

3R - 313

APPROVALS

YEAR(S):

1999-1992

METRIC
Corporation ENVIRONMENTAL ENGINEERING AND SCIENCE

Gary L. Richardson, P.E.
Principal - Project Engineer

8429 WASHINGTON PLACE NE, SUITE A
ALBUQUERQUE, NEW MEXICO 87109 (505) 828-2801

DAVID L. PICKEL, P.E.
VICE PRESIDENT - CHIEF ENGINEER

GAS COMPANY OF NEW MEXICO
P.O. BOX 26400
ALBUQUERQUE, N. M. 87125 (505) 888-8200



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

November 1, 1999

CERTIFIED MAIL

RETURN RECEIPT NO. Z-274-520-726

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

**RE: GROUND WATER WELL INSTALLATION WORK PLANS
SAN JUAN BASIN, NEW MEXICO**

Dear Ms. Gannon:

The New Mexico Oil Conservation Division (OCD) has reviewed Public Service Company of New Mexico's (PNM) September 13, 1999 "WELL INSTALLATION PLANS FOR SAN JUAN BASIN GROUNDWATER SITES". This document contains PNM's proposed work plans for installation of additional monitor wells at the Dogie Canyon Compressor Station North and East Pits, Florance #32A well site, Honolulu Line Drip, Jacques #2A well site, Jicarilla Contract 147-6 well site, Mangum #1E well site, McClannahan #22 well site and Randalman #1 well site.

The above referenced monitor well installation work plans are approved. Please be advised that OCD approval does not relieve PNM of liability if the investigations fail to adequately define the extent of contamination related to PNM's activities or if contamination exists which is outside the scope of the work plan. In addition, OCD approval does not relieve PNM of responsibility for compliance with any other federal, state, tribal or local laws and regulations.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Will Olson".

William C. Olson
Hydrologist
Environmental Bureau

xc: Denny Foust, OCD Aztec District Office
Bill Liess, BLM Farmington District Office



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

August 16, 1999

CERTIFIED MAIL
RETURN RECEIPT NO. Z-274-520-691

Ms. Kathy Juckes
PNM Gas Services
P.O. Box 4750
Farmington, NM 87499

RE: FINAL SAN JUAN BASIN PIT CLOSURE REPORTS

Dear Ms. Juckes:

The New Mexico Oil Conservation Division (OCD) has reviewed 4 requests for closure of ground water remediation sites which are contained in PNM Gas Services' (PNM) April 29, 1999 "OCD CLOSURE REPORTS - 1ST REPORTING QUARTER 1999". This document requests closure of the sites since ground water has been remediated to below New Mexico Water Quality Control Commission (WQCC) standards as demonstrated in 4 consecutive quarterly sampling events at each site. The document also contains PNM's proposed ground water monitoring well plugging and abandonment procedures.

Below is the OCD's review of these closure requests:

- A. The pit closure/remediation activities and the proposed monitor well plugging and abandonment proposals for the site listed below are **approved**.

1. McClanahan A #2E (Separator pit) Unit O, Sec. 23, T28N, R10W.

Please be advised that OCD approval does not relieve PNM of liability if remaining contaminants are found to pose a future threat to surface water, ground water, human health or the environment. In addition, OCD approval does not relieve PNM of responsibility for compliance with any other federal, state, tribal or local laws and regulations.

- B. The sites listed below which are requested for closure were previously required to have additional ground water monitoring wells installed to determine the extent of ground water contamination that was in excess of WQCC ground water standards. Since the

OCD has no record of this work being completed, the request for closure of these sites is denied. The OCD will reconsider closure of these sites when the required information is submitted.

- | | | |
|----|---------------|-----------------------------|
| 1. | Florance #32A | Unit F, Sec. 15, T30N, R08W |
| 2. | Jacques #2A | Unit D, Sec. 25, T30N, R09W |
| 3. | Mangum #1E | Unit F, Sec. 33, T29N, R11W |

- C. On May 28, 1998, the OCD required that PNM submit plans to install additional ground water monitoring wells to determine the extent of ground water contamination that was in excess of WQCC ground water standards at a number of sites. These plans were to have been submitted to the OCD by July 28, 1999. A review of the case files shows that the OCD does not have any record of receiving these plans. The OCD requires that PNM submit the plans as required in Item A and Item B of the OCD's May 28, 1999 correspondence. The plans shall be submitted to the OCD Santa Fe Office by August 31, 1999 with a copy provided to the OCD Aztec District Office.

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

Sincerely,



William C. Olson
Hydrologist
Environmental Bureau

xc: Denny Foust, OCD Aztec District Office
Bill Liess, BLM Farmington District Office



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



BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

December 29, 1992

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

CERTIFIED MAIL
RETURN RECEIPT NO. P-667-242-315

Mark McAndrews
Environmental Coordinator
Gas Company of New Mexico
P.O. Box 1899
Bloomfield, New Mexico 87413

**RE: LINED PIT SPECIFICATIONS
GAS COMPANY OF NEW MEXICO DOGIE COMPRESSOR STATION
SAN JUAN COUNTY, NEW MEXICO**

Dear Mr. McAndrews:

The New Mexico Oil Conservation Division (OCD) has completed a review of the December 10, 1992 Gas Company of New Mexico (GCNM) correspondence requesting approval for construction of a double lined pit at the GCNM Dogie Compressor Station located in Unit D, Section 4, Township 25 North, Range 6 West. The lined pit is proposed to be used for the disposal of produced water drained from two 500 barrel condensate tanks at the GCNM Dogie Compressor Station.

The above referenced request is hereby approved with the following conditions:

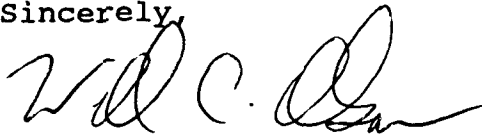
1. The perforated 1/2 inch pipe used for leak detection will be sloped such that it will convey any liquids to the leak detection sump.
2. The leak detection sump will be inspected for the presence of fluids on a monthly basis.
3. If fluids are detected in the leak detection sump, the OCD will be notified immediately and GCNM will take action to determine the source of the fluids.

Mark McAndrews
December 29, 1992
Page 2

Please be advised that OCD approval does not relieve GCNM of liability should your operation result in actual contamination of ground waters, surface waters or the environment which may be actionable under other laws and/or regulations.

If you have any questions, please contact me at (505) 827-5885.

Sincerely,

A handwritten signature in cursive script, appearing to read 'William C. Olson', written in dark ink.

William C. Olson
Hydrogeologist
Environmental Bureau

xc: Denny Foust, OCD Aztec Office

3R - 313

**GENERAL
CORRESPONDENCE**

YEAR(S):

2000 - 1986

Olson, William

From: m. harvey [SMTP:markh@ditell.com]
Sent: Tuesday, September 05, 2000 1:46 PM
To: Olson, William
Subject: Annual Groundwater Report (PNM)

As a follow-up to our telephone conversation last week, this serves to acknowledge the extension of time that NMOCD has granted Williams in order to submit the annual groundwater report for former PNM sites.

It is agreed that the report will be submitted by September 15, 2000 and include data from PNM efforts during 1999 and 2000. Williams appreciates the time extension and NMOCD's understanding of the complications associated with inheriting a project of this magnitude.

After submitting the report and allowing review time, Williams intends to schedule a meeting with you to discuss its' plan to effect mitigation of groundwater impacts. Your feedback will be helpful in finalizing a program strategy.

Thank you for your consideration.

From: Deklau, Ingrid [SMTP:Ingrid.Deklau@Williams.com]
Sent: Friday, July 07, 2000 1:35 PM
To: Olson, William
Cc: 'mark'; 'mgannon@pnm.com'
Subject: Groundwater Report Extension

Per our discussion today, this note is to confirm extension of the Annual Groundwater Report submittal from July 15, 2000 to August 31, 2000.

On March 4, 2000, Maureen Gannon of PNM emailed you and requested the April 1, 2000 deadline for the report submittal be postponed to July 15, 2000 so that PNM could incorporate all information gathered through June 30, 2000 into the report. Since then, PNM and Williams have entered into a Settlement Agreement transferring certain responsibilities to Williams. The responsibility of the preparation of this report is currently under discussion between PNM and Williams. Regardless of the responsibility, it is clear to me that this report will not be ready by the July 15, 2000 deadline.

Thank you for your assistance in this matter.

Ingrid Deklau

307-872-2880

Olson, William

From: Olson, William
Sent: Monday, March 06, 2000 8:13 AM
To: 'Gannon, Maureen'
Subject: RE: Request for Extension on Annual Groundwater Report

The below requested extension is approved.

From: Gannon, Maureen [SMTP:MGannon@pnm.com]
Sent: Saturday, March 04, 2000 3:31 PM
To: Olson, William
Cc: Sikelianos, Mark; 'Ingrid Deklau'; Johnson, Ronald
Subject: Request for Extension on Annual Groundwater Report

As a follow-up to our phone conversation on Thursday, March 2, 2000, PNM herein requests an extension of the date for submittal of our San Juan Basin Annual Groundwater Report. The report is normally due on April 1st of each year. However, since PNM's environmental obligations associated with the purchase and sale of our former gas assets in the San Juan Basin will terminate on June 30, 2000 (with the exception of retained liabilities), we would like to file our annual report by July 15, 2000 so that the data and information contained in the annual report is current through the June 30th date.

Please let me know if this extension is acceptable to you. You may email me or call me at (505) 241-2974. Thank you for your time and consideration of this matter.

Maureen Gannon
Environmental Services
241-2974

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

SEP 14 1999

September 13, 1999

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



RE: WELL INSTALLATION PLANS FOR SAN JUAN BASIN GROUNDWATER SITES

Dear Bill:

PNM herein submits monitoring well installation plans for several groundwater sites that we are managing in the San Juan Basin. You requested these plans in an August 16, 1999 letter entitled, "Final San Juan Basin Pit Closure Reports," that was sent to Ms. Kathy Juckes, PNM-Farmington. The subject groundwater sites are the Dogie Compressor Station North Pit, Florance #32A, Jacques #2A, Mangum #1E, McClanahan #22, Dogie Compressor Station East Pit, Honolulu Loop Line Drip, Ice Canyon Drip, Jicarilla Contract 147-6, and Randelman #1.

The well installation plan for each of the above-referenced sites consists of a map depicting the existing monitoring well configuration at the site with associated historical BTEX data. Any proposed new well location is denoted by a large "X" on the map. In some instances, the proposed wells have already been installed and sampled, and the analytical results for BTEX are reported next to these locations on the attached maps. PNM will prepare formal reports on all of the subject sites requiring new well installations in either individual groundwater/pit closure reports or the Annual Groundwater Report to be submitted to the OCD in 2000.

PNM would like to bring the Randelman 1 well site and the Honolulu Loop Line Drip to your attention. The Randelman 1 site is operated by Burlington Resources and poses many unique problems, including:

- an increase in benzene concentrations in PNM's source and downgradient wells after cessation of discharge, and primary and secondary remediation of PNM's former pit (see figure 10);
- elevated chloride levels groundwater monitoring wells on site (see attachment to figure 10); and
- potential impacts to underlying groundwater from Burlington's operations and their former pit (Approximately one year after remediation, Burlington's pit excavation and on site landfarm remain open).

The Honolulu Loop Line Drip is operated by Williams and has also experienced its own set of problems, including, most recently, a significant increase in benzene in MW-5 and MW-12 (see figure 7 and attachment to figure 7). As you may recall, PNM conducted extensive secondary removal of contaminated soils in the area and south of Williams pipeline in December of 1998 after the appearance of free product and high dissolved-phase BTEX contaminants. At both the Randelman 1 and the Honolulu Loop Line Drip, PNM agrees that the installation of additional wells is necessary to fully define the extent of the dissolved-phase contaminant plumes. However, such action, on the part of PNM, assumes that all responsibility at the site is ours. In contrast, we believe that the ongoing problems may be the responsibility of the producer or are at least shared with them. Therefore, before agreeing to install additional wells at these particular locations, PNM is considering several options at either site and will be contacting you in the very near future to inform you of our proposed strategies.

Mr. B. Olson
09/13/1999
Page 2

Please review the attached site maps and accept them as our groundwater monitoring well installation plans. All well installations and sampling events will be conducted in accordance with PNM's Groundwater Management Plan for Unlined Surface Impoundments, March 1996. If you need additional information or have any questions, you may call me at (505) 241-2974. Thank you for your time and consideration concerning this matter.

Sincerely,
PNM Environmental Services



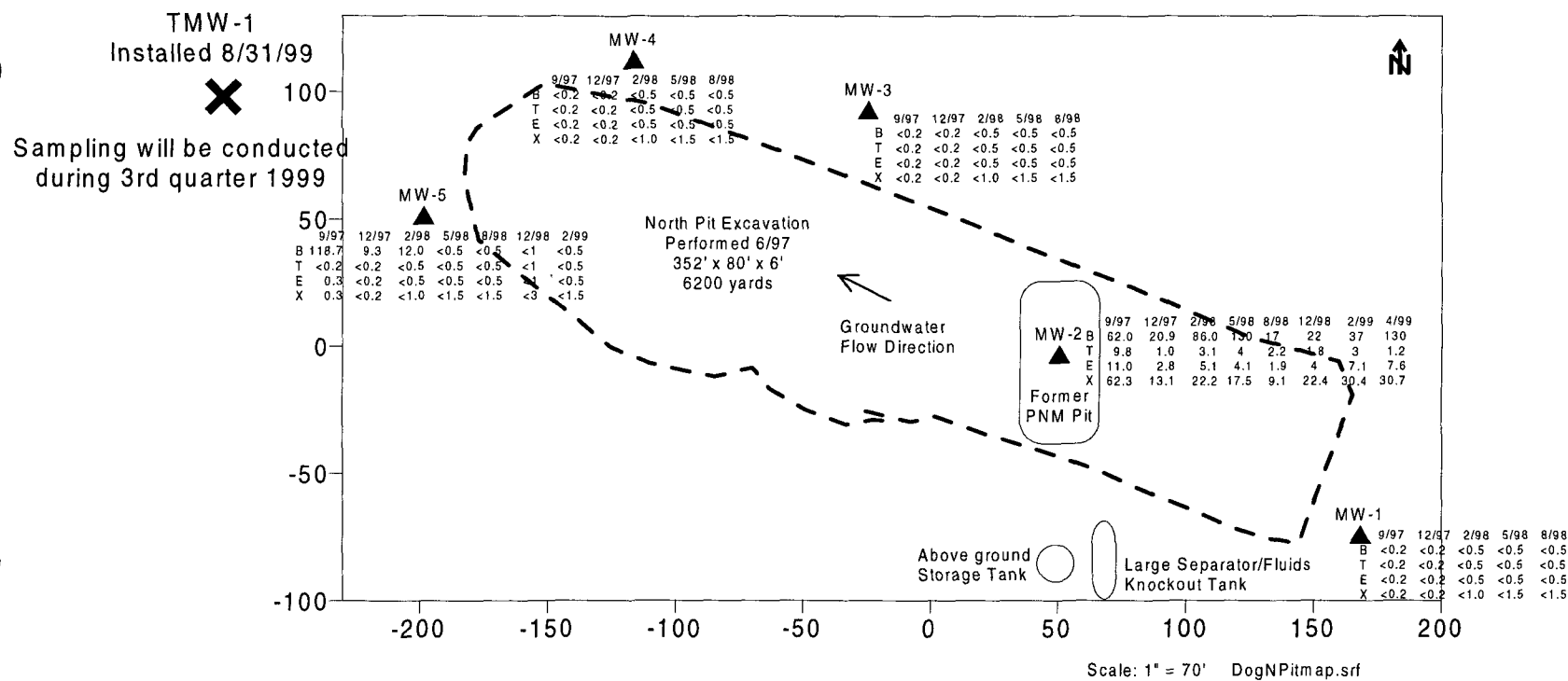
Maureen Gannon
Project Manager

Attachments

cc: Ingrid Deklau, WFS
Denny Foust, OCD-Aztec Office
Kathy Juckes, PNM Farmington File
Keith Manwell, Jicarilla Environmental Protection Office
Mark Sikelianos, PNM

Figure 1.
Dogie Compressor Station North Pit Site Map & Analytical Results
Groundwater Concentrations in ppb

LARGE WASH



Olson, William

From: Olson, William
Sent: Tuesday, August 31, 1999 8:07 AM
To: 'MGannon@pnm.com'
Subject: RE: Request for Extension
Importance: High

The below requested extension is approved.

From: MGannon@pnm.com[SMTP:MGannon@pnm.com]
Sent: Monday, August 30, 1999 4:30 PM
To: Olson, William
Cc: MSikeli@pnm.com
Subject: Request for Extension

As discussed with you last week during the OCC hearing on the Hampton 4M site, PNM requests an extension to complete our plans documenting additional ground water monitoring well installations at several sites we are currently managing in the San Juan Basin. Your letter of August 16, 1999 asks that a plan be submitted by Tuesday, August 31, 1999. We request an additional two weeks from this date to finish the plans and submit them to your office. We will have the plans to you by Tuesday, September 14, 1999.

We appreciate your patience in this matter. If you have any questions or concerns, please call me at (505) 241-2974.

Maureen Gannon
Environmental Services
241-2974



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

May 28, 1999

CERTIFIED MAIL
RETURN RECEIPT NO. Z-274-520-668

Ms. Maureen Gannon
Public Service Company of New Mexico
Alvarado Square, MS-0408
Albuquerque, New Mexico 87401

RE: 1999 SAN JUAN BASIN ANNUAL GROUNDWATER REPORT

Dear Ms. Gannon:

The New Mexico Oil Conservation Division (OCD) has reviewed Public Service Company of New Mexico's (PNM) April 5, 1999 "1999 SAN JUAN BASIN ANNUAL GROUNDWATER REPORT". This document contains the results of PNM's 1998 monitoring and remediation of contaminated ground water related to the closure of unlined oil and gas production pits in the San Juan Basin.

The OCD has the following comments and requirements regarding the above referenced document:

- A. On July 14, 1999, the OCD required that PNM install additional ground water monitoring wells at 7 sites to determine the extent of ground water contamination that was in excess of New Mexico Water Quality Control Commission (WQCC) ground water standards. According to the above referenced documents additional wells were installed at 2 of the sites. However, the documents do not contain any information on the installation of additional monitoring wells for the sites listed below. The OCD requires that PNM submit a plan to address this deficiency for these sites. The plan shall be submitted to the OCD Santa Fe Office by July 28, 1999 with a copy provided to the OCD Aztec District Office.

- | | |
|---------------------------------------|-----------------------------|
| 1. Dogie Compressor Station North Pit | Unit D, Sec. 04, T25N, R06W |
| 2. Florance #32A | Unit F, Sec. 15, T30N, R08W |
| 3. Jacques #2A | Unit D, Sec. 25, T30N, R09W |
| 4. Mangum #1E | Unit F, Sec. 33, T29N, R11W |
| 5. McClanahan #22 | Unit G, Sec. 14, T28N, R10W |

Ms. Maureen Gannon

May 28, 1999

Page 2

- B. The closure reports for the sites listed below show that the extent of ground water contamination in excess of New Mexico WQCC ground water standards has not been completely defined. Therefore, the OCD requires that PNM submit a plan for the installation of additional monitor wells to determine the extent of ground water contamination at these sites. The plan shall be submitted to the OCD Santa Fe Office by July 28, 1999 with a copy provided to the OCD Aztec District Office.

- | | |
|--------------------------------------|-----------------------------|
| 1. Dogie Compressor Station East Pit | Unit D, Sec. 04, T25N, R06W |
| 2. Honolulu Line Drip | Unit B, Sec. 15, T26N, R04W |
| 3. Ice Canyon Drip | Unit H, Sec. 13, T26N, R07W |
| 4. Jicarilla Contract 147-6 | Unit C, Sec. 06, T25N, R05W |
| 5. Randalman #1 | Unit K, Sec. 13, T31N, R11W |

- C. Several of the reports state that certain contaminants such as chloride, sulfate and total dissolved solids are not enforceable standards under State of New Mexico regulations. For your information, all of the WQCC standards as contained in 20 NMAC 6.2.3101 are enforceable standards.

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

Sincerely,



William C. Olson

Hydrologist

Environmental Bureau

xc: Denny Foust, OCD Aztec District Office
Bill Liess, BLM Farmington District Office
Kurt Sandoval, Jicarilla Apache Environmental Protection Office

Z 274 520 668

US Postal Service

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Postmark or Date	



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

July 14, 1998

CERTIFIED MAIL
RETURN RECEIPT NO. Z-235-437-312

Ms. Maureen Gannon
Public Service Co. of New Mexico - Gas Services
Alvarado Square, MS-0408
Albuquerque, New Mexico 87401

RE: SAN JUAN BASIN ANNUAL GROUNDWATER REPORT

Dear Ms. Gannon:

The New Mexico Oil Conservation Division (OCD) has reviewed Public Service Company of New Mexico's (PNM) April 2, 1998 "1998 SAN JUAN BASIN ANNUAL GROUNDWATER REPORT". This document contains the results of PNM's 1997 monitoring and remediation of contaminated ground water related to the closure of unlined oil and gas production pits in the San Juan Basin.

Below is the OCD's review of this document:

- A. The closure reports for the sites listed below shows that the extent of ground water contamination in excess of New Mexico Water Quality Control Commission (WQCC) ground water standards has not been completely defined. Therefore, the OCD requires that PNM install additional ground water monitoring wells to monitor and determine the extent of ground water contamination pursuant to their previously approved ground water investigation plan.

1.	Dogie Compressor Station North	Unit D, Sec. 04, T25N, R06W
2.	Florance #32A	Unit F, Sec. 15, T30N, R08W
3.	Jacques #2A	Unit D, Sec. 25, T30N, R09W
4.	Mangum #1E	Unit F, Sec. 33, T29N, R11W
5.	McClanahan #22	Unit G, Sec. 14, T28N, R10W
6.	Miles Federal #1E Drip	Unit N, Sec. 05, T26N, R07W
7.	Zachry #18E	Unit O, Sec. 11, T28N, R10W

Ms. Maureen Gannon

July 14, 1998

Page 2

- B. A review of the ground water quality data for the sites listed below shows that either metals or chlorides and total dissolved solids are present in ground water in excess of WQCC standards at the sites. The OCD requires that PNM determine the extent of these ground water contaminants pursuant to their previously approved ground water investigation plan.

1. Miles Federal #1E Drip
2. Randleman #1

Unit N, Sec. 05, T26N, R07W
Unit K, Sec. 13, T31N, R11W

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

Sincerely,



William C. Olson
Hydrologist
Environmental Bureau

xc: Denny Foust, OCD Aztec District Office
Bill Liess, BLM Farmington District Office

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

July 11, 1997

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



**RE: NOTIFICATION OF GROUNDWATER CONTAMINATION AT THE DOGIE COMPRESSOR
STATION NORTH PIT**

Dear Bill:

Pursuant to New Mexico Water Quality Control Commission (WQCC) Regulations, section 1-203, PNM hereby provides written notification of groundwater contamination in the area underneath PNM's former north pit located at the Dogie Compressor Station. The Dogie Compressor Station is situated in the NW ¼ of section 4, township 25N, range 6 W. A topographic map showing the location of the site is provided as an attachment. The operator is Williams Field Services. This letter follows verbal notification provided to you on Monday, July 7, 1997 (M. Gannon, PNM to B. Olson, OCD).

On June 24, 1997 while excavating the north pit, PNM technicians encountered groundwater at approximately 6 feet below ground surface. A groundwater sample was collected and delivered to OnSite Technologies, Farmington, New Mexico for BTEX analysis using EPA method 8020. A hardcopy of the laboratory report is attached. A summary of the analytical results is provided below:

Component	Units	WQCC Stds.	Groundwater Sample
Benzene	ppb	10	7209
Toluene	ppb	750	9491
Ethylbenzene	ppb	750	211
Xylenes	ppb	620	3124
Total BTEX	ppb		20035

Bold type indicates a WQCC exceedance.

This letter serves as written notification of groundwater contamination under the north pit at the Dogie Compressor Station. PNM will conduct future activities at the site pursuant to PNM's Groundwater Management Plan. If you have any questions, please call me at (505) 241-2974. Thank you.

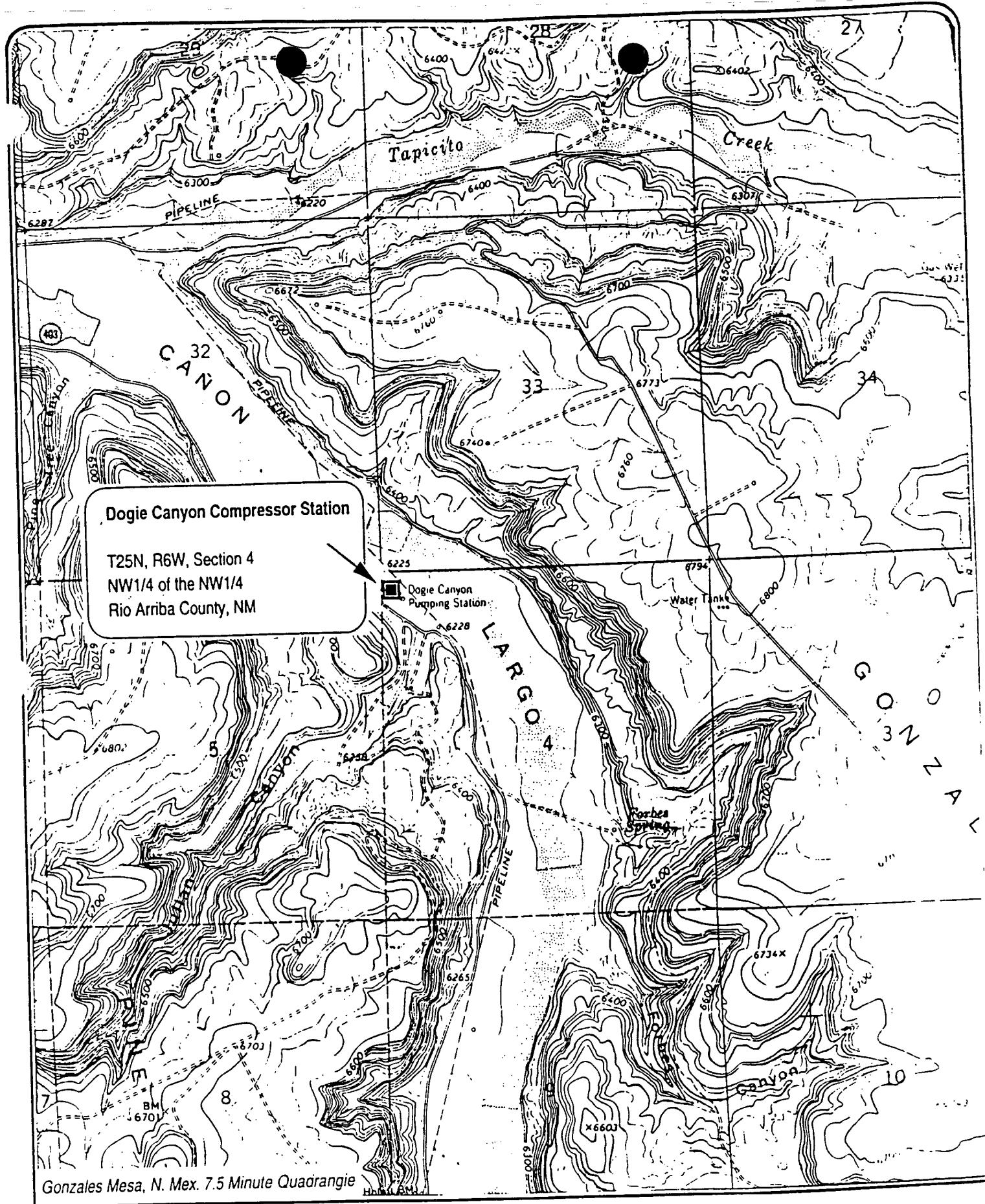
Sincerely,
PNM

Maureen Gannon

Maureen Gannon
Project Manager

Attachment

cc: Colin Adams, PNM
Denver Bearden, PNMGS
Denny Foust, OCD-Aztec Office
Ron Johnson, PNM
Robin Prisk, WFS



OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: **Denver Bearden**
Company: **PNM Gas Services**
Address: **603 W. Elm**
City, State **Farmington, NM 87401**


Date: **26-Jun-97**
COC No.: **5910**
Sample No.: **15070**
Job No.: **2-1000**

Project Name: **PNM Gas Services - Dogie Compressor Station North Pit**
Project Location: **9706240900; 6' depth**
Sampled by: **GC** Date: **24-Jun-97** Time: **9:00**
Analyzed by: **DC** Date: **25-Jun-97**
Sample Matrix: **Liquid**

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Benzene</i>	7209	ug/L	20	ug/L
<i>Toluene</i>	9491	ug/L	20	ug/L
<i>Ethylbenzene</i>	211	ug/L	20	ug/L
<i>m,p-Xylene</i>	2422	ug/L	20	ug/L
<i>o-Xylene</i>	702	ug/L	20	ug/L
TOTAL	20035	ug/L		

ND - Not Detected at Limit of Quantitation

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

Approved By: 
Date: **6/26/97**



ON SITE
TECHNOLOGIES, LTD.

QUALITY ASSURANCE REPORT

for EPA Method 8020

Internal QC No.: 0527-STD
Surrogate QC No.: 0528-STD
Reference Standard QC No.: 0529/30-QC

<i>Parameter</i>	<i>Result</i>	<i>Unit of Measure</i>
<i>Average Amount of All Analytes in Blank</i>	<0.2	ppb

<i>Parameter</i>	<i>Unit of Measure</i>	<i>True Value</i>	<i>Analyzed Value</i>	<i>% Diff</i>	<i>Limit</i>
<i>Benzene</i>	ppb	20.0	18.9	5	15%
<i>Toluene</i>	ppb	20.0	19.6	2	15%
<i>Ethylbenzene</i>	ppb	20.0	19.9	0	15%
<i>m,p-Xylene</i>	ppb	40.0	38.6	4	15%
<i>o-Xylene</i>	ppb	20.0	19.8	1	15%

<i>Parameter</i>	<i>1- Percent Recovered</i>	<i>2 - Percent Recovered</i>	<i>Limit</i>	<i>%RSD</i>	<i>Limit</i>
<i>Benzene</i>	93	79	(39-150)	4	20%
<i>Toluene</i>	98	92	(46-148)	4	20%
<i>Ethylbenzene</i>	95	88	(32-160)	4	20%
<i>m,p-Xylene</i>	94	87	(35-145)	4	20%
<i>o-Xylene</i>	98	92	(35-145)	4	20%

	S1 Percent Recovered	S2 Percent Recovered		S1 Percent Recovered	S2 Percent Recovered
Laboratory Identification	Recovered	Recovered	Laboratory Identification	Recovered	Recovered
Limit Percent Recovered	(70-130)		Limit Percent Recovered	(70-130)	
15070-5910	94				
				4152	(pc)
				6/26/97	6/26/97

P.O. BOX 2606 • FARMINGTON, NM 87499



CHAIN OF CUSTODY RECORD

5910

Date: 6/24/97

Page 1 of 1

TECHNOLOGIES, LTD.

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

Purchase Order No.:		Job No.		Name Maureen Gannon		Title					
SEND INVOICE TO	Name Denver Bearden			REPORT RESULTS TO	Company PNM Gas Services						
	Company PNM Gas Services		Dept. 324-3763		Mailing Address Alverado Square, Mail Stop 0408						
	Address 603 W. Elm Street				City, State, Zip Albuquerque, NM 87158						
	City, State, Zip Farmington, NM 87401				Telephone No. 505-848-2974		Telefax No.				
Sampling Location: Dogie Compressor Station North Pit 6' depth				Number of Containers	ANALYSIS REQUESTED						
Sampler: GARY COOK					<div style="text-align: center;">B72X-8020</div>						
SAMPLE IDENTIFICATION		SAMPLE			MATRIX		PRES.		LAB ID		
		DATE	TIME								
9706240900		6/24/97	0900		B-CL		11CL		15070-5910		
Relinquished by: Mary Cook 6/24/97		Date/Time 1615		Received by: [Signature]		Date/Time 6/24/97 1615					
Relinquished by:		Date/Time		Received by:		Date/Time					
Relinquished by:		Date/Time		Received by:		Date/Time					
Method of Shipment:				Rush		24-48 Hours		10 Working Days		Special Instructions:	
Authorized by: Mary Cook (Client Signature <input checked="" type="checkbox"/> Accompany Request)				Date 6/24/97				X		Results to be sent to both parties.	



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

<input checked="" type="checkbox"/> Telephone	<input type="checkbox"/> Personal	Time 1721	Date 7/7/97
---	-----------------------------------	-----------	-------------

Originating Party	Other Parties
Margaret Gannon - PNM	Bill Olson - Environmental Bureau (voice mail)

Subject

Dogie Canyon Compressor Station - Ground Water Notification

Discussion

Discovered contaminated ground water at facilities North pit.
Location - NW/4 sec 4, T25N, R6W

DTW = 6'

Benzene = 7200 ppb

BTEX = 20,000 ppb

Conclusions or Agreements

Distribution

File
Donny Foust - OCD Aztec

Signed

Bill Olson

GAS COMPANY OF NEW MEXICO

OIL CONSERVATION DIVISION
RECEIVED
'92 DE: 14 AM 10 30

December 10, 1992

Mr. Bill Olsen
New Mexico Oil Conservation Division
P.O. Box 2088
Santa Fe, NM, 87504-2088

Dear Mr. Olsen:

At the Gas Company of New Mexico Dogie Compressor Station, located in Section D4, Township 25 North, Range 6 West, there are two 500 barrel tanks for the collection of condensate. Presently, water is drained from the tanks prior to the transportation of the condensate into the bermed area surrounding the tanks. The issue will be addressed according to the following plan of action.

We propose to build a new pit outside of the bermed area to accommodate approximately 50 barrels of liquid. The dimensions of the pit will be approximately 12' x 12' x 4'. The pit will be lined using 30 mil pvc on the bottom followed with a geotextile blanket and 1/2" perforated pvc pipe then topped with XR-5 lining. This type of liner is presently being used at the Sunco yard on Crouch Mesa and provides leak detection capabilities through the pvc pipe. The lined pit will then be fenced, bermed, and covered with netting material in accordance with NMOCD Order R-8952 for the protection of migratory birds.

Should you have any questions or concerns, please feel free to contact me at 632-4123. Your timely response to this issue is greatly appreciated.

Sincerely,

Mark McAndrews
S.B.

Mark McAndrews
Environmental Coordinator/Production Technician

MMcA:sb

cc: Mr. Denny Foust - OCD, Aztec
Erick Seelinger - Environmental Engineer - GCNM
Joseph Pruitt
File



MEMORANDUM OF MEETING OR CONVERSATION

☐ Telephone ☒ Personal

Time 2 PM

Date 7/3/87

Originating Party

Other Parties

DAVID L. Pickel PE, IP Gas Co.
Gary L. Richardson, PE, Meltek

Dave Boyer - OCS

Subject Finding of hydrocarbon contamination
in Ground Water at Eagle Canyon Amusement
Station

Discussion Pickel & Richardson, asked for meeting to inform
us of their findings VOC's from the site. Four
borings were taken following four monitor wells
installed as shown. Levels of BTEX exceeding standards
found in two wells. Discussion followed on
possible remedial action and further investigation.

Conclusions or Agreements

Gas Co. to better define plume, concentration,
movement and property boundary and report
back within 60 days. If no problem and no
imminent hazard to users, can monitor and
assess need for remedial action if no attenuation.

Distribution

Gas Co. file (General)
B. Olson

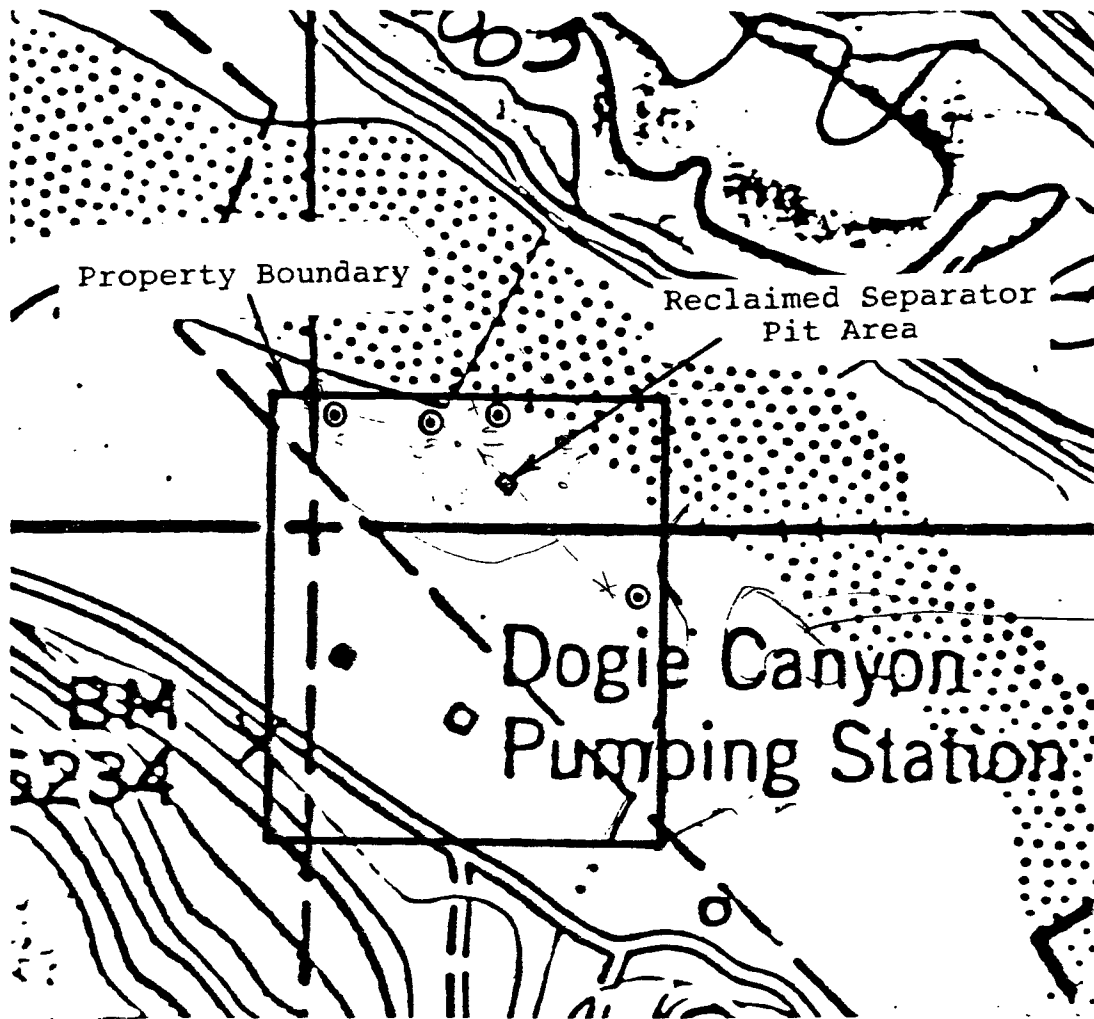
Signed

David H. Boyer

Pete Metzner - 828-2801

David Pickel Gas Co of NM,
Gary Richardson Metric Corp.

reclamation of separator pit
Dodge Canyon Comp. Sta. ^{Largo Wash}
7/1/87 - 0900 a (400) <sup>Just
Rise
Co</sup>



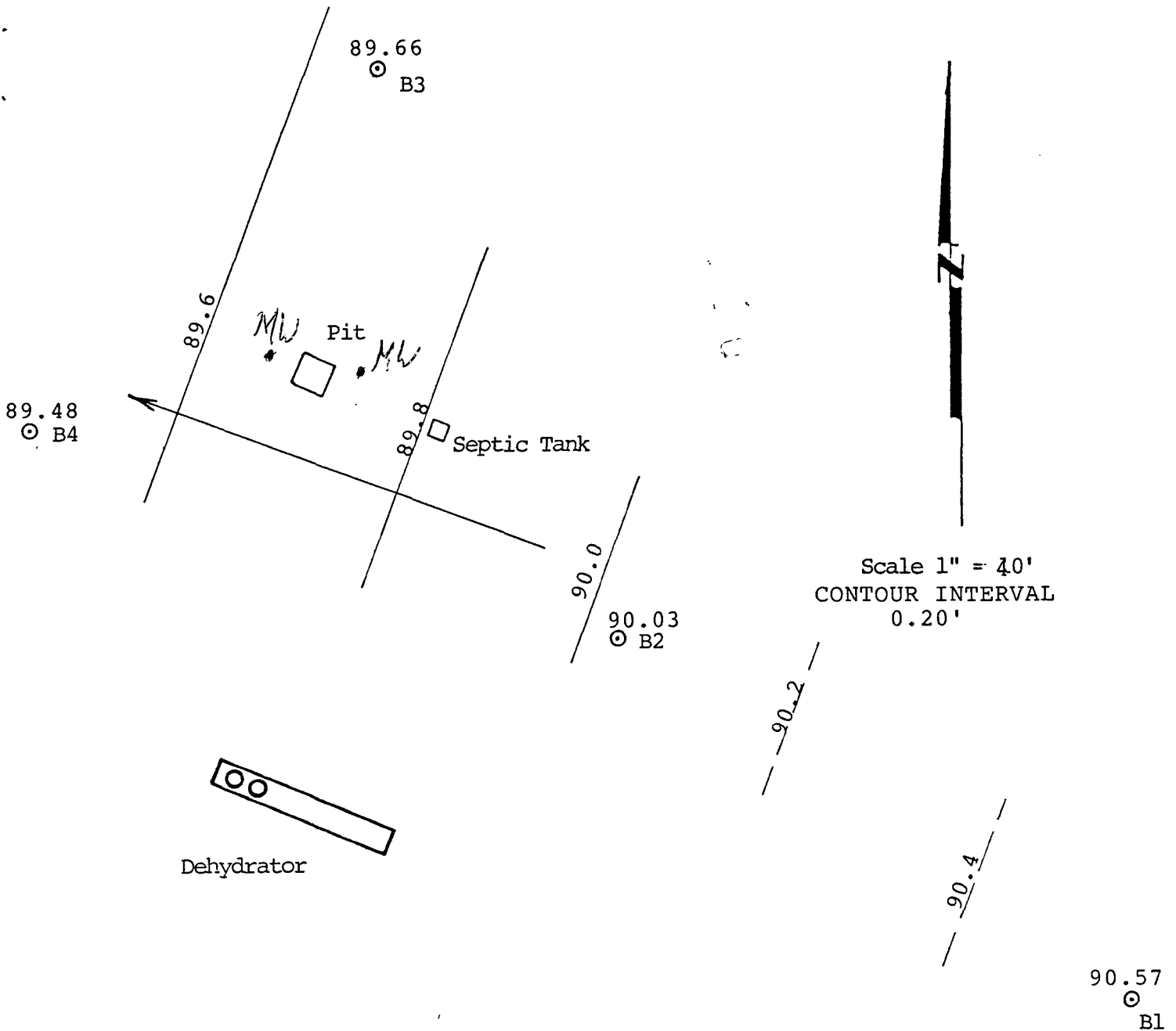
Recommended Monitor Well Locations

25N 6W NW 1/4 sec 4

FIGURE 1

Recommended Monitor Well Locations

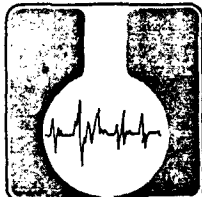
EXHIBIT 2



Dogie Canyon
Dehydrator Area
Water Table Contour Map

Q/V = 5.6'

Estimated seepage velocity (seepage velocity) = 1.2' / day



ASSAIGAI ANALYTICAL LABORATORIES

EXHIBIT 1

TO: Metric Corporation
2025 San Pedro NE
Albuquerque, NM 87110

DATE: 25 March 1987
0427

ANALYTE	SAMPLE ID/ANALYTICAL RESULTS		NOMINAL DETECTION LIMITS
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	Dogie Well 1	Dogie Well 2	
	3/12/87	3/12/87	
	15:04	15:00	

Benzene	<0.001 mg/l	<0.001 mg/l	0.001 mg/l
Toluene	<0.001 mg/l	<0.001 mg/l	0.001 mg/l
Xylenes	<0.001 mg/l	<0.001 mg/l	0.001 mg/l

	Dogie Well 3	Dogie Well 4	
	3/12/87	3/12/87	
	15:20	15:12	

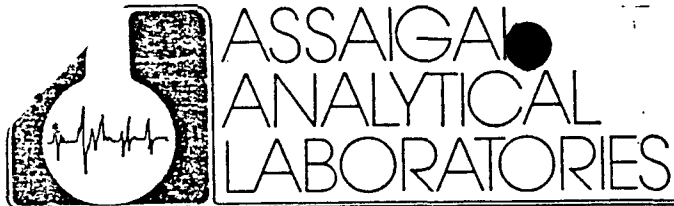
Benzene	2.2 mg/l	0.027 mg/l	
Toluene	5.6 mg/l	0.008 mg/l	
Xylenes	2.8 mg/l	0.008 mg/l	

REFERENCE: " Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", USEPA, SW 846, EMSL-Cincinnati, 1982.

An invoice for services is enclosed. Thank you for contacting Assaigai Laboratories.

Sincerely,

Jennifer V. Smith, Ph.D.
Laboratory Director



TO: Gas Co of NM
Attn: L. B. Dean
PO Box 1899
Bloomfield, NM 87413

DATE: 21 October 1986
1773

ANALYTE: TDS

SAMPLE ID	ANALYTICAL RESULTS
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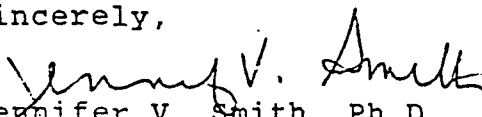
#1 **	1100 mg/l
#2	944 mg/l
#3	1142 mg/l
#4	3240 mg/l

NOMINAL DETECTION LIMIT: 1 mg/l

REFERENCES: "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", USEPA, SW 846, EMSL-Cincinnati, 1982

An invoice for services is enclosed. Thank you for contacting Assaigai Laboratories.

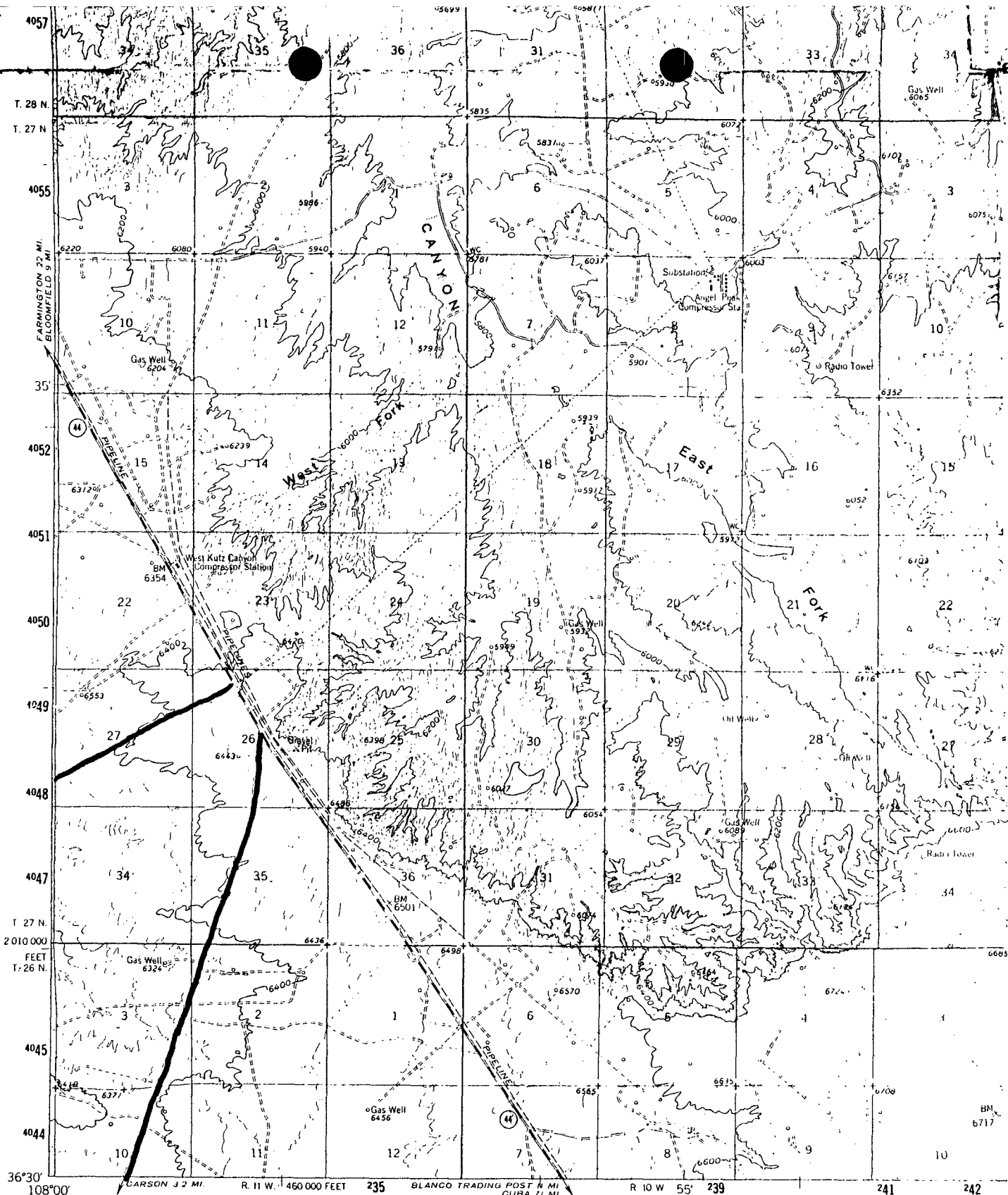
Sincerely,


Jennifer V. Smith, Ph.D.
Laboratory Director

cc: Dave Pickel, Abq. Division

**#1 Sample was taken upstream.

TDS < 1000
TDS 710,000



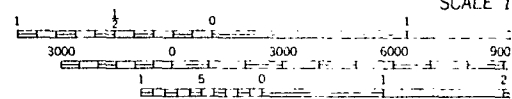
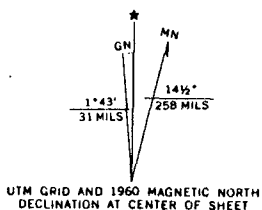
Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography by photogrammetric methods from aerial photographs taken 1955. Field checked 1960

Polyconic projection. 1927 North American datum
10,000-foot grid based on New Mexico coordinate system,
west zone

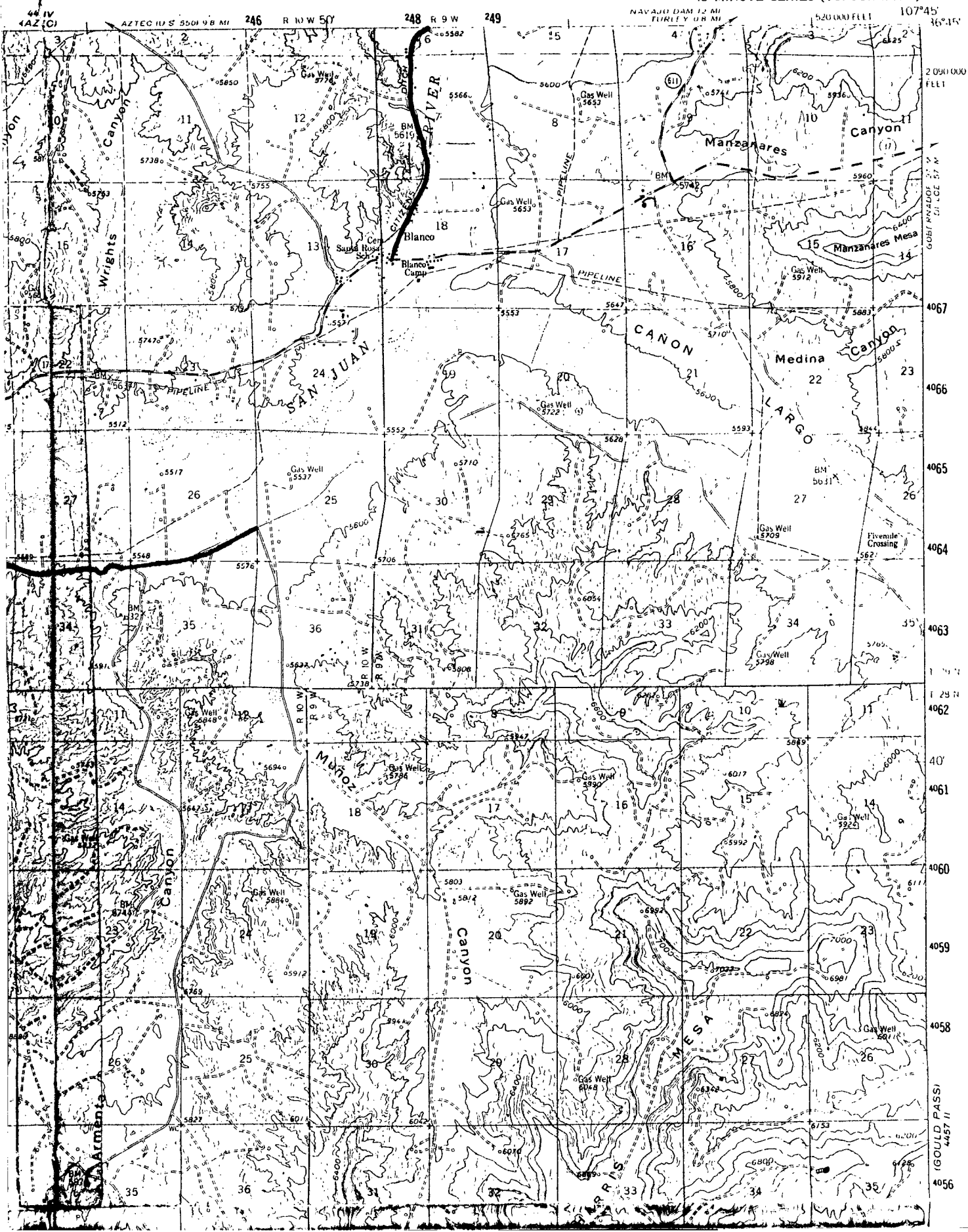
1000-meter Universal Transverse Mercator grid ticks,
zone 13, shown in blue

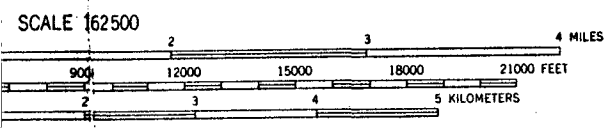
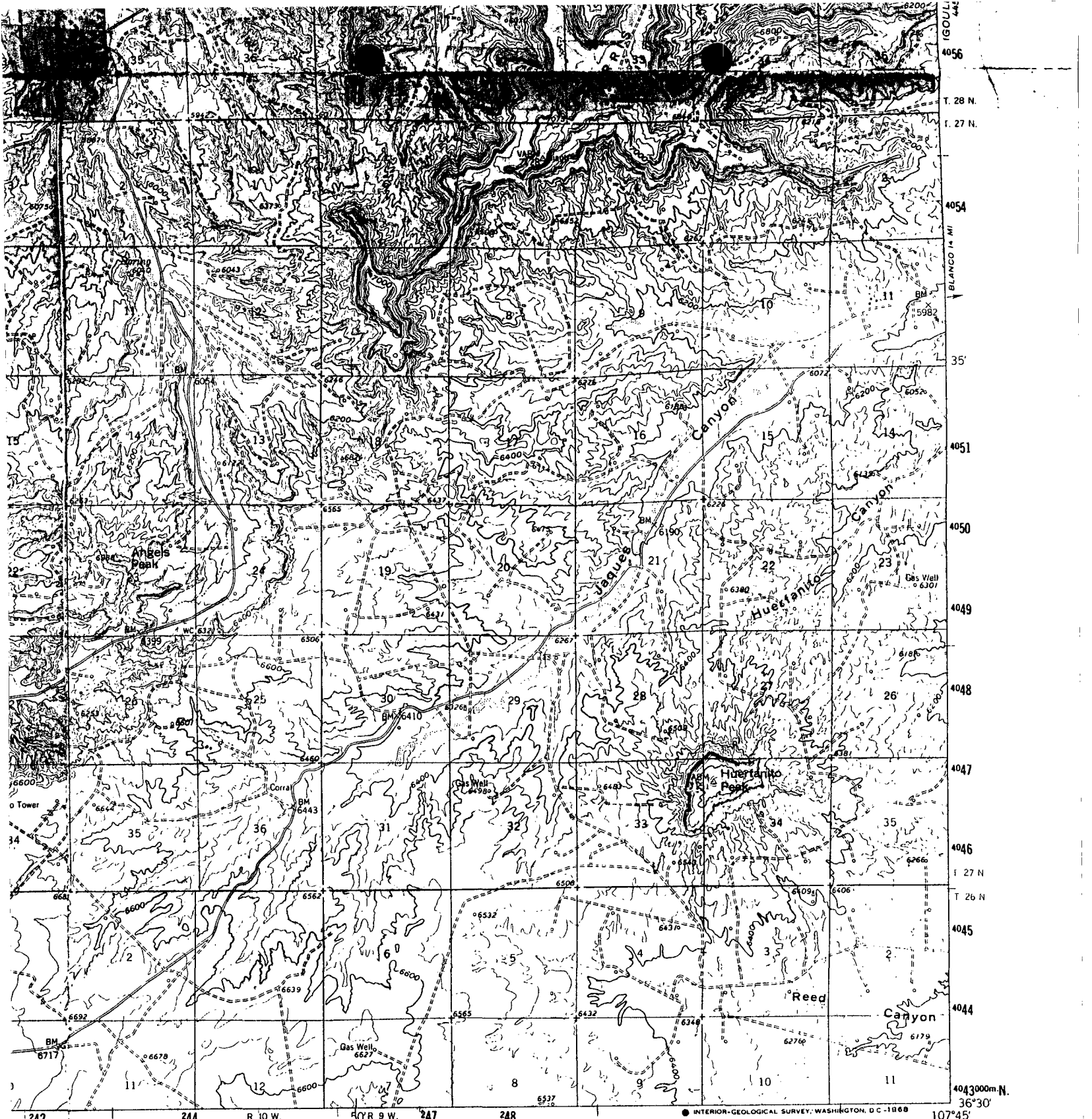


CONTOUR INTERVAL
DATUM IS MEAN

THIS MAP COMPLIES WITH NATIONAL
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER
A FOLDER DESCRIBING TOPOGRAPHIC MAPS

44571
VAJO DAMI C-1





FOUR INCHES 40 FEET
ELEVATION IS MEAN SEA LEVEL

WITH NATIONAL MAP ACCURACY STANDARDS
DENVER, COLORADO 80225 OR WASHINGTON, D. C. 20242
PHYSICAL MAPS AND SYMBOLS IS AVAILABLE ON REQUEST



QUADRANGLE LOCATION

ROAD CLASSIFICATION
Medium-duty ——— Light-duty ———
Unimproved dirt - - - - -
() State Route

BLOOMFIELD, N. MEX.
N3630 - W10745/15

1960

AMS 4457 III-SERIES V781

C-1

4371 SE
FLORA VISTA
1:24,000

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

