND	0.5		µg/L	1	08/12/1999
Toluene		ND	0.5		µg/L	1	08/12/1999
Ethylbenzene		ND	0.5		µg/L	1	08/12/1999
m,p-Xylene		ND	1		µg/L	1	08/12/1999

0.5

µg/L

ND

	,

o-Xylene

Qualifiers:

- PQL Practical Quantitation Limit
 - ND Not Detected at Practical Quantitation Limit
 - J Analyte detected below Practical Quantitation Limit
 - B Analyte detected in the associated Method Blank
- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range

Surr: - Surrogate

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1 of 1



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 22-Dec-99

Client: Work Order: Lab ID: Project:	PNM - Public Ser 9912008 9912008-01A Albright 4 Drip	rvice Company of NM Matrix: AQUEOU		Client Sample In Client Sample I Collection Da COC Reco	D: 9912061 ite: 12/6/199	•
Parameter		Result	PQL	Qual Units	DF	Date Analyzed

AROMATIC VOLATILES BY GC/PID	SV	V8021B			Analyst: DM
Benzene	ND	0.5	μg/L	1	12/15/1999
Toluene	0.5	0.5	μg/L	1	12/15/1999
Ethylbenzene	ND	0.5	µg/L	1	12/15/1999
m,p-Xylene	ND	1	µg/L	1	12/15/1999
o-Xylene	ND	0.5	µg/L	1	12/15/1999



- PQL Practical Quantitation Limit
 - ND Not Detected at Practical Quantitation Limit
 - J Analyte detected below Practical Quantitation Limit
 - B Analyte detected in the associated Method Blank
- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range
- Surr: Surrogate

- TECHNOLOGY BUINDING INDUSTRY WITH THE ENVIRONMENT -

lofl



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 22-Dec-99

Client: Work Order: Lab ID: Project:	PNM - Public Ser 9912008 9912008-02A Albright 4 Drip	vice Company of N Matrix: AQUE0		-			9912061322; MW-2 12/6/1999 1:22:00 PM		
Parameter		Result	PQL	Qual	Units		DF	Date Analyzed	
AROMATIC VOL	ATILES BY GC/PID	SV	V8021B					Analyst: DM	
Benzene		170	0.5		µg/L		1	12/16/1999	
Toluene		2.8	2.5		µg/L		5	12/15/1999	
Ethylbenzene		39	0.5		µg/L		1	12/16/1999	
m,p-Xylene		66	1		µg/L		1	12/16/1999	
o-Xylene		1.5	0.5		µg/L		1	12/16/1999	

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

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LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 22-Dec-99

Client: Work Order:	PNM - Public Ser 9912008				Client Sample Info: Albright 4 Drip Client Sample ID: 9912061340; MW-3				
Lab ID:	9912008-03A	Matrix: AQUE				ate: 12/6/199	e: 12/6/1999 1:40:00 PM		
Project:	Albright 4 Drip			COC Record: 7033					
Parameter		Result	PQL	Qual	Units	DF	Date Analyzed		
	ATILES BY GC/PID	SV	N8021B		,	_	Analyst: DM		
Benzene		ND	0.5		µg/L	1	12/15/1999		
Toluene		0.6	0.5		µg/L	1	12/15/1999		
Ethylbenzene		ND	0.5		µg/L	1	12/15/1999		
m,p-Xylene	,	ND	1		µg/L	1	12/15/1999		
o-Xylene	,	ND	0.5		µg/L	1	12/15/1999		

Qualifiers:

- PQL Practical Quantitation Limit
 - ND Not Detected at Practical Quantitation Limit
 - J Analyte detected below Practical Quantitation Limit
 - B Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

- R RPD outside accepted recovery limits
- E Value above quantitation range
- Surr: Surrogate

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LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 22-Dec-99

Client:	PNM - Public Ser	rvice Company of NM	Client Sample Info	: Albright 4 Drip
Work Order:	9912008		Client Sample ID	: 9912061353; MW-4
Lab ID:	9912008-04A	Matrix: AQUEOUS	Collection Date	e: 12/6/1999 1:53:00 PM
Project:	Albright 4 Drip		COC Record	l: 7033

	Result	PQL	Quai		DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID	SV	V8021B				Analyst: DM
Benzene	ND	0.5		µg/L	1	12/15/1999
Toluene	0.8	0.5		µg/L	1	12/15/1999
Ethylbenzene	ND	0.5		µg/L	1	12/15/1999
m,p-Xylene	1.1	1		µg/L	1	12/15/1999
o-Xylene	ND	0.5		µg/L	1	12/15/1999

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

1 of 1

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LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 22-Dec-99

Client:	PNM - Public Service Company of NM		Client Sample Info:	Albright 4 Drip		
Work Order:	9912008		Client Sample ID:	9912061415; MW-5		
Lab ID:	9912008-05A	Matrix: AQUEOUS	Collection Date:	12/6/1999 2:15:00 PM		
Project:	Albright 4 Drip		COC Record:	7033		

Parameter	Result	PQL	Qual Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID	SV	V8021B			Analyst: DM
Benzene	160	0.5	µg/L	1	12/16/1999
Toluene	4.6	2.5	µg/L	5	12/15/1999
Ethylbenzene	56	0.5	μg/L	1	12/16/1999
m,p-Xylene	60	1	μg/L	1	12/16/1999
o-Xylene	1.7	0.5	µg/L	1	12/16/1999

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

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TECHNOLOGY BLOODING INFASTRY WITH THE ENVIRONMENT

m,p-Xylene

o-Xylene



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 08-Mar-00

Client: Work Order: Lab ID: Project:	PNM - Public Ser 0003006 0003006-01A Albright 4 Drip	vice Company of Matrix: AQUE		Cli	ent Sample	ate: 3/5/2000	t 4 Drip 1332; MW-1 0 1:32:00 PM
Parameter		Result	PQL	Qual	Units	DF	Date Analyzed
	ATILES BY GC/PID	SV	V8021B				Analyst: DM
Benzene		ND	0.5		µg/L	1	3/7/2000
Toluene	,	ND	0.5		µg/L	1	3/7/2000
Ethylbenzene		ND	ND 0.5			1	3/7/2000

1

0.5

µg/L

µg/L

1

1

3/7/2000

3/7/2000

ND

ND



PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range

Surr: - Surrogate

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

l of l



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 08-Mar-00

Client: Work Order:	PNM - Public Ser 0003006	rvice Company of N		Client Sample Info: Albrigh Client Sample ID: 000305 Collection Date: 3/5/200			1355; MW-2
Lab ID: Project:	0003006-02A Albright 4 Drip	Matrix: AQUEC	DUS		COC Rec	0 1:55:00 PM	
Parameter		Result	PQL	Qual	Units	DF	Date Analyzed
	ATILES BY GC/PID	sv	V8021B				Analyst: DM
Benzene		26	0.5		µg/L	1	3/7/2000
Toluene		ND	0.5		µg/L	1	3/7/2000
Ethylbenzene		23	0.5		µg/L	1	3/7/2000
m,p-Xylene		63	· 1		µg/L	1	3/7/2000
o-Xylene		1.8	1.8 0.5			1	3/7/2000



PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

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LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 08-Mar-00

Client: Work Order:	PNM - Public Ser 0003006	rvice Company of N	M		-	nfo: Albright ID: 0003051	•
Lab ID: Project:	0003006-03A Albright 4 Drip	Matrix: AQUEO	OUS	Collection Date: 3/5/2000 2:10:00 PM COC Record: 8501			2:10:00 PM
Parameter		Result	PQL	Qual	Units	DF	Date Analyzed

AROMATIC VOLATILES BY GC/PID	SM	/8021B			Analyst: D	M
Benzene	ND	0.5	µg/L	1	3/7/2000	
Toluene	ND	0.5	µg/L	1	3/7/2000	
Ethylbenzene	ND	0.5	µg/L	1	3/7/2000	
m,p-Xylene	ND	1	μg/L	1	3/7/2000	
o-Xylene	ND	0.5	µg/L	1	3/7/2000	



OFF: (505) 325-5667

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

P.O. BOX 2606 • FARMINGTON, NM 87499



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 08-Mar-00

Client: Work Order: Lab ID: Project:	PNM - Public Ser 0003006 0003006-04A Albright 4 Drip	wice Company of N Matrix: AQUEC		Clier Co	nt Sample	ID: 00030 ate: 3/5/20	 Albright 4 Drip 0003051426; MW-4 3/5/2000 2:26:00 PM 8501 		
Parameter		Result	PQL	Qual	Units	DF	Date Analyzed		
AROMATIC VOL	ATILES BY GC/PID	SV	V8021B				Analyst: DM		
Benzene		ND	0.5		µg/L	1	3/7/2000		
Toluene		ND	0.5		µg/L	1	3/7/2000		
Ethylbenzene		1	0.5		µg/L	1	3/7/2000		
m,p-Xylene		1.2	1		µg/L	1	3/7/2000		
o-Xylene		ND	0.5		µg/L	1	3/7/2000		

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surt: - Surrogate

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- TECHNOLOGY BIENDING INDUSTRY WITH THE ENVIRONMENT -

1 of I

o-Xylene



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 08-Mar-00

3/7/2000

1

Client: Work Order: Lab ID: Project;	PNM - Public Ser 0003006 0003006-05A Albright 4 Drip	vice Company of Matrix: AQUE		Cli	-	t 4 Drip 1456; MW-5 0 2:56:00 PM	
Parameter		Result	PQL	Qual	Units	DF	Date Analyzed
	ATILES BY GC/PID	SV	N8021B				Analyst: DM
Benzene		26	0.5		µg/L	1	3/7/2000
Toluene		ND	0.5		µg/L	1	3/7/2000
Ethylbenzene		24	0.5		µg/L	1	3/7/2000
m,p-Xylene		65	1		µg/L	1	3/7/2000

0.5

µg/L

2

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

1 of 1





LAB: (505) 325-1556 FAX: (505) 327-1496

ANALYTICAL REPORT

Date: 20-Jun-00

Client: Work Order: Lab ID: Project:	PNM - Public Ser 0006020 0006020-01A Albright 4 Drip	rvice Company of Matrix: AQUE		Clien Col	t Sample liection D	ID: 0006071	: Albright 4 Drip : 0006071157; MW-1 : 6/7/2000 11:57:00 AM : 7888		
Parameter		Result	PQL	Qual I	Jnits	DF	Date Analyzed		
	LATILES BY GC/PI	D S	W8021B				Analyst: DC		
Benzene		ND	0.5		µg/L	1	6/16/2000		
Toluene		ND	0.5		µg/L	1	6/16/2000		
Ethylbenzene		ND	0.5		µg/L	1	6/16/2000		
m,p-Xylene		ND	1		µg/L	1	6/16/2000		
o-Xylene		ND	0.5		µg/L	1	6/16/2000		



PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit J - Analyte detected below Practical Quantitation Limit

S - Spike Recovery outside accepted recovery limits

- R RPD outside accepted recovery limits
 - E Value above quantitation range

Surr: - Surrogate

B - Analyte detected in the associated Method Blank

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

1 of 6

m,p-Xylene

o-Xylene



LAB: (505) 325-1556 FAX: (505) 327-1496

ANALYTICAL REPORT

Date: 20-Jun-00

6/13/2000

6/13/2000

1

1

Client: PNM - Publi Work Order: 0006020 Lab ID: 0006020-02. Project: Albright 4 D		vice Company of Matrix: AQUE		-			0006071212; MW-2 6/7/2000 12:12:00 PM		
Parameter		Result	PQL	Qual	Units		DF	Date Analyzed	
	LATILES BY GC/PID	S	SW8021B					Analyst: DM	
Benzene		10	0.5		µg/L		1	6/13/2000	
Toluene		ND	0.5		µg/L		1	6/13/2000	
Ethylbenzene		9.3	0.5		µg/L		1	6/13/2000	

1

0.5

4

µg/L

µg/L

23

0.8

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

2 of 6

- R RPD outside accepted recovery limits
- E Value above quantitation range

Surr: - Surrogate

P.O. BOX 2606 • FARMINGTON, NM 87499





LAB: (505) 325-1556 FAX: (505) 327-1496

ANALYTICAL REPORT

Date: 20-Jun-00

Work Order: Lab ID: Project:	0006020 0006020-03A Albright 4 Drip	Matrix: AQUEOU	S	Client Sample ID: Collection Date: COC Record:		6/7/2000 12:26:00 PM	
Parameter		Result	PQL	Qual Unit	ts	DF	Date Analyzed

AROMATIC VOLATILES BY GC/PID	sv	/8021B			Analyst: DC	
Benzene	ND	0.5	µg/L	1	6/16/2000	
Toluene	ND	0.5	µg/L	1	6/16/2000	
Ethylbenzene	ND	0.5	µg/L	1	6/16/2000	
m,p-Xylene	ND	1	µg/L	1	6/16/2000	
o-Xylene	ND	0.5	µg/L	1	6/16/2000	



PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

R - RPD outside accepted recovery limits

S - Spike Recovery outside accepted recovery limits

E - Value above quantitation range

ated Method Blank Surr: - Surrogate

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

3 of 6

o-Xylene



LAB: (505) 325-1556 FAX: (505) 327-1496

ANALYTICAL REPORT

Date: 20-Jun-00

Client: Work Order: Lab ID: Project:	PNM - Public Ser 0006020 0006020-04A Albright 4 Drip	vice Company of Matrix: AQUE		Clier Co	nt Sample	ID: 0006071 ate: 6/7/2000	Albright 4 Drip 0006071237; MW-4 6/7/2000 12:37:00 PM 7888		
Parameter		Result	PQL	Qual	Units	DF	Date Analyzed		
	LATILES BY GC/PID	. 5	SW8021B				Analyst: DC		
Benzene		ND	0.5		µg/L	1	6/16/2000		
Toluene		ND	0.5		µg/L	1	6/16/2000		
Ethylbenzene		ND	0.5		µg/L	1	6/16/2000		
m,p-Xylene		ND	1		µg/L	1	6/16/2000		

0.5

µg/L

ND

Qual	lifiers:
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PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

1

6/16/2000

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

P.O. BOX 2606 • FARMINGTON, NM 87499



o-Xylene



LAB: (505) 325-1556 FAX: (505) 327-1496

ANALYTICAL REPORT

Date: 20-Jun-00

6/16/2000

1

Client: Work Order: Lab ID: Project:	vice Company of I Matrix: AQUE	Client Sample ID: 0006071248; 1				.248; MW-5	
Parameter		Result	PQL	Qual	Units	DF	Date Analyzed
	LATILES BY GC/PID	S	SW8021B				Analyst: DC
Benzene		ND	0.5		µg/L	1	6/16/2000
Toluene		1.5	0.5		µg/L	1	6/16/2000
Ethylbenzene		0.8	0.5		µg/L	1	6/16/2000
m,p-Xylene		ND	1		µg/L	1	6/16/2000

0.5

µg/L

ND



Qualifiers: PQL - Practical Quantitation Limit ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

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