GW - 33

GENERAL CORRESPONDENCE

YEAR(S):

1988 - 1983

AFFIDAVIT OF PUBLICATION

No. _____

STATE OF NEW MEXICO,
County of San Juan:

Betty Slapp being duly

sworn, says: That he is the _____ of

THE FARMINGTON DAILY TIMES, a daily newspaper of general circulation published in English at Farmington, said county and state, and that the

hereto attached _____

was published in a regular and entire issue of the said FARMINGTON DAILY TIMES, a daily newspaper duly qualified for the purpose within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico for one consecutive (days) (weeks) on the same day as follows:

First Publication _____

Second Publication _____

Third Publication _____

Fourth Publication _____

and that payment therefor in the amount of $ _____

has been made.

Betty Slapp

Subscribed and sworn to before me this 5th day of October, 19 87.

J. Shorter

NOTARY PUBLIC, SAN JUAN COUNTY, NEW MEXICO

My Commission expires: June 23, 1990

COPY of publication

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

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following discharge plans and discharge plan modification have been submitted for approval to the Director of the Oil Conservation Division, State Land Office Building, PO Box 2088, Santa Fe, New Mexico 87504-2088, Telephone (505) 827-5800.

(GW-33) El Paso Natural Gas Company, San Juan Gas Processing Plant, John Craig, Vice President, PO Box 4990, Farmington, New Mexico, 87499, has submitted an application for modification of its previously approved discharge plan for the contact process waste water at its facility located in Section 1, Township 29 North, Range 15 West, NMPM, San Juan County, New Mexico. El Paso Natural Gas Company proposes to dispose an additional 6480 gallons per day of waste water with a total dissolved solids concentration of approximately 12000 mg/l in their double-lined waste water evaporation pond equipped with leak detection. The 6480 gallons per day of waste water will be generated at the softener and de-alkalyzer regeneration units and will be in addition to the 4000 gallons per day of waste water approved in the original discharge plan. The dimensions of the pond will be adjusted accordingly to allow for the increased volumes. The ground water most likely to be affected by any discharge to the surface is at a depth ranging from 15 feet to 110 feet, with a total dissolved solids concentration of 17,500 mg/l.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and a public hearing may be requested by any interested person. Requests for public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the Director will approve or disapprove the proposed plan based on information in the plan and information in the plan and information submitted at the hearing.

GIVEN under the Seal of the New Mexico Oil Conservation Commission at Santa Fe, New Mexico on this 11th day of September, 1987.

SEAL

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
WILLIAM J. LEMAY
DIRECTOR

Legal No. 20734 published in the Farmington Daily Times, Farmington, New Mexico on Monday, October 5, 1987.

ELPASO SAN JUAN
FROM FLAIR HILL
6/6/86


EL PASO NATURAL GAS COMPANY
SAN JUAN PLANT

8/6/85

KIRTLAND LANDFILL
5/20/86

KIRTLAND LANDFILL

5/20/86

KIRTLAND LANDFILL

5/20/86

KIRTLAND LANDFILL
5/20/86

KIRTLAND ~~GIL~~ LANDFILL 5/20/86

KIRTLAND LANDFILL

5/20/86

EL PASO SAN JUAN

6/6/86

8/6/85 EPNG

San Juan Plant

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal | Time 2:30PM | Date 12/16/88

Originating Party	Other Parties
Henry Van, Ken Beasley EPNG	David Boyer OCD

Subject - Contact Wastewater Pond - San Juan River Plant

Discussion They called to say that level was full but water being trucked to Basin Disposal. Found several additional sources of contact wastewater that had not been measured previously. They are temporarily diverting filter and salt regeneration backwash to non-contact ponds. They want to build an additional cell to contain all contact and salt & filter regeneration water.

Conclusions or Agreements Will submit plans and specs by mid January. I said we could probably give 2-week turnaround, & 120-day approval while we issue public notice

Distribution EPNG - San Juan River Contact & Non-contact files

Signed W. J. Boyer

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

GARREY CARRUTHERS
GOVERNOR

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

December 1, 1987

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Kenneth E. Beasley III
Compliance Engineer
El Paso Natural Gas Company
P. O. Box 4990
Farmington, New Mexico

RE: Discharge Plan (GW-33) Modification
El Paso Natural Gas Company
San Juan River Plant

Dear Mr. Beasley:

The ground water discharge plan (GW-33) modification for the contact waste water streams of the San Juan gas processing plant located in Section 1, Township 29 North, Range 15 West, NMPM, San Juan County, New Mexico, is hereby approved.

The original discharge plan was approved December 29, 1986 with a modification approved April 7, 1987. This current modification consists of the application dated September 17, 1987, and materials dated October 14, 1987 and November 23, 1987, submitted as supplements to the modification application.

The modification was submitted pursuant to Section 3-107.C. of the New Mexico Water Quality Control Commission Regulations and approved pursuant to Section 3-109.F. Please be advised that the approval of this modification does not relieve you of liability should your operation result in actual pollution of surface or ground waters which may be actionable under other laws and/or regulations.

There will be no routine monitoring or reporting requirements other than those mentioned in the plan.

Please note that Section 3-104 of the regulations requires that "When a plan has been approved, discharges must be consistent with the terms and conditions of the plan." Pursuant to Sections 3-107.C. you are required to notify the director of

the facility expansion, production increase, or process modification that would result in any significant modification in the discharge of water contaminants.

Sincerely,

William J. LeMay
Director

WJL:RA:sl

xc: OCD-Aztec

El Paso
Natural Gas Company

P. O. BOX 4990
FARMINGTON, NEW MEXICO 87499
PHONE: 505-325-2841

November 23, 1987

Mr. David G. Boyer
Hydrogeologist/Environmental Bureau Chief
Energy and Minerals Department
New Mexico Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501-2088

Subject: Discharge Plan for the El Paso Natural Gas
San Juan River Plant (GW-33)

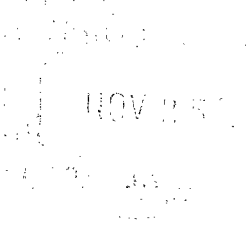
Dear Mr. Boyer:

Confirming a conversation with Mr. Roger Anderson of your staff on November 20, El Paso Natural Gas has elected to change the location of the proposed contact wastewater impoundment from North of the Plant proper to a location south of the Plant. The reason for the change is that most of the present contact sources flow by gravity to the existing south flare pit. The proposed location change should be incorporated into changes requested on September 17 and amended October 14 of this year. Please give me a call if there are any further questions.

Sincerely yours,

Kenneth E. Beasley III
Compliance Engineer

KEB:cam



El Paso
Natural Gas Company

P. O. BOX 4990
FARMINGTON, NEW MEXICO 87499
PHONE: 505-325-2841

October 14, 1987

Mr. David G. Boyer
Hydrogeologist/Environmental Bureau Chief
Energy and Minerals Department
New Mexico Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501-2088

Subject: Discharge Plan for the El Paso Natural Gas San River Plant (GW-33)

On September 17, 1987 El Paso Natural Gas Company requested approval to amend the subject discharge plan by admitting regeneration streams from the de-alkalyzer and softener at the water treatment plant to the contact wastewater system. The estimated flow from these sources at the time of the request was 2.36×10^6 gallons per year or 4.5 gallons per minute. El Paso has conducted additional research in recent weeks and has identified a means to further reduce the wastewater volumes and conserve water.

The existing resin-type de-alkalyzer will be removed from service and replaced with a with an acid injection de-alkalyzation unit. This unit will not generate a waste stream. Furthermore, the addition of the unit will enable us to reduce the regeneration flow from the softener to approximately 1.46 gallons per minute or 770,000 gallons per year. Thus, the required pond area for softener regeneration and contact wastewater will be 0.87 acres at a maximum depth of 0.6 feet at the northwest corner. This evaporation pond will be sloped slightly from the northwest corner toward the southeast corner to facilitate drainage in the event that maintenance is required. The water balance and construction drawings for the surface impoundment are enclosed.

In addition, the revisions to the Land Application Study Phase I Report are enclosed for insertion into your copies of the report. Please feel free to call me if you have any questions.

Sincerely yours,

Kenneth E. Beasley III
Compliance Engineer

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE

Ecological Services
Suite D, 3530 Pan American Highway NE
Albuquerque, New Mexico 87107

October 9, 1987

William J. Lemay, Director
State of New Mexico Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
State Land Office Building
Santa Fe, New Mexico 87501

Dear Mr. Lemay:

This letter concerns the Notice of Publication of discharge plans for the Navajo Refining Company, Petro-Thermo Corporation, Phillips 66 Natural Gas Company and El Paso Natural Gas Company. The Navajo Refining Company facility is located in the SE 1/4 of Section 1, E 1/2 of Section 8, W 1/2 of Section 9 and N 1/2 of Section 12, T17S, R26E, (NMPM), Eddy County, New Mexico. The Petro-Thermo Corporation facility is located in the SW1/4 NW1/4, Section 28, T18S, R38E, (NMPM), Lea County, New Mexico. The Phillips 66 Natural Gas Company is located in the NW 1/4 of Section 4 T19S, R38E, (NMPM), Lea County, New Mexico and the El Paso Natural Gas Company is located in Section 1, T29N, R15W, (NMPM), San Juan County, New Mexico. The Discharge plans address the means by which spills, leaks and other discharges to ground water at the plant sites and the pond areas will be managed.

We have reviewed the discharge permits and find that there are no issues of concern to resources under our jurisdiction. Therefore, we have no objection to the discharge plans.

Thank you for the opportunity to comment on the discharge plans. If you have any additional information please contact Tom O'Brien at (505) 883-7877 or FTS 474-7877.

Sincerely yours,

John C. Peterson
Field Supervisor

cc:
Director, New Mexico Department of Game and Fish, Santa Fe, New Mexico
Director, New Mexico Health and Environment Department, Environmental Improvement Division, Santa Fe, New Mexico
Regional Director, U.S. Fish and Wildlife Service, Fish and Wildlife Enhancement, Albuquerque, New Mexico

Affidavit of Publication

No. 12112

STATE OF NEW MEXICO,
County of Eddy:

Gary D. Scott being duly sworn, says: That he is the Publisher of The Artesia Daily Press, a daily newspaper of general circulation, published in English at Artesia, said county and state, and that the hereto attached Legal Notice

was published in a regular and entire issue of the said Artesia Daily Press, a daily newspaper duly qualified for that purpose within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico for 1 consecutive days weeks on the same day as follows:

First Publication October 2, 1987

Second Publication

Third Publication

Fourth Publication

and that payment therefore in the amount of $; has been made.

Subscribed and sworn to before me this 6th day of October, 19 87

Notary Public, Eddy County, New Mexico

My Commission expires September 23, 1991

Copy of Public

LEGAL NOTICE

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

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following discharge plans and discharge plan modification have been submitted for approval to the Director of the Oil Conservation Division, State Land Office Building, P.O. Box 2088, Santa Fe, New Mexico 87504-2088, Telephone (505) 827-5800:

(GW-28) Navajo Refining Company, David Griffin, Environmental Affairs Superintendent, P.O. Drawer 159, Artesia, New Mexico 88210, has submitted for approval a ground water discharge plan for its refining facility located in the SE/4 Section 1, E/2 Section 8, W/2 Section 9 and N/2 Section 12, Township 17 South, Range 26 East, NMPM, Eddy County, New Mexico. Approximately 405,200 gallons per day of refinery waste water will be processed through an oil/water separator and a newly constructed waste water treatment plant prior to disposal in 85 acres of evaporation ponds located [redacted] miles east of the refinery adjacent to the Pecos River. The refinery effluent has a total dissolved solids content of 2000 to 4000 mg/l. Ground water most likely to be affected by any discharge at the surface in the refinery area is at a depth of about 15 feet and has a total dissolved solids concentration of approximately 2500 mg/l, and in the pond area ground water is at a depth of 5 to 10 feet and has a total dissolved solids content ranging between 6,000 and 27,000 mg/l. The discharge plan addresses how spills, leaks and other discharges to ground water at the plant site and the pond area will be managed.

(GW-43) Petro-Thermo Corporation, Robert W. Abbott, Manager of Operations, P.O. Box 2069, Hobbs, New Mexico 88241-2069, has submitted for approval a ground water discharge plan for its proposed trucking facility located in the SW/4 NW/4, Section 28, Township 18 South, Range 38 East, (NMPM), Lea County, New Mexico. Approximately 500 gallons per day of residual tank truck (produced water and brines) fluids and wash water will be generated and disposal of in an OCD approved Class II disposal well. The discharge plan addresses how spills, leaks and other accidental discharges to ground water will be managed. Ground water most likely to be affected by any discharge at the surface is at a depth of approximately 65 feet with a total dissolved solids concentration of approximately 500 mg/l.

(GW-44) Phillips 66 Natural Gas Company, Michael D. Ford, Environmental Analyst, 4001 Penbrook, Odessa, Texas 79762, has submitted for approval a ground water discharge plan for its Hobbs Booster Station located in the NW/4 of Section 4, Township 19 South, Range 38 East, NMPM, Lea County, New Mexico. Approximately 386 barrels of cooling tower blowdown will be disposed of in the City of Hobbs sewer system. Waste water from the treater operations will be disposed of into an OCD approved contract Class II disposal well. The discharge plan addresses how spills, leaks and other accidental discharges to ground water will be managed. Ground water most likely to be affected by any discharge at the surface is at a depth of approximately 50 feet with a total dissolved solids concentration of approximately 500 mg/l.

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GIVEN under the Seal of the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 11th day of September, 1987. To be published on or before September 25, 1987.

STATE OF NEW MEXICO
OIL CONSERVATION
(seal) DIVISION
WILLIAM J. LEMAY

Published in the Artesia Daily Press, Artesia, N.M., Oct. 2, 1987. Legal No. 12112.

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, Mark C. Keeling

of the Hobbs Daily News-Sun, a daily newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not a supplement thereof for a period

of One weeks.

Beginning with the issue dated

October 1, 19 87

and ending with the issue dated

October 1, 19 87

Business Manager

Sworn and subscribed to before me this 1 day of October, 1987

Vera Murphy
Notary Public.

My Commission expires Nov. 14, 1988
(Seal)

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

RECEIVED
OCT 23 1987
GROUND WATER/HAZARDOUS WASTE BUREAU

RECEIVED
OCT 28 1987
OIL CONSERVATION DIVISION
SANTA FE

LEGAL NOTICE
October 1, 1987
NOTICE OF PUBLICATION
STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

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STATE OF
NEW MEXICO
OIL
CONSERVATION
DIVISION
WILLIAM J.
LEMAY,
Director
(Seal)

NOTICE OF PUBLICATION
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ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

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STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

WILLIAM J. LEMAY, Director

S E A L

El Paso
Natural Gas Company

P. O. BOX 4990
FARMINGTON, NEW MEXICO 87499
PHONE: 505-325-2841

September 17, 1987

Mr. David G. Boyer
Hydrogeologist/Environmental Bureau Chief
Energy and Minerals Department
New Mexico Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501-2088

Subject: Discharge Plan (GW-33) El Paso Natural Gas Company, San Juan River Plant Contact Wastewater

Dear Mr. Boyer:

Study of the San Juan River Plant waste streams during the course of design of the contact wastewater system and also as a part of the land application feasibility research has revealed a need to modify the contact wastewater system. You were advised by letter on March 31, 1987 of the shutdown of the gasoline plant and the addition of two small intermittent streams from the Aneth pigging system and Barker Dome Field operation. A net reduction in the size of the lined evaporation pond was expected at that time.

Information contained in the Phase I report on the land application feasibility study indicates that segregating the softener and de-alkalyzer regeneration streams from the remainder of the non-contact wastestreams would benefit the project if El Paso elects to implement it. As you are aware, design and material procurement for the contact wastewater system at the San Juan River Plant are in progress at this time. El Paso Natural Gas proposes, with NMOCD concurrence, to route the regeneration streams to the lined surface impoundment being planned for the contact system. The estimated flow from these two streams is 4.5 gallons per minute or 2.36 million gallons per year. This would increase the required evaporation pond size to approximately 2 acres with a total depth of 3 feet. Maximum accumulation depth is estimated at 1.3 feet, allowing 1.7 feet of freeboard.

El Paso Natural Gas respectfully requests NMOCD's approval to modify the proposed wastewater system in the following manner. Analytical data for a composite sample from each of these streams is attached. Construction drawings will be available in two to three weeks. Please feel free to call me at (505)-325-2841 should you require further information.

Sincerely yours,

Kenneth E. Beasley III
Compliance Engineer

bc:
L.E. Anderson
B.D. Ballard
D.R. Beyhan
W.H. Healy, Jr.
D.M. Kelsey
H. Van
file 5202 disch plan alt/corr

Parameters (reported in mg/l)	Softener Reg. J87-25	CCD Alk Reg. J87-27
COD	570	600
TOC	5	15
TDS	4,770	17,800
E.C. (umhos/cm)	35,000	30,000
SAR	81.5	228.6
Oil & Grease	1.00	1.00
Total K Nitrogen	< 0.40	< 0.40
Nitrate-N	< 0.10	< 0.10
Ammonia	< 0.40	< 0.40
O-phosphate	< 0.1	< 0.1
Alkalinity (total)	36	310
Alkalinity (HCO3)	< 5	< 5
Arsenic	< 0.010	< 0.010
Barium	0.73	< 0.30
Boron	0.36	0.41
Cadmium	0.03	< 0.01
Calcium	360	45
Chloride	11,700	9,900
Chromium	0.03	0.02
Copper	0.04	0.02
Cobalt	0.10	0.05
Cyanide	< 0.005	0.076
Floride	< 0.1	< 0.1
Lead	0.35	0.22
Magnesium	130	11
Manganese	0.61	0.01
Mercury	< 0.001	< 0.001
Molybdenum	0.02	0.03
Nickel	0.32	0.27
Potassium	44.00	23.00
Selenium	< 0.01	< 0.01
Silver	0.03	0.03
Sodium	7,100	6,600
Sulfate	96	570
Zinc	0.12	0.56
Estimated flow (millions-gallons/year)	1.25	1.38

El Paso
Natural Gas Company

P. O. BOX 1492
EL PASO, TEXAS 79978
PHONE: 915-541-2600

July 22, 1987

Mr. Bill Olsen
Hydrogeologist
New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501-2088

Re: San Juan River Plant/Local Private Water Wells

Dear Mr. Olsen:

Enclosed are the analytical results for the local private water wells sampled by you and Mr. Sidney H. Johnson of K. W. Brown & Associates last month. Mr. Johnson prepared a table (enclosed) summarizing the data. He indicated that the water quality in the two wells just below the golf course is considerably better than the water quality in the remaining wells. The improved quality of this water has been attributed to local recharge from the raw water pond and the irrigation at the golf course at the San Juan River Plant.

Please note that the Raba-Kistner results do not show pH and EC values. These values were measured in the field and have been reported on the summary spread sheet.

Very truly yours,

Henry Van, Ph.D.
Sr. Environmental Engineer
Environmental and Safety
Affairs Department

ka

Enclosure

ORiginal in "San Juan El Paso Analyses" File.

AGB

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

GARREY CARRUTHERS
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-5800

April 7, 1987

Mr. Kenneth E. Beasley III
Compliance Engineer
El Paso Natural Gas Company
P.O. Box 4990
Farmington, New Mexico 87499

RE: Discharge Plan (GW-33) El Paso Natural Gas Company, San Juan River Plant-Contact Wastewater

Dear Mr. Beasley:

Your letter dated March 31, 1987, outlining the changes in the contact waste water stream has been received by the Oil Conservation Division. The notification was pursuant to WQCC regulation 3-107C.

Based on the information contained in your letter, the Oil Conservation Division has determined that the proposed changes do not require a public notice and administrative approval is hereby granted. This approval is contingent on the acceptability of the final design of the downsized lined evaporation pond. Please be advised that the approval of this modification does not relieve you of liability should your operation result in actual pollution of surface or ground waters which may be actionable under other laws and/or regulations.

There will be no routine monitoring or reporting requirements other than those mentioned in the plan.

Please note that Section 3-104 of the regulations requires that "When a plan has been approved, discharges must be consistent with the terms and conditions of the plan." Pursuant to Section 3-107.C. you are required to notify the director of the facility expansion, production increase, or process modification that would result in any significant modification in the discharge of water contaminants.

Sincerely,

WILLIAM J. LEMAY
Director

WJL/PA/cr

xc: OCD-Aztec

El Paso
Natural Gas Company

P. O. BOX 4990
FARMINGTON, NEW MEXICO 87499
PHONE: 505-325-2841

March 31, 1987

Mr. David G. Boyer
Hydrogeologist/Environmental Bureau Chief
Energy and Minerals Department
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501-2088

Subject: Discharge Plan for El Paso Natural Gas Company
San Juan River Plant

Dear Mr. Boyer:

Proposed changes in operations and the identification of additional discharge considerations have required slight modifications to the conceptual design for the contact wastewater system at the San Juan River Plant which are being brought to your attention per WQCC 3-107 C. These changes reflect a reduction in contact wastwater flow, Aneth pipeline pigging solids handling, and Barker Dome field liquids handling.

The gasoline plant at San Juan River Plant will not be operated in the foreseeable future. This will result in a contact wastewater flow reduction of approximately 25 % and will allow downsizing of the system. Final drawings will be submitted to you for review upon completion of design.

Some solids are collected in the pig receiver for the Aneth pipeline which will be routed to the contact wastewater system through a classifier. An analysis of these solids is attached for your reference. The line is pigged twice monthly and the accumulation of solids is small. An average of 20 gallons of material with approximately 10 % solids is expected per event. It is therefore anticipated that the accumulation rate in the classifier itself will be slow and will not create an ongoing disposal problem. Solids which collect in the classifier will be analyzed and disposed of in an environmentally acceptable manner in accordance with applicable regulations.

Liquids from field locations in the Barker Dome Gathering System are occasionally collected and trucked to company facilities for disposal. An estimated average accumulation rate of approximately 8 bbls. per month is expected. El Paso proposes to utilize the contact wastewater system at San Juan River Plant for disposal of this relatively small amount of wastewater due to the site's proximity to the gathering system.

Should you require additional information or clarification on these proposed modifications, please feel free to contact me at (505)-325-2841, extension 2175.

Sincerely yours,

Kenneth E. Beasley III
Compliance Engineer

KEB:cm

ANETH PIGGING SYSTEM

SOLIDS ANALYSES

NOVEMBER, 1986

SAMPLE J86-127

Ignitability (Flash Point)	<60.0 F	
Sulfide (mg/kg)	2,450	
Cyanide	<0.25	
EP Toxicity (mg/l) :		
Arsenic	0.014	
Barium	<0.25	
Cadmium	<0.01	
Chromium	<0.02	
Lead	<0.05	
Mercury	0.001	
Selenium	<0.01	
Silver	<0.01	
Hydrocarbon Scan (see attached sheet)	Jet A	18.8% wt.

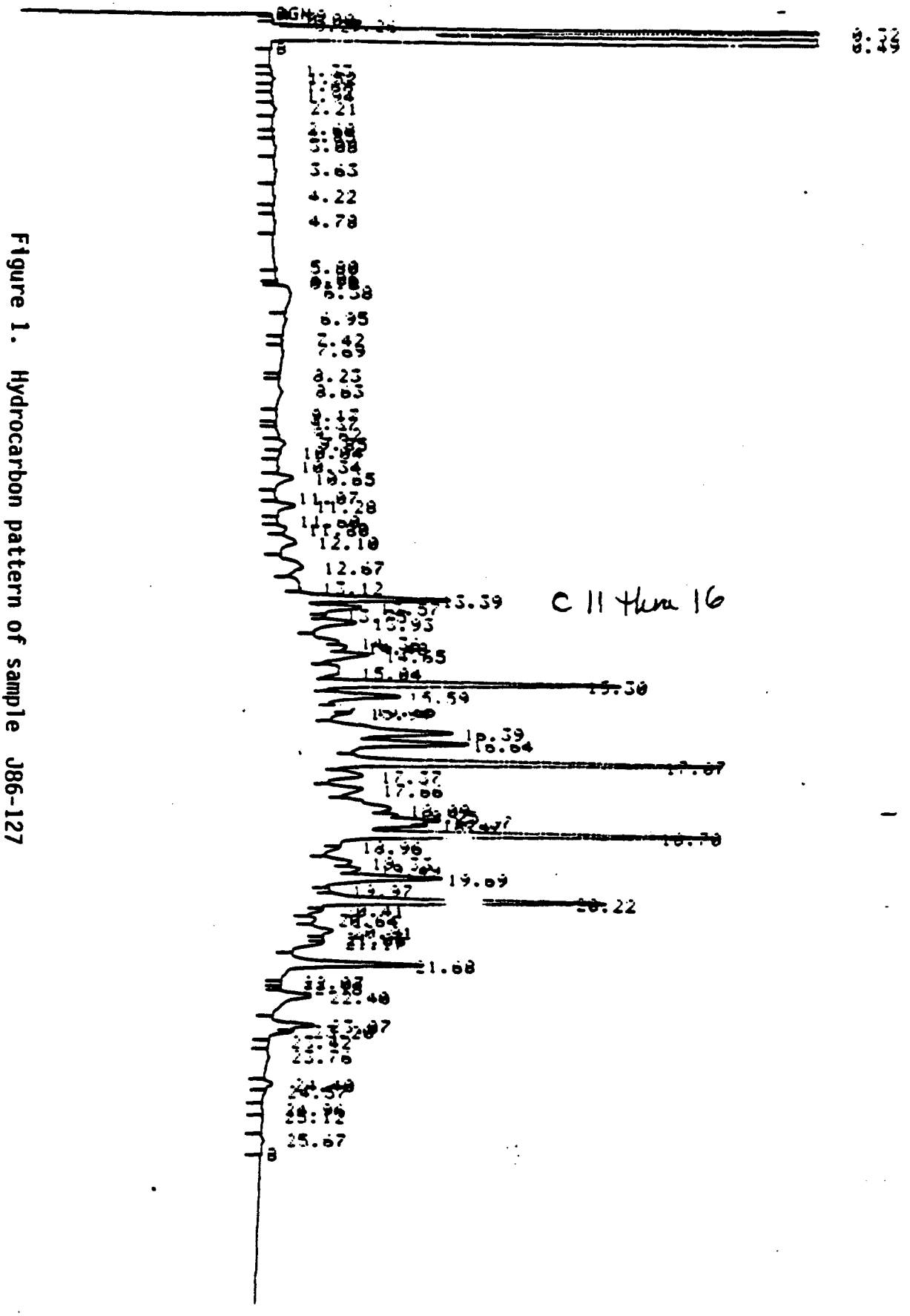


Figure 1. Hydrocarbon pattern of sample J86-127

STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

January 27, 1987

GARREY CARRUTHERS
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-5800

Mr. E. Dwain Glidewell, Director
Surface Bureau Division
N.M. State Land Office
P. O. Box 1148
Santa Fe, New Mexico 87504-1148

Re: El Paso Natural Gas' Request for Right-of-Way, San Juan River Plant, Kirtland, N.M.

Dear Mr. Glidewell:

At the request of the Oil Conservation Division, EPNG is preparing to install a temporary pump-back system for the so-called "Seep Pond" located on state land in the SE/4 SW/4, Section 36, Township 30 North, Range 15 West. The pond currently collects seepage from both the unlined wastewater evaporation ponds and raw water storage pond at the plant site located in Section 1, Township 29 North, Range 15 West. OCD sampling of the pond in May of 1986 showed concentrations of 18,410 mg/l total dissolved solids, 12,167 mg/l sulfates, and 1625 mg/l chlorides. New Mexico Ground Water standards for these chemical parameters are 1000 mg/l, 600 mg/l and 250 mg/l, respectively. A copy of the analysis is attached.

The company is currently investigating alternative methods of wastewater disposal and will utilize the system until such changes have been installed. Without the pump-back system, saline discharges to Steven's Arroyo will increase the salt concentration of fresh water downstream and subject the company to additional State and Federal regulatory actions.

Your cooperation in granting a right-of-way easement to EPNG to install and operate the pump-back system will be appreciated. If you need further information, or if I can be of any further assistance, please contact me at 827-5812.

Sincerely,

DAVID G. BOYER
Hydrogeologist/Environmental Bureau Chief

Encl.

cc: Henry Van, EPNG
Kenneth Beasley, EPNG

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

2 850

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED 5 | 22 | 86	LAB NO. WC 2231	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 5 | 20 | 86	WC 2232 SITE INFORM-ATION	Sample location SEEP POND	
Collection TIME 1127		Collection site description EP SAN JUAN PLANT	
Collected by — Person/Agency BOYER / OCD			

Sec 1 T29N R15W

SEND FINAL REPORT TO ►
ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87504-2088
Attn: David Boyer
Phone: 827-5812

Station/ well code

Owner

SAMPLING CONDITIONS

☐ Bailed ☒ Dipped ☐ Pump ☐ Tap	Water level	Discharge	Sample type GRAB
pH (00400) 8.5	Conductivity (Uncorrected) 15400 µmho	Water Temp. (00010) 22.5 °C	Conductivity at 25°C (00094) µmho

Field comments: MOSQUITO INFESTED, SALT SEEPS OUT DITCH FROM POND

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted 1

☐ NF: Whole sample (Non-filtered) ☒ F: Filtered in field with 0.45 µmembrane filter ☐ A: 2 ml H_2SO_4/L added

☒ NA: No acid added ☐ Other-*specify:* ☐ A: 5ml conc. HNO_3 added ☐ A: 4ml fuming HNO_3 added

ANALYTICAL RESULTS from SAMPLES

NF, NA		Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)		µmho	
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☐ Other:			
☐ Other:			
☐ Other:			

F, NA		Units	Date analyzed
☒ Calcium (00915)	352	mg/l	6/2
☒ Magnesium (00925)	290.4	mg/l	"
☒ Sodium (00930)	6310	mg/l	"
☒ Potassium (00935)	14.8	mg/l	"
☒ Bicarbonate (00440)	482	mg/l	5/26
☒ Chloride (00940)	1625	mg/l	6/5
☒ Sulfate (00945)	12167	mg/l	6/2
☒ Total filterable residue (dissolved) (70300)	18 410	mg/l	5/28
☒ Other: CO_3	0		5/26

NF, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N dissolved (00631)		mg/l	
☐ Ammonia-N dissolved (00608)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Other:			

Analyst	Date Reported	Reviewed by
	6 | 11 | 86	CW

Laboratory remarks

SLD 726 (12/84)

FOR OCD USE -- Date Owner Notified Phone or letter? Initials

101

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

TONEY ANAYA
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501-2088
(505) 827-5800

December 29, 1986

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. John M. Craig, Vice President
El Paso Natural Gas Company
P. O. Box 4990
Farmington, New Mexico 87499

RE: Discharge Plan GW-33
El Paso Natural Gas Company
San Juan Gas Processing Plant - Contact Wastewater

Dear Mr. Craig:

The ground water discharge plan (GW-33) for the contact wastewater streams of the San Juan gas processing plant located in Section 1, Township 29 North, Range 15 West, NMPM, San Juan County, New Mexico, is hereby approved.

The approved discharge plan consists of portions of the plan dated April, 1986, and the materials dated July 2, 1986, October 22, 1986, October 31, 1986, December 5, 1986 and December 17, 1986, submitted as supplements to the discharge plan. The portions of the discharge plan approved under GW-33 address contact process wastewater disposal and the contingency plans for spills, leaks and other discharges to ground water. Discharges of non-contact wastewater effluent are not included under the approval of this discharge plan. Non-contact wastewater disposal will be regulated under Discharge Plan GW-39 which is presently under review.

The discharge plan was submitted pursuant to Section 3-106 of the N.M. Water Quality Control Commission Regulations. It is approved pursuant to Section 3-109.F., which provides for possible future amendment of the plan. Please be advised that the approval of this plan does not relieve you of liability should your operation result in actual pollution of surface or ground waters which may be actionable under other laws and/or regulations.

There will be no routine monitoring or reporting requirements other than those mentioned in the plan.

Please note that Section 3-104 of the regulations requires that "When a plan has been approved, discharges must be consistent with the terms and conditions of the plan." Pursuant to Section 3-107.C. you are required to notify the director of the facility expansion, production increase, or process modification that would result in any significant modification in the discharge of water contaminants.

Pursuant to Subsection 3-109.G.4., this plan approval is for a period of five years. This approval will expire December 29, 1991, and you should submit an application for new approval in ample time before that date.

On behalf of the staff of the Oil Conservation Division, I wish to thank you and your staff for your cooperation during this discharge plan review.

Sincerely,

R. L. STAMETS
Director

RLS:RCA:dp

cc: OCD-Aztec
Henry Van, El Paso Natural Gas, El Paso
Ken Beasley, El Paso Natural Gas, Farmington

El Paso
Natural Gas Company

P. O. BOX 4990
FARMINGTON, NEW MEXICO 87499
PHONE: 505-325-2841

December 17, 1986

Mr. David G. Boyer
Hydrogeologist/Environmental Bureau Chief
Energy and Minerals Department
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501-2088

Subject: Discharge Plan for El Paso Natural Gas Company
San Juan River Plant

Dear Mr. Boyer:

This letter contains additional information or changes to items in the Discharge Plan for San Juan River Plant which were requested by NMOCD staff members Jamie Bailey and Roger Anderson in telephone conversations on December 16, 1986.

1. The proposed lined pond for the San Juan River Plant contact wastewater system is designed for a normal freeboard of at least 2 feet.

2. El Paso Natural Gas agrees to inspect the waste disposal facilities monthly. These inspections will include monitoring and recording pond levels, inspection of the pond berms and liners, and checking the leak detection system. Should fluids be detected in the leak detection sump, NMOCD will be notified and the fluids analyzed to ascertain whether the integrity of the upper or lower liner is affected. NMOCD will then be notified of the analytical results and corrective action to be taken.

Please feel free to contact this office should you require additional information or clarification.

Sincerely yours,

Kenneth E. Beasley III
Compliance Engineer

El Paso
Natural Gas Company

P. O. BOX 4990
FARMINGTON, NEW MEXICO 87499
PHONE: 505-325-2841

December 5, 1986

Mr. David G. Boyer
Hydrogeologist/Environmental Bureau Chief
Energy and Minerals Department
Oil Conservation Division
P.O. Box 2088
State Land Office Building
Santa Fe, New Mexico 87501-2088

Subject: Discharge Plan for El Paso Natural Gas Company - San Juan River Plant, GW-33

Dear Mr. Boyer:

NMOCD has requested additional information relating to the Wastewater Discharge Plan for the El Paso Natural Gas Company's San Juan River Plant. The purpose of this letter is to address those questions posed by the agency and provide an update on El Paso's progress in modifying the existing wastewater system. The specific responses are listed according to the number assigned to each comment in your letter.

Regulatory Considerations

El Paso is addressing those regulatory concerns expressed by NMOCD by investigating alternatives to the present wastewater disposal system at the San Juan River Plant and implementing some discharge control measures with the concurrence of concerned agencies. In addition to conducting a land application feasibility study , the installation of a pumpback system from the seep north of the plant to pond 1 is proposed as an interim measure.

Drawings of the conceptual design for the pumpback system from the seep to Pond 1 are enclosed. It is proposed that a slotted-pipe sump be installed below the bottom of the pond and a submersible pump with float controller installed in the sump. The pump will discharge through a buried PVC line to the existing evaporation pond system. It is expected that once concurrence is obtained from all of the agencies involved, approximately 30 days will be required for final design, 60 days for material procurement, and 30 days for construction of the system. It should be noted here that the conditions in the arroyo/seep area are not favorable for construction activities and weather will play an important part in adhering to this schedule. Since this is a temporary control measure and is aimed at keeping the seep area as dry as possible, structural strengthening of the dike area should not be necessary.

Hydrogeology

1. Provide the appropriate section for the Cedergren reference. What were the reference points for the head differential determination?

Response: Enclosed is the appropriate section from the Cedergren reference for the determination of seepage from the unlined evaporation ponds. The points of reference for the head differential determination were the elevation of the pond given on plate 7 and the potentiometric surface determined by our consultants.

3. Figure 5-7 shows specific conductance from the Pictured Cliffs Sandstone, not the Kirtland Shale as referenced in the text.

Response: In the final paragraph on 55 and the first paragraph on page 57 the text incorrectly referred to Figure 5-7 as showing specific conductance from the Kirtland Sandstone. This reference should read "... Picture Cliffs Sandstone... " since the data cited in that section of text are from figure 5-6.

4. Seepage from the ponds (especially Pond 2) can enter the terrace-gravel unit if the groundwater mound extends far enough to the south. Seepage in this direction (and to the north) needs to be quantified.

Response: Although the seepage potential from the existing ponds should no longer be an issue given that the current waste disposal system will be modified to eliminate use of these ponds, an evaluation of the groundwater regime south of the plant drainage divide will be conducted as a part of the land application system feasibility study and may provide information on the possible mounding of groundwater in that direction.

5. While well P-11 may not be affected by the ponds, its proximity to the plant and location close to the discharges - to grade above Pond 1, make it an unlikely candidate to be a "background" well.

Response: It is anticipated that sufficient data will be acquired during the land application system feasibility study to adequately characterize the local ground water.

Water Quality

1. The OCD analysis of P-12 detected organic hydrocarbons of unknown makeup. The State Scientific Laboratory is running a GC-MS analysis of this material. Depending on the results, additional water quality investigation, including groundwater monitoring, might be required near the flare pit prior to closure.

Response: During the land application feasibility study groundwater sampling points will be established, possibly with the aid of a soil resistivity survey. Since one of the areas identified as a potential land application site lies southwest of the south flare pit, attention will be given to monitoring the groundwater in that region. The information gathered will aid in determining the extent of any contamination in this area.

2. What is the current status of the investigation of hydrocarbon presence in wells P-7 and P-10 ?

Response: El Paso has taken the following steps in an effort to determine the origin of the hydrocarbons detected in these piezometers:

a. The two below-ground pipelines, a 6-inch products line and a 20-inch gas line, which enter the plant from the north in the area of the two piezometers were tested ultrasonically in an attempt to identify any leaks without entirely excavating the lines. The results were negative.

b. The lines were excavated on both sides of the arroyo as far down as equipment was able to operate in case the ultrasonic detection was not able to identify a leak in that area. Some discolored soil was discovered along the six-inch products line and a lesser amount along the gas line which could indicate the presence of hydrocarbons. This was confirmed with a soil analysis. This darkened soil was confined to the area immediately surrounding the pipe. Hydrocarbons in the ground water might have collected in the loosely consolidated backfill around the pipes. Again, no leaks were found.

c. Since it was not possible to operate excavating equipment in the soft area in the bottom of the arroyo and given the probability that were a leak to occur in the products line, it would occur in the less-favorable environment of the arroyo bottom, it was decided to relocate this line above ground. A bridge was built across the arroyo and a new section of pipeline installed. A subsequent hydrostatic test showed no leaks in the underground portion.

d. The lines from the Aneth Gas Line pigging system to the north flare pit, the below-grade liqu ds reservoir and the soil around the pig receiver were all excavated. Once again no evidence of leaking lines was found.

e. Interviews were conducted and aerial photographs reviewed in an effort to determine if dumping had ever occurred in the area. No such evidence exists. No active leaks have been found in the area nor is there any

record of former leaks.

f. El Paso is assessing the need for a soil gas or some other type of survey to determine the extent of the contamination.

Engineering

Questions 1 through 4 relate to inconsistencies or missing information in the conceptual design for the contact wastewater system. Since some minor modifications have been made in the conceptual design, the following narrative and enclosed drawing will serve to address those questions relating to materials and construction for the pond system.

Phase separation and a lined pond with leak detection have been selected for the contact wastewater to ensure isolation of hydrocarbon-bearing streams, enhanced oil recovery and optimum evaporation. Wastewater currently flows through several unlined ditches to Pond 1. These ditches will be eliminated and all contact wastewater will be conveyed in buried pipe to a phase separation system consisting of a parallel-plate separator with associated oil containment. The water phase from this separator will then be routed to the lined evaporation pond. Revisions for the Aneth Gas line pigging system which presently discharges liquids to the north flare pit are planned which will enable closure of the pit. Hydrocarbons will be routed to above ground storage, vapors will be sent to a flare stack, and water will be pumped to the contact wastewater system.

A drawing showing the typical conceptual design details for one cell of the dual- celled contact wastewater lagoon is enclosed. The design is based on available data, is conservative in terms of capacity and structural strength, and one which El Paso has employed successfully in other locations. The design of the proposed contact wastewater lagoon is based on a normal contact wastewater flow of about 4000 gpd. It is also necessary to ensure that adequate capacity exists for any period of excessive flow or unusually wet weather. Total storage capacity of the lagoon system is approximately 4.6 acre feet, or 1,500,000 gallons. Average annual floating-pan evaporation is 4.17 feet per year, indicating that an evaporative capacity (surface area) of about 1 acre would be sufficient for total evaporation of contact wastewater. A surface area of 1.4 acres is proposed for contact wastewater to safely hold all of the plant's maximum expected contact wastewater discharge, plus a reserve capacity.

The proposed pond will be constructed by excavating material as necessary and compacting the berms, sides and bottom. A leak detection system will be installed to enable monitoring of the pond liner and control the accumulation of leachate. The upper liner will be resistant to hardening, microbiological attack and degradation by ultraviolet radiation or hydrocarbons. El Paso has

employed 60 mil Gundle High Density Polyethylene, 30 HP 6 Hypalon, 30CP 6 Flexseal Reinforced Liner and other materials with considerable success in this type of application. Oil resistant PVC with a minimum thickness of 20 mils or equal will be used for the bottom liner. The intermediate layers will consist of a Mirafi 140 Drainage Fabric and Fibertex Grade "600" Geotextile 190 mil or equivalent materials.

The cell bottom will be sloped at a rate of approximately 1/2% along the entire length of the pond toward the center where a perforated PVC pipe will be installed between the top and bottom layers for leachate collection. This pipe will be sloped at approximately the same rate to ensure the flow of leachate toward the leak detection well located outside of the pond berm. The layer between the liners, shown as fine filter material on the conceptual drawing, will consist of graded sand with round or subround particles not greater than 1/4 inch in size. The coarse filter material in the leak detection sump will be crushed rock with a size of 1 to 1 1/2 inches.

It is estimated that once Plan approval is obtained, approximately 60 days will be required for final design. About 120 days will be required for bidding and material procurement. Assuming no weather difficulties, construction of the system will require approximately 90 days. This yields a total project duration of approximately 270 days from date of Plan approval.

Enclosed is a proposed Scope of work for the land application system feasibility study which El Paso Natural Gas personnel will be discussing with you on December 8, 1986. Please feel free to call me for further information or clarification on any of the matters addressed here.

Very truly yours,

Kenneth E. Beasley III
Compliance Engineer

EL PASO NATURAL GAS COMPANY

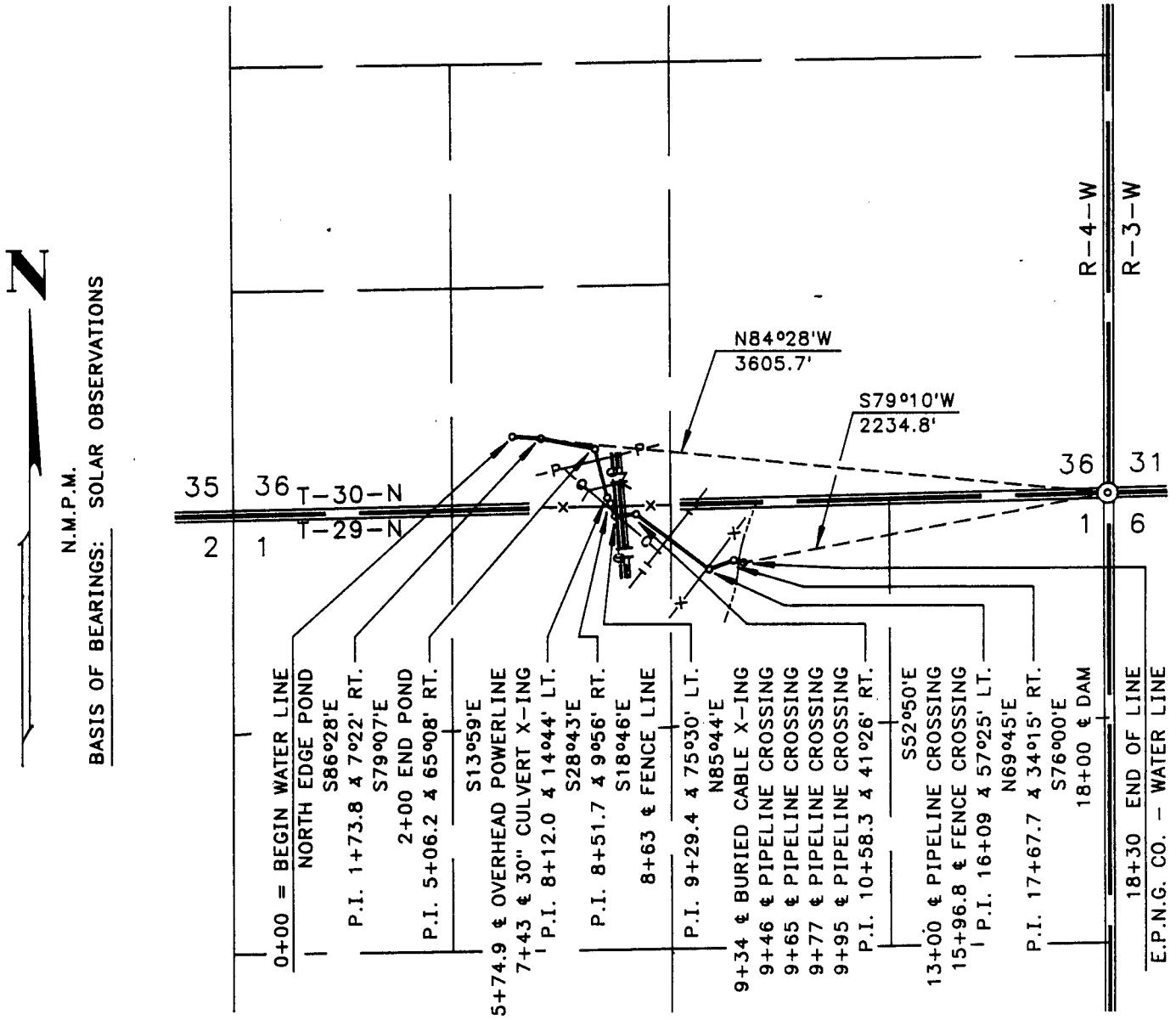
GATHERING SYST

LINE EL PASO NATURAL GAS CO. – S.J.R. PLT. WATER PUMP LINE

FROM 0+00 = BEGIN WATER LINE AT LOWER POND

DWG. NO.
WO NO.
RW NO.
DATE 11/13/86
SCALE 1" = 1000'
SURVEYED 11/6/86

COUNTY SAN JUAN STATE NEW MEXICO SECTION 36,1 TOWNSHIP 29,30–N RANGE 4–W, N.M.P.M.



DWN. BY MD CONSTR. COMMENCED APPL. DWG. SLACK CHAIN

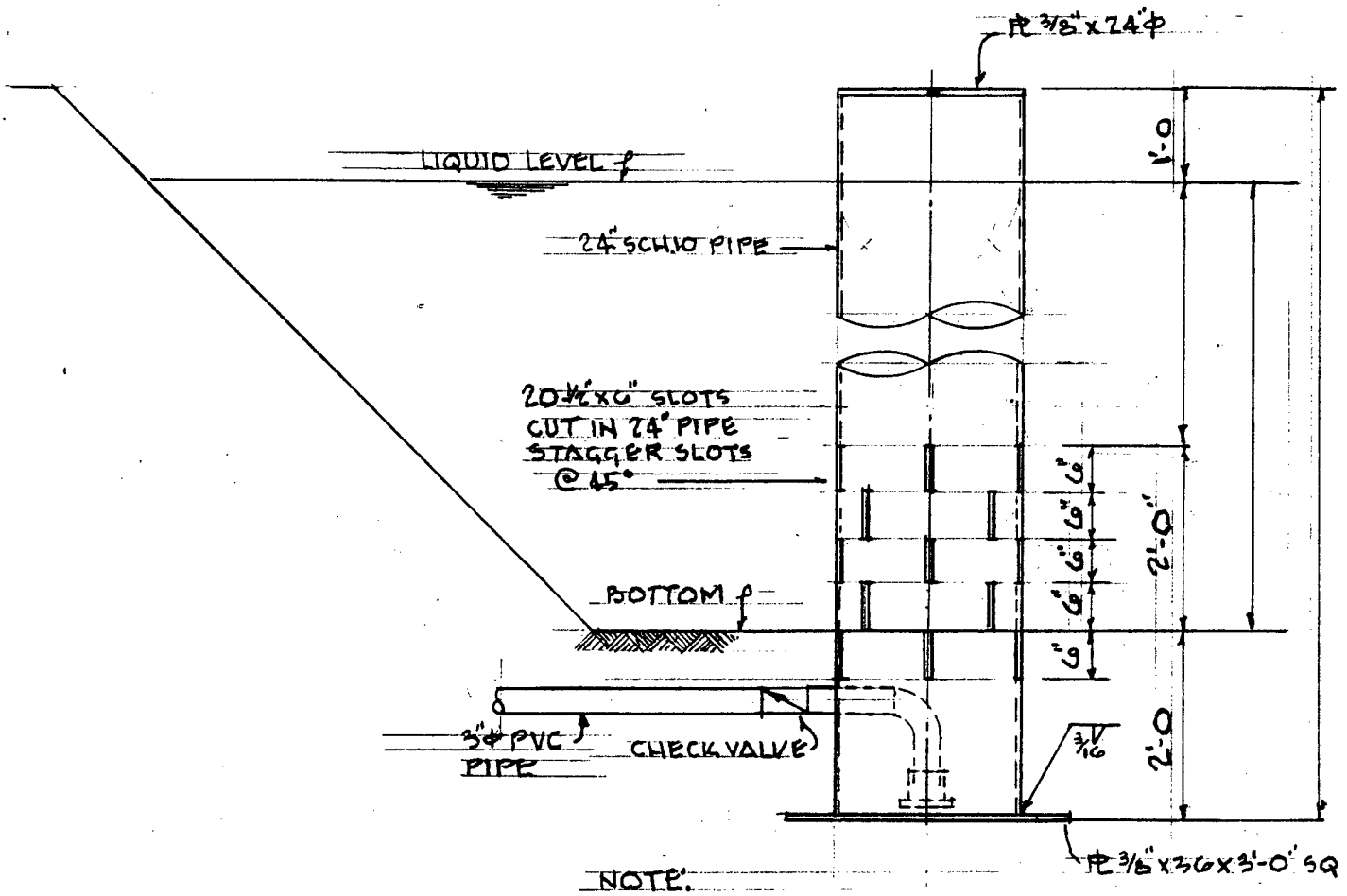
CKD. BY CONSTR. COMPLETED DATE PIPE SIZE

PRINT RECORD			PIPE DATA	METER STA. NO.
2	J. CLARK			
6	R/W			
1	D.K.			
1	W.H.			
1	J.M.			
1	M.S.			
1	W.B.			

PRELIMINARY

OWNERSHIP	SUBDIVISION	OWNER	LESSEE	RODS
REV.				

SJR237



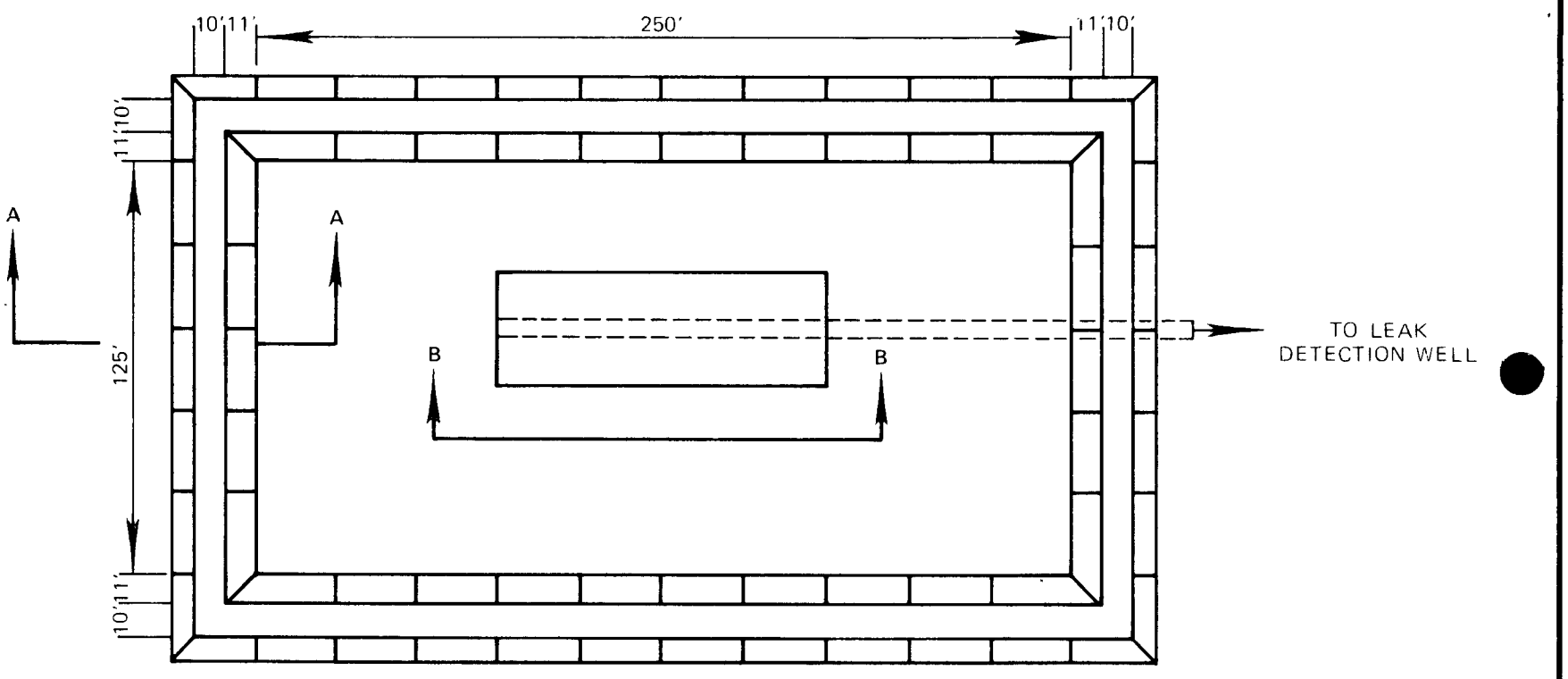
NOTE:
WRAP STEEL PIPE WITH
MIRAFI GEOTEC FIBER
AT SLOTS

ELEVATION

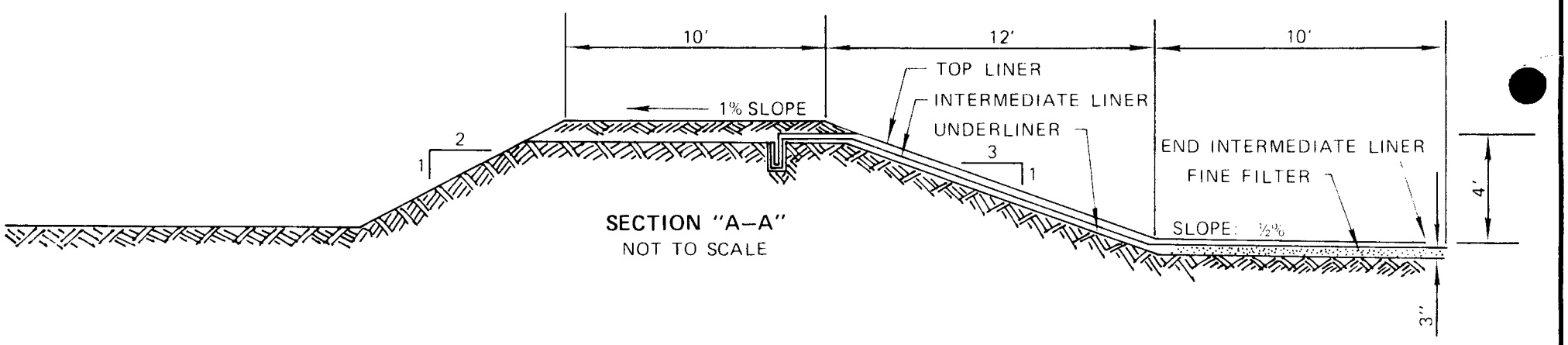
EL PASO NATURAL GAS COMPANY	
PROPOSED SEEP RETURN PUMP	
SAN JUAN RIVER PLANT	
SCALE NONE	DATE 11-19-86
DRAWN BY P.C.	CHECKED BY
No.	

FORM 7-132R (REV. 8-60)

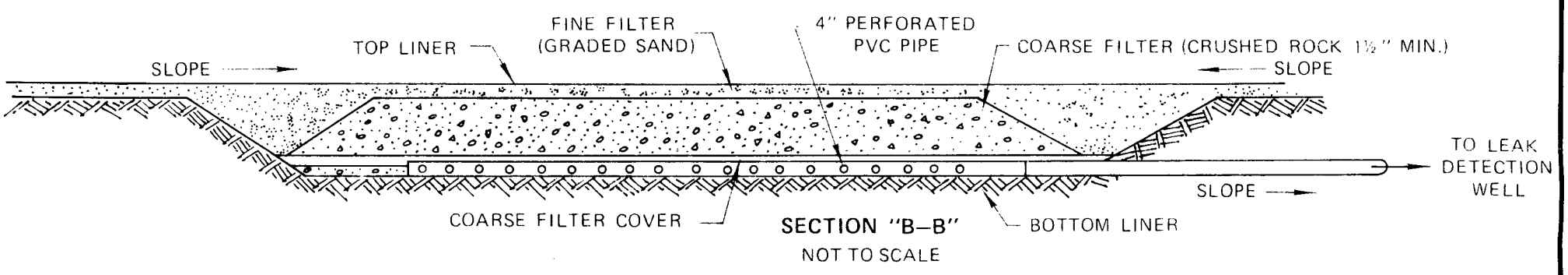
CEDERGREN'S METHOD FOR SEEPAGE CALCULATION



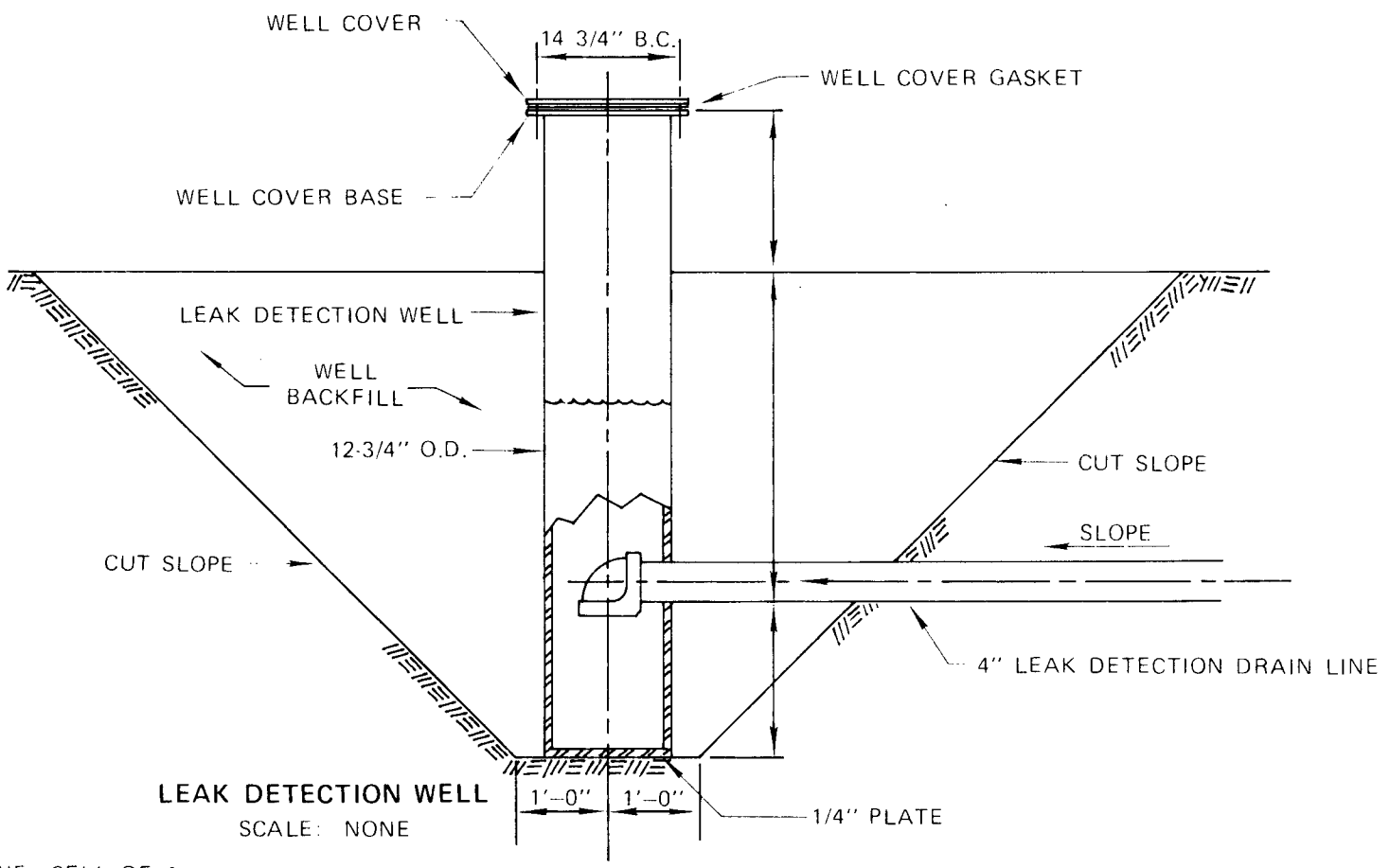
SAN JUAN RIVER PLANT EVAPORATION POND



SECTION "A–A"
NOT TO SCALE



SECTION "B–B"
NOT TO SCALE



LEAK DETECTION WELL
SCALE: NONE

NOTE: DRAWING SHOWS ONE CELL OF A TWO–CELL POND SYSTEM

SAN JUAN RIVER PLANT EVAPORATION POND

El Paso Natural Gas Company

CONCEPTUAL DESIGN OF MODIFICATION
TO WASTEWATER MANAGEMENT SYSTEM–
SAN JUAN RIVER PLANT

Seepage, Drainage, and Flow Nets

SECOND EDITION

HARRY R. CEDERGREN

A WILEY-INTERSCIENCE PUBLICATION

JOHN WILEY & SONS, New York • Chichester • Brisbane • Toronto

telić (1969), for example, tell about the collapse of part of a stock pile caused by its saturation by water that had been prevented from flowing away when the dike was filled by the hydraulic filling method. Other regularly drained areas were stable. Improvement of the drainage of the sludges, together with the retaining structures, is essential to the safety of these structures.

If failures of waste disposal structures are to be avoided, the same fundamental seepage principles used in the design of earth dams, levees, and storage reservoirs must be employed.

Infiltration Ponds

Throughout the world, wherever groundwater supplies are diminishing from overpumping, there is great need to conserve every possible usable drop. Infiltration ponds are being built in many areas to add to the replenishment of groundwater and to purify the supply that is returned to adjacent streams. In California's Central Valley extensive pond systems are being used for these purposes. Stormwater runoff is being captured by infiltration facilities designed as part of many highway and airfield pavement systems. Flood flows in rivers in dry valleys are being ponded by small retaining dikes or dams until the water can soak into the ground.

When water is being returned to groundwater systems, it is important that contamination be avoided. Also, in systems design it is important to be sure that no legal water rights are being violated.

Designing infiltration pond systems requires careful estimation of the quantities of water that will be put into a given system and the application of seepage principles to determine the size and details of a facility needed for disposing of the water. Prevention of clogging of the surface by silt, mud, or other matter carried by water is a major problem in any storm water or treated sewerage water collection and infiltration system and good maintenance programs are essential to their continued success. Buildup of a groundwater mound (or high natural water levels) can greatly restrict inflows. When infiltration conditions are poor because of low soil permeability or high water levels, it is often necessary to make use of large areas and in some cases to pump from well systems to prevent complete flooding. Designers should make detailed investigations of soils and use Darcy's law, flow nets, and other seepage principles to verify the following:

1. The capability of the bottoms of ponds to infilter water on a long-term operational basis.
2. The capability of the underlying soil to discharge the inflowing water into the surrounding groundwater system.

3. The capability of the surrounding groundwater system to accept water.

Figure 10.28 is a simplified illustration of flow from infiltration ponds. A 100-acre plot (Fig. 10.28*a*) had been proposed for an infiltration pond in a city required to dispose of 20 million gallons a day of treated sewerage. The site was covered with 20 ft of sandy soil with a vertical permeability $k_v = 1$ ft/day and a horizontal permeability $k_h = 5$ ft/day. The water table stood at a 10-ft depth, and an impermeable clay layer appeared at 20 ft.

The capability of the site for downward percolation was calculated by Darcy's law ($Q = kiA$) by using the *entire plan area* and a downward hydraulic gradient of 1.0 (Fig. 10.28*b*) as

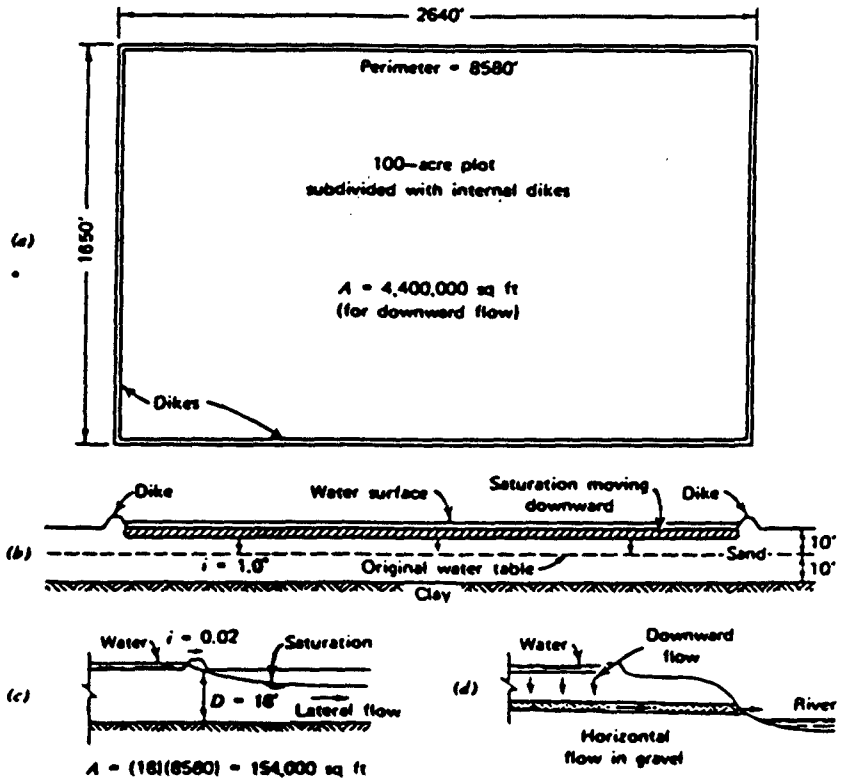


FIG. 10.28 Illustration of flow from infiltration ponds. (*a*) Plan of 100-acre plot. (*b*) Cross section showing initial condition with *downward* flow. (*c*) Edge section showing permanent condition with *horizontal* (lateral) flow. (*d*) Another site with underlying permeable layers and much better drainage.

$Q_v = kiA$ = 1.0 ft/day(1.0) (2640 × 1650) = 4,400,000 cu ft/day or 33,000,000 gal/day

This was more than adequate to meet the city's needs; however, this rate of infiltration (1.0 cu ft/sq ft/day) would fill the 10-ft column of soil above the water table in 3.5 days (assuming a porosity of 0.35). The flow would then suddenly change from vertically downward to horizontal (Fig. 10.28c) and the ability of the site to discharge water would become $Q_h = kiA$, in which both i and A would be sharply reduced. A much smaller hydraulic gradient would apply, and A would become the perimeter length times the depth of saturated soil discharging water outward. By using the values for i and A shown in Fig. 10.28c

$Q_h = kiA$ = 5.0 ft/day(0.02) (154,000 sq ft)
= 15,400 cu ft/day or 115,000 gal/day
(less than 1% of the required rate)

Even though the designer had originally recommended the site (he had calculated only Q_v), it had to be discarded.

For several years a nearby city had been disposing of 5 million gal/day of treated sewerage on a 20-acre plot, which had led the designer to think that the 100-acre site could handle 20 million gal/day readily. The 20-acre plot, however, is near a river bank and is underlaid by highly permeable gravels (Fig. 10.28*d*), which provide fast underdrainage and allow permanent downward flow.

Obviously the capabilities of sites to remove infiltration can vary substantially and depend not only on the depth to water but also on subsurface conditions. Thorough studies are needed if reasonable estimates are to be made of possible discharge rates for individual sites.

10.7 OVERFLOW WEIRS AND SPILLWAY CHUTES

This section describes drainage facilities for overflow weirs and dams on soil foundations and for spillway chutes, which are two types of structure that are highly susceptible to seepage failures unless thoroughly protected.

A number of cases of confined flow under hydraulic structures are analyzed in this chapter by flow nets.

Overflow Weirs and Dams on Soil Foundations

General. High masonry dams must rest on strong rock foundations, for foundation weaknesses may lead to total failure. Low diverting

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
Field Supervisor
Ecological Services, USFWS
Post Office Box 4487
Albuquerque, New Mexico 87196

December 2, 1986

Mr. R. L. Stamets, Director
Oil Conservation Division
State of New Mexico
State Land Office Building
P. O. Box 2088
Santa Fe, New Mexico 87504-2088

Dear Mr. Stamets:

We have reviewed the following proposed discharge plans and have not identified any resource issues of concern to our agency; GW-33, El Paso Natural Gas Company, San Juan Gas Processing Plant, Farmington, New Mexico, GW-34, El Paso Natural Gas Company, Kutz Gas Plant, Farmington, New Mexico, GW-38, New Mexico State University, Las Cruces, New Mexico.

These comments represent the views of the Fish and Wildlife Service. Thank you for the opportunity to review on the proposed plans. If you have any questions concerning our comments please contact Tom O'Brien at (505) 883-7877 or FTS 474-7877.

Sincerely,

Michael J. Donahoo
Acting Field Supervisor

cc:
Director, New Mexico Department of Game and Fish, Santa Fe, New Mexico
Director, New Mexico Health and Environment Department, Environmental Improvement Division, Santa Fe, New Mexico
Regional Administrator, Environmental Protection Agency, Dallas, Texas
Regional Director, FWS, FWE, Albuquerque, New Mexico

NOTICE OF PUBLICATION
STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission regulations, the following discharge plans have been submitted for approval to the Director of the Oil Conservation Division, P.O. Box 2088, State Land Office Building, Santa Fe, New Mexico 87504-2088 (505)827-5800.

(GW-33) El Paso Natural Gas Company, San Juan Gas Processing Plant, John Craig, Vice President, P.O.Box 4990, Farmington, New Mexico 87499, has submitted for approval a ground water discharge plan for its facility located in Section 1, Township 29 North, Range 15 West, NMPM, San Juan County, New Mexico. Approximately 4000 gallons per day of contact process wastewater with a total dissolved solids content of approximately 2700 mg/1 will be discharged to a lined wastewater evaporation pond equipped with a leak detection system. Discharges of non-contact wastewater effluent will be addressed in a different ground water discharge plan. The present discharge plan addresses how spills, leaks, and other discharges to ground water at the plant site will be managed. The ground water most likely to be affected by any discharge to the surface is at a depth ranging from 15 feet to 110 feet, with a total dissolved solids concentration averaging 17500 mg/1.

(GW-34) El Paso Natural Gas Company, Kutz Gas Plant, John Craig, Vice President, P.O. Box 4990, Farmington, New Mexico 87499, has submitted for approval a ground water discharge plan for its facility located in Section 15, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico. Approximately 2,178 gallons per day of process and cooling tower water with a total dissolved solids content of approximately 1060 mg/1 will be discharged to a line wastewater evaporation pond equipped with a leak detection system. The discharge plan addresses how spills, leaks and other discharges to ground water at the plant site will be managed. Protectable ground water most likely to be affected by any discharge to the surface is at a depth ranging from 33 feet to 50 feet, with total dissolved solids concentrations ranging from 774 to 3270 mg/1.

(GW-38) New Mexico State University, C.D. Black, Director of Physical Plant Department, Box 3545, Las Cruces, New Mexico 88002, proposes to discharge cooled geothermal water to an unlined pit at its greenhouse facility located in Section 23, Township 23 South, Range 2 East, NMPM, Dona Ana County, New Mexico. Approximately 49,000 gallons per day of cooled geothermal water with a total dissolved solids content of 1775 mg/1 will be discharged. The disposed geothermal water will percolate into the ground and will re-enter the geothermal reservoir. Uppermost ground water is geothermal and is found with a TDS of 1636 at a depth of 284 feet.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and a public hearing may be requested by an interested person. Requests for public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the Director will approve or disapprove the proposed plan based on information in the plan and information submitted at the hearing.

GIVEN Under the Seal of the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 12th day of November, 1986. To be

STATE OF NEW MEXICO } ss
County of Bernalillo

THOMAS J. SMITHSON

..... being duly sworn declares and

NAT'L ADV. MGR.

says that he is ..... of the **Albuquerque Journal**, and that this newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Session Laws of 1937, and that payment therefore has been made or assessed as court costs; that the notice, a copy of which is hereto attached, was published in said paper in the regular daily edition,

for 1 times, the first publication being on the 20 day

of November ,198 6, and the subsequent consecutive

publications on ,198.....

Thomas J. Smithson

ICIAL SEAL
NNIE MONTOYA
ARY PUBLIC - STATE OF NEW MEXICO
y Public Filed with Secretary of State
ommission Expires 4-18-90
Annie Montoya

Sworn and subscribed to before me, a Notary Public in and for the County of Bernalillo and State of New Mexico, this 20 day of November ,198 6

PRICE 35.11

Statement to come at end of month.

EDJ-15 (R-2/86)

ACCOUNT NUMBER C 80932

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal | Time 1:20 | Date 11/19/86

OTHER ~~ORIGINATING~~ Party: Henry Van, EPNG (915) 541-2832

ORIGINATING ~~Other~~ Parties: Dave Boyer OCD

Subject: San Juan River Plant Discharge Plan - Temporary Pumpback system

Discussion: In OCD's November 12 letter authorizing EPNG to continue discharging without a discharge plan, I omitted the previously agreed upon requirement that EPNG install a pumpback system for temporary use during the extension time period. Henry's internal notes reflected the conversation of 10/31 where I said such a system would be necessary. I offered to send a follow up letter, but Henry said the commitment would be in the investigation plan

Conclusions or Agreements:

Plan of Study to be submitted in a meeting at OCD at 9AM 12/8

Distribution: EPNG SJ River Plant File

Signed: D J Boyer

NOTICE OF PUBLICATION
STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

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The discharge p[redacted] addresses how spills, leaks [redacted] other discharges to ground water at the plant site will be managed. Protectable ground water most likely to be affected by any discharge to the surface is at a depth ranging from 33 feet to 50 feet, with total dissolved solids concentrations ranging from 774 to 3270 mg/l.

(GW-38) New Mexico State University, C. D. Black, Director of Physical Plant Department, Box 3545, Las Cruces, New Mexico 88002, proposes to discharge cooled geothermal water to an unlined pit at its greenhouse facility located in Section 23, Township 23 South, Range 2 East, NMPM, Dona Ana County, New Mexico. Approximately 49,000 gallons per day of cooled geothermal water with a total dissolved solids content of 1775 mg/l will be discharged. The disposed geothermal water will percolate into the ground and will re-enter the geothermal reservoir. Uppermost ground water is geothermal and is found with a TDS of 1636 at a depth of 284 feet.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and a public hearing may be requested by an interested person. Requests for public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the Director will approve or disapprove the proposed plan based on information in the plan and information submitted at the hearing.

GIVEN Under the Seal of the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 12th day of November, 1986. To be published on or before November 21, 1986.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

R. L. STAMETS
Director

S E A L

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

TONEY ANAYA
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501-2088
(505) 827-5800

November 12, 1986

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. John M. Craig
Vice President
El Paso Natural Gas Co.
P. O. Box 4990
Farmington, N.M. 87499

RE: GROUND WATER DISCHARGE PLANS FOR EL PASO NATURAL GAS COMPANY, SAN JUAN RIVER PLANT; GW-33, GW-39

Dear Mr. Craig:

Your letters of October 22 and October 31, 1986, requesting an extension of time to operate the existing waste management system at the San Juan River Plant have been received by this Division. As discussed by OCD staff in the November 8, OCD-EPNG meeting in Santa Fe, the discharge plan will be divided into two separate plans so that work on modifying the contact wastewater system can proceed independently of the feasibility study for the land application system. Therefore, Discharge Plan GW-33 will address the contact wastewater streams and plant operations (spills, storm runoff, housekeeping, etc.) and public notice will be issued immediately. Discharges of non-contact wastewater will be assigned discharge plan number GW-39.

As a result of the division of wastewater disposal review into two separate discharge plans, the following extensions of time are authorized for operation of the existing waste management system without an approved discharge plan:

(1) GW-33, Contact wastewater and plant operations - from November 1, 1986, until February 1, 1987, provided final conceptual design information, a proposed schedule for pond construction, and a response to OCD's June 27, 1986 letter are received by December 5, 1986.

(2) GW-39, Non-contact wastewater from November 1, 1986, until October 31, 1987, provided that a land application investigation schedule (including anticipated dates for selection of a contractor, beginning of investigation, progress discussions with OCD, etc.) are received by December 5, 1986.

The EPNG-OCD discussions held November 8 on land application feasibility and methods were useful in developing general guidelines for further work on the

concept. The key to agency approval of the disposal method is complete hydrogeological characterization of the proposed site and immediately surrounding area, and an operational plan that provides for accurate effluent application and monitoring. If the economics of land treatment are unfavorable, EPNG might want to consider changes in some wastewater streams to decrease salt loads, or investigate enhanced spray evaporation systems similar to those currently used by both Amoco and Basin Disposal in the Farmington area.

If you have any questions regarding this letter, or the discharge plan requirements, please contact David Boyer of my staff at 827-5812.

Sincerely,

R. L. STAMETS
Director

RLS:DGB:dp

cc: David Boyer
Frank Chavez, OCD-Aztec

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal | Time 10:30 | Date 10/31/86

Originating Party	Other Parties
Henry Van, Ken Beasley, EPNG (915) 541-2832, 325-2841	David Boyer OCD

Subject: San Juan River Plant - Discharge Plan revisions & Schedule

Discussion: Van and Beasley called to discuss extension of time to operate without an approved plan. They want to do thorough feasibility study on land application, and request a year to complete the study, decide best option and submit design. After some discussion the following were decided: (1) Contact ponds (and probably main plant operation) would be separate DP. EPNG requested to submit ~~June~~ answers to June 2 letter, and anticipated date of pond completed. OCD to issue public notice and receive (2) Non-contact ponds can continue to be operated provided pump-back system operated to keep seep pond levels low.

Conclusions or Agreements: (3) EPNG needs to address 1400 mg/l TKN in area of flare pit - where going & how long & how bad. (3) Benzene at pipeline crossing to be addressed, talking to State Land Office. Not worried about more GW contamination since salts have already damaged, but have crossed to State land; EPNG will bring in an extension request on Friday. OCD will discuss land application criteria. (11/7)

Distribution: EPNG-Site San Juan River.

Signed: D J Boyer

El Paso
Natural Gas Company

P. O. BOX 4990
FARMINGTON, NEW MEXICO 87499
PHONE: 505-325-2841

October 31, 1986

Mr. David G. Boyer
Hydrogeologist/Environmental Bureau Chief
Energy and Minerals Department
Oil Conservation Division
P.O. Box 2088
State Land Office Building
Santa Fe, New Mexico 87501-2088

Subject: Discharge Plan for El Paso Natural Gas Company - San Juan River Plant, GW-33

Dear Mr. Boyer:

El Paso Natural Gas is in the process of evaluating land application of non-contact waste water at the San Juan River Plant as an alternative to existing disposal practices. However, preliminary research has revealed that an extensive study of site conditions and the long-term effects of the system will be required in order to ensure that both NMOCD and El Paso are satisfied with the proposed modifications. El Paso personnel will be meeting with you on Friday, November 7 to discuss the details of information requirements and the study plan.

It is expected that approximately nine months will be required to complete the feasibility study and an additional three months to assess the study results and complete a conceptual design. Therefore, El Paso Natural Gas respectfully requests permission to continue to operate the existing waste management system at the San Juan River Plant for a twelve-month period beginning November 1, 1986. As requested by you on October 31 in a conversation with El Paso personnel, and upon concurrence of the New Mexico State Land Commission, a pump-back system for the leachate collection area northwest of the plant to the existing disposal pond will be implemented as an interim control measure.

Very truly yours,

John M. Craig
Vice President

JMC:KEB:cm

El Paso
Natural Gas Company

P. O. BOX 4990
FARMINGTON, NEW MEXICO 87499
PHONE: 505-325-2841

October 22, 1986

Mr. David G. Boyer
Hydrogeologist/Environmental Bureau Chief
Energy and Minerals Department
Oil Conservation Division
P.O. Box 2088
State Land Office Building
Santa Fe, New Mexico 87501-2088

Subject: Discharge Plan for El Paso Natural Gas Company - San Juan River Plant, GW-33

Dear Mr. Boyer:

Because of the technical and regulatory concerns which were expressed in your evaluation of the San Juan River Plant Discharge Plan, El Paso has re-examined the disposal methods for non-contact wastewater outlined in that document and assessed the alternatives offered in your letter. As stated in the Plan itself, El Paso is dedicated to operating its facilities in a manner that insures environmental protection and compliance with all applicable regulations and has carefully considered various waste management systems in an effort to achieve this.

Based upon your recommendations, El Paso has evaluated land application of non-contact waste water and it appears to be the one which most completely satisfies mutual concerns. However, preliminary background work indicates that the opinions on the viability of this alternative are varied. In order to ascertain that all concerned are in accord on the objectives to be achieved by the proposed modifications, it would be beneficial to schedule a meeting at a time convenient to you to discuss your recommendations. El Paso personnel will arrange to be available at any time amenable to the Agency. Further study will be required later to assess system requirements and site conditions. For this reason, El Paso Natural Gas respectfully requests permission to continue to operate the existing waste management system at the San Juan River Plant. Once the uncertainties relating to the alternatives have been resolved, a concrete schedule for Plan revision and implementation can be established.

In closing, let me again express that El Paso Natural Gas wishes to cooperate with NMOCD in every way possible in this effort. We have a mutual objective in implementing these changes, the protection of the environment.

Very truly yours,

John M. Craig
Vice President

JMC:KEB:cm

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

[X] Telephone [ ] Personal	Time 3 PM	Date 10/20/86

Originating Party	Other Parties
EPNG HENRY VAN + TEN	JAMI BAILEY

Subject
USE OF NON-CONTACT WATER FOR IRRIGATION AT SAN JUAN PLANT

Discussion
EPNG is checking into eliminating all unlined pits, retaining one lined pit for surge capacity, and using all non contact waste water (60,000 gal/day) for irrigation of 30-40 acres between the access road and the golf course. ATW is 25'. Their main concerns are that they cannot guarantee zero leachate, and they do not know if there would be minimal impact on groundwater, even with the dilution factor. In Dave Boyer's 6/27/86 letter to John Craig, use of the waste water for irrigation was suggested as a means of disposal. They would like assurance that such a proposal would be approved.

Conclusions or Agreements

Distribution
D. Boyer
File

Signed Jami Bailey

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal | Time 9AM | Date 9/12/86

Originating Party	Other Parties
Duff Westbrook - EIB Legal	David Boyer - OCD

Subject: Kirtland Landfill (@ EPNG Plant)

Discussion: Duff called to ask for sample analyses from the landfill. I told him we had sampled in May but site may not be same as mentioned in 10/85 EIB-Farmington memo (attached) Told Him that EPNG P-4 is in arroyo down the topographic gradient, but no organics seen and margins have lots of $SO_4^=$.

Conclusions or Agreements: Sent him copy of analyses (P-4, landfill) and Plate 7 & Fig 5-10.

Distribution: EPNG File

Signed: DB Boyer

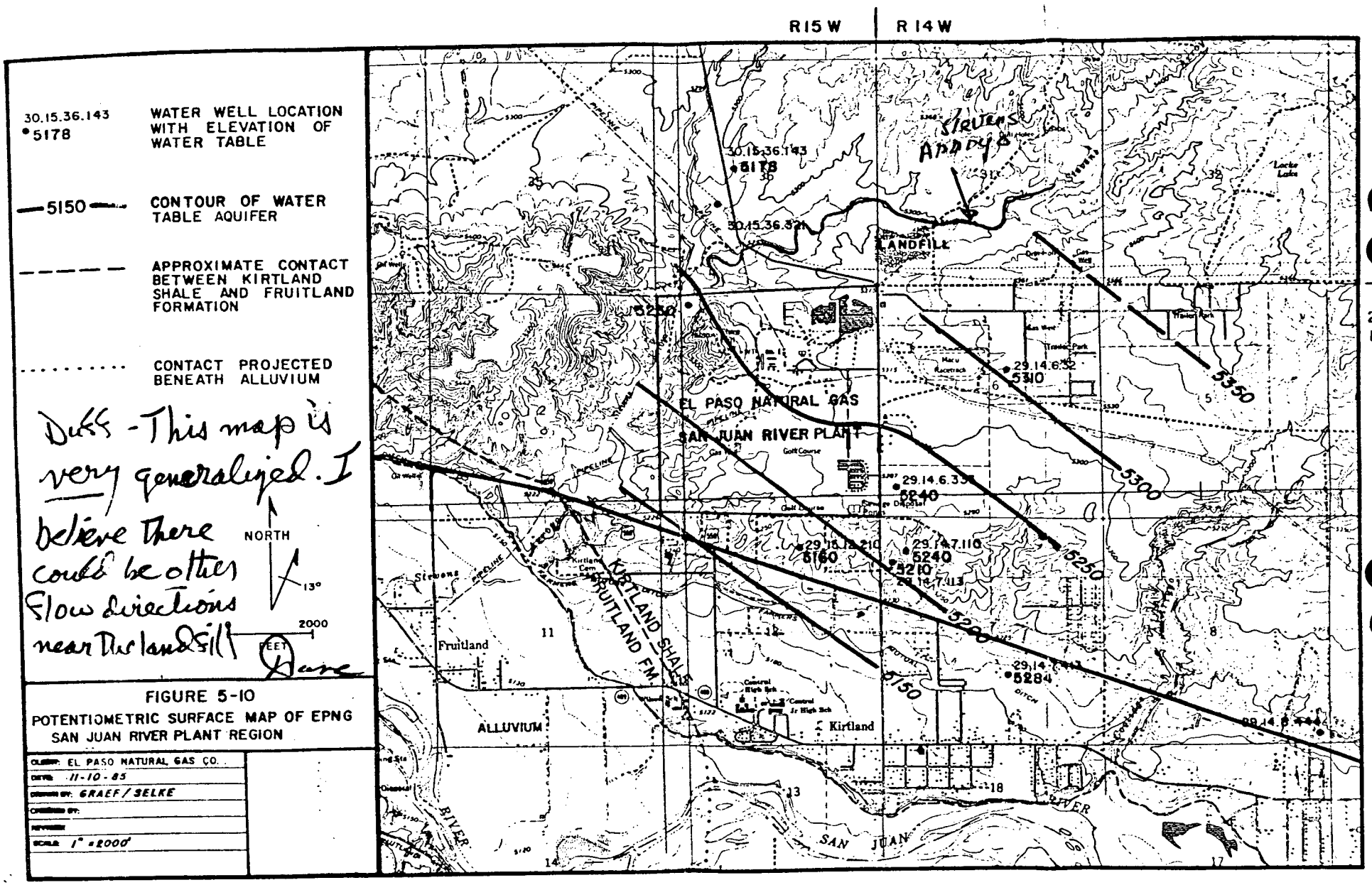

FIGURE 5-10
POTENTIOMETRIC SURFACE MAP OF EPNG SAN JUAN RIVER PLANT REGION

CLIENT:	EL PASO NATURAL GAS CO.
DATE:	11-10-85
DRAWN BY:	GRAEF/SELKE
CHECKED BY:	
REVISED	
SCALE	1" = 2000'

STATE OF NEW MEXICO
HEALTH ENVIRONMENT

MEMORANDUM

DATE: October 9, 1985

TO: Neil Weber, Deputy Director

FROM: David Tomko, DAT Health Program Manager, Farmington Field Office

SUBJECT: DISPOSAL OF OIL PRODUCTION WASTES AT COUNTY AND MUNICIPAL LANDFILLS IN SAN JUAN COUNTY

Per your request, the following is a historical perspective of oil production waste disposal in the municipal and county operated landfills in San Juan County. The only landfills in San Juan County not addressed by this report are at Navajo Lake State Park and Chaco Culture National Historical Park which have never received any oil production wastes. Each of the following landfill sites was personally inspected during October 7-8, 1985 to assess their current status.

AZTEC SANITARY LANDFILL

The landfill maintained liquid waste lagoons from at least 1976 to 1982. The lagoons were about 30' X 130' X 15' deep. Oil production wastes, septage and other liquid wastes were disposed of in the lagoons. Percentages of oil production wastes were not known. The landfill currently has no liquid waste lagoon and no future lagoon is planned. No liquid wastes of any kind are currently accepted at the landfill.

The soil is sandy to a sandy loam with moderately rapid percolation (my estimate). Water table is estimated at 50' - 100'. The landfill is on state-owned land administered by the Commissioner of Public Lands.

BLOOMFIELD SANITARY LANDFILL

The landfill maintained liquid waste lagoons from the mid 1970's to 1982 when the landfill was decommissioned. The site has been used as a transfer station operated by Waste Control of New Mexico since February 1, 1982. Oil production wastes, septage and other liquid wastes were disposed of in the lagoons. The size of the lagoons varied over the years but probably averaged 100' X 50' X 10' deep based on photographs in the file. The percentage of oil production wastes was not known but could have been substantial. A pit for sludge disposal from the Bloomfield Wastewater Treatment Plant is currently in use. An approved discharge plan was obtained prior to disposal. No oil production wastes are currently accepted at this site.

The soil appears to be sandy with a moderate percolation rate. Water table is estimated at 200'. The landfill is on BLM land.

FARMINGTON SANITARY LANDFILL

The current site, operated by Waste Control of New Mexico since late 1981, has never accepted oil production wastes. However, the old location, previously called the Farmington South Landfill, did have a designated lagoon for oil production wastes, septage and other liquid wastes. The lagoon was approximately 100' X 200' X 10' deep and operated from mid 1970's to late 1981. The lagoon did contain large quantities of waste oil and had a very strong hydrocarbon odor. The lagoon has been closed and no evidence of its exact location is visible.

The soil appears to be very sandy with a rapid percolation rate. Water table is estimated to be 40'-60'. The landfill is on BLM land.

SAN JUAN COUNTY MODIFIED LANDFILLS:

BLANCO LANDFILL

The landfill is 9 miles east of Bloomfield and 3 miles north of U.S. 64 at Blanco. A small pit for liquid waste has been maintained since the mid 1970's. Disposal of oil production wastes at the current pit started after the Lee Acres incident (April, 1985). The pit is 10' X 30' X 10' deep and is currently full. A 1"-2" layer of paraffin-like material is floating on the liquid phase. The pit has a strong hydrocarbon odor.

The soil appears to be clay with a slow percolation rate. Water table is estimated at 50'-100'. The landfill is on BLM land.

CEDAR HILL LANDFILL

The landfill is 10 miles north of Aztec on U.S. 550, then 1 mile east. A small pit for liquid waste has been maintained since the mid 1970's to present at various locations in the site. There is no evidence of any oil production waste disposal at this site. The current septage pit is approximately 35' in diameter and 10' deep.

The soil appears to be clay with small rocks which has a moderately slow percolation rate. Water table is estimated to be 20'-40'. The landfill is on BLM land.

FLORA VISTA LANDFILL

The landfill is 7 miles east of Farmington on U.S. 550, then 3 miles north of the highway. This landfill has continually received large quantities of oil production wastes from the mid 1970's to August, 1985. This site has had large lagoons and occasionally had 2 at one time. The previous lagoons were around 100' X 200' X 20' deep. The current lagoon is 75' X 125' X 20' deep.

Disposal of oil production wastes has been prohibited since August 1985 when the current lagoon became full. The lagoon was reopened mid September for septage disposal only. A county employee is on duty to prohibit oil waste dumping during the day, and the landfill is locked at night.

The soil appears to be a sandy loam with a moderate percolation rate. Water table is estimated to be 200'-300'. The landfill is on BLM land.

KIRTLAND LANDFILL

The landfill is 7 miles west of Farmington on U.S. 550 and 1.5 miles north of the highway at Kirtland. This landfill also has received large quantities of oil production wastes from the mid 1970's to May, 1985. The recently closed lagoon is approximately 150' X 150' X 10' deep and is currently dry. A new lagoon for septage disposal only may be opened within the next month.

The soil varies from sand to clay underlain by shale. Water table is estimated to be 100'-200'. The landfill is on BLM land.

LA PLATA LANDFILL

The landfill is 13 miles north of Farmington on N.M. 170, then 3 miles west of the road near La Plata. The landfill has never received any oil production wastes and very little septage. The landfill is on private property and will be closed within the next year.

Water table is estimated at 100'-150'.

LEE ACRES LANDFILL

The landfill is 5 miles east of Farmington on U.S. 64, then 1 mile north of the highway at Lee Acres. This landfill has probably received the heaviest use as an oil production waste disposal site. The outlines of 3 lagoons are currently visible. Each lagoon is approximately 200' in diameter and 4'-10' deep. Only 2 of the lagoons show signs of use, i.e. stained soil. One is the infamous Lee Acres Lagoon and the other is located 1000' south. The lagoon which shows no sign of use is between these two lagoons.

Oil production wastes were disposed of at this landfill from mid 1970's to April, 1985. The "Lee Acres Lagoon" is currently 95% dry. No liquid waste disposal of any kind has been allowed at this landfill since the incident in April.

The soil is sandy with a rapid percolation rate. Water table is estimated at 20'-50'. The landfill is on BLM property.

TURLEY LANDFILL

The landfill site is 20 miles east of Bloomfield on U.S. 64 then 1 mile north on N.M. 511 toward Navajo Lake State Park. A liquid waste pit was maintained from the mid 1970's until 1983 when the landfill was closed. No oil production wastes were disposed of in the landfill. The landfill site was on private property.

WATERFLOW

The landfill is 15 miles west of Farmington on U.S. 550, then 2 miles north of the highway. A pit for liquid waste disposal has been maintained from the mid 1970's to present. The current pit is 20' X 100' X 10' deep and is full. No oil production wastes appear to have been disposed of in this pit. Previous pits may have received oil wastes, but in rather small quantities. A new liquid waste pit is almost completed and measures 60' X 60' X 15' deep.

The soil is heavy clay underlain with shale. Water table is estimated to be 40'-50'. The landfill is on BLM land.

Most of the report is based on personal recollection with some supporting documentation from the files. The liquid waste pits were never closely scrutinized during the soild waste evaluation inspection of the various landfill sites. The primary concern was with the integrity of the lagoon itself, not with the lagoon contents.

Several of the landfills were on an EPA list for potentially hazardous waste disposal sites until 1981. These sites were Farmington South Landfill, Aztec, Lee Acres, Cedar Hill and Kirtland. Site inspections were perfromed by Jack Ellvinger, Hazardous Waste Section, Peter Pache and Walt Youngblood, Solid Waste Section during the summer of 1981. A news article concerning the Farmington landfill is attached. All of the landfills were removed from the list during 1981.

I hope this report adequately addresses the history of oil production waste disposal practices in San Juan County landfills. Please call me if you have any questions or need additional information.

Enclosure
DAT:lm
cc: Denise Fort, Director
Richard Holland, Deputy Director
Richard Perkins, Acting Bureau Chief, Ground Water/Hazardous Waste Bureau
Jon Thompson, Bureau Chief, Community Support Bureau
Richard Mitzelfelt, District I Environmental Manager
File

PLEASE CIRCULATE

Env. Supv. _____

Env. III _____

Env. II _____

Env. Sci. _____

Env. Tech. _____

Secty. _____

Farmington Daily Times

06-12-81

EPA Removes Landfill from List

The U.S. Environmental Protection Agency has announced that the South Farmington Landfill has been removed from its list of "potentially hazardous waste disposal sites."

Dr. Ray Treehoff, director of the state Environmental Improvement Division's solid waste management section, explained that the EPA has been checking landfills and old dumps for about 18 months throughout the nation.

There is a concern, he said, that in the past hazardous materials may have been improperly disposed of and this improper disposal may now be, or may have been, creating public health problems.

The Farmington landfill was put on the list, he explained, because of concern about the disposal of waste products from oil and gas field work.

The state EID has been checking the records from the landfill and conducting tests, he said, and has determined that the wastes in the landfill, whatever their nature or origin, are not a hazard at this time.

Treehoff noted that wastes from oil and gas work may be in the Farmington landfill, but the EID does not believe they are a health hazard.

Kathryn Brady, director of the Farmington sanitation service, said the city has received an information packet from the EID on hazardous waste products which defines what may and may not be placed in Farmington's landfill.

Also in the EPA announcement was a clearance for the landfill in Hobbs operated by Waste Control of New Mexico, which is going to be taking over the sanitation service in Farmington next month.

Treehoff said the Hobbs landfill was placed on the list and removed for the same reasons as the one in Farmington.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

TONEY ANAYA
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501-2088
(505) 827-5800

June 27, 1986

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. John Craig, Vice President
San Juan Division
El Paso Natural Gas Company
P. O. Box 4990
Farmington, N.M. 87449

RE: DISCHARGE PLAN FOR EL PASO NATURAL GAS COMPANY-SAN JUAN RIVER PLANT, GW-33

Dear Mr. Craig:

The Oil Conservation Division has received and completed review of the above-referenced discharge plan which was received by us on April 29, 1986. The following comments and request for additional information are based on our review of the data provided in the plan. We had hoped to have some additional chemical data from our May 21 sampling trip to assist us in evaluation of the site, but our State Scientific Laboratory has only provided a minimum of general water chemistry data, and no organic chemistry results. These results will be useful in providing additional subsurface data for plan evaluation.

General Comments

Our review of the discharge plan and the May site visit show that basic plan is acceptable, except for major questions surrounding the use of the unlined non-contact waste water ponds. In general, to continue use of the ponds, El Paso will have to demonstrate that the ground water standards will not be exceeded at a place of use due to the discharge. To do that, El Paso must adequately address the fate of the seepage from the pond. From information in the discharge plan and visual observation, seepage is seen to move along the topographic gradient towards Steven's Arroyo. However, since the ponds form a ground water mound, some component(s) will move outward in other directions. A natural geologic ridge creating a ground water divide may exist in an east-west direction, probably just north of the plant entrance road. If the mound is large enough so that saturated flow moves over the ridge and intersects the regional water table on the south side of the ponds, the direction of travel will be that of the regional gradient (southwest), as shown in Figure 5-10. Wells P-1 and P-3 would have done much to clarify the situation if they were completed. Since they were not, seepage in that direction is unknown and needs to be quantified more

accurately. Seepage to the north is also unknown; shallow wells north and east of ponds #3 and #2 would be useful to assess if there is seepage movement to the north.

The movement of the effluent pond seepage towards Steven's Arroyo is complicated by the addition of seepage from the raw water pond. Both sources discharge into the seep pond and then into the arroyo. One of OCD's few complete analyses shows seep pond TDS at 18,400 mg/l. The surface discharge from the seep pond to the arroyo was not measured on 5/20, but was probably about 10 gpm. At that volume, about 1.1 tons of salt per day are discharged to the arroyo. The raw water pond contribution to this total is unknown.

Regulatory Considerations

Several regulations may have a bearing on EPNG's discharge to the seep pond and the arroyo:

1. A surface water discharge to a watercourse is a "point source" discharge and is subject to the requirements of the Clean Water Act administered by the USEPA through the NPDES program. Though the discharge may be intermittent (e.g., less in summer), and the arroyo above the plant is dry most of the year, it is considered a "water of the U.S.". Though the raw water pond contributes, seepage can be clearly traced from the effluent ponds to the seep pond and out to the arroyo. Another consideration is that New Mexico implements the Colorado River Salinity Standards through the NPDES Program and stream standards adopted by the WQCC. Based on our 5/20 measurements, approximately 1.1 tons per day of salt is discharged to the arroyo.

2. Even though the background TDS in Steven's Arroyo exceeds the standard of 1000 mg/l, and even the WQCC protectable limit of 10,000 mg/l, such discharge is prohibited if it will cause standards to be exceeded elsewhere (Section 3-103 ... "Regardless of whether there is one contaminant or more than one contaminant present in ground water, when an existing pH or concentration of any water contaminant exceeds the standard specified in Subsection A, B or C, the existing pH or concentration shall be the allowable limit, provided that the discharge at such concentrations will not result in concentrations at any place of withdrawal for present or reasonably foreseeable future use in excess of the standards of this section" (emphasis added). The surface discharge of such a large quantity of salt, plus an undetermined amount of seepage from the base of the seep pond, will cause salt movement down the arroyo to areas of shallow ground water, surface water and the San Juan River. El Paso has not quantified any of those impacts and has not demonstrated that standards (including stream standards) will not be exceeded at those locations.

3. WQCC Regulation 3-109.D.2.b prohibits Director approval of leaching of undisturbed natural materials if the contaminants were leached as a result of direct discharge into the vadose zone of effluent from industrial disposal facilities. In this case, natural salts are leached by the wastewater ponds.

4. WQCC Regulation 3-109.G.2. prohibits approval of any discharge that will cause any stream standard to be violated (e.g., salinity).

To overcome some of these regulatory barriers, EPNG might wish to consider one of the following alternatives:

1. Lined, non-contact waste water, evaporation ponds; or

2. Use of non-contact effluent for land application (e.g., golf course irrigation); or

3. Seepage collection trench and pumpback system at property boundary near wells P-7 and P-10 after demonstration that other seepage to north and south will not cause standards to be exceeded at a place of present or future ground water use; or

4. Use of the existing seep pond as a seepage collection point with pumpback system to evaporation ponds, and dike strengthening to decrease seepage to arroyo. This would control both raw water and effluent seepage. It would require State Land Office concurrence and the north-south seepage demonstration mentioned in #3.

The OCD will work with EPNG in any of these alternatives including liaison activities with the Land Office.

Specific Comments

Hydrogeology:

1. (p. 30) Provide the appropriate section of the Cedergren reference. What were the reference points for the head differential determination?

2. (p. 35) Seepage can improve or degrade ground water depending on the circumstances. In this case, for example, leaching of salts will not improve water quality, and discharge of high (55,000 mg/l) TDS water from pond 3 will degrade it.

3. (p. 55) Figure 5-7 shows specific conductance from the Pictured Cliffs Sandstone, not the Kirtland Shale as referenced in the text.

4. (p. 59) Seepage from the ponds (especially Pond 2) can enter the terrace-gravel unit if the ground water mound extends far enough to the south. Seepage in this direction (and to the north) needs to be quantified.

5. (p. 63) While well P-11 may not be affected by the ponds, its proximity to the plant and location close to the discharges - to grade above to Pond 1, make it an unlikely candidate to be a "background" well.

Water Quality:

1. (p. 62) The OCD analysis of P-12 detected organic hydrocarbons of unknown makeup. The State Scientific Laboratory is running a GC-MS analysis

of this material. Depending on the results, additional water quality investigation, including ground water monitoring, might be required near the south flare pit prior to closure.

2. (p. 64) What is the current status of the investigation of hydrocarbon presence in wells P-7 and P-10?

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Engineering:

Paragraph 4.3.2 and Plate 6 present a design for the contact wastewater evaporation pits. It indicates a secondary liner of six (6) inches of compacted clay or synthetic material. The following need clarification:

1. Paragraph 4.3.2 states the secondary liner will have a one (1) foot thick layer of sand on top. Cross section A-A on Plate 6 shows this one (1) foot layer, but cross section C-C indicates only a six (6) inch layer.

2. What size (mesh) sand is to be utilized between the primary and secondary liners.

3. Plate 6 cross section A-A shows a 45 mil HDPE primary liner on the sides and a 30 mil HDPE primary liner on the bottom while cross section C-C indicates a 45 mil HDPE primary liner throughout the pit.

4. Cross section B-B does not indicate any slope to the slotted drain pipes to allow for flow to the sumps.

Final detailed plans and designs for the contact waste water evaporation ponds should incorporate the above clarification and the following additional information:

1. Applicable to either compacted clay or synthetic liner.

   a) The sand fill between the primary and secondary liner has sufficient permeability to assure rapid fluid flow to the leak detection pipes. What mesh?

   b) The slope of the drainage pipes shall be sufficient to transport the fluid to the sumps.

2. If a secondary synthetic liner is employed, the following criteria are required:

   a) the liner must be of sufficient strenth and characteristics to resist tears, punctures, cracks and degredation from hydrocarbons, salts, pH imbalance, rot or fungus.

3. If a secondary compacted clay liner is employed:

a) The slotted drain pipes and laterals shall be in sufficient numbers and placement so that all points on the pit bed are approximately 20 feet from a pipe.

b) The specifications on the clay liner will be included, volume, method of incorporation and compaction, etc.

4. A monitoring and maintenance plan shall be included to show the inspection frequency of the leak detection sumps and the levee walls. A contingency plan that outlines a procedure for making repairs in the most expeditious manner possible shall also be included.

Paragraph 3.3.3; Cleanup procedures, state any releases from the two 800 gal. lube oil tanks located on the east boundary of the storage yard would be attenuated by the earthen material in the immediate vicinity of the tanks. These two tanks should be located within a diked area capable of containing any spills resulting from a catastrophic event. The dike shall form a reservoir having a capacity one-third larger than the capacity of the enclosed tanks. Containment of any spills will not only reduce contamination possibilities, but will enhance the possibility of useable product recovery and simplify cleanup.

Paragraph 3.3.4, Reporting, states EPNG will provide NMOCD with oral notification of a material release as soon as possible. Follow-up, written notification shall also be provided to the Director of the NMOCD utilizing the Notification of Fires, Breaks, Leaks, Spills, and Blowouts form in accordance with Rule 116 of the NMOCD Rules and Regulations.

Sincerely,

David G. Boyer by R Anderson

DAVID G. BOYER
Hydrogeologist/Environmental
Bureau Chief

DGB:dp

Attachment
cc: R. L. Stamets
Frank Chaves
K. Beasley
H. Van
J. Eichelmann
H. Reiquan

El Paso
Natural Gas Company

P. O. BOX 1492
EL PASO, TEXAS 79978
PHONE: 915-541-2600

July 2, 1986

Mr. David G. Boyer
Oil Conservation Division
Energy Minerals Department
State of New Mexico
P. O. Box 2088
Santa Fe, New Mexico 87501-2088

Reference: Discharge Plan for El Paso Natural Gas Company
San Juan River Plant, GW-33

Dear Mr. Boyer:

Enclosed please find three corrected copies of Table 5-1 of the referenced plan. The copies are punched and ready for insertion into the copies provided to you.

If you have questions please contact me at 915/541-2832.

Very truly yours,

Henry Van, Ph.D.
Sr. Environmental Engineer
Environmental Affairs Department

mts
Enclosure

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

TONEY ANAYA
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501-2088
(505) 827-5800

June 27, 1986

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

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San Juan Division
El Paso Natural Gas Company
P. O. Box 4990
Farmington, N.M. 87449

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Sincerely,

David G. Boyer by R Anderson

DAVID G. BOYER
Hydrogeologist/Environmental
Bureau Chief

DGB:dp

Attachment
cc: R. L. Stamets
Frank Chaves
K. Beasley
H. Van
J. Eichelmann
H. Reiquan

El Paso
Natural Gas Company

P. O. BOX 4990
FARMINGTON, NEW MEXICO 87499
PHONE: 505-325-2841

April 30, 1986

David G. Boyer, Hydrogeologist
Oil Conservation Division
P.O. Box 2088
Land Office Building
Santa Fe, NM 87501

Dear Dave:

It was a pleasure to meet you and your staff on Tuesday. Enclosed is my card which I could not supply at the time.

I'm sure you recognize that we want to continue to cooperate with you in every way possible to assure compliance with State regulations.

We look forward to your visit up here.

Very truly yours,

EL PASO NATURAL GAS COMPANY

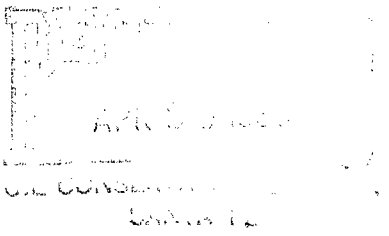
R.G. McCubbin
Superintendent, Technical Support

El Paso
Natural Gas Company

P. O. BOX 4990
FARMINGTON, NEW MEXICO 87499
PHONE: 505-325-2841

JOHN M. CRAIG, VICE PRESIDENT

April 29, 1986



Mr. Richard L. Stamets, Director
Energy and Minerals Department
Oil Conservation Division
Post Office Box 2088
Santa Fe, New Mexico 87501

Re: Discharge Plan for El Paso Natural Gas Company - San Juan River Plant

Dear Mr. Stamets:

Enclosed for your review is the completed Discharge Plan for the El Paso Natural Gas Company San Juan River Plant. The plan details proposed methods and techniques to ensure compliance with the New Mexico Water Quality Act and New Mexico Water Quality Control Commission Regulations.

El Paso respectfully requests approval of this plan and will meet with agency personnel whenever necessary should clarification or further information be required. Information requests should be directed to Kenneth E. Beasley, the Compliance Engineer for San Juan Division at (505) 325-2841, extension 2175.

Thank you for your consideration in this matter.

Very truly yours,

EL PASO NATURAL GAS COMPANY

John M. Craig
Vice President

JMC/a

Enclosure

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal	Time 10:00 AM	Date 3/19/86
Originating Party: Randy Hicks-Geoscience	Other Parties: Dave Boyer-OCD	

Subject: EPNG - San Juan Plant D.P.

Discussion: Randy called to say that the company management had rejected a d.p. that included lined ponds for high* TDS water at the site. I told him that lots of work would need to be done to demonstrate that seepage ~~to~~ to Stevens Arroyo and the Farmington Sand would not impact the alluvial aquifer down gradient. He agreed and said that they were prepared to do extensive coring, sampling and computer modeling. He asked what other types of information would be required, but I told him that I could not discuss specifics since I had never seen the site, nor was familiar with the geology. We agreed that a site visit the week of April 21 would be beneficial

Conclusions or Agreements:

Distribution: EPNG File.

Signed: David F Boyer

*TDS varies up to 21,000 mg/l

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal | Time 10:30 | Date 3/12/86

Originating Party	Other Parties
Randy Hicks - Geoscience	David Boyer OCD

Subject EPNG - San Juan Plant D.P.

Discussion Randy called to say that EPNG Env. Affairs and Geoscience had worked up a tentative plan to separate waste streams, line the evap. ponds and apply the non-organic wastewater to the EPNG Golf course. I talked to him about some of the things we would look at (off-season storage, etc.) but told him the concept sounded good.

Conclusions or Agreements

Distribution EPNG file

Signed D W Boyer

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

50 YEARS
1935 - 1985

TONEY ANAYA
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-5800

November 25, 1985

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. William F. Lorang
Manager, Environmental Engineering
Environmental Affairs Department
El Paso Natural Gas Company
P.O. Box 1492
El Paso, Texas 79978

Re: San Juan River Natural Gas Processing Plant; Extenstion of Time for Submittal of Discharge Plan

Dear Mr. Lorang:

We have received your letter dated November 22, 1985, requesting an extension of time for submittal of the discharge plan for the San Juan River natural gas processing plant. It is our understanding that you intend to submit the discharge plan by May 1, 1986. Per our conversation today, you will keep us informed regarding the work scheduled and in progress toward submittal of the discharge plan.

Pursuant to Section 3-106 A of the New Mexico Water Quality Control Commission Regulations and for good cause shown, El Paso Natural Gas Company is hereby granted its request for an extension until May 1, 1986, to submit its discharge plan for the San Juan River gas processing plant. Further, El Paso Natural Gas Company is granted approval until October 31, 1986, or the date of discharge plan approval, whichever is earlier, to discharge without an approved discharge plan. This additional time is granted to allow discharge plan review by OCD, exchange of comments, and submittal of additional clarifying information if necessary. Also, if a public hearing is needed on the proposed discharge plan, an additional extension will be granted consistent with the time frame of any public hearing.

If you have any questions or comments, please feel free to contact Dave Boyer at (505) 827-5812, or Jami Bailey at (505) 827-5884.

Sincerely,

R. L. STAMETS
Director

RLS/JB/dp

cc: OCD - Aztec Office

El Paso
Natural Gas Company

P. O. BOX 1492
EL PASO, TEXAS 79978
PHONE: 915-541-2600

November 22, 1985

Mr. R. L. Stamets,
Director
State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
State Land Office Building
Santa Fe, New Mexico 87501

Subject: Discharge Plan for San Juan River Natural Gas Processing Plant; Request for Extension of Time

Dear Mr. Stamets:

El Paso Natural Gas (El Paso) received the NMOCD notification of the requirement for filing of the subject discharge plan on August 15, 1985. Since that time, El Paso has initiated various efforts to evaluate the existing conditions at the plant so that compliance with the WQCC regulations may be demonstrated. Verbal reports of the status of El Paso's progress has been made to NMOCD staff from time to time.

A site evaluation prepared by a consultant has shown that specific geohydrologic data are simply not available. In the consultant's report dated November 8, 1985 and a subsequent proposal for additional studies dated November 14, 1985, the need for additional work is clear. This work will entail site specific investigation and should be completed by February 1986.

After the receipt of the consultant's final report, it is believed that a discharge plan can be prepared and submitted within 60 days.

It is therefore respectfully requested that an extension of time be granted until May 1, 1986.

Thank you for your consideration of this matter.

Geoscience

Very truly yours,

William F. Lorang, P.E.
Manager, Environmental Engineering
Environmental Affairs Department

mts

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

TONEY ANAYA
GOVERNOR

50 YEARS
1935 - 1985

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-5800

August 9, 1985

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79978

Attn: Mr. W. F. Lorang

Re: Discharge Plan Requirement for San Juan River Natural Gas Processing Plant.

Dear Mr. Lorang:

Under the provisions of the Water Quality Control Commission (WQCC), you are hereby notified that the filing of a discharge plan for your existing San Juan River natural gas processing plant located in Section 1, Township 29 North, Range 15 West, NMPM, San Juan County, New Mexico, is required.

This notification of discharge plan requirement is pursuant to Sections 3-104 and 3-106 of the WQCC regulations. The discharge plan defined in Section 1-101.P of the WQCC Regulations should cover all discharges of effluent or leachate at the plant site or adjacent to the plant site. A copy of the regulations is enclosed for your convenience. Also enclosed is a copy of an OCD guide to the preperation of discharge plans for gas processing plants. Four copies of your discharge plan should be submitted for review purposes.

Section 3-106.A. of the regulations requires a submittal of the discharge plan within 120 days of receipt of this notice unless an extension of this time period is sought and approved for good cause. Section 3-106.A. also allows the discharge to continue without an approved discharge plan until 240 days after written notification by the director that a discharge plan is required. An extension of this time may be sought and approved for good cause.

If there are any questions on this matter, please feel free to contact Phil Baca at 827-5884, or Dave Boyer at 827-5812, as they have the assigned responsibility for review of all discharge plans.

Sincerely,

R. L. STAMETS
Director

RLS/PB/fd
enc.

cc: OCD-Aztec

El Paso NATURAL GAS COMPANY

P. O. BOX 990
FARMINGTON, NEW MEXICO 87401

PHONE: 505-325-2841

August 9, 1985

Mr. Phil Baca
New Mexico Oil Conservation Division
P.O. Box 2088
Santa Fe, NM 87501

Dear Phil

Enclosed you will find the water analyses you requested during your visit on August 6, 1985. To show the nature of the water in the ponds, a sample was secured near the inlet and outlet of each pond. These samples are grab samples secured near the surface of the ponds.

If you require any further information please let me know.

Sincerely

Gregory C Kardos

EL PASO NATURAL GAS COMPANY
Gregory C. Kardos
Chief Division Chemist

GCK/bp

cc: J. L. Williams
K. E. Beasley
W. F. Lorang
J. W. Somerhalder
File

EL PASO NATURAL GAS COMPANY
SAN JUAN DIVISION LABORATORY
FARMINGTON, NEW MEXICO
PROCESS WATER ANALYSIS

SAMPLE NAME: SJRP NORTH INDUSTRIAL POND #1 NEAR PUMP
ANALYSIS NO.: 2-11662
DATE SECURED: AUGUST 7, 1985
SECURED BY: J. P. BARNETT

COMPONENT	SAMPLE SIZE	ml. TIT	AS CaCO3	AS ION	ppm
pH				9.1	
TOTAL ALKALINITY	25	3.4	136		
P ALKALINITY	25	.5	20		
BICARBONATE	25	2.4	96	142	2.33
CARBONATE	25	1	40	24	0.80
HYDROXIDE	25	0	0	0	0.00
CHLORIDE	25	43		1720	48.50
SULFATE				175	3.64
TOTAL HARDNESS	50	14.1	282		
CALCIUM	50	11.2	224	90	4.48
MAGNESIUM	50	2.9	58	14	1.17
IRON				ABSENT	
SODIUM (by ATOMIC ABSORPTION)				1147	49.87
CHROMIUM AS CrO4				NT	
SULFITE AS SO3				NT	
PHOSPHATE AS PO4				NT	
TOTAL DISSOLVED SOLIDS				3392	
CONDUCTIVITY AT 25C.				6400 MICROMHOS	

ALL RESULTS EXPRESSED AS PARTS PER MILLION-TRACE IS LESS THAN 0.1 ppm

cc:
J. L. WILLIAMS
J. K. THORNTON
W. F. LORANG
G. C. KARDOS
PHIL BACA - NMOCD
FILE

SANDRA ARAGON
CHEMIST GCK

GCK-11/83

EL PASO NATURAL GAS COMPANY
SAN JUAN DIVISION LABORATORY
FARMINGTON, NEW MEXICO
PROCESS WATER ANALYSIS

SAMPLE NAME: SJRP NORTH INDUSTRIAL POND #1 NEAR INLET
ANALYSIS NO.: 2-11663
SECURED BY: J. P. BARNETT
DATE SECURED: AUGUST 7, 1985

COMPONENT	SAMPLE SIZE	ml. TIT	AS CaCO3	AS ION	epm
pH				7.6	
TOTAL ALKALINITY	50	6.4	128		
P ALKALINITY	50	0	0		
BICARBONATE	50	6.4	128	156	2.56
CARBONATE	50	0	0	0	0.00
HYDROXIDE	50	0	0	0	0.00
CHLORIDE	25	32.5		1300	36.66
SULFATE				150	3.12
TOTAL HARDNESS	50	10.1	202		
CALCIUM	50	8.6	172	69	3.44
MAGNESIUM	50	1.5	30	7	0.60
IRON				ABSENT	
SODIUM (by ATOMIC ABSORPTION)				867	37.70
CHROMIUM AS CrO4				NT	
SULFITE AS SO3				NT	
PHOSPHATE AS PO4				NT	
TOTAL DISSOLVED SOLIDS				2586	
CONDUCTIVITY AT 25C.				5100 MICROMHOS	

ALL RESULTS EXPRESSED AS PARTS PER MILLION-TRACE IS LESS THAN 0.1 ppm

cc:
J. L. WILLIAMS
J. K. THORNTON
W. F. LORANG
G. C. KARDOS
PHIL BACA - NMOCD
FILE

SANDRA ARAGON
CHEMIST GCK

GCK-11/83

Sec. 1-T30-29N

Date: 8-6-85
Plant Visit: EPNG San Juan River Plant

Operation: Gas Processing
500 MMCF/D Treating 100 MMCF/d gasoline
Wastewater Effluent Sources:

- Dehydrators: Water to receiver pot then to flare pit then pumped to N. pond
- Backwash from coolers in gasoline plant to N. pond
- Water legs off still columns and accumulators to flare pit also.
- Cooling Tower Blowdown to N. pond
- Boiler B.D. to N Pond
- Water Softener to N. Pond.

Supply water from S.J. River Treated and held in pond.

Curb Stormwater collection throughout plant.

~~Cooling~~ DEA liquids to sumps then to slop tank

Solid Waste: Hauled to pit and buried

Over flow from tanks to storm gutter to open field for boiler plant & sulfur (flows north) Sulfur plant similar to Jal4 Also Tube bundle cleaning in this area.

Waste oil gathered in drums and sent to Blanco Plant

PNM Near this plant

EPNG S.J. River Plant

Raw water pond about 400 yards upgradient from wastewater pond (N. Pond)

Accumulation N. Pond receives water first then pumped to large evap. pond (several acres). Evap pond has overflow to another pond

Very silty soil

Total of three ponds ~ 24 Acres.

Some water in overflow pond

Asbestos waste put in plastic bag and buried

Oil filters put in pit and buried. All other trash to County Landfill.

EL PASO NATURAL GAS COMPANY

ENVIRONMENTAL AUDIT DATA

(Use Additional Sheets Where Necessary)

(Answers such as; not known, not to our knowledge, don't know, etc. are acceptable. No answer is better than a wrong answer.)

I. General Information

A. Date : August 3, 1982

B. Facility : San Juan River Plant

C. Division : San Juan

D. Facility Personnel

1. Name of person responsible for environmental matters Buck Manley
   a. Amount of time spent on environmental matters 25% or as needed
   b. Other responsibilities Staff Engineer

2. Name of alternate W. B. Shropshire
   a. Amount of time spent on environmental matters 50% or as needed
   b. Other responsibilities Other Federal Regulations (MES, MMS, DOT)

E. Contact Between Plant and Regulatory Authority

1. Has plant been visited by a regulatory agency(ies)? Yes
   a. What agency(ies)? See attached list
   b. When?
   c. Why? Water and air quality walk-through inspections; odor and smoke complaint investigations.

2. Has plant received notifications or other communications from regulatory agencies regarding actual or suspected noncompliance situations? No
   a. What agency(ies)?
   b. When?
   c. Why?
   d. Outcome?

3. Has plant been involved in any civil litigation? No
   a. With whom?
   b. When?
   c. Specifics?
   d. Outcome?

4. Have procedures for properly dealing with an agency inspection been reviewed at this plant? Yes; an established (7-8 year) policy procedu

F. On the attached topographic map of the facility and adjacent areas indicate the following by name commonly used at plant:

1. Buildings
2. Turbines
3. IC engines
4. Gas treating facilities
5. Gas extraction facilities
6. Gas dehydration facilities
7. Sulfur recovery unit
8. Incinerators, flares
9. Boilers
10. Heaters
11. Water Storage Tanks
12. Liquid fuel storage
13. Oil storage tanks
14. Loading racks (train and truck)
15. Chemical storage
16. Cooling towers
17. Water wells
18. Water treatment facilities
19. Cess pools and septic tanks/ drain fields
20. Disposal ponds
21. Lagoons (Reservoirs)
22. Pits
23. Injection wells
24. Brine Ponds and Handling Systems (Surge tank, pipes and pumphouse)
25. Waste discharge pipes
26. Current solid waste storage and disposal (dumps, landfills, containers, etc.)
27. Past solid waste storage disposal (dumps, landfills, containers, etc.)
28. Water bodies
29. Streams, rivers
30. Springs
31. Arroyos & gullies
32. Scrap storage
33. Drum storage
34. Transformers
35. Drip Condensate Tank
36. Sulfur Storage
37. Product Storage
38. API Separator (Not in use)
39. Fin Fans

II. Air Emissions

A. Internal Combustion Engines (compressors, auxiliaries, etc.)

Type (Cooper-Bessemer, GMV-10TF, etc.) *	:	(1)
Rated Horsepower: Sea level/site	:	/ / / 1/
Number of Similar Horsepower Units	:	
Hours of Operation/year, each*/	:	
Fuel Consumption/year, each	:	
Exhaust Stack Parameters:		

1/ How determined:
- A) Emissions factors (whose)
- B) Engineering Design
- C) Calculated/Field Measured
- D) Other (specify)

*/ If more than one, list on separate sheet

(1) See separate sheet

Stack height (ft.) [from ground]	
Stack I.D. (ft.)	
Temperature (°F)	/ / 1/
Velocity (ft./sec.)	/ /
NO_x Emissions (#/hr) ea. 2/	/ /
SO_x Emissions (#/hr) ea. 2/	/ /

B. Gas Fueled Turbines

Type (GE Frame 5, etc.)	(1)
Rated Horsepower: Sea level/site/nameplate	/ / / 1/
Number of Similar Horsepower Units	
Hours of Operation/year, ea.	
Fuel Consumption/year, ea.	
Exhaust Stack Parameters:	
Stack height (ft.)	
Stack outlet I.D. (ft.)	
Temperature (°F)	/ / 1/
Velocity (ft./sec.)	/ /
NO_x Emissions (Wgt/time) ea. 2/	/ /
SO_x Emissions (Wgt/time) ea. 2/	/ /

C. Gas Fueled Heaters

Type (Feed heaters, reboilers, etc.)	(1)
Duty (BTU's/hr)	
Number of similar duty units	
Fuel gas consumption/year ea.	
Stack Parameters:	
Stack height (ft.) [from ground]	
Stack I.D. (ft.)	
Flue Gas: Temperature (°F)	/ / 1/
Velocity (ft./sec.)	/ /
NO_x Emissions (wgt/time) ea. 2/	/ /
SO_x Emissions (wgt/time) ea. 2/	/ /

D. Boilers

Type (Direct Fired, waste heat, etc.)	(1)
Size (#/hr rating)	
Number of similar size units	
Fuel gas consumption/year ea.	
Stack Parameters:	
Stack height (ft.) [from ground]	
Stack I.D. (ft.)	
Flue Gas: Temperature (°F)	/ / 1/
Velocity (ft/sec)	/ /
NO_x Emissions (wgt/time) ea. 2/	/ /
SO_x Emissions (wgt/time) ea. 2/	/ /

1/ Ibid
2/ If available
(1) See separate sheet

E. Other Pollutant Emitting Facilities (flares, incinerators 3/, burn pits, sulphur plants, etc.; visible and nonvisible emissions; fugitive dust)

Type: (Describe Fully) Sulfur Pit Acid Gas Incinerator
Size :
Number of similar size units :
If burn pit:

What is burned? "B" Treating Plant Acid Gas; Sulfur Plant Tail gas
How often? Continuous
Permitted or approved? Yes
By whom?
In writing? (attach copy)

Fuel gas consumption/year ea. Basis June-Dec. 1981 : 74560 MCF/Yr
Stack Parameters: Avg. : 7.26 MCF/HR

Stack height (ft.) [from ground]	:	195'
Stack I.D. (ft.)	:	3.5'
Stack Gas: Temperature (°F)	:	1100 / / 1/
Velocity (ft./sec.)	:	41.5 / /
NO_x Emissions (wgt/time) ea. 2/	:	7.13 T/Yr. / /
SO_x Emissions (wgt/time) ea. 2/	:	17.10 T/Yr. / /
Visible Emissions (smoke, etc)	:	None
Continuous	:	
Intermittent	:	

Odors (description)

F. Comments

G. List each air permit held by the facility and attach a copy.

H. What is the frequency of monitoring of emissions for each of the above sources? Sulfur in tail gas logged each hr. Additional sulfur from "B" Treating Plant daily by lab.

1. Who monitors? Operators and lab technicians
2. What method is used? DuPont analyzer - Tutwiler
3. Where is monitoring data maintained? Plant and Division Office
4. Is monitoring required by a State Agency or EPA? Direct monitoring of the stack has not been required.

I. Are modifications planned for the facility? If so, what are they? Quarterly report to State shows sulfur recovery as % of inlet Sulfur and confirms conformance to New Mexico Regulations.

1/ Ibid
2/ Ibid
3/ If with SRU's, SRU sulfur throughput, tail gas composition or sulfur concentration in tail gas (on separate sheet if necessary).

E. Other Pollutant Emitting Facilities (flares, incinerators 3/, burn pits, sulphur plants, etc.; visible and nonvisible emissions; fugitive dust)

Type: (Describe Fully) North Burn Pit
Size :
Number of similar size units :
If burn pit:

What is burned? Hydrocarbon - Barker Dome & Aneth Inlet Scrubber Dump, Gas, Some liquid from pigging Aneth Line.
How often?
Permitted or approved?
By whom?
In writing? (attach copy)

Fuel gas consumption/year ea. Avg. 1.71 MCF/Hr 14871 MCF
Stack Parameters:

Stack height (ft.) [from ground]	:	
Stack I.D. (ft.)	:	
Stack Gas: Temperature (°F)	:	/ / 1/
Velocity (ft./sec.)	:	/ /
NO_x Emissions (wgt/time) ea. 2/	:	/ /
SO_x Emissions (wgt/time) ea. 2/	:	/ /
Visible Emissions (smoke, etc):		
Continuous	:	
Intermittent	:	Smoke

Odors (description)

F. Comments

G. List each air permit held by the facility and attach a copy.

H. What is the frequency of monitoring of emissions for each of the above sources?

1. Who monitors? Operators monitor and report
2. What method is used? Dispatcher
3. Where is monitoring data maintained? Dispatcher and Plant Logs
4. Is monitoring required by a State Agency or EPA?

I. Are modifications planned for the facility? If so, what are they?
None Planned

1/ Ibid
2/ Ibid
3/ If with SRU's, SRU sulfur throughput, tail gas composition or sulfur concentration in tail gas (on separate sheet if necessary)

E. Other Pollutant Emitting Facilities (flares, incinerators 3/, burn pits, sulphur plants, etc.; visible and nonvisible emissions; fugitive dust)

Type: (Describe Fully) Emergency Acid Gas Flare
Size : 24" J. Zink Burner
Number of similar size units : 1
If burn pit:

What is burned? _____
How often? _____
Permitted or approved? _____
By whom? _____
In writing? (attach copy) _____

Fuel gas consumption/year ea. : A. G. Flare fuel is metered in common with the sulfur plant tail gas incinerator fuel.
Stack Parameters:

Stack height (ft.) [from ground]	:	132 + 160*
Stack I.D. (ft.)	:	2'
Stack Gas: Temperature (°F)	:	Unknown/ / / 1
Velocity (ft./sec.)	:	Unknown / /
NO_x Emissions (wgt/time) ea. 2/	:	/ /
SO_x Emissions (wgt/time) ea. 2/	:	/ /
Visible Emissions (smoke, etc)	:	None
Continuous	:	
Intermittent	:	

Odors (description) _____

F. Comments Flare used if sulfur plant emergency outage occurs. Infrequent use occurs.

G. List each air permit held by the facility and attach a copy. _____

H. What is the frequency of monitoring of emissions for each of the above sources? Operator log and written report is submitted each occurrence.
1. Who monitors? _____
2. What method is used? S_2 content of acid gas determined daily w/ Tutwiler
3. Where is monitoring data maintained? Plant and Division Office
4. Is monitoring required by a State Agency or EPA? Yes, of S_2 bearing plant inlet stream

I. Are modifications planned for the facility? If so, what are they? None planned

1/ Ibid
2/ Ibid
3/ If with SRU's, SRU sulfur throughput, tail gas composition or sulfur concentration in tail gas (on separate sheet if necessary).
* Located on hill 160' above surrounding terrain.

E. Other Pollutant Emitting Facilities (flares, incinerators 3/, burn pits, sulphur plants, etc.; visible and nonvisible emissions; fugitive dust)

Type: (Describe Fully) South burn pit
Size :
Number of similar size units :
If burn pit:

What is burned? Hydrocarbons
How often? Depends on operating conditions
Permitted or approved?
By whom?
In writing? (attach copy)

Fuel gas consumption/year ea. (1981) : 19567 MCF, Avg 2.23 MCF/Hr.
Stack Parameters:

Stack height (ft.) [from ground]	:	
Stack I.D. (ft.)	:	
Stack Gas: Temperature (°F)	:	/ / 1/
Velocity (ft./sec.)	:	/ /
NO_x Emissions (wgt/time) ea. 2/	:	/ /
SO_x Emissions (wgt/time) ea. 2/	:	/ /
Visible Emissions (smoke, etc)	:	
Continuous	:	
Intermittent	:	(Smoke)

Odors (description) None

F. Comments

G. List each air permit held by the facility and attach a copy.

H. What is the frequency of monitoring of emissions for each of the above sources?

1. Who monitors? Operator reports to dispatcher
2. What method is used?
3. Where is monitoring data maintained? Dispatcher and Plant Log
4. Is monitoring required by a State Agency or EPA?

I. Are modifications planned for the facility? If so, what are they?
None planned

1/ Ibid
2/ Ibid
3/ If with SRU's, SRU sulfur throughput, tail gas composition or sulfur concentration in tail gas (on separate sheet if necessary.)

III. Wastewater Effluent

A. Types of Wastewater

Checklist		Yes	No	Quantity/Unit Time	
1. Cooling Tower Blowdown	:	X		35,500 GPD	/ A/ 4/
2. Boiler Blowdown	:	X		29,300 GPD	/ A/
3. Water Treater Backwash & Rinse	:	X		29,900 GPD	/ /
4. API Pit (not in Use)	:	X			/ /
5. Domestic Waste	:	X		12,300 GPD	/B /
6. Graywater	:				/ /
7. Hydrotest	:				/ /
8. Other (describe) _____	:				/ /

B. How stored or disposed of (pond, etc.; if pond indicate whether lined or not; on-site or off-site)

1. Cooling Tower Blowdown		:	Industrial Pond - Unlined
2. Boiler Blowdown	24.23A	:	Industrial Pond - Unlined
3. Water Treater Backwash & Rinse		:	Industrial Pond - Unlined
4. API Pit		:	Not operating
5. Domestic Waste	.661 Acres Plant	:	Leachfield & Ponds -Unlined
6. Graywater	Wash Rack	:	To industrial Pond
7. Hydrotest		:	
8. Other (describe) _____		:	

C. Have Waste Flows Been Characterized? (pH, temperature, etc.) If yes, circle number corresponding to flow in Section III A and attach analysis.

Individual Pollutants (in mg/l, ppm. #day, etc.)

1. pH	1/ 2/ 3/ 4/ 5/ 6/ 7/ 8
2. Temperature (°F)	1/ 2/ 3/ 4/ 5/ 6/ 7/ 8
3. BOD	1/ 2/ 3/ 4/ 5/ 6/ 7/ 8
4. COD	1/ 2/ 3/ 4/ 5/ 6/ 7/ 8
5. Disposal System schematics available	1/ 2/ 3/ 4/ 5/ 6/ 7/ 8

6. Who does sampling? Plant Laboratory Attendant

   a. Method? Grab samples/ pH meter
   b. Frequency? Daily

7. Who does analysis? What methods are used? Plant Lab Attendants
   a. Nature of reporting? Daily water test: FM-23-0329
   b. Where are records kept? At plant and lab. All wastewaters checked annually for trace metals.

8. Attach results of any extraction procedure toxicity tests.
   N/A (only at Aneth) M. A. Manley has toxicity data

D. Any Other Special Method for Disposing of Water? No
If so, describe fully: _____

4/ How Determined:
- A) Measured
- B) Estimated
- C) Engineering Design
- D) Other

E. Does Disposal Method(s) have a Permit(s) and from what Agency(ies)? (Attach copy).
Don't believe permit is required because of annual NMEID survey.

F. Any NPDES point sources (discharge pipes, etc.) not identified above?
No; Plant is approximately two miles from the river

1. Identify
2. Permit available or applied for?
(If yes, attach copy)

G. Storage/Disposal

1.	Type (pits, ponds, tanks, etc.)	: Ponds - Industrial/Domestic
2.	Capacity	: 24.23 AC/0.661 AC
	Surface Volume	: 116.2 AC.FT/ 2.64 AC. FT.
3.	Retention Time (Other than unlined ponds)	: Unlined/Unlined
4.	Construction Material	: Dirt/Dirt
5.	Odors	: None/slight
6.	Visible Hydrocarbons	: None/None
7.	Condition of Berms and Liners	: /Needs dirt work on dike of southeast pond

H. Active or Inactive Wells on Property? :
If so, describe: No disposal wells

I. Overall Plant Wastewater Knowledge

1. Number of plant employees involved: Key personnel in each area plus Technical Services
2. Are they trained? Yes
   a. By whom? On the job training
   b. Subject matter of training? Operation of equipment
   c. How frequent is the training? As needed
3. Any employees with State certification? 1 in Division
   If so, list: John L. Allison, NMEID Wastewater III Certificate, Water Chemist

J. Comments: No scheduled training; Allison, water chemist and certified wastewater plant operator, helps plant personnel troubleshoot and correct wastewater problems.

K. List all points at the facility where waste water is discharged into a surface body of water, if any, including intermittent streams. 5/
N/A

1. Locate each such body of water on the topographic map of the facility.

L. Provide a copy of all wastewater information (monitoring), if any, for the last year.

5/ An intermittent stream is one that flows at least part of each year.

M. Is any of the waste water treated prior to being stored, or treated while being stored? Describe. Hexavalent chromium is reduced in the bottoms of the industrial ponds by H_2S in septic bottom action

N. Are the waste water streams mixed with other substances? No
Describe

O. Is the facility near a lake, natural pond, river, stream, or intermittent stream? Two miles from the San Juan River

IV. Solid Wastes 6/ (other than waste water)

A. Potential Wastes and Discharges

1. Potentially Hazardous Substances Check List

		Yes	No	
____	a	X	____	Transformers/Capacitors
____	b	X	____	Pesticide/Herbicide Storage and Use
____	c	X	____	Gasoline, Diesel, or Aviation Fuel
____	d	X	____	Oil Storage (used or new)
____	e	X	____	Distillates, Other Hydrocarbon or Bulk Products (blowdowns, drips, pigging, etc.)
____	f	X	____	Heat Transfer Fluids (heater-treaters, etc.) PCBs, Ambitrol, Dowtherm
____	g	____	X	Hydraulic Fluids Stored
____	h	X	____	Dehydration Material (spent beads, etc.)
____	i	____	X	Pickling Operations
____	j	____	X	Tank bottoms and Sludges
____	k	____	X	Tank Washings
____	l	X	____	Insulation and Fireproofing Materials (asbestos, etc.)
____	m	X	____	Corrosion Inhibitors
____	n	X	____	Filter Mediums/Filters
____	o	____	X	Drilling Muds with Heavy Metals or Other Toxic Additives
____	p	X	____	Solvents and Other Chemicals (i/e/. degreasers, acids, water treatment, cleaning chemicals, emulsifiers, etc.)
____	q	____	X	Spills or Leaks of Hazardous Materials
____	r	____	X	Chemical Landfills on Property
____	s	X	____	Other Potentially Hazardous Substances (odorants)
____	t	X	____	Existing Hazardous Waste Permits (generator number, manifest, etc.)

2. Solid Waste 6/

		Yes	No	
____	a	X*	____	Discarded Drums, Drum Liners, Paint Cans, and Other Containers
____	b	____	X	Paper and Plastic Waste

6/ Solid, Liquid, Semi-solid or Contained Gaseous Material Which:
1) Is discarded,
2) Has served its intended purpose, or
3) Is a processing by-product.

* Rinsed three times and returned to Division Warehouse

___ c	___	X	Garbage or other Solid Waste (on and offshore)
___ d	___	X	Active Solid Waste Landfills or Garbage Dumps on Property
___ e	___	X	Inactive Solid Waste Landfills or Garbage Dumps on Property
___ f	___	X*	Existing Solid Waste Permits

B. Identify All Wastes Accumulated or Generated. (On and Off-site)

1. Characterize as to domestic, spent catalyst (identify), catalyst beds, empty drums, used oil, etc. (Indicate amounts if known). 1) Domestic 2) Refer back to A1 and A2
2. Location(s). 1) Active landfill
3. Volume. 1) Unknown 2) Unknown
4. Is the waste mixed with other wastes? _____
5. Is the waste treated? No
6. Are any of the wastes reused or recycled? Used oil made into kerosene at Blanco. Drums reused for alcohol in the field.

C. Storage or Disposal Method For those listed in "B" above.

1. 1) Picked up semi-weekly 2) To county landfill
2. Spent catalyst, non-toxic aluminum oxide, spread on road and in plant area.
3. _____
4. Is there any open burning of these wastes? No
5. If so, give specifics: _____

D. If Stored or Disposed On Company Property:

1. Where? Drums temporarily stored
2. Has a permit been obtained from a regulatory agency? N/A
   Which Agency? _____
   Attach a copy.
3. Have any tests been conducted to determine what chemicals would leach from the wastes as a result of rainfall? N/A
4. Where would the leachate go? (into the ground, into a ditch, etc.) N/A
5. Disposal Schedule: (Daily, weekly, etc.) _____

E. If Disposed of Off Company Property:

1. Where? County landfill located approximately 1/2 mile NE of plant
2. Schedule: (Daily, weekly, etc.) Twice weekly
3. By whom? (Plant personnel, contractor) Plant personnel
4. If by Contractor, does Contract Exist? N/A
   Attach a copy.
5. Type of Disposal Facility: (Municipal, County, etc.) County
6. Permit Status of Facility: unknown (Believed to be permitted)
7. Permit Status of Hauler: None
8. Does plant have procedure for issuance of manifests for transport of hazardous waste? Yes
9. Are records retained on wastes transported off site? No, but because plant supervision has interest in the landfill they try to keep close watch/control as to what is actually put into it.

---

* None required

F. Overall Plant Solid Waste Knowledge:

1. Number of plant persons involved: Key personnel plus Tech Ops
2. Are they trained? Yes
   a. By whom? On the job training
   b. Subject matter of training? Disposal area locations
   c. How frequent is the training? As needed
3. Any employees with State certification? No
   If so, list:

G. Has the site been inventoried for hazardous wastes? Yes

H. Comments:

I. Hazardous Substances Storage*

1. Transformers/Capacitors (PCB's)

   a. Company Owned Yes Company Serviced Yes
   b. Number 5 locations Age 20+ years
   c. Capacity
   d. Tested for PCB's Yes When 1982 Spills or Leaks Yes
   e. Comments

2. Pesticide/Herbicide Storage and Use*

   a. Herbicides 1) Pesticides 2) Rodenticides No
   b. Trade Name 1) Urebor 2) ML 57
   c. Storage 1) Garden Shack 2) On oil dock Volumes 1) Two 20 lb. containers
      2) One 55 gallon drum
      Use 1) Weed Killer 2) Insects
      Active Ingredient 1) ? 2) Malathion
   d. Comments Handled by three plant personnel; none certified.

3. Gasoline, Diesel, or Other Fuel*

   a. Material Gasoline Number of Tanks 1
   b. Capacity Each Tank 500 gallon tank
   c. Above/Below Ground Above
   d. Dike Capacity (drain?) No
   e. Vented SPCC Plan No 1/
   f. Comments Used for welding machines, etc.

* If more than one, list on separate sheet using same format

1/ Not applicable to this plant. Audited by EPA five years ago.

4. Oil Storage* See attachment

a. New _____ Number of Tanks _____
b. Manufacturer _____
c. Capacity Each Tank _____
d. Above/Below Ground _____ Dike Capacity (drain?) _____
e. Disposition _____
f. SPCC Plan _____
g. Comments _____

a. Used _____ Number of Tanks _____
b. Manufacturer _____
c. Capacity Each Tank _____
d. Above/Below Ground _____ Dike Capacity (drain?) _____
e. Disposition _____
f. Comments _____

5. Distillates, Other Hydrocarbon, (i.e., LPG) or Bulk Products* See Attachment

a. Material _____ Storage(in line?) _____
b. Storage Capacity _____
c. Above/Below Ground _____ Dike Capacity (Drain?) _____
d. Disposition _____
e. Origin _____ SPCC Plan _____
f. Brine Pond capacity _____

6. Heat Transfer Fluids Stored*

a. Brand Name Ambitrol
b. Use Antifreeze Quantity _____
c. Storage 15b on aerial photo
d. Manufacturer Union Carbide
e. Tested for PCB's (When?) N/A Results _____
f. Spills or Leaks Closed system
g. Disposition Not disposed of

7. Hydraulic Fluids*

a. Brand Name None Quantity _____
b. Storage _____ Disposition _____

8. Dehydration Material*

a. Type Dry Bed 1) Silica Gel; 2) Mol Sieve
b. Quantity 1) 25,000 lbs 2)? Disposition 1) Will have 70,000 # for dumping on plant dirt roads.

* If more than one, list on separate page using same format.

9. Pickling Operations*

a. Type of Pickling None
b. Process Chemicals
c. Quantity Disposition

10. Tank Bottoms and Sludges*

a. Type Material None
b. Quantity Disposition
c. Frequency

11. Tank and Truck Washing*

a. Type None
b. Cleaner Used
c. Quantity (est). Disposition
d. Comments

12. Insulation and Fireproofing Materials*

a. Type Material Boiler mud & pipe covering
b. Quantity Disposition Insulators carry it off
c. Comments Stored in water treater building

13. Corrosion Inhibitors*

a. Brand Name 1) Chromine T 2) Corless 130
b. Use 1) CT 2) Steam Quantity 1) 1500 gal 2)
c. Storage Manufacturer Continental Products
d. Active Ingredient 1) Sodium Bi Chromate 40% 2) Filming Amine
e. Disposal Method 1) 2) Industrial waste pond
f. Comments

14. Filter Mediums*

a. Type Paper cartridge Number ?
b. Changeout Frequency Based on analysis
c. Disposition Burned at county landfill by plant personnel.

15. Drilling Muds with Heavy Metals or Other Toxic Additives

a. Type N/A
b. Additive Package
c. Disposition
d. Permit Date

* If more than one, list on separate page using same format.

16. Solvents and Other Cleaning Chemicals*

a. Type Varsol Brand Name Exxon
b. Use Parts Cleaning Quantity 500 gal. storage
c. Storage 15g on aerial photo
d. Manufacturer Exxon
e. Active Ingredient Kerosene
f. Disposition Wear it out

17. Spills or Leaks of Hazardous Materials*

a. Substance No Quantity
b. Where Date
c. By Whom Action
d. Notification

18. Chemical Landfills on Property*

a. Type Usage No
b. Chemicals Type
c. Duration Permitted? Yes No
d. Location
e. Comments

19. Other Potentially Hazardous Substances*

a. Type Algaecide Brand Name Toxene 35
b. Use In cooling towers Quantity 260 gal/yr.
c. Storage In water treater building chemical storeroom
Manufacturer Continental Products of Texas
d. Active Ingredient See attachment
e. Disposition Used up in cooling towers on recommended feed schedule; drums to be rinsed three times with water and returned to Division Warehouse. EPA Reg. No. 9386-4-12471.

19. Other Potentially Hazardous Substances*

a. Type Bactericide Brand Name Toxsene 37
b. Use In cooling towers Quantity 250 gal/yr.
c. Storage In water treater building chemical storeroom
Manufacturer Continental Products of Texas
d. Active Ingredient Methylene bis (thyocyenate) 10%
Disposition Used up in cooling towers on recommended feed schedule; drums to be rinsed 3 times with water and returned to Division Warenouse. EPA Reg. No. 9386-4-12471

* If more than one, list on separate sheet using same format.

19. Other Potentially Hazardous Substances*

a. Type Microbiocide Brand Name Toxsene 39
b. Use In cooling towers Quantity 260 gal/yr.
c. Storage In water treater building chemical storeroom
Manufacturer Continental Products of Texas
d. Active Ingredient See attachment
e. Disposition Used up in cooling tower on recommended feed schedule; drums to be rinsed 3 times with water and returned to division Warehouse

19. Other Potentially Hazardous Substances*

a. Type 66° B' H_2SO_4 Name Concentrated Sulfuric Acid
b. Use To neutralize alkalinity in cooling tower water
Quantity 2930 gal. in 1981 –
c. Storage In three steel acid tanks near "B" Cooling Tower Pump House
Manufacturer
d. Active Ingredient H_2SO_4 93% approx.
e. Disposition Fed into cooling towers' basins by metering pumps controlled by UNILOC pH meters.

19. Other Potentially Hazardous Substances*

a. Type $AL_2(SO_4)_3$ Brand Name Alum.
b. Use water treatment, coagulant Quantity 2600# in 1981
c. Storage In water treater building chemical storeroom
Manufacturer
d. Active Ingredient $AL_2(SO_4)_3$, Aluminum Sulfate
e. Disposition Mixed with water; solution fed by metering pump into Accelerator.

19. Other Potentially Hazardous Substances*

a. Type Caustic Name Caustic soda
b. Use To raise pH of boiler water Quantity 8050 # in 1981
c. Storage Water Treater Building - chemical storeroom
Manufacturer
d. Active Ingredient Sodium Hydroxide, No OH
e. Disposition Mixed with water; solution fed into boiler water by metering pump, manually controlled

19. Other Potentially Hazardous Substances*

a. Type Amine - Piperazine Brand Name Corless 130
b. Use To protect steam & Condensate Lines Quantity 825 gal. in 1981
c. Storage Water Treater Building - chemical storeroom
Manufacturer Continental Products of Texas
d. Active Ingredient Amino Ethyl Piperazine, $NH C_2 H_4 C_6 H_8$
e. Disposition Mixed with water; solution fed into boiler feed water by metering pump; manually controlled.

* If more than one, list on separate sheet using same format.

19. Other Potentially Hazardous Substances*

a. Type Reducer Brand Name DEOX-21
b. Use Scavenge oxygen from boiler water Quantity 2800# in 1981
c. Storage Water Treater Building - chemical storeroom Manufacturer Continental Products of Texas
d. Active Ingredient Sodium Sulfite Na_2SO_3
e. Disposition Mixed with water; solution fed into boiler feed water by metering pump, manually controlled.

19. Other Potentially Hazardous Substances*

a. Type Phosphate Brand Name Hymol - 82
b. Use Precipitate hardness from boiler water Quantity 1100 gal. in 1981
c. Storage Water Treater Building - chemical storeroom Manufacturer Continental Products of Texas
d. Active Ingredient Sodium Phosphate, $Na_x(PO_3)x$
e. Disposition Mixed with water; solution fed into boiler feed water by metering pump, manually controlled

19. Other Potentially Hazardous Substances*

a. Type Amine, neutralizing Brand Name Corless 202
b. Use To protect condensate lines Quantity 550 gal. in 1981
c. Storage Water Treater Building - chemical storeroom Manufacturer Continental Prod. of Texas
d. Active Ingredient Morpholine, $O\ C_4\ H_9\ N$
e. Disposition Mixed with water; solution fed into condensate lines by metering pump, manually controlled

19. Other Potentially Hazardous Substances*

a. Type Oxidizer Chemical Name Chlorine
b. Use To sterilize potable water Quantity 180# in 1981
c. Storage North side of water treater building near gas chlorinator Manufacturer
d. Active Ingredient Chlorine Gas
e. Disposition Fed thru gas chlorinator into domestic booster pump section for pre chlorination before filtration

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* If more than one, list on separate sheet using same format.

19. Other Potentially Hazardous Substances*

a. Type Acrylic Polymer Chemical Name Hydrochem D-100
b. Use To disperse suspended solids Quantity 825 gallons in 1981
c. Storage Water Treater Building - chemical storeroom
Manufacturer Continental Products of Texas
d. Active Ingredient Sodium Acrylamide
e. Disposition Batch fed into cooling tower basins as antifoulant for improving heat exchange in coolers.

19. Other Potentially Hazardous Substances*

a. Type Amine Brand Name Quest 40
b. Use To sequester hardness Quantity 60 gal. in 1981
c. Storage Water treater building - chemical storeroom
Manufacturer Continental Products of Texas
d. Active Ingredient Sodium salt of Nitrilo Tri Acetic Acid
e. Disposition Mixed with water and lubricated into closed system to prevent scaling should hardness get into cooling system.

19. Other Potentially Hazardous Substances*

a. Type Anodic inhibitor Brand Name Chromine-T
b. Use Open & closed cooling systems Quantity 1540 gal. in 1981
c. Storage Dock south of shop
Manufacturer Continental Products of Texas
d. Active Ingredient Sodium BiChromate, $Na_2Cr_2O_7$, 40%
e. Disposition Fed by metering pump (Uniloc controlled) into cooling tower basins; lubricated into closed cooling water systems.

V. Potable Water

A. Source of Supply

1. Company or other: Animas River and SanJuan River
2. If wells, how many, how deep, (bottom hole) when drilled, static /pumping) etc. N/A. Quality
3. If other, are contracts available? N/A
4. Any special provisions? (Describe) N/A
5. System metered? Yes Quantity 49,192,000 Gal. in 1981

B. Quality

1. Analyzed to meet State/Federal requirements? State/ Federal
2. Chemical Analysis:
   a. Date of most recent test: June 8, 1982
   b. Copy of analysis available? (Please attach) See attachment
      1. Routine chemical analyses daily by Plant Lab attendant and a minimum of once per year by San Juan Division Lab and a minimum of twice per year by Continental Products of Texas. See sheets attached.

      2. Annual trace metals, nitrates and fluorides analyzed by EAD labs in Albuquerque, New Mexico.

3. Annual radio activity analysis by Eberline of Albuquerque, New Mexico.

4. Annual pesticides analysis by Anachem of Albuquerque, New Mexico.

5. See sheets attached for copies of analyses.

3. Bacteriological Analysis:
   a. Sampling schedule: On the Wednesday following the second Tuesday of each month
      1) By whom? Plant lab attendant
      2) Where analyzed? NTUA Lab in Ft. Defiance, Arizona
      3) Latest copy available? (Please attach) See attachments
4. Radiological:

   a. Date of most recent test: June 19, 1982 (See attachment)
   b. Copy of analysis available? Not available

5. Compliance violations? None
   a. What agency?
   b. When?
   c. Specifics?
   d. Outcome?
6. Complaints (odors, taste, other): No

C. Treatment (Potable Water Only)

1. What types of treatment? Filtration and Chlorination
2. Equipment working/verification method? Turbidity & chlorine analysis
3. Is drinking water analyzed? Yes Frequency: Daily
4. Who analyzes? Plant Lab Attendant What method? *
5. Is there analyses documentation? Yes Where? Division Lab

   * Turbidity, nephelo-metric method; chlorine, DPD free chlorine, colorometric method.

D. Drinking Water System Certified? N/A, NMEID Community Water System Survey Attached

1. Copy of certification available (Please attach)
2. Water system operator's title: N/A

E. Number of Service Connections / persons served: 49 / 135 to 145
   1. Company
      a. Drawings of system available? Included in environmental survey
      b. System metered Yes Quantity 49,192,000 gallons in 1981
   2. Non-Company
      a. Drawings of system available? N/A
      b. System metered Quantity

F. Overall Drinking Water System Knowledge:

1. Number of plant employees involved: 2 lab attendants
2. Are they trained? Yes
   a. By whom? Division Lab
   b. Subject matter of training? Water analysis
   c. How frequent is the training? Annually if cross check shows variance

3. Any employees with State certification? One in Division
If so, list: John L. Allison, Water Chemist, NMEID Water IV Certificate
See attachments.

G. Provide a summary of all potable water monitoring reports, for the past year.

VI. Oil Spill Contingency

A. Does the facility have oil storage tanks? Yes

B. Could the facility, due to its location, discharge oil into or upon the navigable waters of the United States? 7/ No

1. If yes:
   a. Does the facility have an oil spill contingency plan? Not required
   b. Where located? Division Office
   c. When was plan last updated? 1981, then every 3 years
   d. Are plant employees knowledgeable of the plan?
   e. Have there been any spills where the plan was activited?

2. Are the storage tanks diked? Condensate tanks outside of plant are dyked.
   a. Does the diked containment area provide for the capacity of the largest single tank plus sufficient allowance for precipitation?

3. Do diked areas have drains with valves? No
   a. What type valves?
   b. Are valves normally left open or closed?

4. What provisions are made to control an oil spill once it occurs?
Operations is trained and equipped for immediate response
5. What kind of training has been undertaken to implement the plan? N/A
6. What equipment is available to implement the plan? All available on hand
7. What are the reporting procedures in the event of an oil spill?
To dispatcher, to main office where standard procedure is established.
Failure report follow-up

C. Are there other storage tanks on the site? Yes

1. Where located? See aerial photo
2. Types of liquids stored in the tanks?
3. Are these tanks contained within a diked area?

VII. Superfund Reporting Requirements

A. Has the plant been inventoried for hazardous substances? Yes

B. Which, if any, of the substances on the attached Superfund list are present at the plant? None

1. If so:
   a. How much?
   b. How are they stored?

7/ Navigable waters include all tributaries, which flow at least part of each year, to all streams and rivers.

c. How are they disposed of? Industrial Pond

d. Is plant management aware of reporting requirements for hazardous substances spills? _____

e. Identify reporting requirements in effect at the facility.

_____

_____

C. List all spills of any hazardous substance on the Superfund list of a reportable quantity within the past year. None

1. Were they reported? _____
2. What are the reporting procedures for spills? _____

_____

3. What are the clean up procedures for spills? _____

D. List all closed waste storage and/or disposal facilities on the facility premises, near the facility premises, or used by the facility in the past. No

1. Surface impoundments and ponds. _____
2. Cess pools and septic tanks. _____
3. Dumps and landfills. _____

VIII. Other

A. Housekeeping	Poor 8/	Good	Excellent
1. Water Treater		X	
2. Boiler Room		X	
3. Cooling Towers		X	
4. Pump Rooms		X	
5. Storage Area			
6. Disposal Area			
7. Other (specify) _____			

B. Are there fences and/or signs at the following?

	Fence		Signs	
	Yes	No	Yes	No
1. Ponds Domestic:	X		X	
Industrial:		X		X
2. Pits :		X		X
3. Chemical Drum Storage :		X		X
4. Disposal Areas :		X		X

8/ Describe on a separate page.

C. Has plant been monitored for noise? Yes

1. By whom? Safety Department and Main Office Engineering
2. When? Late 1981
3. Specifics? Plant monitored for new additions
4. Have there been any complaints? No
5. If known, what is the highest decibel level at:
   a. the facility?
   b. the perimeter of the facility?
   c. the nearest public road?
   d. each building within 1/2 mile of the facility?

D. Underground Injection N/A

1. List all active and inactive underground injection wells and test holes:
   a. on the facility premises:
   b. used by the facility:
   c. within one mile of the facility premises or used by others:

2. Locate each on the topographic map.
3. Is a state permit in existence for each? (Attach a copy)
4. Have any applications been disapproved?
5. Have any permits been revoked?
6. Have any variances been obtained?
7. Provide a copy of each quarterly report on each well for the past year.

E. Does the facility discharge any effluent into a Publicly Owned Treatment Works ("POTW")9/ or are there any plans to do so? N/A

1. Is waste oil disposed of through the POTW?
   a. Reused?
   b. Other?
2. Are "slug" discharges avoided?
3. Are there local or state rules for the POTW? Are they being complied with?

F. Is there any evidence of any groundwater contamination at or from the facility? No, no known water wells in area.

1. List all known water wells within one mile of the facility and show approximate location on the topographic map. None known or aware of in area

9/ POTW: State or city owned sewage treatment works involved in the storage, treatment, recycling, and reclamation of municipal sewage or liquid industrial waste.

Questionnaire completed by: E. F. Smythe

T. M. Sawyer

San Juan Div. Tech. Ops.

El Paso
Natural Gas Company

P. O. BOX 1492
EL PASO, TEXAS 79978

PHONE: 915-541-2600

July 20, 1983

U.S. Environmental Protection Agency
Region VI
1201 Elm Street
InterFirst Two Building
Dallas, Tx 75270

Attention: Ms. Sheryl Fought (6AW-HE)

Reference: El Paso Natural Gas Facilities - New Mexico

Dear Ms. Fought:

With respect to the Section 3007 information request received by El Paso Natural Gas Company from EPA on June 20, 1983, El Paso wishes to advise EPA that it believes that the requested data and responses are protected against disclosure by certain legal privileges. However, because El Paso desires to cooperate with EPA in this matter, it is providing the enclosed data and responses as requested.

Because of El Paso's wish to be as responsive as possible and of the time available to develop and assemble this material, some of it has not yet been verified. Every effort has been made to ensure its consistency and accuracy but it is possible that minor inaccuracies or unintended omissions will yet be found. If so, we will notify you of any necessary corrections.

El Paso has consistently and conscientiously attempted to comply fully with all applicable regulations relating to hazardous wastes; our analyses have conformed to EPA prescribed procedures. El Paso believes that our facilities do not generate, treat or dispose of hazardous wastes and are therefore not subject to the provisions of the Resource Conservation and Recovery Act. Moreover, even if that Act should apply, El Paso remains convinced that our facilities are exempted by the oil and gas production exemption and other exemption provisions of the Resource Conservation and Recovery Act.

The attached responses to EPA's request are organized in chronological order. Those which entail relatively voluminous reports or data refer to exhibits which are appended.

Should you require further clarification, please contact me.

Sincerely,

H Reiquam

Howard Reiquam, Ph.D.
Director
Environmental Affairs Department

HR:jb
Attachment

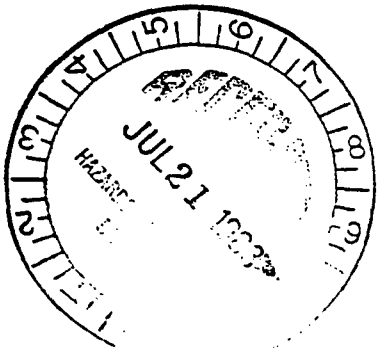
Responses to Environmental Protection Agency
Letter Received June 20, 1983

Question 1. Submit completed copies of the internal EPNG Environmental Audit Data Sheets for each of the referenced facilities appearing on Enclosure #1. Submit copies of the originals of the Environmental Audit Data Sheets, which were submitted by the indicated facilities to the EPNG Environmental Affairs Department (See Enclosure #2).

Answer 1. El Paso Natural Gas Company (EPNG) has performed a prototype environmental audit for Jal No. 4 and San Juan River Plant. They were not completed by plant personnel, but rather by personnel of EPNG's Office of General Counsel (OGC) and EPNG's Environmental Affairs Department (EAD). While EPNG believes that the completed data sheets are protected against disclosure by certain legal privileges, EPNG desires to cooperate with EPA in this matter and is accordingly waiving such privileges with respect to Exhibits 1a and 1b (the completed data sheets for Jal No. 4 and San Juan River Plant). However, EPNG hereby gives notice that it specifically does not waive and does reserve the right to assert any and all applicable legal privileges with respect to any other information.

Question 2a. Draft "Evaluation of Organic Constituents", prepared by the EPNG Environmental Affairs Department (Include the evaluation for heavy metals).

Answer 2a. The document referred to as a draft has now been finalized for Jal No. 4. A copy of the final report is attached hereto as Exhibit 2a. No such document exists for Eunice or Deming Station. The New Mexico Oil Conservation Division (NMOCD) did not require the information for Eunice at the time they requested it for Jal No. 4 since it was determined by the NMOCD, based on their familiarity with oil and gas production operations, that the results at other EPNG locations would in all probability be substantially equivalent to the results at Jal No. 4.



Question 2b. An engineering specific narrative on activities carried out during the annual EPNG plant shut downs for maintenance, which usually occur in June (including, but not limited to, any waste generation, transportation, treatment, storage, or disposal activities).

Answer 2b. There is no routine plant shutdown at compressor stations, e.g. Deming Station. Maintenance is performed as required and as gas transmission requirements allow.

Each year the Permian division personnel meet, usually in February, and decide upon a plant shut-down schedule. Each plant that must be shut down during the year is considered and scheduled with others so that throughput of gas is maintained to the degree that is possible. The planned shut-downs are during low-load periods; unplanned emergency shut-down could happen any time of the year.

Any annual inspections required by the pipeline safety regulations are performed during shut-down. General inspection and/or routine maintenance of vessels and boilers (if any) is performed on those items which cannot be isolated and worked on during normal plant operation.

Maintenance on vessels (contactors, scrubbers) is performed when necessary. The vessel is shut in, blown down, and cleaned with water, steam, detergent and/or a combination of any of these. Small amounts of amine, glycol, absorption oil, dirt, sediments, scale and other entrained abrasives are removed from various passages in the contactor trays and washed down the plant drains, either to disposal ponds or to an injection well, depending on location. The cleaning improves performance and removes harmful abrasives from the system thus improving the life of various rotating mechanical equipment.
Vessels and heat exchangers are ultrasonically tested.

Gear boxes are opened for inspection; vessel shells are ultrasonically tested for wall thickness deterioration; fire boxes on boilers and oil heaters are inspected; orifice plates in gas meters are checked and other routine inspections are made to insure safe continuous operation of the equipment.

Attached as Exhibit 2b are copies of actual intracompany memoranda detailing the 1982 Jal 4 Shutdown and the 1983 Eunice Shutdown which are typical of annual shutdown procedures.

Question 2c. Legible copy with no deletions or omissions of EPNG document #1J4-1-P27, for the Desulfurization Plant and Classifier Area.

Answer 2c. This drawing (#1J4-1-P27) applies to Jal No. 4 only. General drain line drawings for Deming Station (3DE-2-P16, 3DE-2-P36) and for Eunice (#1EF-1-E301) are also attached in Exhibit 2c.

Question 2d. List of all commercial chemical products purchased since November 19, 1980, including the actual amounts purchased, calculated on either monthly or an annual basis.

Answer 2d. From plant records, the information attached as Exhibit 2d is representative of commercial products purchased at these three facilities since November 1980.

Question 3. For the Jal 4, Deming, and Eunice plants, submit an engineering narrative for refining "26 lb." gasoline. Include a state of the art explanation for the process of extracting "26 lb." gasoline from natural gas and flow charts describing the process.

Answer 3. Natural gas liquids are liquids removed from the raw untreated natural gas in order to make the natural gas marketable and transportable (to prevent condensation in the transmission lines).

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Answer 2c. This drawing (#1J4-1-P27) applies to Jal No. 4 only. General drain line drawings for Deming Station (3DE-2-P16, 3DE-2-P36) and for Eunice (#1EF-1-E301) are also attached in Exhibit 2c.

Question 2d. List of all commercial chemical products purchased since November 19, 1980, including the actual amounts purchased, calculated on either monthly or an annual basis.

Answer 2d. From plant records, the information attached as Exhibit 2d is representative of commercial products purchased at these three facilities since November 1980.

Question 3. For the Jal 4, Deming, and Eunice plants, submit an engineering narrative for refining "26 lb." gasoline. Include a state of the art explanation for the process of extracting "26 lb." gasoline from natural gas and flow charts describing the process.

Answer 3. Natural gas liquids are liquids removed from the raw untreated natural gas in order to make the natural gas marketable and transportable (to prevent condensation in the transmission lines).

These liquids are referred to by several names. The word "gasoline" at a natural gas processing plant such as Jal No. 4 is actually a misnomer in that it refers to natural gasoline. Natural gasoline is a mixture of liquid hydrocarbons extracted from natural gas. El Paso's natural gasoline is predominantly pentanes, hexanes and heavier. They are normally sold as a mixture. Neither can be used alone as "gasoline" in the usual sense as refined fuel for automobiles without further processing.

Enclosed as Exhibit 3 please find a specification sheet detailing the properties of natural gasoline. The specification of any given product depends upon the plant controls and the desired resulting products. 26 lb. gasoline refers to a natural gasoline with a Reid Vapor Pressure of 26 pounds. Such gasoline is not produced at any of El Paso's facilities.

Question 4. State the current and past (back to November 19, 1980) amounts of chrome and hexavalent chrome (in units of ppm) occurring in the various coolants used at each facility (Jal 4, Deming, and Eunice plants).

Answer 4. As of March 31, 1983, EPNG discontinued system-wide the use of chromium based water treating chemicals in its cooling towers. The use of chromium based water treating chemical in cooling towers at Deming and Eunice was discontinued prior to November 19, 1980.

The active ingredient in chromium based water treating chemicals is hexavalent chrome. Indeed, the laboratory test procedure to evaluate the chromium concentration is a redox-reaction for hexavalent chromium. The information requested is shown in Exhibit 4. Chromium concentrations indicated are maintained within a narrow range at constant levels, and are found in the closed oil and jacket water cooling systems.

Question 5. For the Jal 4, Deming, and Eunice plants, submit an engineering narrative and flow charts describing the dehydrator processes. Include with the narrative, a description of the chemicals used, and their chemical properties.

Answer 5. This information is attached hereto as Exhibit 5. Deming Station has no such equipment.

Question 6. For the Jal 4, Deming, and Eunice plants, submit an engineering narrative and flow charts describing scrubber activities specific to the various sites. This will include the chemicals involved and their respective properties. Also, indicate the number of scrubbers and their respective sizes.

Answer 6. This information is attached hereto as Exhibit 6.

Question 7. Complete the same type of data/narrative, as done in item 6 above, on the boilers, oil coolant systems and the H_2S removal process (Jal 4, Deming, and Eunice Plants).

Answer 7. This information on boilers is attached hereto as Exhibit 7 for Jal No. 4 and Eunice. No boilers exist at Deming Station.

Oil Coolant Systems - This information is contained in Exhibit 7.

H_2S - This information is contained in Exhibit 7. No H_2S removal is accomplished at Deming Station.

Question 8. For each facility designated on enclosure #1, state the name, address, and EPA I.D. No. (if any) for each waste transporter. Also indicate the type of waste transported since November 19, 1980, (i.e., oil pit wastes, coolant wastes) and the schedule of pickup.

Answer 8. This information is attached hereto as Exhibits 8-1 and 8-2. Because there are errors and inconsistencies in the original enclosure #1, included in Exhibit 8-1 is information to clarify El Paso's assigned EPA I.D. numbers in New Mexico. > Given to Mailee to process 3/3/4.

Question 9a. The number of surface impoundments, including those impoundments which are active and those which are not.

Answer 9a. This information is attached hereto as Exhibit 9a.

Question 9b. The handling procedures prior to injection, for wastes which are to be disposed of by injection well.

Answer 9b. Injection wells are utilized for the disposal of effluents at Eunice, Monument, Jal 3 and Jal 4. Effluent from septic tanks is chlorinated prior to mixing with other plant waste streams.

All waste streams are collected in the plant drain piping and other collection facilities which are totally enclosed such that all liquid wastes are delivered to the injection well. All waste water streams which are collected are then classified to remove solids and oil. The classifier effluent is pumped through anthracite filters, metered and delivered by pipeline to the injection well. The oil is sold to a reclaimer. The solids are tested and disposed of at an approved local landfill.

Question 10. For the Jal 4, Deming, and Eunice plants, provide any laboratory analysis results obtained since November 19, 1980, on the contents of all ponds, lagoons, and/or surface impoundments, including closed out impoundments. Include any analysis done of sediment beneath such impoundments and of each waste stream feeding such impoundments.

Answer 10. Enclosed are Exhibits 10a, b, c which contain that information which is available for Jal 4, Deming, and Eunice Plant, respectively.

Question 11. For the Jal 4, Deming, and Eunice plants, provide a list of all well owners or operators furnishing product to said facilities. Indicate the point of custody transfer for said product from the owner/ operator to EPNG.

Answer 11. As illustrated in answers 5, 6, and 7 gas is made marketable at natural gas processing plants (e.g. Eunice and Jal 4) and then is transported to market by gas transmission pipelines. Many compressor stations are located along the transmission line to maintain pressure and flow. Deming Station is such a facility. Deming Compressor Station does not receive any gas directly from oil and/or gas wells but merely receives gas which has been processed at natural gas processing plants including Eunice and Jal 4.

EPNG Jal 4 and Eunice plants process gas from some 4600 wells located in producing areas in Texas, Oklahoma and New Mexico. An inventory of these wells is not readily available.

The point of custody transfer from the producer to EPNG can be at the wellhead, at the processing plant, or at some point in between, depending on factual circumstances and contractual arrangements.

Question 12. Provide the name of the plant manager, the facility address, and the facility mailing address for any facility designated on enclosure #1, which does not have an EPA RCRA I.D. No. assigned to it.

Answer 12. Locations and mailing addresses are given in Exhibit 12.

Question 13. Indicate which, if any, of the facilities designated on enclosure #1 have, or have had, an NPDES permit, and provide any applicable NPDES permit number.

Answer 13. No EPNG facilities have or have had an NPDES permit.

Exhibit 2d

Deming

Chemical	Amount
Sulphuric Acid	42,000 pounds
Bacten	27 pounds
Chlorine Gas	600 pounds
Dearborne 741	330 gallons
Dowcide 723	55 gallons
Dowcide GST Beads	500 pounds
Dearborne 517	330 gallons
Paint Thinner	12 gallons
Fryquel	55 gallons
Paint Remover	14 gallons
Electrical Solvent (tri chloroethane)	18 gallons
8122 Engine Oil	21,000 gallons
Mysella Oil	3,000 gallons
Delo Engine Oil	330 gallons
Stoddard Solvent	600 gallons
Gear Lube	15 gallons
Gasoline	800 gallons

The gasoline is used in Deming Station equipment and not used for cleaning or degreasing.

(Amount purchased and consumed is on an annual basis)

Exhibit 2d

Eunice

Chemical	Amount
Antipol-640	4,000 Gal.
Brine (10#)	24,000 Gal.
Chromine-T	350 Gal.
Corrate 28	2,500 Gal.
Corrles 202	2,500 Gal.
De Ox 21	280 Gal.
HTH (Chlorine)	3,000 Lbs.
Hydrochem D-300	360 Gal.
Hymol 463	55 Gal.
Hyvar	Unknown
Karmex	Unknown
Karvar II	Unknown
Molylube 890 (Tribol 890)	42 Gal.
Shell 8122	99,370 Gal.
Toxsene 35	135 Gal.
Toxsene 37	90 Gal.
Varsol	9,015 Gal.

(Amount purchased and consumed is on an annual basis)

Exhibit 2d

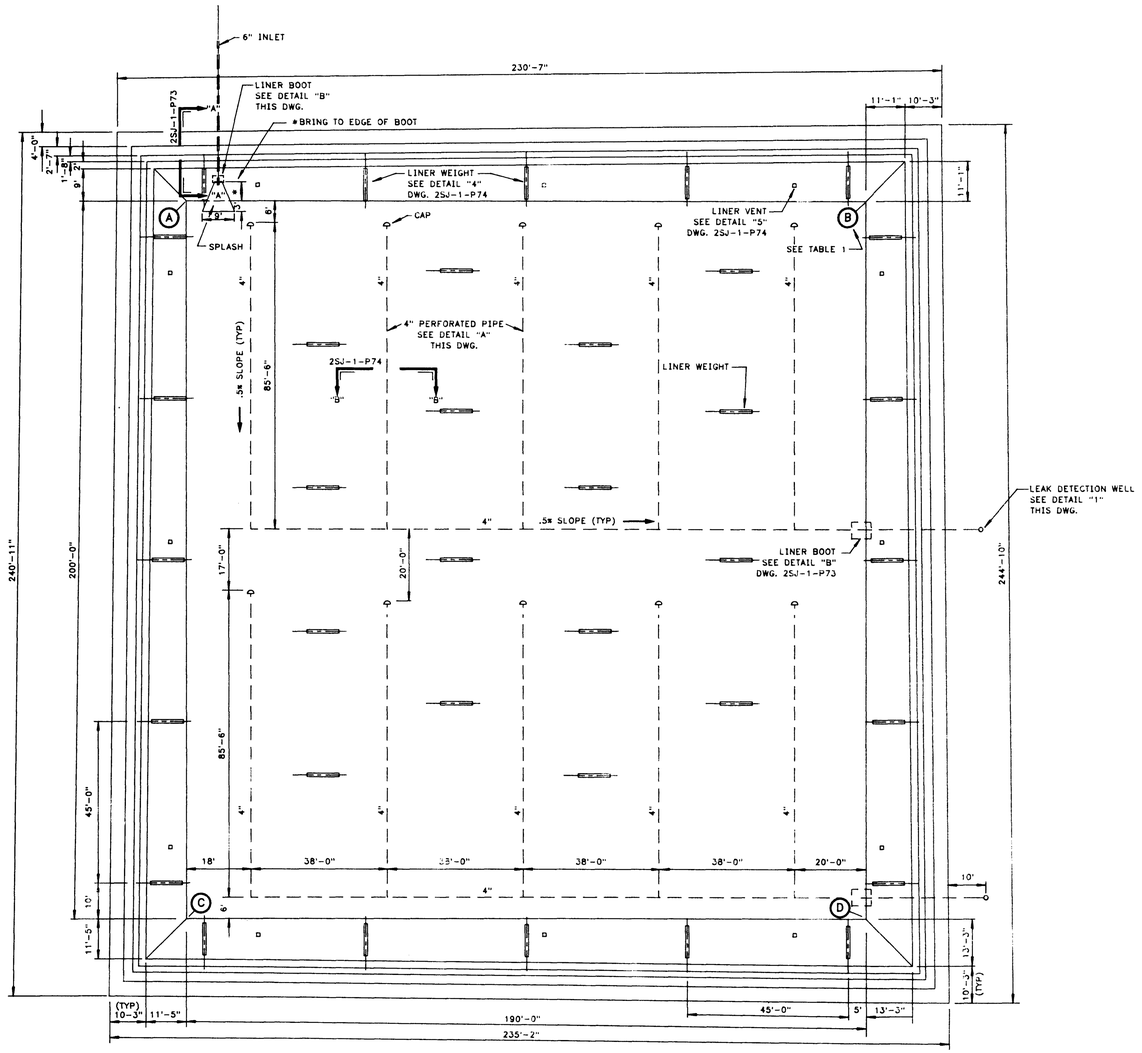
Jal No. 4

Chemical	Amount
Antipol 640	14,400 Lbs.
Caustic soda	40,800 Gal.
Corless 202-C	1,920 Gal.
Chromine-T	360 Gal.
De-ox-21	240 Lbs.
Diethynolamine	24,000 Gal.
Dowtherm "A"	6,000 Gal.
Fyrquel	1,000 Gal.
Hydrochem D-300	600 Gal.
Hymol-463	240 Lbs.
H. T. H.	3,360 Lbs.
Polymeen-290	750 Gal.
Sulfuric Acid	6,360 Gal.
Varsol	4,000 Gal.
Sentinal "A"	330 Gal.
S. T.-111	111 Gal.
Toxsene-35	960 Gal.
Toxsene-37	960 Gal.
Triethylene glycol	50,000 Gal.
Shell 8122	25,000 Gal.
Shell Mysella	15,000 Gal.
Exxon Terestic #32	2,000 Gal.
Shell K-460	660 Gal.
Shell K-220	660 Gal.
Fina upperlube	660 Gal.
Shell Corena	660 Gal.
Shell Turbo 68	330 Gal.

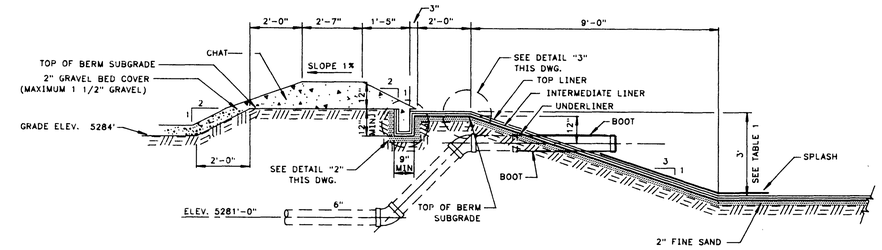
(Amount purchased and consumed is on an annual basis.)

TABLE 1

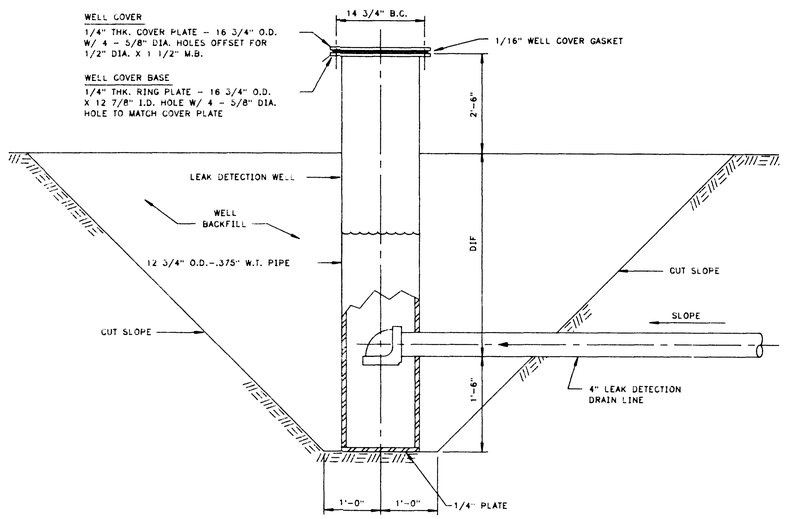
CORNER	DEPTH
A	3.0'
B	3.7'
C	3.8'
D	4.5'



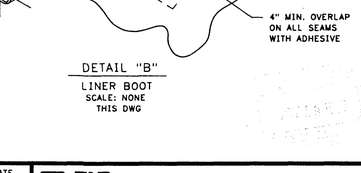
POND PLAN
SCALE: 1"= 20'



SECTION "A-A"
THIS DWG.
SCALE: 3/8" = 1'-0"



DETAIL "1"
LEAK DETECTION WELL
SCALE: NONE



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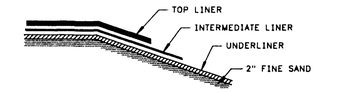

DETAIL "3"
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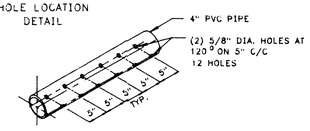
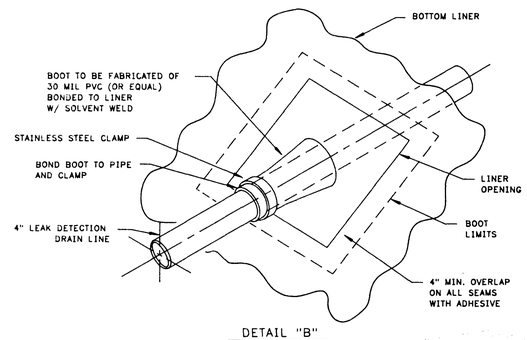
SCALE: NONE

HOLE LOCATION DETAIL



DETAIL "A"
PERFORATED PIPE
SCALE: NONE



DETAIL "B"
LINER BOOT
SCALE: NONE
THIS DWG

LEGEND

REFERENCE DRAWINGS

DWG. NO.	TITLE
2SJ-1-P74	SJRP - WASTE WATER DISPOSAL POND

REVISIONS

NO.	DATE	BY	DESCRIPTION	W.O.	APP.	PRT.	SEP.	DATE	TO	W.O.

PRINT RECORD

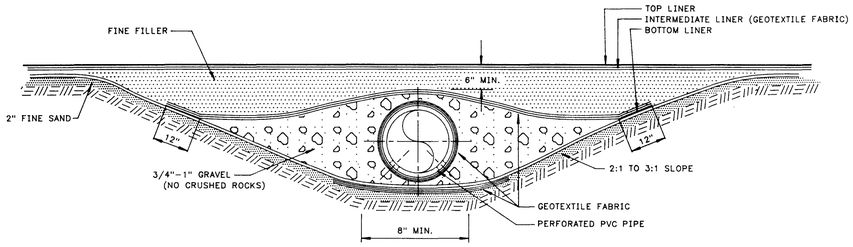
ENG. RECORD		DATE
DRAFTING DESIGN	LA	9/1/87
COMPUTER GRAPHICS	MD	10/2/87
CHECKED		
PROJECT APPROVAL		
DESIGN APPROVAL		
COMPUTER SAVE NAME	SJR264	

El Paso NATURAL GAS COMPANY

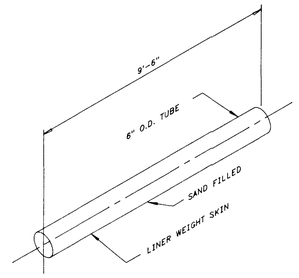
Contact

SAN JUAN RIVER PLANT
WASTE WATER DISPOSAL POND
LEAK DETECTION PLAN AND SECTIONS

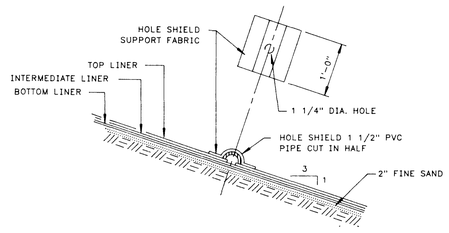
SCALE: NOTED
W.O.:
DWG. NO. 2SJ-1-P73
REV.



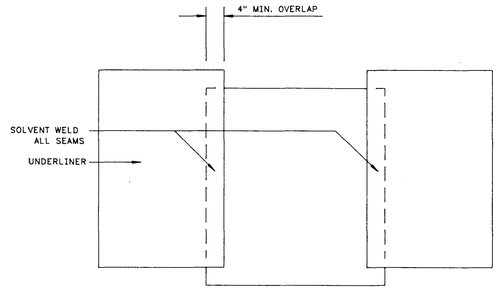
SECTION "B-B"
2SJ-1-P73
SCALE: N.T.S.



DETAIL "4"
POND LINER WEIGHT
2SJ-1-P73
SCALE: NONE



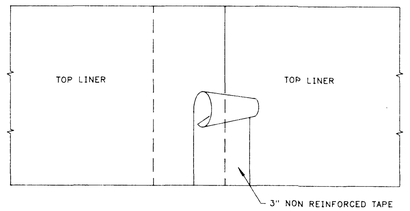
DETAIL "5"
LINER VENT DETAIL
2SJ-1-P73
TYPICAL 12 PLACES
SCALE: NONE

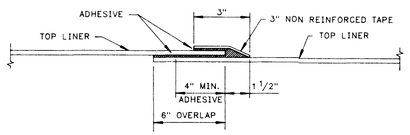


PLAN
SCALE: NONE

ELEVATION

UNDERLINER SEAM SEALING DETAIL





TOP LINER
SEAM SEALING DETAIL
SCALE: NONE

LEGEND		REFERENCE DRAWINGS		REVISIONS							PRINT RECORD					
		2SJ-1-P73	SJRP - WASTE WATER DISPOSAL POND	NO.	DATE	BY	DESCRIPTION	W.O.	APP.	PRT.	SEP.	DATE	TO	W.O.
		DWG. NO.	TITLE											

ENG. RECORD		DATE
DRAFTING DESIGN	LA	9/1/87
COMPUTER GRAPHICS	MD	10/2/87
CHECKED		
PROJECT APPROVAL		
DESIGN APPROVAL		
COMPUTER SAVE NAME	SJR265	

El Paso NATURAL GAS COMPANY

Contact

SAN JUAN RIVER PLANT
WASTE WATER DISPOSAL POND
MISCELLANEOUS SECTIONS AND DETAILS

SCALE: NOTED	DWG. NO. 2SJ-1-P74	REV.
W.O.:		

		ALL GAS PLANT PIPING			2
1200	24"	SAN JUAN LINE	88+33		1
1201	24"	SAN JUAN (S) LOOP LINE	875+23	88+33	2
3201	20"	BLANCO FRUITLAND LOOP LINE	0+00		1
3222	16"	BLANCO FRUITLAND LOOP LINE	0+00		1
	16"	TURBINE SUCTION	2+60	6+50	2
	16"	TURBINE DISCHARGE	2+60	6+50	2
		PLANT SECTION	0+00	2+60	2

		Corrected Location Of Valve No. 1/2
R	7-3-81	Photo-Revised Per 1981 Photography

ENGINEERING RECORD	
DRAWN BY	Aero-Graphics
TRACED BY	
CHECKED BY	
APPROVED	
DATE	7-14-78
PHOTO DATE	10-29-76

El Paso NATURAL GAS COMPANY

Contact

SAN JUAN GATHERING SYSTEM

D.O.T. CLASS LOCATION

S-1/2 SAN JUAN RIVER PLANT

SAN JUAN COUNTY, NEW MEXICO

DWG. NO. 5202.14-2

SHEET 2 OF 2

DRAFTING BY AERO-GRAPHICS INC
SALT LAKE CITY, UTAH

aero-graphics