3R - 333

GENERAL CORRESPONDENCE

YEAR(S):
1996-1995

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

June 14, 1996

CERTIFIED MAIL
RETURN RECEIPT NO. P-269-269-164

Ms. Maureen Gannon
Public Service Company of New Mexico
Alvarado Square, MS 0408
Albuquerque, New Mexico 87158

RE: GROUND WATER INVESTIGATION REPORT
MCCOY A1A WELL SITE

Dear Ms. Gannon:

The New Mexico Oil Conservation Division (OCD) has reviewed Public Service Company of New Mexico's (PNM) April 4, 1996 "RESULTS & RECOMMENDATIONS OF MCCOY A1A MONITORING WELL INSTALLATION AND SAMPLING". This document contains the results of PNM's investigation of the extent of ground water contamination related to an unlined dehydration pit at the McCoy A1A well site. The document also contains PNM's proposal for conducting quarterly monitoring of ground water at the site.

The investigation activities conducted to date are satisfactory and the proposed quarterly sampling program is approved with the following conditions:

1. All ground water sampling and analysis will be conducted according to EPA methods.

2. PNM will submit an annual report to the OCD by April 1 of each respective year. The reports will contain:

   a. A description of all monitoring activities which occurred during the year including conclusions and recommendations.

   b. Summary tables of all past and present laboratory analytical results of quarterly water quality sampling and plots of concentration vs. time for contaminants of concern for each monitoring point.

   c. A quarterly water table elevation map using the water table elevation of the ground water in all monitor wells.

   d. Plots of water table elevation vs. time for each ground water monitoring point.

3. PNM will notify the OCD at least 48 hours in advance of all scheduled activities such that the OCD has the opportunity to witness the events and/or split samples.

4. All documents submitted for approval will be submitted to the OCD Santa Fe Office with copies provided to the OCD Aztec District Office.

Please be advised that OCD approval does not relieve PNM of liability should contamination exist which is beyond the scope of the work plan. In addition, OCD approval does not relieve PNM of responsibility for compliance with any other federal, state or local laws and/or regulations.

If you have any questions, please call me at (505) 827-7154.

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: OCD Aztec District Office

P 269 269 164

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PS Form 3800, April 1995

Public Service Company of New Mexico

April 4, 1996

Mr. William Olson
Hydrogeologist
Oil Conservation Division
2040 So. Pacheco
Santa Fe, New Mexico 87505

RE: RESULTS & RECOMMENDATIONS OF MCCOY A1A MONITORING WELL INSTALLATION AND SAMPLING

Dear Bill:

PNM herein submits the report summarizing our findings of the recent installation and well point sampling at the McCoy A1A gas wellhead site. PNM excavated the former unlined earthen pit at the site, removed contaminated soil, and backfilled with clean fill to surface. The site was then regraded. During excavation, PNM installed five well points in order to determine the extent of contamination, verify groundwater gradient and provide a means for compliance monitoring as necessary. This report provides the results of our activities on site related to groundwater and proposes recommendations for future activities at the site. Please call me at (505) 241-2974 if you have any questions regarding the contents of this report.

Sincerely,

Maureen Gannon

Maureen Gannon
Contract Project Manager

MDG/MCCOY02.LTR

Attachment

cc: Colin Adams, PNM
Denver Bearden, PNMGS
Denny Foust, OCD-Aztec Office
Leigh Gooding, WFS
Toni Ristau, PNM

1.0 Introduction

PNM and PNM Gas Services have completed the installation and sampling of five groundwater monitoring wells at the McCoy A1A well site located north of Aztec, New Mexico, in section 18, township 31 north, range 10 west, Unit F. PNM conducted a preliminary groundwater assessment at the McCoy A1A site in August of 1995. PNM encountered groundwater at approximately 6 feet below surface. PNM installed and sampled four well points within and surrounding the source area. Results of the sampling revealed benzene, toluene, ethylbenzene and xylenes (BTEX) concentrations as high as 45.8 ppm in the area of the former pit. PNM provided a report on the initial investigation to OCD on September 18, 1995.

In a letter report submitted on January 29, 1996, to OCD, PNM proposed the installation of permanent well points at the site (Installation of Monitoring Wells at the McCoy A1A Well Site, M. Gannon to B. Olson, 1/29/96). OCD approved the letter report in a phone conversation between Mr. William Olson, OCD, and Maureen Gannon, PNM, on February 7, 1996. As a condition of approval, OCD required PNM to submit a summary of the findings on the monitoring well installation and sampling. PNM herein submits these findings and provides recommendations for future actions at the McCoy A1A.

2.0 Monitoring Well Installation and Sampling

PNM performed soil excavation at the site from March 7 to March 9, 1996. During that time, PNM installed permanent well points. Figure 1 provides the location of each of these wells. The well points were installed during excavation of contaminated soil at the site so that the wells could be strategically placed along and outside the boundaries of the contaminated area. The wells were completed with 2-inch diameter, threaded joint, schedule 40 polyvinyl chloride (PVC) pipe, precleaned and prepackaged by the manufacturer. The well screen consisted of 2-inch, 0.020-inch slotted PVC. PNM placed a 5-foot well screen with end cap such that the complete saturated zone was screened with an additional 2 to 3 feet of screen above the air/water interface. Precleaned 10/20 silica sand was poured around the auger annulus to fill the void. This sand filter pack was then brought to a level approximately 2 feet above the top of the well screen. PNM placed a bentonite pellet seal on top of the filter pack all the way to the surface. Each well was fitted with locking cap above the ground surface. A typical groundwater monitoring well diagram for the site is presented in figure 2.

PNM purged the standard three well volumes from each well until indicator parameters of pH, temperature and electrical conductance of water stabilized over three consecutive measurements. PNM sampled the wells. One well was duplicated on all parameters as a quality assurance measure. Samples were stored in a cooler and hand-delivered to On Site Laboratories, Farmington, New Mexico and analyzed for the following WQCC parameters:

1. **In the source area:**
   BTEX (EPA Method 8020)
   Major Cations/Anions (various EPA or standard methods)
   PAHs (EPA or standard method)
   WQCC metals (As, Ba, Cd, Cr, Pb, Se, Ag, and Hg [inductively coupled plasma (ICP) for heavy metals, atomic absorption spectroscopy (AAS) for Hg and Se]

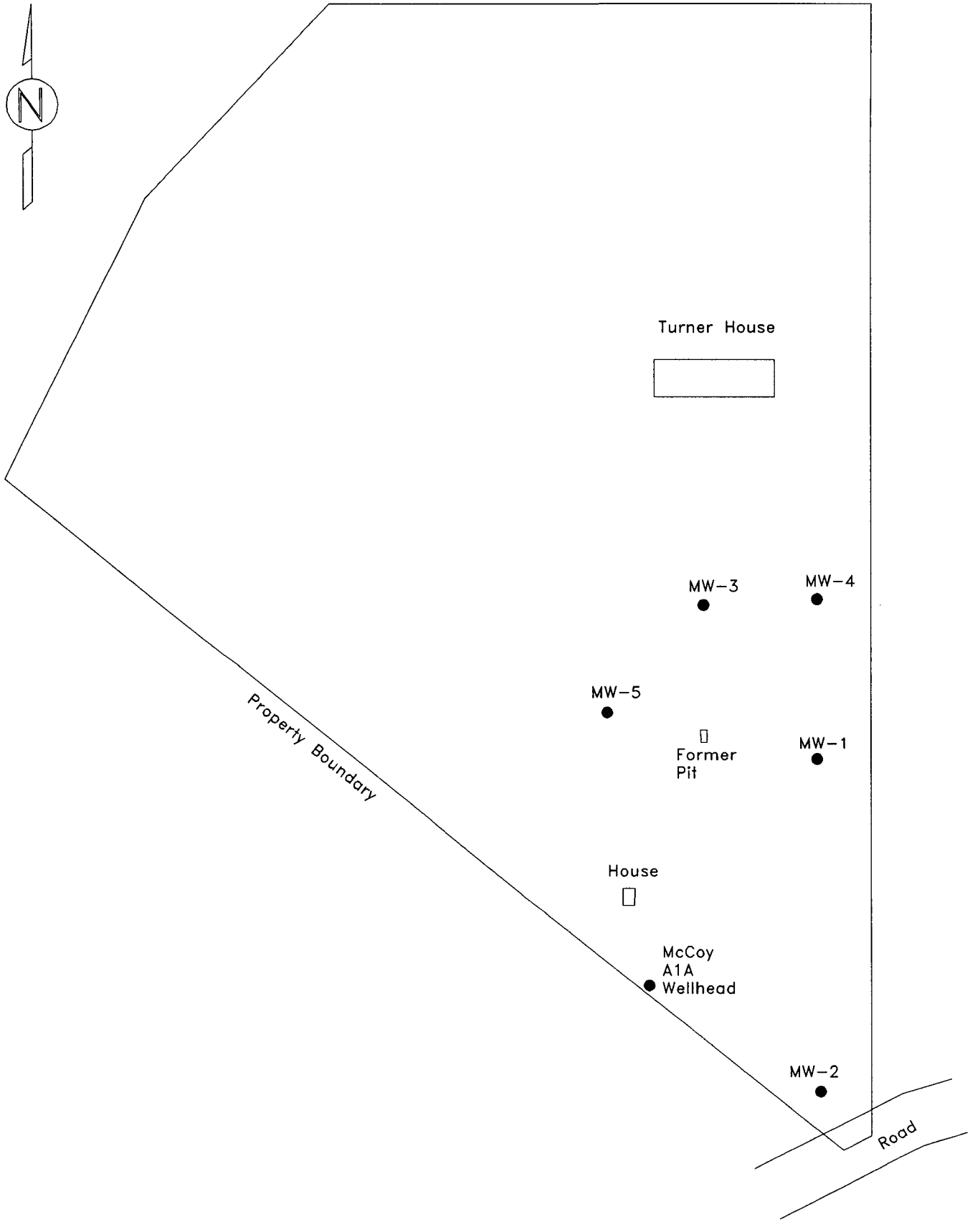
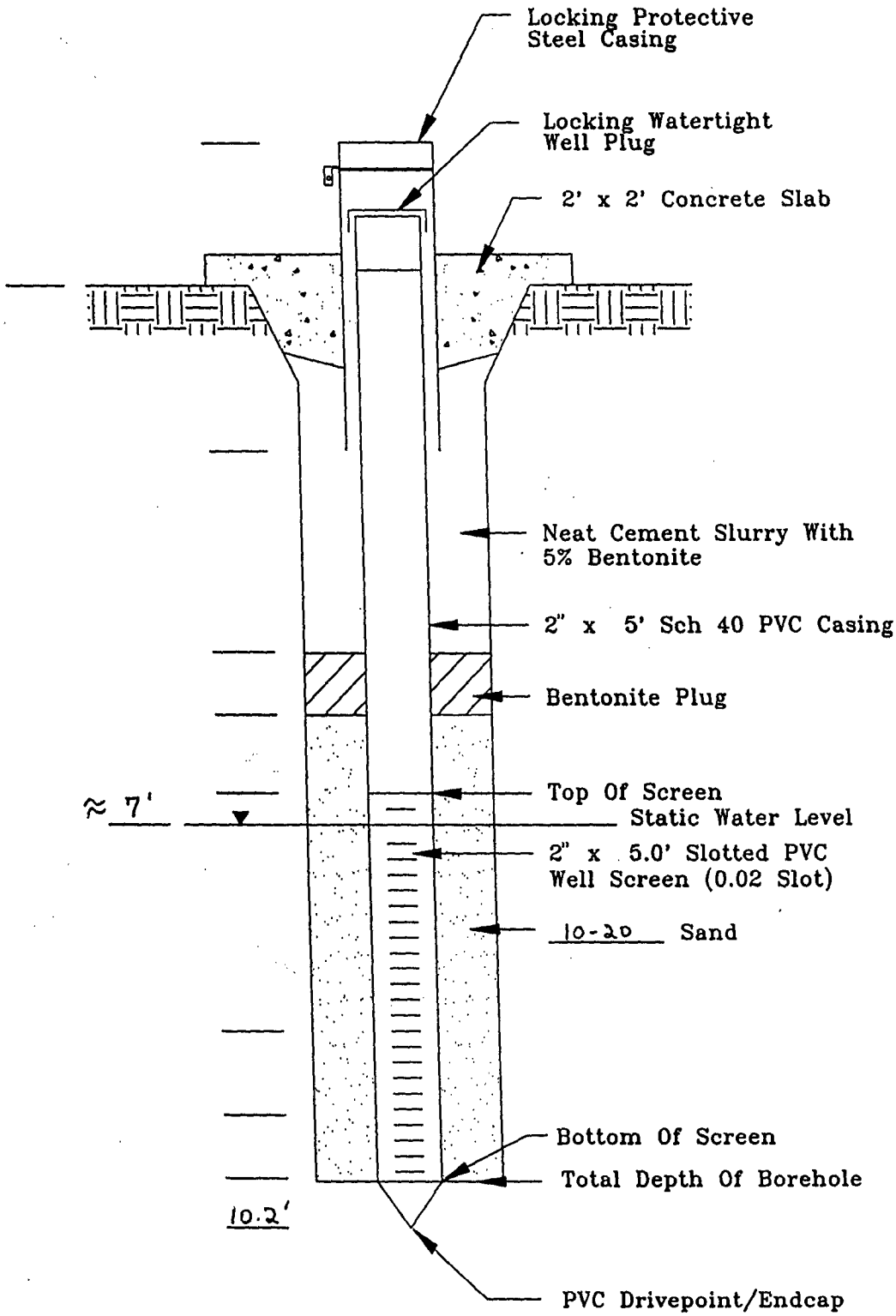


FIGURE 1
McCoy A1A Monitoring
Well Location



GCL

CLIENT: PNM	
DATE: 2/8/96	REV. NO.:
AUTHOR: M.S.	DRAWN BY:
CK'D BY: M.G.	FILE:

FIGURE 2. TYPICAL MONITOR WELL COMPLETION DIAGRAM McCOY A1A

2. **Outside the source area:**
   BTEX (EPA Method 8020)
   Major Cations/Anions (various EPA or standard methods)

5.0 Groundwater Sampling Results

PNM collected water level measurements in each of the five new wells. Free product was not encountered in any well. A land survey was also conducted to obtain monitoring well elevations. From the water level measurements and the survey, PNM developed a groundwater contour map of the site that is presented in figure 3. As shown by the map, the groundwater gradient lies in the northwest direction beneath the site.

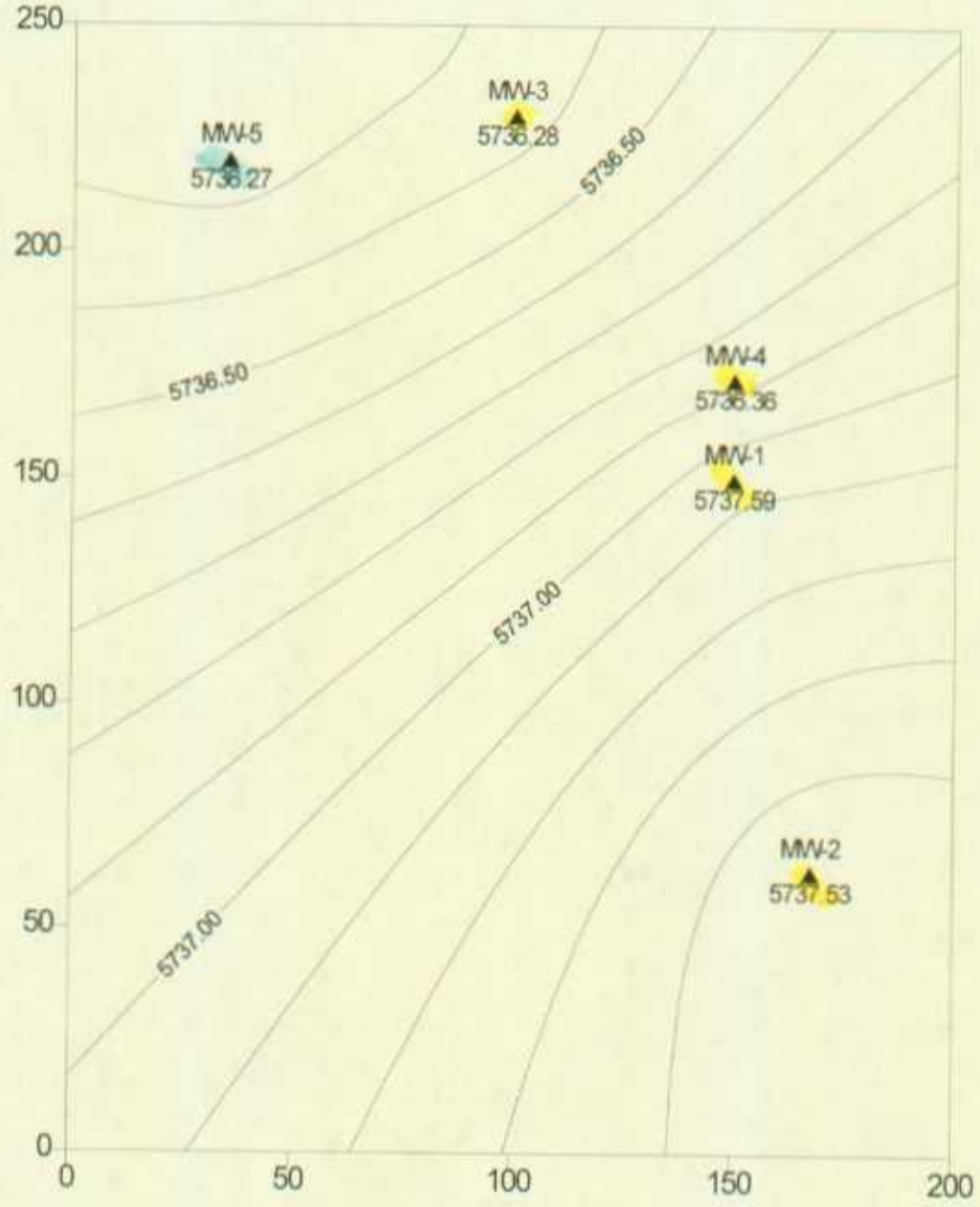
Table 1 provides the groundwater sampling results of and the Water Quality Control Commission (WQCC) standard for each constituent.

Table 1. MCCOY A1A GROUNDWATER SAMPLING RESULTS, mg/l

	WQCC Stds.	MW-1	MW-2	MW-3	MW-4	MW-5	Duplicate MW-1
B	0.01	0.001	0.0003	BDL	0.0017	BDL	0.001
T	0.75	0.0148	0.0025	0.0007	0.0185	BDL	0.0143
E	0.75	0.0027	0.0006	0.0004	0.0047	BDL	0.0026
X	0.62	0.0436	0.009	0.0007	0.0644	BDL	0.0423
PAHs	0.3	NS	NS	BDL	BDL	NS	NS
As	0.1	NS	NS	BDL	BDL	NS	NS
Ba	1	NS	NS	0.59	1.81	NS	NS
Cd	0.01	NS	NS	BDL	0.002	NS	NS
Cr	0.05	NS	NS	0.01	0.04	NS	NS
Pb	0.05	NS	NS	BDL	0.09	NS	NS
Se	0.05	NS	NS	0.002	BDL	NS	NS
Ag	0.05	NS	NS	BDL	BDL	NS	NS
Hg	0.002	NS	NS	BDL	BDL	NS	NS
Major Cations/ Anions		<175.2	<264.2	<219	<182.0	<431.8	NS

BDL: Below Detection Limit
NS: Not Analyzed
Notes: Concentrations, mg/l

Figure 3. McCoy A1A - Groundwater Contour Map (February 96)



6.0 Conclusions and Recommendations

Based upon the results of the investigation, PNM/PNMGS recommends the initiation of quarterly monitoring for BTEX. Quarterly sampling of BTEX should demonstrate that BTEX contamination in groundwater is below and will continue to be below WQCC standards at the McCoy A1A site.

To address the elevated metals' concentrations, PNM/PNMGS will resample groundwater in MW-4 during the next sampling event for barium and lead. After retrieving the sample from the well, PNM will filter the sample in the field prior to submittal to the laboratory for analysis. This methodology was not applied in the field during the February sampling event.

MCOY496A.RPT

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Maureen Gannon*	Date:	9-Feb-96
Company:	*PNM Gas Services*	*COC No.:*	*4545*
Address:	*Alevardo Square, Mail Stop 0408*	*Sample No.*	*10267*
City, State:	*Albuquerque, NM 87158*	*Job No.*	*2-1000*

Project Name:	***PNM Gas Services - McCoy A1A Well Site***				
Project Location:	***9602081300; MW-1***				
Sampled by:	MG/MS	Date:	8-Feb-96	Time:	13:00
Analyzed by:	DC	Date:	9-Feb-96		
Type of Sample:	*Liquid*				

Aromatic Volatile Organics

Component	*Result*	*Units of Measure*	*Detection Limit*	*Units of Measure*
Benzene	1.0	*ug/L*	0.2	*ug/L*
Toluene	14.8	*ug/L*	0.2	*ug/L*
Ethylbenzene	2.7	*ug/L*	0.2	*ug/L*
m,p-Xylene	35.6	*ug/L*	0.2	*ug/L*
o-Xylene	8.0	*ug/L*	0.2	*ug/L*
TOTAL	62.1	*ug/L*		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: DaK
Date: 2/9/96

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Maureen Gannon*	Date:	9-Feb-96
Company:	*PNM Gas Services*	*COC No.:*	*4545*
Address:	*Alevardo Square, Mail Stop 0408*	*Sample No.*	*10268*
City, State:	*Albuquerque, NM 87158*	*Job No.*	*2-1000*

Project Name:	***PNM Gas Services - McCoy A1A Well Site***				
Project Location:	***9602081030; MW-2***				
Sampled by:	MG/MS	Date:	8-Feb-96	Time:	10:30
Analyzed by:	DC	Date:	9-Feb-96		
Type of Sample:	*Liquid*				

Aromatic Volatile Organics

Component	*Result*	*Units of Measure*	*Detection Limit*	*Units of Measure*
Benzene	0.3	*ug/L*	0.2	*ug/L*
Toluene	2.5	*ug/L*	0.2	*ug/L*
Ethylbenzene	0.6	*ug/L*	0.2	*ug/L*
m,p-Xylene	7.6	*ug/L*	0.2	*ug/L*
o-Xylene	1.4	*ug/L*	0.2	*ug/L*
TOTAL	12.4	*ug/L*		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: Jack
Date: 2/9/96

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Maureen Gannon*	Date:	9-Feb-96
Company:	*PNM Gas Services*	*COC No.:*	*4545*
Address:	*Alevardo Square, Mail Stop 0408*	*Sample No.*	*10269*
City, State:	*Albuquerque, NM 87158*	*Job No.*	*2-1000*

Project Name:	***PNM Gas Services - McCoy A1A Well Site***				
Project Location:	***9602081320; MW-3***				
Sampled by:	MG/MS	Date:	8-Feb-96	Time:	13:20
Analyzed by:	DC	Date:	9-Feb-96		
Type of Sample:	*Liquid*				

Aromatic Volatile Organics

Component	*Result*	*Units of Measure*	*Detection Limit*	*Units of Measure*
Benzene	<0.2	*ug/L*	0.2	*ug/L*
Toluene	0.7	*ug/L*	0.2	*ug/L*
Ethylbenzene	0.4	*ug/L*	0.2	*ug/L*
m,p-Xylene	0.4	*ug/L*	0.2	*ug/L*
o-Xylene	0.3	*ug/L*	0.2	*ug/L*
TOTAL	1.7	*ug/L*		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: JaC
Date: 2/9/96

OFF: (505) 325-8786

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Maureen Gannon*	Date:	9-Feb-96
Company:	*PNM Gas Services*	*COC No.:*	*4545*
Address:	*Alevardo Square, Mail Stop 0408*	*Sample No.*	*10270*
City, State:	*Albuquerque, NM 87158*	*Job No.*	*2-1000*

Project Name:	***PNM Gas Services - McCoy A1A Well Site***				
Project Location:	***9602081400; MW-4***				
Sampled by:	MG/MS	Date:	8-Feb-96	Time:	14:00
Analyzed by:	DC	Date:	9-Feb-96		
Type of Sample:	*Liquid*				

Aromatic Volatile Organics

Component	*Result*	*Units of Measure*	*Detection Limit*	*Units of Measure*
Benzene	1.7	*ug/L*	0.2	*ug/L*
Toluene	18.5	*ug/L*	0.2	*ug/L*
Ethylbenzene	4.7	*ug/L*	0.2	*ug/L*
m,p-Xylene	54.7	*ug/L*	0.2	*ug/L*
o-Xylene	9.7	*ug/L*	0.2	*ug/L*
TOTAL	89.3	*ug/L*		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: Jack
Date: 2/9/96

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Maureen Gannon*	Date:	9-Feb-96
Company:	*PNM Gas Services*	*COC No.:*	*4545*
Address:	*Alevardo Square, Mail Stop 0408*	*Sample No.*	*10271*
City, State:	*Albuquerque, NM 87158*	*Job No.*	*2-1000*

Project Name:	***PNM Gas Services - McCoy A1A Well Site***				
Project Location:	***9602081430; MW-5***				
Sampled by:	MG/MS	Date:	8-Feb-96	Time:	14:30
Analyzed by:	DC	Date:	9-Feb-96		
Type of Sample:	*Liquid*				

Aromatic Volatile Organics

Component	*Result*	*Units of Measure*	*Detection Limit*	*Units of Measure*
Benzene	<0.2	*ug/L*	0.2	*ug/L*
Toluene	<0.2	*ug/L*	0.2	*ug/L*
Ethylbenzene	<0.2	*ug/L*	0.2	*ug/L*
m,p-Xylene	<0.2	*ug/L*	0.2	*ug/L*
o-Xylene	<0.2	*ug/L*	0.2	*ug/L*
TOTAL	<0.2	*ug/L*		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: Jack
Date: 2/9/96

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Maureen Gannon*	Date:	9-Feb-96
Company:	*PNM Gas Services*	*COC No.:*	*4545*
Address:	*Alevardo Square, Mail Stop 0408*	*Sample No.*	*10272*
City, State:	*Albuquerque, NM 87158*	*Job No.*	*2-1000*

Project Name:	***PNM Gas Services - McCoy A1A Well Site***				
Project Location:	***9602081315; MW-7*** DUPLICATE OF MW-1				
Sampled by:	MG/MS	Date:	8-Feb-96	Time:	13:15
Analyzed by:	DC	Date:	9-Feb-96		
Type of Sample:	*Liquid*				

Aromatic Volatile Organics

Component	*Result*	*Units of Measure*	*Detection Limit*	*Units of Measure*
Benzene	1.0	*ug/L*	0.2	*ug/L*
Toluene	14.3	*ug/L*	0.2	*ug/L*
Ethylbenzene	2.6	*ug/L*	0.2	*ug/L*
m,p-Xylene	34.7	*ug/L*	0.2	*ug/L*
o-Xylene	7.6	*ug/L*	0.2	*ug/L*
TOTAL	60.2	*ug/L*		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: DAG
Date: 2/9/96

OFF: (505) 325-8786

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LAB: (505) 325-5667

QUALITY ASSURANCE REPORT

for EPA Method 8020

Date Analyzed: 9-Feb-96

Internal QC No.: 0444-STD
Surrogate QC No.: 0445-STD
Reference Standard QC No.: 0355-STD

Method Blank

Analyte	Result	Units of Measure
Average Amount of All Analytes In Blank	<0.2	ppb

Calibration Check

Analyte	Units of Measure	True Value	Analyzed Value	% Diff	Limit
Benzene	ppb	20.0	18.4	8	15%
Toluene	ppb	20.0	19.0	5	15%
Ethylbenzene	ppb	20.0	19.3	4	15%
m,p-Xylene	ppb	40.0	38.5	4	15%
o-Xylene	ppb	20.0	19.3	3	15%

Matrix Spike

Analyte	1- Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Benzene	113	118	(39-150)	3	20%
Toluene	114	120	(46-148)	3	20%
Ethylbenzene	118	125	(32-160)	4	20%
m,p-Xylene	116	124	(35-145)	5	20%
o-Xylene	114	122	(35-145)	5	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered
Limit Percent Recovered	(70-130)	
10272-4545	98	

S1: Flourobenzene

OFF: (505) 325-8786

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TECHNOLOGIES, LTD.

LAB: (505) 325-5667

WATER ANALYSIS

Attn:	*Maureen Gannon*	Date:	21-Feb-96
Company:	*PNM Gas Services*	*COC No.:*	*4545*
Address:	*Alevardo Square, Mail Stop 0408*	*Sample ID:*	*10267*
City, State:	*Albuquerque, NM 87158*	*Job No.:*	*2-1000*

Project Name:	***PNM Gas Services - McCoy A1A Well Site***				
Project Location:	***9602081300; MW-1***				
Sampled by:	MG/MS	Date:	8-Feb-96	Time:	13:00
Analyzed by:	OSL/IML/MWL	Date:	21-Feb-96		
Sample Matrix:	Water				

Laboratory Analysis

Parameter	*Result*	*Detection Limit*	*Unit of Measure*	*Method*
Copper (Cu), Total	<0.05	0.05	mg/L	EPA Method 220.1
Iron (Fe), Total	0.30	0.05	mg/L	EPA Method 236.1
Manganese (Mn), Total	<0.05	0.05	mg/L	EPA Method 243.1
Zinc (Zn), Total	<0.05	0.05	mg/L	EPA Method 289.1
Chloride (Cl)	25.7	0.5	mg/L	EPA Method 325.3
Fluoride (F)	4.68	0.01	mg/L	EPA Method 340.2
Nitrate (NO3 as N)	2.33	0.05	mg/L	EPA Method 352.1
Sulfate (SO4)	142	1	mg/L	EPA Method 375.3
Cyanide (CN), Total	<0.02	0.02	mg/L	EPA Method 335.2
Total Dissolved Solids	424	1	mg/L	EPA Method 160.1
pH	7.77			EPA Method 150.1

Approved by: JaC
Date: 2/21/96

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

WATER ANALYSIS

Attn:	*Maureen Gannon*	Date:	21-Feb-96
Company:	*PNM Gas Services*	*COC No.:*	*4545*
Address:	*Alevardo Square, Mail Stop 0408*	*Sample ID:*	*10268*
City, State:	*Albuquerque, NM 87158*	*Job No.:*	*2-1000*

Project Name:	***PNM Gas Services - McCoy A1A Well Site***				
Project Location:	***9602081030; MW-2***				
Sampled by:	MG/MS	Date:	8-Feb-96	Time:	10:30
Analyzed by:	OSL/IML/MWL	Date:	21-Feb-96		
Sample Matrix:	Water				

Laboratory Analysis

Parameter	*Result*	*Detection Limit*	*Unit of Measure*	*Method*
Copper (Cu), Total	<0.05	0.05	mg/L	EPA Method 220.1
Iron (Fe), Total	0.16	0.05	mg/L	EPA Method 236.1
Manganese (Mn), Total	<0.05	0.05	mg/L	EPA Method 243.1
Zinc (Zn), Total	<0.05	0.05	mg/L	EPA Method 289.1
Chloride (Cl)	36.0	0.5	mg/L	EPA Method 325.3
Fluoride (F)	4.18	0.01	mg/L	EPA Method 340.2
Nitrate (NO3 as N)	2.67	0.05	mg/L	EPA Method 352.1
Sulfate (SO4)	221	1	mg/L	EPA Method 375.3
Cyanide (CN), Total	<0.02	0.02	mg/L	EPA Method 335.2
Total Dissolved Solids	556	1	mg/L	EPA Method 160.1
pH	7.90			EPA Method 150.1

Approved by: DaS
Date: 2/21/96

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

WATER ANALYSIS

Attn:	*Maureen Gannon*	Date:	21-Feb-96
Company:	*PNM Gas Services*	*COC No.:*	*4545*
Address:	*Alevardo Square, Mail Stop 0408*	*Sample ID:*	*10269*
City, State:	*Albuquerque, NM 87158*	*Job No.:*	*2-1000*

Project Name:	***PNM Gas Services - McCoy A1A Well Site***				
Project Location:	***9602081320; MW-3***				
Sampled by:	MG/MS	Date:	8-Feb-96	Time:	13:20
Analyzed by:	OSL/IML/MWL	Date:	21-Feb-96		
Sample Matrix:	Water				

Laboratory Analysis

Parameter	*Result*	*Detection Limit*	*Unit of Measure*	*Method*
Copper (Cu), Total	<0.05	0.05	mg/L	EPA Method 220.1
Iron (Fe), Total	0.07	0.05	mg/L	EPA Method 236.1
Manganese (Mn), Total	<0.05	0.05	mg/L	EPA Method 243.1
Zinc (Zn), Total	<0.05	0.05	mg/L	EPA Method 289.1
Chloride (Cl)	28.6	0.5	mg/L	EPA Method 325.3
Fluoride (F)	5.01	0.01	mg/L	EPA Method 340.2
Nitrate (NO3 as N)	1.14	0.05	mg/L	EPA Method 352.1
Sulfate (SO4)	184	1	mg/L	EPA Method 375.3
Cyanide (CN), Total	<0.02	0.02	mg/L	EPA Method 335.2
Total Dissolved Solids	534	1	mg/L	EPA Method 160.1
pH	7.74			EPA Method 150.1

Approved by: Jack
Date: 2/21/96

P. O. BOX 2606 • FARMINGTON, NM 87499

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

WATER ANALYSIS

Attn:	*Maureen Gannon*	Date:	21-Feb-96
Company:	*PNM Gas Services*	*COC No.:*	*4545*
Address:	*Alevardo Square, Mail Stop 0408*	*Sample ID:*	*10270*
City, State:	*Albuquerque, NM 87158*	*Job No.:*	*2-1000*

Project Name:	***PNM Gas Services - McCoy A1A Well Site***				
Project Location:	***9602081400; MW-4***				
Sampled by:	MG/MS	Date:	8-Feb-96	Time:	14:00
Analyzed by:	OSL/IML/MWL	Date:	21-Feb-96		
Sample Matrix:	Water				

Laboratory Analysis

Parameter	*Result*	*Detection Limit*	*Unit of Measure*	*Method*
Copper (Cu), Total	<0.05	0.05	mg/L	EPA Method 220.1
Iron (Fe), Total	<0.05	0.05	mg/L	EPA Method 236.1
Manganese (Mn), Total	<0.05	0.05	mg/L	EPA Method 243.1
Zinc (Zn), Total	<0.05	0.05	mg/L	EPA Method 289.1
Chloride (Cl)	25.1	0.5	mg/L	EPA Method 325.3
Fluoride (F)	4.04	0.01	mg/L	EPA Method 340.2
Nitrate (NO3 as N)	0.70	0.05	mg/L	EPA Method 352.1
Sulfate (SO4)	152	1	mg/L	EPA Method 375.3
Cyanide (CN), Total	<0.02	0.02	mg/L	EPA Method 335.2
Total Dissolved Solids	442	1	mg/L	EPA Method 160.1
pH	7.91			EPA Method 150.1

Approved by: JaG
Date: 2/21/96

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

WATER ANALYSIS

Attn:	*Maureen Gannon*	Date:	21-Feb-96
Company:	*PNM Gas Services*	*COC No.:*	*4545*
Address:	*Alevardo Square, Mail Stop 0408*	*Sample ID:*	*10271*
City, State:	*Albuquerque, NM 87158*	*Job No.:*	*2-1000*

Project Name:	***PNM Gas Services - McCoy A1A Well Site***				
Project Location:	***9602081430; MW-5***				
Sampled by:	MG/MS	Date:	8-Feb-96	Time:	14:30
Analyzed by:	OSL/IML/MWL	Date:	21-Feb-96		
Sample Matrix:	Water				

Laboratory Analysis

Parameter	*Result*	*Detection Limit*	*Unit of Measure*	*Method*
Copper (Cu), Total	<0.05	0.05	mg/L	EPA Method 220.1
Iron (Fe), Total	<0.05	0.05	mg/L	EPA Method 236.1
Manganese (Mn), Total	<0.05	0.05	mg/L	EPA Method 243.1
Zinc (Zn), Total	<0.05	0.05	mg/L	EPA Method 289.1
Chloride (Cl)	69.2	0.5	mg/L	EPA Method 325.3
Fluoride (F)	8.46	0.01	mg/L	EPA Method 340.2
Nitrate (NO3 as N)	1.97	0.05	mg/L	EPA Method 352.1
Sulfate (SO4)	352	1	mg/L	EPA Method 375.3
Cyanide (CN), Total	<0.02	0.02	mg/L	EPA Method 335.2
Total Dissolved Solids	828	1	mg/L	EPA Method 160.1
pH	7.71			EPA Method 150.1

Approved by: Jack
Date: 2/21/96

OFF: (505) 325-8786

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TECHNOLOGIES, LTD.

LAB: (505) 325-5667

QUALITY ASSURANCE REPORT

Water Analysis

Date: 21-Feb-96

Quality Control Sample

Parameter	Laboratory Identification	True Value	Analyzed Value	Units of Measure	% Diff	Limit % Diff
Copper, Cu	0422-QC	0.40	0.41	mg/L	2	10
Iron, Fe	0422-QC	0.50	0.49	mg/L	-2	10
Manganese, Mn	0422-QC	0.50	0.48	mg/L	-4	10
Zinc, Zn	0422-QC	0.50	0.50	mg/L	0	10
Chloride, Cl	0437-QC	50.0	50.4	mg/L	1	10
Fluoride, F	IML-214	0.40	0.50	mg/L	25	30
Nitrate, NO3 as N	IML-214	10.30	9.78	mg/L	-5	10
Sulfate, SO4	0455-QC	105	105	mg/L	0	10
Cyanide, CN	MWL-219	1.00	1.02	mg/L	1	10
Total Dissolved Solids	0443-QC	1661	1612	mg/L	-3	10
pH	0455-QC	9.09	9.09		0	5

Matrix Spike

Parameter	Laboratory Identification	Analyzed Value	Matrix Spike	Spike Value	Units of Measure	Spike Recovery
Copper (Cu), Total	10271-4545	0.00	1.00	0.95	mg/L	95%
Iron (Fe), Total	10270-4545	0.00	1.00	1.09	mg/L	109%
Manganese (Mn), Total	10270-4545	0.00	1.00	1.01	mg/L	101%
Zinc (Zn), Total	10270-4545	0.00	1.00	0.99	mg/L	99%

Method Blank

Parameter	Laboratory Identification	Analyzed Value	Units of Measure
Copper, Cu	LF-Blank	<0.05	mg/L
Iron, Fe	LF-Blank	<0.05	mg/L
Manganese, Mn	LF-Blank	<0.05	mg/L
Zinc, Zn	LF-Blank	<0.05	mg/L
Chloride, Cl	LF-Blank	<2 X DL	mg/L
Fluoride, F	LF-Blank	<0.01	mg/L
Nitrate, NO3 as N	LF-Blank	<0.05	mg/L
Sulfate, SO4	LF-Blank	<1	mg/L
Cyanide, CN	LF-Blank	<0.02	mg/L
Total Dissolved Solids	LF-Blank	<1	mg/L

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

METALS ANALYSIS

Attn:	*Maureen Gannon*	Date:	19-Feb-96
Company:	*PNM Gas Services*	*COC No.:*	*4545*
Address:	*Alevardo Square, Mail Stop 0408*	*Sample No.*	*10269*
City, State:	*Albuquerque, NM 87158*	*Job No.*	*2-1000*

Project Name:	***PNM Gas Services - McCoy A1A Well Site***				
Project Location:	***9602081320; MW-3***				
Sampled by:	MG/MS	Date:	8-Feb-96	Time:	13:20
Analyzed by:	MWL	Date:	19-Feb-96		
Sample Matrix:	*Water*				

Laboratory Analysis

Parameter	*Result*	*Detection Limit*	*Units of Measure*	*Method*
Arsenic (As), Total	<0.10	0.10	mg/L	EPA Method 200.7
Barium (Ba), Total	0.59	0.005	mg/L	EPA Method 200.7
Cadmium (Cd), Total	<0.002	0.002	mg/L	EPA Method 200.7
Chromium (Cr), Total	0.01	0.01	mg/L	EPA Method 200.7
Lead (Pb), Total	<0.05	0.05	mg/L	EPA Method 200.7
Selenium (Se), Total	0.002	0.002	mg/L	EPA Method 270.2
Silver (Ag), Total	<0.01	0.01	mg/L	EPA Method 200.7
Mercury (Hg), Total	<0.0004	0.0004	mg/L	EPA Method 245.1

Approved by: Jaf
Date: 2/19/96

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

METALS ANALYSIS

Attn:	*Maureen Gannon*	Date:	19-Feb-96
Company:	*PNM Gas Services*	*COC No.:*	*4545*
Address:	*Alevardo Square, Mail Stop 0408*	*Sample No.*	*10270*
City, State:	*Albuquerque, NM 87158*	*Job No.*	*2-1000*

Project Name:	***PNM Gas Services - McCoy A1A Well Site***				
Project Location:	***9602081400; MW-4***				
Sampled by:	MG/MS	Date:	8-Feb-96	Time:	14:00
Analyzed by:	MWL	Date:	19-Feb-96		
Sample Matrix:	*Water*				

Laboratory Analysis

Parameter	*Result*	*Detection Limit*	*Units of Measure*	*Method*
Arsenic (As), Total	<0.10	0.10	mg/L	EPA Method 200.7
Barium (Ba), Total	1.81	0.005	mg/L	EPA Method 200.7
Cadmium (Cd), Total	0.002	0.002	mg/L	EPA Method 200.7
Chromium (Cr), Total	0.04	0.01	mg/L	EPA Method 200.7
Lead (Pb), Total	0.09	0.05	mg/L	EPA Method 200.7
Selenium (Se), Total	<0.002	0.002	mg/L	EPA Method 270.2
Silver (Ag), Total	<0.01	0.01	mg/L	EPA Method 200.7
Mercury (Hg), Total	<0.0004	0.0004	mg/L	EPA Method 245.1

Approved by: Jack
Date: 2/19/96

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

QUALITY ASSURANCE REPORT

Metals Analysis

Date: 19-Feb-96

Quality Control Sample

Parameter	Initial Check Sample	Final Check Sample	Percent Recovery
Arsenic, As	102	100	%
Barium, Ba	106	105	%
Cadmium, Cd	104	101	%
Chromium, Cr	101	100	%
Lead, Pb	99	102	%
Selenium, Se	102	90	%
Silver, Ag	103	103	%
Mercury, Hg	111	102	%

Spike

Parameter	Spike % Recovery	Duplication % RSD
Arsenic, As	98	<2 X DL
Barium, Ba	99	<2 X DL
Cadmium, Cd	104	<2 X DL
Chromium, Cr	95	<2 X DL
Lead, Pb	88	<2 X DL
Selenium, Se	65	<2 X DL
Silver, Ag	92	<2 X DL
Mercury, Hg	102	<2 X DL

Method Blank

Parameter	Analyzed Value	Units of Measure
Arsenic, As	<0.10	mg/L
Barium, Ba	<0.005	mg/L
Cadmium, Cd	<0.002	mg/L
Chromium, Cr	<0.01	mg/L
Lead, Pb	<0.05	mg/L
Selenium, Se	<0.002	mg/L
Silver, Ag	<0.01	mg/L
Mercury, Hg	<0.0004	mg/L

OFF: (505) 325-8786

ON SITE
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LAB: (505) 325-5667

POLYNUCLEAR AROMATIC HYDROCARBONS

Attn:	*Maureen Gannon*	Date:	22-Feb-96
Company:	*PNM Gas Services*	*Lab ID:*	*4545*
Address:	*Alevardo Square, Mail Stop 0408*	*Sample ID:*	*10269*
City, State:	*Albuquerque, NM 87158*	*Job No.*	*2-1000*

Project Name:	***PNM Gas Services - McCoy A1A Well Site***				
Project Location:	***9602081320; MW-3***				
Sampled by:	MG/MS	Date:	8-Feb-96	Time:	13:20
Analyzed by:	ILFC	Date:	15-Feb-96		
Sample Matrix:	*Water*				

Laboratory Analysis

Component	*Result*	*Unit of Measure*	*Detection Limit*	*Unit of Measure*
Acenaphthene	<1	ug/L	1	ug/L
Acenaphthylene	<1	ug/L	1	ug/L
Benzo (a) anthracene	<1	ug/L	1	ug/L
Benzo (a) pyrene	<1	ug/L	1	ug/L
Pyrene	<1	ug/L	1	ug/L
Benzo (b) fluoranthene	<1	ug/L	1	ug/L
Benzo (ghi) perylene	<5	ug/L	5	ug/L
Benzo (k) flouranthene	<1	ug/L	1	ug/L
Chrysene	<1	ug/L	1	ug/L
Dibenzo (a,h) anthrace	<5	ug/L	5	ug/L
Flouranthene	<1	ug/L	1	ug/L
Fluorene	<1	ug/L	1	ug/L
Indeno (1,2,3-cd) pyre	<5	ug/L	5	ug/L
Naphthalene	<1	ug/L	1	ug/L
Phenanthrene	<1	ug/L	1	ug/L

Method - *SW-846 EPA Method 8100 - Polynuclear Aromatic Hydrocarbons*

Approved by: DaG
Date: 2/22/96

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

POLYNUCLEAR AROMATIC HYDROCARBONS

Attn:	*Maureen Gannon*	Date:	22-Feb-96
Company:	*PNM Gas Services*	*Lab ID:*	*4545*
Address:	*Alevardo Square, Mail Stop 0408*	*Sample ID:*	*10270*
City, State:	*Albuquerque, NM 87158*	*Job No.*	*2-1000*

Project Name:	***PNM Gas Services - McCoy A1A Well Site***				
Project Location:	***9602081400; MW-4***				
Sampled by:	MG/MS	Date:	8-Feb-96	Time:	14:00
Analyzed by:	ILFC	Date:	15-Feb-96		
Sample Matrix:	*Water*				

Laboratory Analysis

Component	*Result*	*Unit of Measure*	*Detection Limit*	*Unit of Measure*
Acenaphthene	<1	ug/L	1	ug/L
Acenaphthylene	<1	ug/L	1	ug/L
Benzo (a) anthracene	<1	ug/L	1	ug/L
Benzo (a) pyrene	<1	ug/L	1	ug/L
Pyrene	<1	ug/L	1	ug/L
Benzo (b) fluoranthene	<1	ug/L	1	ug/L
Benzo (ghi) perylene	<5	ug/L	5	ug/L
Benzo (k) flouranthene	<1	ug/L	1	ug/L
Chrysene	<1	ug/L	1	ug/L
Dibenzo (a,h) anthrace	<5	ug/L	5	ug/L
Flouranthene	<1	ug/L	1	ug/L
Fluorene	<1	ug/L	1	ug/L
Indeno (1,2,3-cd) pyre	<5	ug/L	5	ug/L
Naphthalene	<1	ug/L	1	ug/L
Phenanthrene	<1	ug/L	1	ug/L

Method - *SW-846 EPA Method 8100 - Polynuclear Aromatic Hydrocarbons*

Approved by: Da G
Date: 2/22/96

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

QUALITY ASSURANCE REPORT

EPA Method 8100

Date: 15-Feb-96

Method Blank ***Calibration Check***

Component	Result	Unit of Measure		% RPD	Limit
Acenaphthene	<1	ug/L		12%	25%
Acenaphthylene	<1	ug/L		15%	25%
Benzo (a) anthracene	<1	ug/L		7%	25%
Benzo (a) pyrene	<1	ug/L		3%	25%
Pyrene	<1	ug/L		<1%	25%
Benzo (b) fluoranthene	<1	ug/L		11%	25%
Benzo (ghi) perylene	<5	ug/L		16%	25%
Benzo (k) flouranthene	<1	ug/L		18%	25%
Chrysene	<1	ug/L		14%	25%
Dibenzo (a,h) anthrace	<5	ug/L		8%	25%
Flouranthene	<1	ug/L		11%	25%
Fluorene	<1	ug/L		34%	25%
Indeno (1,2,3-cd) pyre	<5	ug/L		12%	25%
Naphthalene	<1	ug/L		9%	25%
Phenanthrene	<1	ug/L		12%	25%
1,4-Dichlorobenzene	<1	ug/L		10%	25%
2,4-Dinitrotoluene	<1	ug/L		8%	25%
N-Nitroso-di-n-propylamine	<1	ug/L		5%	25%
1,2,4-Trichlorobenzene	<1	ug/L		10%	25%

Matrix Spike

Component	1- Percent Recovered	2 - Percent Recovered	Limit
Acenaphthene	67%	77%	(46-118)
Pyrene	76%	90%	(26-127)
1,4-Dichlorobenzene	60%	76%	(36-97)
2,4-Dinitrotoluene	60%	73%	(24-96)
N-Nitroso-di-n-propylamine	67%	80%	(41-118)
1,2,4-Trichlorobenzene	59%	74%	(39-98)

Surrogate Recoveries

Laboratory Identification	S1 Nitrobenzene-d5	S2 2-Fluorbiphenyl	S3 Terphenyl-d14
10269-4545	88%	106%	114%
10270-4545	79%	93%	101%

4545

CHAIN OF CUSTODY RECORD

ON SITE TECHNOLOGIES, LTD.

657 W. Maple • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Date: 2-08-96

Page 1 of 1

Purchase Order No.:		Job No.	
SEND INVOICE TO — Name	Denver Bearden		
Company	PNM Gas Services	Dept.	324-3763
Address	603 W. Elm Street		
City, State, Zip	Farmington, NM 87401		

REPORT RESULTS TO — Name	Maureen Gannon	Title	
Company	PNM Gas Services		
Mailing Address	Alverado Square, Mail Stop 0408		
City, State, Zip	Albuquerque, NM 87158		
Telephone No.	505-848-2974	Telefax No.	

Sampling Location: McCoy A1A Well Site

Sampler: M.GANNON M Sikelian.s

ANALYSIS REQUESTED

SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	MATRIX	PRES.	Number of Containers	BTEX 8020	CATIONS/ANIONS	PAHs	METALS	LAB ID
960208 1300 MW-1			H_2O	$HgCl_2$ (conc)	3	X	X			10267-4545
960208 1030 MW-2			H_2O	$HgCl_2$ (conc)	3	X	X			10268
960208 1320 MW-3			H_2O	$HgCl_2$ (conc)	5	X	X	X	X	10269
960208 1400 MW-4			H_2O	$HgCl_2$ (conc)	5	X	X	X	X	10270
960208 1430 MW-5			H_2O	$HgCl_2$ (conc)	3	X	X			10271
960208 1315 MW-7			H_2O	$HgCl_2$ (conc)	2	X				10272
										~~10273~~

Relinquished by:	Date/Time 2/8/96 1650	Received by:	Date/Time 2/8/96 1650
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time

Method of Shipment: HAND DELIVERED

Authorized by: _____ Date 2/8/96

(Client Signature Must Accompany Request)

Rush	24-48 Hours	10 Working Days	Special Instructions:
			Results to be sent to both parties.

Distribution: White – On Site Yellow – LAB Pink – Sampler Goldenrod – Client

Public Service Company
of New Mexico
Alvarado Square, MS-0806
Albuquerque, NM 87158
505 241-4538
FAX 505 241-2338

C[redacted]. Adams
Co[redacted]ate Counsel

PNM

January 3, 1996

Denny G. Foust
Deputy Oil & Gas Inspector
OCD - Aztec Office
1000 Rio Brazos Road
Aztec, NM 87410

Re: Groundwater and Soil Impacts at the Meridian Cozzens B#1, Cozzens B#1E and the Amoco McCoy A#1A, San Juan County

Dear Mr. Foust:

Please find enclosed a duplicate original of our December 28, 1995 letter to you concerning the above matter. Our letter was in response to your December 15, 1995 letter. Unfortunately, our letter was addressed to you at the Santa Fe office of the OCD. We sincerely apologize for having misdirected that letter and for any inconvenience that such error may have caused.

Sincerely,

Colin L. Adams
Environmental Counsel

cc: Toni Ristau, PNM Environmental
Denver Bearden, PNMGS Operations
Maureen Gannon, GCL
Bill Olson, OCD

State of New Mexico
ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT
Santa Fe, New Mexico 87505

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☑ Telephone ☐ Personal	Time 0930	Date 2/8/96

Originating Party	Other Parties
Bill Olson - Envir. Bureau	Maureen Gannon - PNM

Subject

McCoy A #1 A

Discussion

Conclusions or Agreements

Gave verbal approval of 1/29/96 work plan

PNM will provide report in 2-3 weeks

Distribution

Signed Bill Olson

Public Service Company
of New Mexico
Alvarado Square MS. 0408
Albuquerque, NM 87158

January 29, 1996

Mr. William Olson
Hydrogeologist
Oil Conservation Division
2040 So. Pacheco
Santa Fe, New Mexico 87505

RE: INSTALLATION OF MONITORING WELLS AT THE MCCOY AIA WELL SITE

Dear Bill:

PNM Gas Services, PNMGS, (formerly Gas Company of New Mexico) proposes to install additional well points at the McCoy A1A well site to further define the extent of groundwater contamination, verify the groundwater gradient, and provide a means for compliance monitoring of groundwater at the site. PNM will perform this installation and sampling in conjunction with removal of contaminated soil in the area of the unlined earthen pit formerly operated by PNMGS. Soil remediation will be conducted pursuant to Gas Company of New Mexico and Sunterra Gas Gathering Company San Juan Basin Area Wide Surface Impoundment Closure Plan, approved by OCD on September 16, 1993. The work is scheduled to commence Wednesday, February 2, 1996.

The McCoy A1A site is located north of Aztec, New Mexico, along the Animas River, in section 18, township 31 north, range 10 west, unit F. Figure 1 provides a map of the site. Previous activities at the site involved a preliminary groundwater investigation conducted August 23, 1995. A report on the findings of that investigation was provided to OCD on September 18, 1995. In summary, PNM, through its consultant, GCL, determined that groundwater, encountered at a depth of 6.5 feet below ground surface at the site, has most likely been impacted by hydrocarbon-contaminated fluids from the pit. Benzene, toluene, ethylbenzene and xylenes (BTEX) were detected in groundwater at concentrations of 45.8 mg/l in wellpoint, WP-1, located immediately west of the the pit, at 16.1 mg/l in WP-3 approximately 20 feet to the northwest of the pit, and at 0.004 mg/l in WP-2 which is situated 30 feet to the west of the pit. PNM believes the groundwater gradient is probably to the northwest across the site.

To complete the assessment of groundwater contamination and provide a means for monitoring, PNM will install four new well points at the site. Figure 1 shows the proposed location of each well point. The well points will be installed during excavation of contaminated soil at the site so that wells can be strategically placed along and outside of the boundaries of the area with soil contamination. The wells will be completed with 2-inch diameter, threaded joint, schedule 40 polyvinyl chloride (PVC) pipe, precleaned and prepackaged by the manufacturer. The well screen will consist of 2-inch, 0.020-inch slotted PVC. A 15-foot well screen with end cap will be placed such that the complete saturated zone is screened with an additional 2 to 3 feet of screen above the air/water interface. Precleaned 10/20 silica sand will be poured around the auger annulus to fill the void. This sand filter pack will be brought to a level approximately 2 feet above the top of the well screen. A bentonite pellet seal will then be placed on top of the filter pack all the way to the surface. Each well will be fitted with locking cap above ground surface.

PNM will purge the standard three well volumes from each well until indicator parameters of pH, temperature and electrical conductance of water have stabilized over three consecutive measurements. The wells will then be sampled. One well will be duplicated on all parameters as a quality assurance measure. Samples will be delivered to On Site Laboratories, Farmington, New Mexico and analyzed for the following WQCC parameters:

BTEX (EPA Method 8020)
Major Cations/Anions (various EPA or standard methods)
PAHs (EPA or standard method)
WQCC metals (As, Ba, Cd, Cr, Pb, Se, Ag, and Hg [inductively coupled plasma (ICP) for heavy metals, atomic absorption spectroscopy (AAS) for Hg and Se]

PNM will prepare a letter report to OCD of the findings of the new monitoring well installation and sampling. At that time, we will propose our remedial strategy for groundwater clean-up at the site. If you have any questions regarding the contents of this letter, please call me at (505) 241-2974. Otherwise, I will follow up with a phone call towards the end of this week.

Sincerely,
PNM

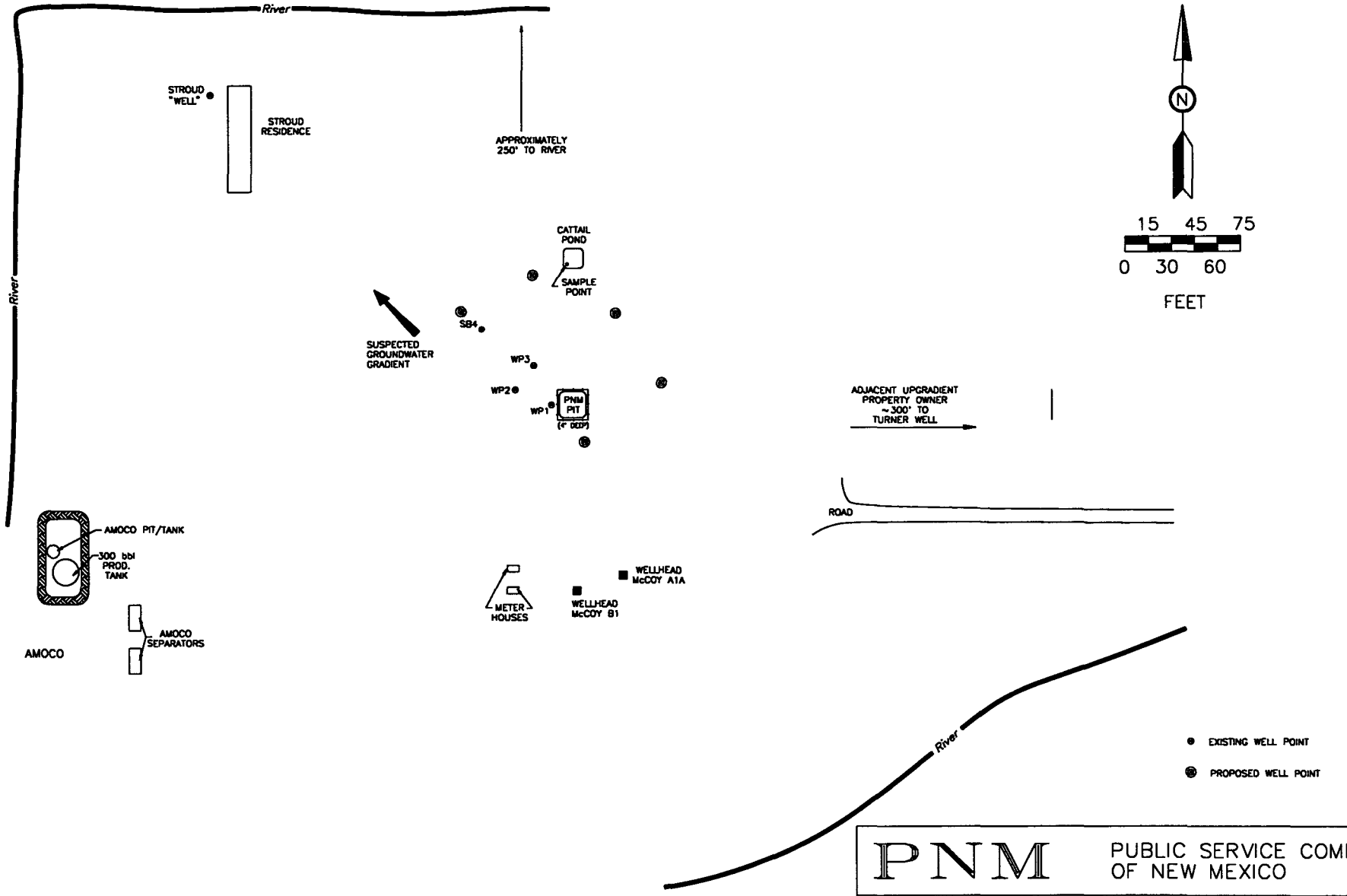
Maureen Gannon

Maureen Gannon
Contract Project Manager

MDG/MCCOY01.LTR

Attachment

cc: Colin Adams, PNM
Denver Bearden, PNMGS
Denny Foust, OCD-Aztec Office
Leigh Gooding, WFS
Toni Ristau, PNM



PNM PUBLIC SERVICE COMPANY OF NEW MEXICO

McCOY A1A WELL SITE
PROPOSED WELLPOINT LOCATIONS

	DATE: Jan. 29, 1996	FIGURE 1
ACAD FILE: McCoy1	APP:	

Public Service Company
of New Mexico
Alvarado Square, MS-0806
Albuquerque, NM 87158
505 241-4538
FAX 505 241-2338

L. Adams
Corporate Counsel

PNM

December 28, 1995

Denny G. Foust
Environmental Geologist
Oil Conservation Division
P.O. Box 6429
Santa Fe, New Mexico

Re: Groundwater and Soil Impacts at the Meridian Cozzens B#1, Cozzens B#1E and the Amoco McCoy A#1A, San Juan County

Dear Mr. Foust:

I received a copy of your December 15, 1995 letter to Denver Bearden of PNM Gas Services ("PNMGS") in connection with the above matter. After reading it, we felt that a response was necessary so that the record, from our perspective, is clear.

First, contrary to what seems to be implied in your letter, PNMGS is not the "designated responsible party." The position of PNMGS is that either it has no liability for remediating the soil and groundwater in question or it shares liability with other parties. Put more directly, PNMGS' position is that the liable parties are the producers. PNMGS does have an agreement with Williams Field Services ("WFS") resulting from the sale of the gas assets, which addresses the question of who, as between PNMGS and WFS, is responsible for responding to directives from environmental regulatory authorities. However, that agreement does not constitute an admission of liability or responsible party designation by PNMGS. Even though it is PNMGS' position that it is not the responsible party, PNMGS will commence remedial activities per your direction. The responsible parties can be pursued later, and PNMGS specifically reserves any rights it may have to seek recovery from such responsible parties

Though PNMGS will commence remedial activities as expeditiously as possible, your January 15, 1996 deadline for commencement of active remediation at Amoco McCoy A#1A, and for definition of the plumes at the other two well sites may be unrealistic. To perform the nature of the work required, PNMGS has to obtain rights of access from the producer and/or lessee, as well as the landowners involved, which may possibly include adjoining landowners. PNMGS is working diligently to obtain these rights, but cannot guarantee that they will be obtained in time for PNMGS to commence remedial activities on January 15.

Secondly, we point out that the soil and groundwater contamination is not due to "gas transporter equipment malfunctions" at the sites in question. As you are aware, until recently, when certain regulatory schemes were put in place, it was standard operating procedure in the natural gas industry to discharge fluids into unlined pits. This practice in fact continues in areas that are not within the OCD vulnerable areas. Also, we wish to point out that in most cases, the dehy and separator pits are ahead of the meter, so the fluids that were discharged into the pits were the property of and the responsibility of the producer, not the transporter. The pits are generally located on the producer's leasehold, and not upon any easement or right-of-way of the transporter. Further, it is likely that other pits, equipment discharges, spills, etc., other than those alleged to have been from the "transporter's equipment" at these sites have also contributed to groundwater contamination, as there are commonly multiple pits located at these sites over time. Again, we do not wish to split hairs on the issue of responsible party designation at this time, but we want to preserve any rights of cost recovery that we may have from other parties who are wholly or partially responsible for contributing to groundwater contamination at these sites. We also wish to encourage OCD's solicitation of other parties who may have responsibilities for cleanup to actively participate in or share the cost of any remediation that PNMGS may undertake at these sites.

Thank you for your time. If you have any questions concerning the points that I have set out, please call me at (505) 241-4538.

Sincerely,

Colin L. Adams
Environmental Counsel

cc: Toni Ristau, PNM Environmental
Denver Bearden, PNMGS Operations
Leigh Gooding - WFS Environmental, Salt Lake City
Bill Liess, BLM

NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
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1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178 FAX: (505) 334-6170

Certified: P 987 892 160

December 15, 1995

Denver Bearden
Administrator III PNM Gas Services
603 West Elm Street
Farmington NM 87401

RE: Groundwater and Soil Impacts at the Meridian Cozzens B #1, Cozzens B #1E and the Amoco Mc Coy A #1A all in San Juan County, New Mexico

Dear Mr. Bearden:

PNM Gas Services remains the designated responsible party, through agreement with Williams Field Services, for remediating soil and groundwater contaminated due to gas transporter equipment malfunctions at the above sites.

All three sites have soil and groundwater contamination exceeding State standards. Due to its location near residences and a domestic water well, PNM Gas Services should start active remediation at the Amoco McCoy A #1A, F-18-T31N-R10W, by January 15, 1996. PNM Gas Services needs to define the contamination plumes at the Meridian Cozzens B #1, L-19-T29N-R11W and Cozzens B #1E, J-19-T29N-R11W, by January 15, 1996, due to their locations near residences. PNM Gas Services at all three sites will have soil remediation essentially completed and groundwater remediation definitely in the active mode by April 1, 1996.

Please feel free to contact me at 505-334-6178 if you have questions.

Yours truly,

Denny Foust by sk

Denny G. Foust
Environmental Geologist

XC: DGF File
Environmental File
Bill Olson
Leigh Gooding-WFS
Bill Liess-BLM

GCL
Environmental Science and Engineering
A BDM International Company

505 Marquette NW, Ste. 1100 • Albuquerque, NM 87102
(505) 842-0001 • FAX: (505) 842-0595

September 18, 1995

Mr. William Olson, Hydrogeologist
Environmental Bureau
Oil Conservation Division
2040 So. Pacheco
Santa Fe, New Mexico 87505

RE: McCOY A1A PRELIMINARY GROUNDWATER INVESTIGATION

Dear Mr. Olson:

On behalf of Public Service Company of New Mexico Gas Services (PNMGS), Geoscience Consultants, Ltd. (GCL) is hereby providing formal notification to the Oil Conservation Division (OCD) that a discharge/release to groundwater has occurred at the McCoy A1A wellhead site located north of Aztec, New Mexico, in section 18, township 31 north, range 10 west, Unit F. The source of the contamination at the site is suspected to come from an unlined earthen pit located 150 feet to the northwest of the wellhead and formerly operated by PNMGS. PNMGS removed all process equipment in August of 1995, and is no longer discharging at the site. This letter serves as written follow-up to GCL's verbal notification to you on Friday, September 8, 1995, and was prepared in accordance with OCD Rule 116 and New Mexico Water Quality Control Commission (WQCC) Regulation 1-203.

The McCoy A1A site is located in the OCD-original vulnerable area along the Animas river. Figure 1 provides a site map. In response to OCD's letter dated June 6, 1995, GCL installed three groundwater well points at the site on August 23, 1995. During initial soil borings, groundwater was encountered at a depth of 6.5 feet. Groundwater samples were collected from each of the well points, an additional soil boring, and an ephemeral cattail pond located to the north of the site. Initial analytical results at the site indicate that the groundwater gradient probably flows in a northwesterly direction.

Laboratory analytical results are summarized in table 1. Groundwater sampling results from an upgradient private well 300 feet to the east are non-detect for BTEX analysis as are the results from the cattail pond 100 feet to the north. Well point, WP-1, which is located due west of the pit exceeded WQCC standards for benzene (1,400 ug/l), toluene (26,000 ug/l), ethyl benzene (1,400 ug/l) and xylene (17,000 ug/l). Well point, WP-3, which is located 20 feet to the northwest of the pit also exceeded WQCC standards for benzene (120 ug/l), ethyl benzene (930 ug/l) and xylene (15,000 ug/l). Well point, WP-2, located 30 feet to the west, and soil boring, SB-4, located 60 feet to the northwest of the pit are non-detect for benzene and ethyl benzene and slightly above the detection limit for toluene and xylene.

Pursuant to WQCC Regulation 1-203, PNMGS will prepare a letter report to OCD within the next 15 days addressing further actions to be taken at the site. Please contact me at (505) 842-0001 if you have any questions regarding the contents of this letter. Thank you for your attention.

Sincerely,
Geoscience Consultants, Ltd. (GCL)

Maureen D. Gannon
Senior Engineer

MDG/3078/OLSON06.LTR

cc: D. Bearden, PNMGS-Farmington
D. Faust, OCD-Aztec
T. Ristau, PNM-Albuquerque
L. Gooding, Williams Field Services

Attachments

TABLE 1
McCOY A1A GROUNDWATER SAMPLING RESULTS, ug/l
AUGUST 1995

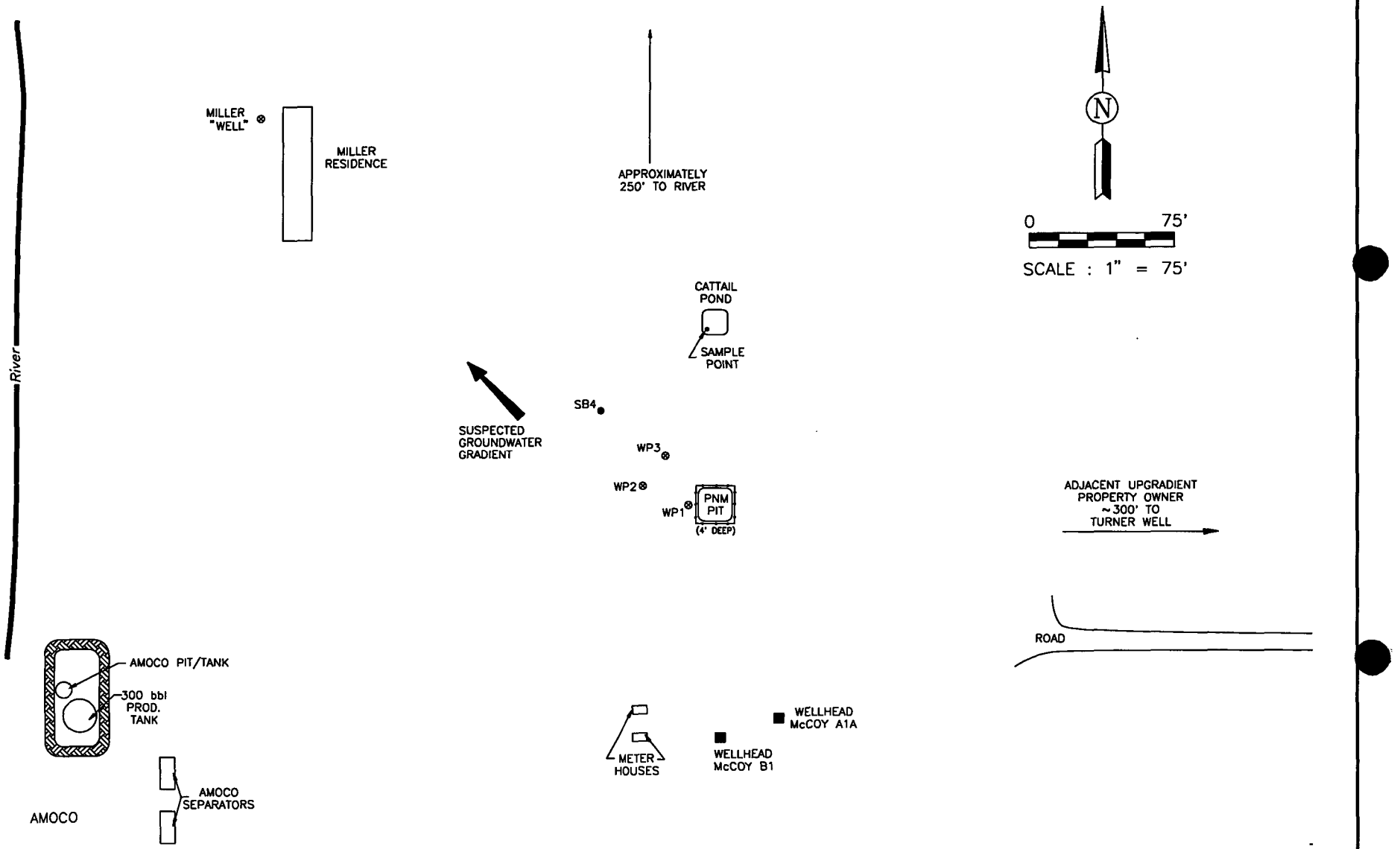
	WQCC Stds.	UP GRADIENT	WP- 1	WP- 2	WP - 3	SB - 4	CATTAIL POND	Trip Blank
B	10	BDL	**1400**	BDL	**120**	BDL	BDL	BDL
T	750	BDL	**26000**	2.5	280	0.8	BDL	BDL
E	750	BDL	**1400**	BDL	**930**	BDL	BDL	BDL
X	620	BDL	**17000**	1.5	**15000**	1.4	BDL	BDL

BDL: Below Detection Limit (0.5 ug/l)

WP: Well Point

SB: Soil Boring

Bold Indicates Concentrations Above WQCC Standards



GCL

CLIENT: PNM	
DATE: 9/7/95	REV. NO.: 0
AUTHOR: MDG	DRAWN BY: MP
CK'D BY: MDG	FILE: MCCOY1.DWG

FIGURE 1
McCOY AIA WELL SITE AND WELLPOINT LOCATIONS

Bill Olson

GARBER AND HALLMARK, P.C.
ATTORNEYS AT LAW
200 W. MARCY, SUITE 203
POST OFFICE BOX 850
SANTA FE, NEW MEXICO 87504-0850

BRUCE S. GARBER
B. CULLEN HALLMARK

TELEPHONE (505) 983-3233
FACSIMILE (505) 983-6344

September 18, 1995

Mr. Denny G. Foust
Environmental Geologist
State of New Mexico
Energy, Minerals and
Natural Resources Department
Oil Conservation Division
1000 Rio Brazos Road
Aztec, NM 87410

Re: Possible Groundwater Impacts Amoco McCoy A#1A, F-18-31N-10W, Snyder Oil Corporation Kaufman #1, H-33-31N-13W and Snyder Oil Corporation Templeton #1E, B-27-31N-13W, San Juan County, New Mexico

Dear Mr. Foust:

This letter responds to yours of June 6, 1995 to Denver Bearden regarding the facilities noted above. Please excuse the delay in this response which results from the transition the Public Service Company of New Mexico has been undergoing in relation to the gas assets sold to Williams Field Services.

The Public Service Company of New Mexico Gas Services' ("PNMGS") through its consultants, Geoscience Consultants Ltd., has conducted a preliminary groundwater investigation at the McCoy A#1A site. I understand that the preliminary results from that investigation were verbally transmitted to the Oil Conservation Division on September 8, 1995. A written report is being prepared and should be received by the Oil Conservation Division in the near future.

The Snyder Oil Corporation Templeton #1E location is being addressed at this time by the Snyder Oil Corporation, which has taken the lead in the groundwater and soil remediation at this site. We understand that Snyder obtained an approved discharge plan for the groundwater remediation at this site on February 20, 1995, and is proceeding with remediation pursuant to that plan. We have addressed a number of questions to Snyder concerning this site for the purpose of defining the necessary role of PNMGS in this remediation, if any.

The Snyder Oil Corporation Kaufman #1 site is also the subject of a current dialogue between PNMGS and Snyder. PNMGS expects to receive additional information from Snyder regarding this site and will pursue efforts to address additonal site investigation as appropriate in the near future. We will update our report on this site in 30 days.

Please feel free to contact Denver Bearden at 324-3763 or me at 983-3233 if you have any questions concerning these sites.

Sincerely,

Bruce S. Garber

BSG:aa

cc: Chuck Garcia
Toni Ristau
Maureen Gannon

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE

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Certified Receipt: P-987-892-147

June 6, 1995

Gas Company of New Mexico
Attn. Denver Bearden
Environmental Administrator
PO Box 1899
Bloomfield NM 87413

RE: Possible Groundwater Impacts Amoco McCoy A#1A, F-18-31N-10W, Snyder Oil Corporation Kaufman #1, H-33-31N-13W and Snyder Oil Corporation Templeton #1E, B-27-31N-13W, San Juan County New Mexico.

Dear Mr. Bearden:

Due to persistent complaints from residents near the Amoco McCoy A#1A, F-18-31N-10W, of odors and illness I am requesting an immediate assessment of the abandoned dehydrator pit on this location. Groundwater impact in this area could have serious ramifications due to the close proximity of the Animas River and several domestic water wells.

The Snyder Oil Corporation Templeton #1E, B-27-31N-13W, has experienced a significant groundwater impact from production pits on location. Gas Company of New Mexico needs to determine if dehydrator pits on this location contributed to the plume of contamination so treatment and remediation may proceed by the responsible parties. This well site needs immediate attention based on the already identified groundwater impact.

The Snyder Oil Corporation Kaufman #1, H-33-31N-13W, also has experienced a significant groundwater impact from production pits on location. Gas Company of New Mexico needs to determine if dehydrator pits on this location contributed to the plume of contamination so treatment and remediation may proceed by the responsible parties. This well site needs immediate attention based on the already identified groundwater impact.

The Oil Conservation Division is to be notified of groundwater impact within twenty-four hours under your pit closure plan. I would like to be notified of the investigative work schedule on these wells so I may witness the operation.

If you have questions please feel free to call this office.

Yours truly,
Denny G. Foust

Denny G. Foust
Environmental Geologist

XC: DGF File
Bill Olson-SF
Environmental File