GW-24

GENERAL CORRESPONDENCE

YEAR(S):

1990-1981

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
Ecological Services
Suite D, 3530 Pan American Highway, NE
Albuquerque, New Mexico 87107

August 3, 1990

Mr. William J. Lemay, Director
State of New Mexico Energy, Minerals
and Natural Resources Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87504-2088

Dear Mr. Lemay:

We have reviewed the Public Notice received July 24, 1990 requesting comments for the renewal of the discharge permit for the Avalon Gas Plant. The gas plant is owned and operated by Gas Company of New Mexico. The plant is located in the N/2 NW/4 SE/4, Section 9, Township 21 South, Range 27 East, NMPM, Eddy County, New Mexico.

According to the Public Notice approximately 1,000 gallons per day of process wastewater is disposed of in an Oil Conservation Division approved offsite disposal facility. The U.S. Fish and Wildlife Service recommends that, if the disposal facility is not currently screened or covered, it be screened to exclude migratory birds from gaining access to the wastewater.

If you have any questions, please call Richard Roy at (505) 883-7877.

Sincerely yours,

John C. Peterson
Field Supervisor

cc:
Regional Director, U.S. Fish and Wildlife Service, Fish and Wildlife Enhancement, Albuquerque, New Mexico

Affidavit of Publication

No. 13216

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 July 26, 1990

Second Publication

Third Publication

Fourth Publication

Gary D. Scott

Subscribed and sworn to before me this 30th day of July 19 90

Barbara Ann Boone

Notary Public, Eddy County, New Mexico

My Commission expires September 23, 1991

LEGAL NOTICE

Co[illegible]on

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 Com~~mission Regulations, the following discharge plan renewal application has been submitted 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-24) - Gas Company of New Mexico, Robert Bogan, Plant Foreman, 311 Moore Drive, Carlsbad, New Mexico, 88220, has submitted an application for renewal of its previously approved discharge plan for its Avalon Plant located in the N/2 NW/4 SE/4, Section 9, Township 21 South, Range 27 East, NMPM, Eddy County, New Mexico. Approximately 1000 gallons per day of process wastewater is disposed of in an OCD approved offsite disposal facility. The wastewater has a total dissolved solids concentration of approximately 2600 mg/l. Ground water most likely to be affected by any discharge to the surface is at a depth of approximately 80 feet with a total disssolved solids concentration of approximately 1100 mg/l. The discharge plan addresses how spills, leaks and other discharges to the ground will be managed.

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 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 submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 20th day of July, 1990. To be published on or before July 27, 1990.

STATE OF NEW MEXICO
OIL CONSERVATION
DIVISION
s-William J. LeMay
WILLIAM J. LEMAY
DIRECTOR

SEAL

Published in the Artesia Daily Press, Artesia, N.M. July 26, 1990.

Legal 13216

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

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GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 20th day of July, 1990.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
s/William LeMay
Director

Journal, July 28, 1990

OIL CONSERVATION DIVISION
RECEIVED
'90 AUG 2 AM 8 56

STATE OF NEW MEXICO }
County of Bernalillo } ss

Thomas J. Smithson, being duly sworn declares and says that he is National Advertising manager of the **Albuquerque Journal**, and that this newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chaper 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 One (1) times, the first publication being on the 28th day of July, 1990, and the subsequent consecutive publications on ....., 1990.

Thomas J. Smithson

Sworn and subscribed to before me, a Notary Public in and for the County of Bernalillo and State of New Mexico, this 30th day of July, 1990.

OFFICIAL SEAL
Bernadette Ortiz
BERNADETTE ORTIZ
NOTARY PUBLIC-NEW MEXICO
MY COMMISSION EXPIRES: 12-18-93

PRICE $21.99

Statement to come at end of month.

ACCOUNT NUMBER C81184

EDJ-15 (R-12/89)

NOTICE OF PUBLICATION

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

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GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 20th day of July, 1990. To be published on or before July 27, 1990.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

WILLIAM J. LEMAY, Director

S E A L

GAS COMPANY OF NEW MEXICO

AVALON PLANT

WASTE WATER DISCHARGE PLAN

Submitted to:

New Mexico Oil Conservation Division

Santa Fe, New Mexico

Submitted by:

Robert (Bob) Bogan, Plant Foreman

Gas Company of New Mexico

Avalon Plant, Permian District

311 Moore Drive

Carlsbad, New Mexico 88220

May, 1990

CONTENTS

I. INTRODUCTION

This is an application for renewal of the Avalon Plant Waste Water Discharge Plan GW-24, filed September 28, 1984. Please refer to that plan for plant process, description, methods of effluent disposal, and site characteristics.

This application will address site modifications as discussed with Roger Anderson, O.C.D., Santa, N.M., during his visit to Avalon Plant in March, 1990.

DISCHARGE PLAN APPLICATION FOR NATURAL GAS PLANTS

II. GENERAL INFORMATION

A. Name of Discharger

Gas Company of New Mexico
Avalon Plant
311 Moore Drive
Carlsbad, New Mexico 88220
505/885-8082

B. Local Representative

Robert (Bob) Bogan
311 Moore Drive
Carlsbad, New Mexico 88220
505/885-6110

C. Location of Discharge

The Avalon Plant is located approximately five and one half (5.5) miles north, northeast of Carlsbad, Eddy County, New Mexico. The plant has the following legal description:

The north one-half of the northwest one quarter of the southeast one-quarter (N/2, NW/4, SE/4) of Section 9, Township 21 south, Range 27 East, N.M.P., consisting of approximately 20 acres, more or less.

D. Type of Natural Gas Operation

The Avalon Plant utilizes a refrigerated lean oil absorption process to remove hydrocarbons (ethanes, propanes, butanes, pentanes and hexanes) from natural gas. Plant design capacity is 30 MMCFD.

E. Affirmation

"I hereby certify that I am familiar with the information contained in and submitted with this application and that such information is true, accurate, and complete to the best of my knowledge and belief."

Robert Bogan
Plant Foreman

Robert Bogan — Signature

6/6/90 — Date

III. PROPOSED SITE MODIFICATIONS

Three areas of concern were identified during the visit by Mr. Anderson: lack of adequate berms around some of the plant storage facilities, improper handling of casual spills and small leaks around certain process and storage areas, and lack of an area to keep used filter cartridges. To address these problems, GCNM proposes to make modifications as described below.

Proposed modification locations are shown on the enclosed plot plan. The projects and their corresponding letter headings are as follows:

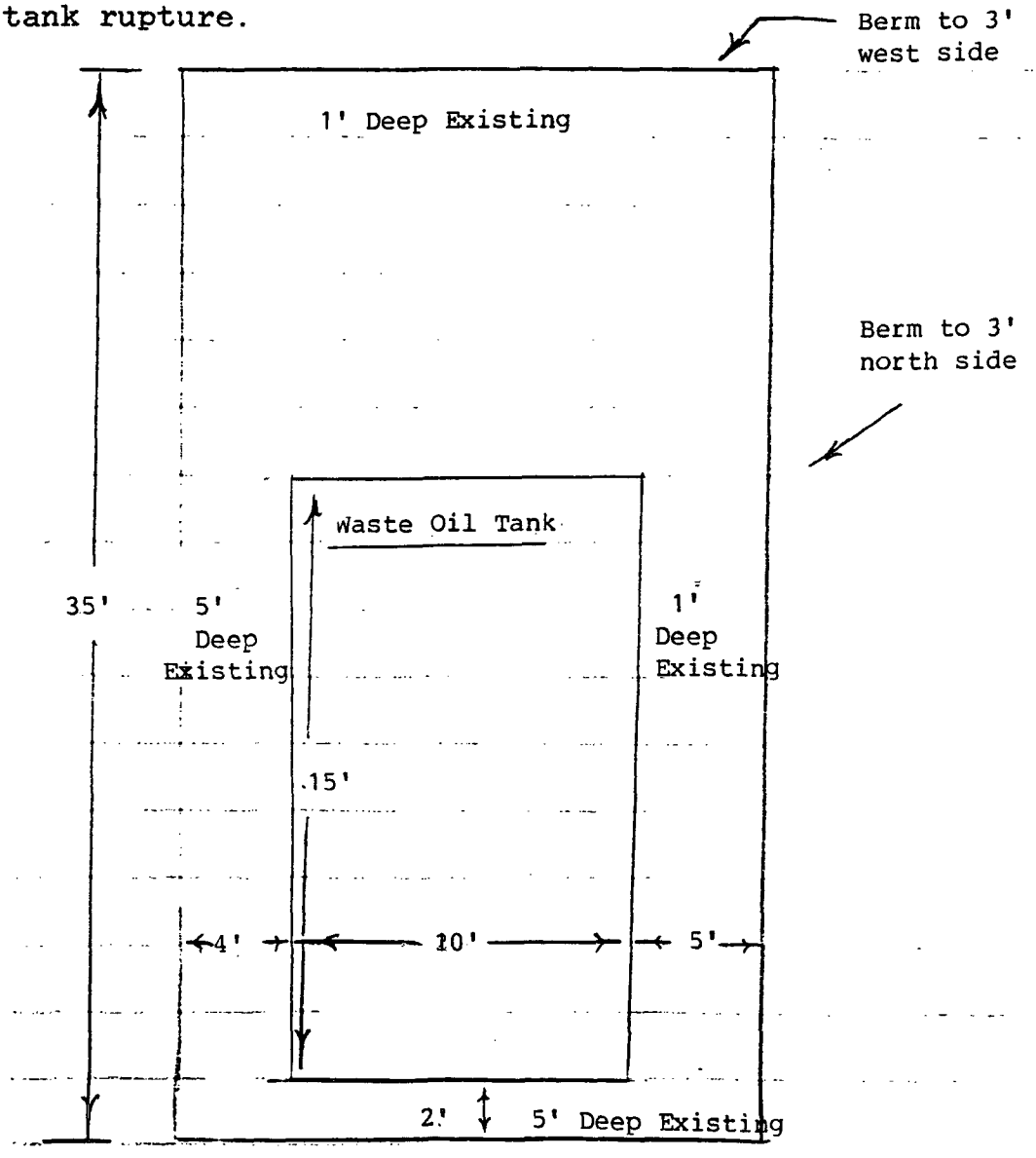
Projects A,C,F,G and I, if approved, will be submitted for completion by the end of 1991. Projects E and H will be submitted for completion by the end of 1992, upon completion of design work. The following pages detail each project.

Projects A,C,D, and E address the lack of berms in certain areas of the plant. GCNM proposes to berm the waste oil storage and the caustic storage areas. The condensate overflow and the cooling tower blow down tanks, while not bermed, are considered to be intrinsically safe for the reasons cited below.

Project A: Waste Oil Storage Tank Berm Construction

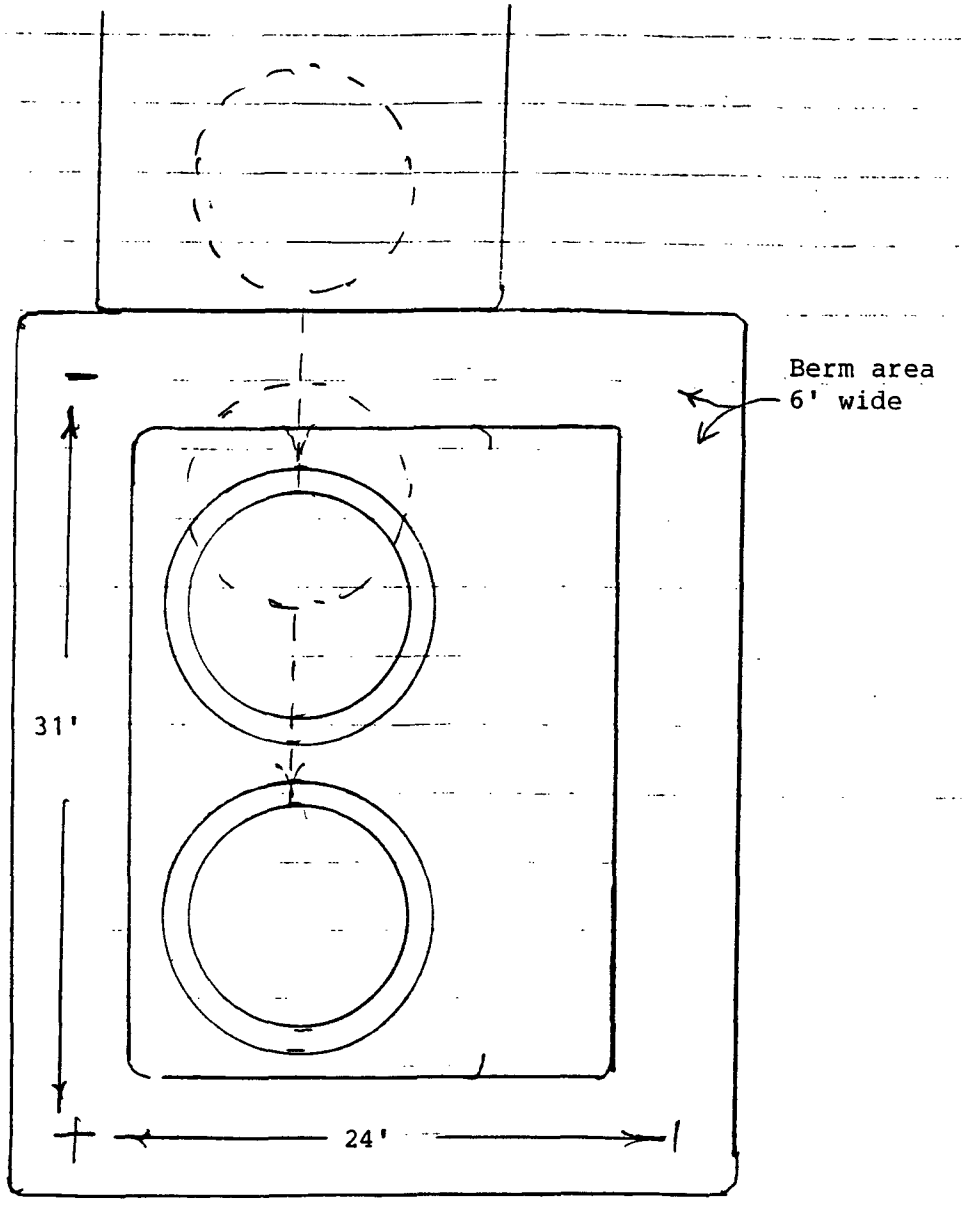
This is an existing 210 barrel tank 10 feet diameter by 15 feet long mounted horizontally on a skid. This tank holds crankcase oil from the compressor building. It is located in a depression that is 5 feet high on the south side, 5 feet high on the cast side, 1 foot high on the north side, and 1 foot high on the west side.

GCNM proposes to build a 3 foot berm on the north and west side of the tank to allow for adequate holding volume in case of tank rupture.



Project E: Caustic Storage Tanks

These are 2-210 barrel tanks, upright, 15 foot high and 10 feet in diameter. The east tank holds 50% liquid sodium hydroxide in water. The west tank holds spent caustic that is hauled to a licensed disposal well. GCNM proposed to move both of these tanks some 8 feet west and build a berm 3 feet high by 24 feet by 31 feet center to center. The tanks will set on 11 foot diameter gravel rings within this area.



GCNM proposes exempting three existing vertical storage tanks from berming requirements. These tanks are:

1. Condensate overflow tank - this tank is a 210 barrel vertical tank, 15' high by 10' diameter on a gravel pad with a foundation ring, item B on the plot plan. The tank is an overflow for the existing condensate storage tank, which catches drip associated with pipeline pigging operations. The drip is hauled away within a week after each pigging operation ceases, leaving the tank normally empty.

2. Cooling tower blow down tanks - there are two of these tanks (items D on the enclosed plot plant) each the same size as the above-described overflow tank and resting on the same type of foundation. The tanks contain water blown down from the plant cooling tower. No chromate compounds are used in tower water treating. An analysis of the water was included in the Plan GW-24, and is attached here for reference.

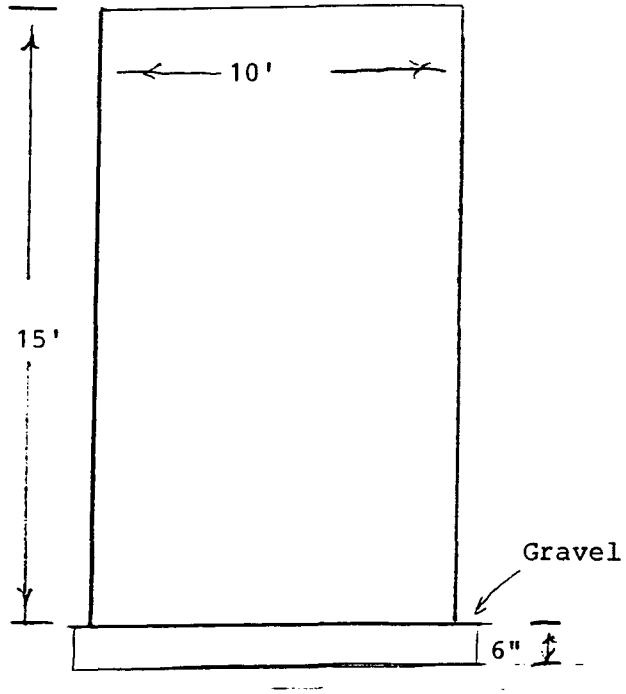
GCNM proposes exempting the cooling tower blow down tanks from berming requirements because the tanks contain only blow down chromate-free water.

GCNM recognizes that should circumstances alter the uses of the tanks in question, berming would have to be considered for the new uses.

Project B: Condensate Overflow Tank

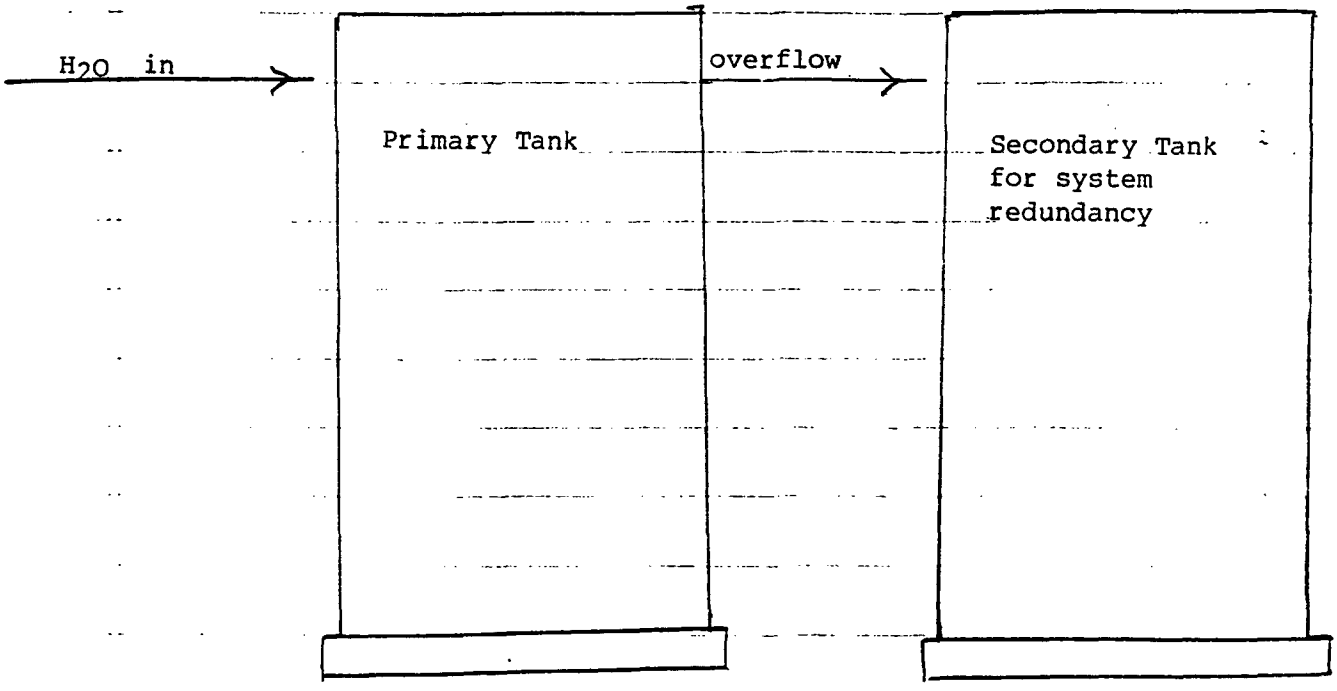
This is a vertical 210 barrel tank, 15 feet high and 10 feet in diameter on a 6 inch thick gravel bed with 11 foot diameter steel foundation ring.

This is an over fill condensate storage tank to ensure redundancy for storage tank C. This tank was cleaned prior to installation and has never been used. Would like to apply for exception to berming as this tank will be emptied within 1 week of any pipeline condensate is contained.



Project D: Cooling Tower Blow Down Tanks

These are 2-210 barrel upright tanks 15 foot high by 10 foot diameter setting on gravel enclosed rings - propose to exempt these tanks from berming as no chromate is used in water treating - analysis of contents was included in the 1984 discharge plant GW-24.



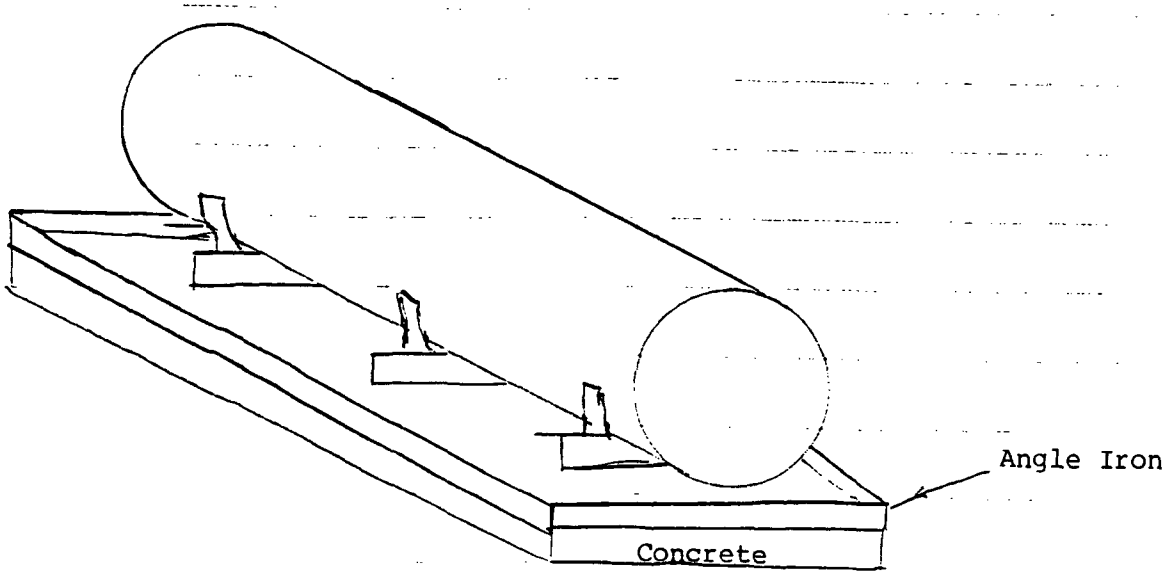
CASUAL SPILL AND DRIP CONTROL PROJECTS

Projects C,F,G, and H are proposed by GCNM to control casual spills and leaks occurring in the condensate, lean oil, and glycol dehydration areas shown on the plot plant. The areas in question are to be modified by addition of a 2" angle iron catch barrier around the perimeters of the respective areas. The barrier will be laid down over an impermeable sealant and bolted down to new or existing foundations at 5' intervals. An additional sealant bead will be applied to the interior seam between the barrier and the concrete.

Project C: Condensate Storage Modifications

This tank is an 11,000 gallon tank, 7 feet in diameter by 39 feet setting horizontal on supports.

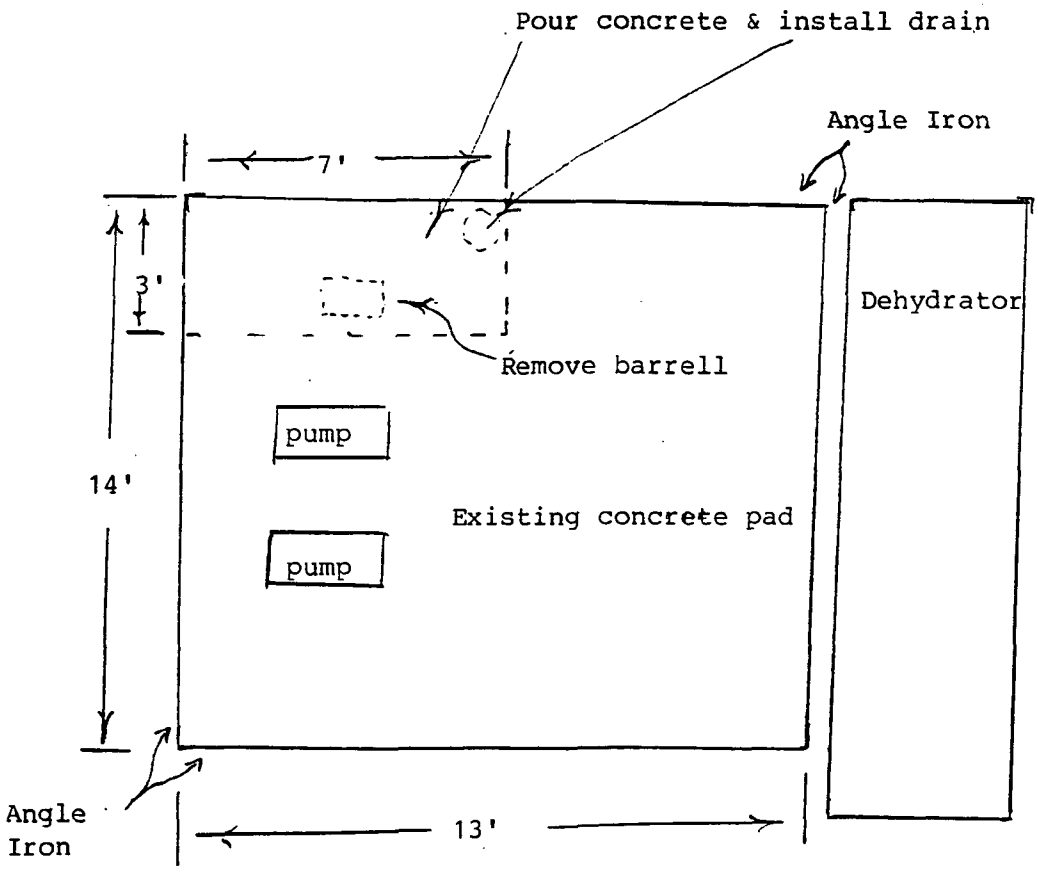
Propose to build a 10 foot by 40 foot concrete pad with 2 inch angle iron around the outer perimeter. A sealant will be applied before bolting the angle iron down at 5' intervals and then a 1/4 inch bead of sealant will be applied to the inside edge of the angle iron - pad will be 6 inches deed with expansion joints every 10 feet. 6x6x10 welded wire will be used for strength - 3000 1b concrete air-entrained 1-A.



Project F: Glycol Dehydration Pad

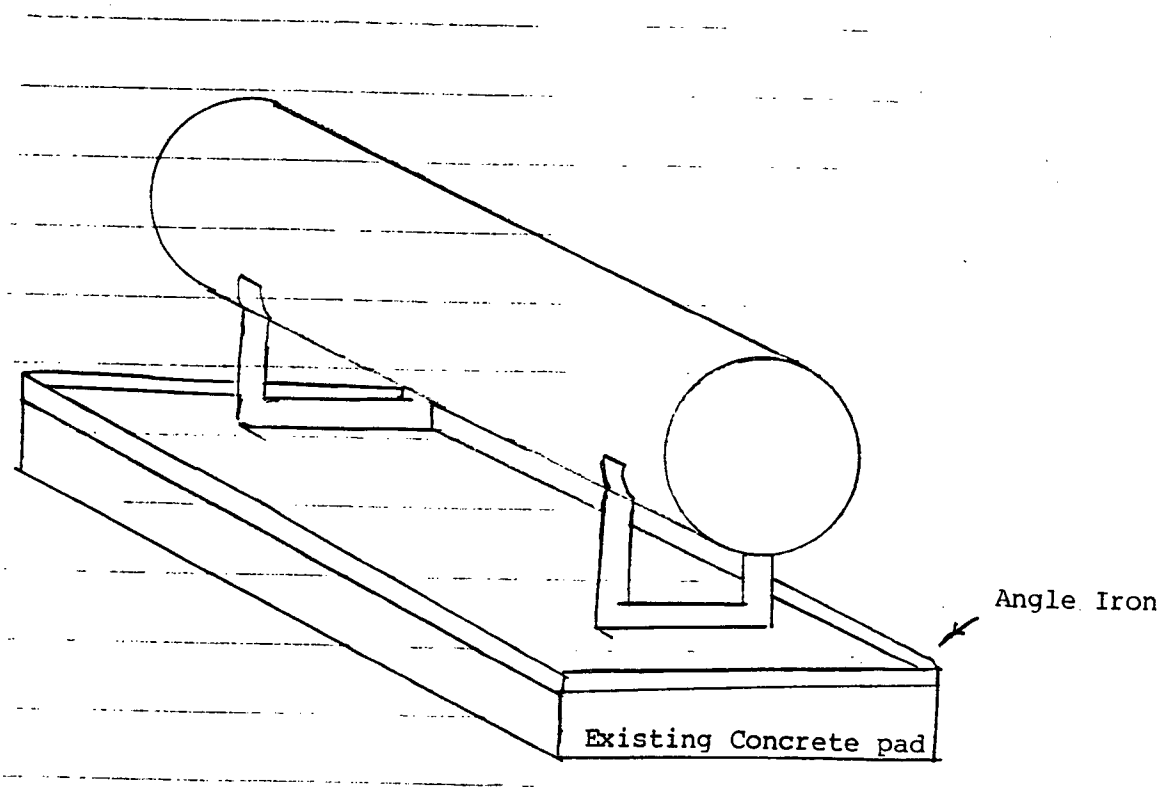
Propose to remove a leak containment barrel and cover that area with concrete. The entire pump area will be contained with a 2" angle iron ring with a drain installed in a low point at the west end of contained area - drain will be tied into existing drainage system from the dehydrator.

Angle iron will be bolted down every 5 feet with a silicon seal underneath and a 1/4 inch bead of silicon applied to inside cage.



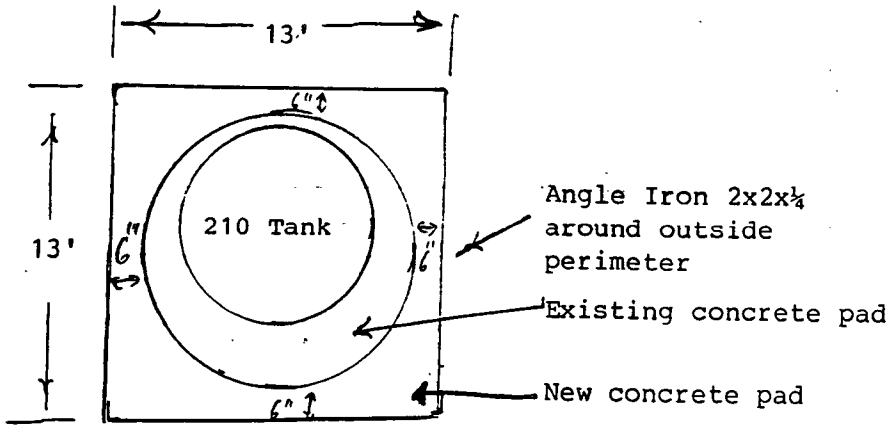
Project G: Lean Oil Storage (Horizontal)

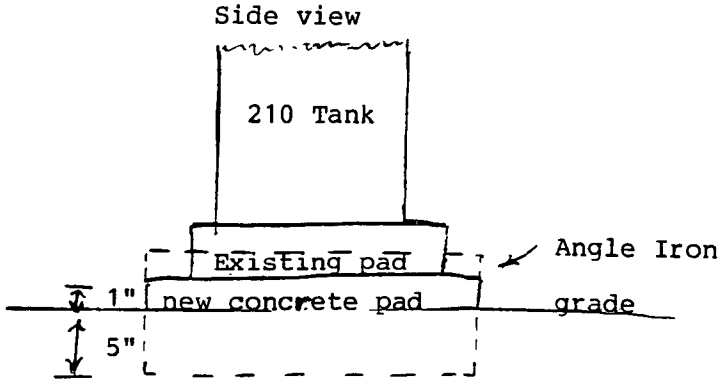
This is a 11,000 gallon tank, 7 feet in diameter by 39 feet setting horizontal on supports with a 10 foot by 40 foot concrete pad underneath. Propose to install 2 inch angle iron around the outer perimeter in the same manner as previously described.



Project H: Lean Oil Storage (Vertical Tank)

This is a supplemental lean oil storage tank. It is a 210 barrel tank 15 feet high by 10 feet in diameter. It is setting on a round concrete pad that is 12 feet in diameter and 10 inches above grade. Propose to pour a square pad around the existing pad. The new pad will be 5 inches deep with 1 inch above grade. Angle iron will encompass the outer perimeter in the same manner as has been aforementioned. The interface between the new concrete pad and the old concrete pad will be sealed with silicon rubber.





Project I: Filter Storage Area

Propose to fence a 60 foot square area at the south east corner of plant yard. A pit some 50 feet long by 10 feet wide by 6 feet deep will be excavated to storage filters after they have been drained of process liquids. The fenced area will have a access gate on the north end. The other space provided will be used for expansion if needed, and storage of cooling tower bottom debris. This area is located at a high grade in the plant yard and will not be subject to rain water run off.

cooling tower sludge tested for H.W. before disposal

Project I: Filter Storage Area

Propose to fence a 60 foot square area at the southeast corner of plant yard. A pit some 50 feet long by 10 feet wide by 6 feet deep will be excavated to storage filters after they have been drained of process liquids. The fenced area will have an access gate on the north end. The other space provided will be used for expansion if needed, and storage of cooling tower bottom debris. This area is located at a high grade in the plant yard and will not be subject to rain water run off.

An analysis of cooling tower bottom is located in the appendix.

Controls for Environmental Pollution, Inc.
P.O. BOX 5351 • Santa Fe, New Mexico 87[illegible]2 IN STATE 505/982-[illegible]11
OUT OF STATE 800/545-2188 • FAX - 505-982-[illegible]89

Gas Company of New Mexico
311 Moore Drive
Carlsbad, NM 88220

Attn: Bob Bogan

Work ID: Water Quality
P O # : L-594-3387

Date Received: 04/16/90
Date Reported: 06/01/90
Work Order: 90-04-271
Category:

Certified By: 

Controls for Environmental Pollution, Inc.
P.O. BOX 5351 • Santa Fe, New Mexico 87[illegible]02 IN STATE 505/982[illegible]411
OUT OF STATE 800/545-2188 • FAX - 505-982-[illegible]89

 CEP, Inc. REPORT Work Order # 90-04-271
Received: 04/16/90 Results by Sample

SAMPLE ID Coolant Tower Slop FRACTION 01A TEST CODE TCLP NAME TCLP Metals
Date & Time Collected not specified Category SOLID

TCLP Metals	RESULT
Aresnic	0.02
Barium	0.3
Cadmium	0.016
Chromium	0.05
Lead	0.03
Mercury	<0.0004
Selenium	0.14
Silver	<0.01

All results reported in:

UNITS mg/liter

Controls for Environmental Pollution, Inc.
P.O. BOX 5351 • Santa Fe, New Mexico 87[illegible]2
IN STATE 505/982-[illegible]11
OUT OF STATE 800/545-2188 • FAX - 505-982-[illegible]9

 CEP, Inc. REPORT Work Order # 90-04-271
Received: 04/16/90
Results by Sample

SAMPLE ID Coolant Tower Slop FRACTION 01A TEST CODE TCLP 0 NAME TCLP Organics
Date & Time Collected not specified Category SOLID

	RESULT	REG LEVEL
Bis(2-chloroethyl)ether	<0.006	0.050
O-cresol	<0.01	10
M-cresol	<0.01	10
P-cresol	<0.01	10
Pentachlorophenol	<0.004	3.6
Phenol	<0.002	14
2,3,4,6-Tetrachlorophenol	<0.002	1.5
2,4,5-Trichlorophenol	<0.005	5.0
2,4,6-Trichlorophenol	<0.003	0.30
2,4-Dinitrotoluene	<0.006	0.13
Hexachlorobenzene	<0.002	0.13
Hexachlorobutadiene	<0.001	0.72
Hexachloroethane	<0.002	4.3
Nitrobenzene	<0.002	0.13

Controls for Environmental Pollution, Inc.
P.O. BOX 5351 • Santa Fe, New Mexico 87[illegible]2 IN STATE 505/982-[illegible]11
OUT OF STATE 800/545-2188 • FAX - 505-982-[illegible]89

SAMPLE ID Coolant Tower Slop FRACTION 01A TEST CODE TCLP O NAME TCLP Organics
Date & Time Collected not specified Category SOLID

Chlordane	<0.001	0.030
Endrin	<0.001	0.003
Heptachlor	<0.001	0.001
Lindane	<0.001	0.060
Methoxychlor	<0.001	1.4
Toxaphene	<0.002	0.070
2,4-D	<0.01	1.4
Silvex	<0.001	0.14
1,2-Dichlorobenzene	<0.002	4.3
1,4-Dichlorobenzene	<0.004	10

Notes and Definitions for this Report:

UNITS mg/liter

Controls for Environmental Pollution, Inc.
P.O. BOX 5351 • Santa Fe, New Mexico 87[illegible]2
IN STATE 505/982-[illegible]11
OUT OF STATE 800/545-2188 • FAX - 505-982-[illegible]89

 CEP, Inc. REPORT Work Order # 90-04-271
Received: 04/16/90 Results by Sample

SAMPLE ID Coolant Tower Slop FRACTION 01A TEST CODE ZHE NAME Zero Head Space Extraction
Date & Time Collected not specified Category SOLID

	RESULT	REG LEVEL
Acrlonitrile	<10.0	5.0
Benzene	<4.4	0.07
Carbon Disulfide	<10.0	14
Carbon Tetrachloride	<2.8	0.07
Chlorobenzene	<6.0	1.4
Chloroform	1.7	0.07
1,2-Dichloroethane	<2.8	0.40
1,1-Dichloroethylene	<2.8	0.10
Isobutanol	<10.0	36
Methylene Chloride	<2.8	8.6
Methylethyl Ketone	<10.0	7.2
Pyridine	<10.0	5.0
1,1,1,2-Tetrachloroethane	<10.0	10
1,1,2,2-Tetrachloroethane	<6.9	1.3

Controls for Environmental Pollution, Inc.
P.O. BOX 5351 • Santa Fe, New Mexico 87[illegible]2 IN STATE 505/982-[illegible]11
OUT OF STATE 800/545-2188 • FAX - 505-982-[illegible]39

SAMPLE ID Coolant Tower Slop FRACTION 01A TEST CODE ZHE NAME Zero Head Space Extraction
Date & Time Collected not specified Category SOLID

Tetrachloroethylene	<4.1	0.10
Toluene	33.3	14
1,1,1-Trichloroethane	<3.8	30
1,1,2-Trichloroethane	<5.0	1.2
Trichloroethylene	<1.9	0.07
Vinyl Chloride	<10.0	0.05

Notes and Definitions for this Report:

UNITS ug/liter

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

March 7, 1990

CERTIFIED MAIL
RETURN RECEIPT NO. P-918-402-194

Gas Company of New Mexico
Permian District
311 Moore Drive
Carlsbad, New Mexico 88220

RE: Discharge Plan GW-24
Avalon Gas Processing Plant
Eddy County, New Mexico

Dear Sir:

On September 18, 1985, the ground water discharge plan GW-24 for the Gas Company of New Mexico Avalon Gas Processing Plant located in Section 9, Township 21 South, Range 27 East, NMPM, Eddy County, New Mexico, was approved by the Director of the Oil Conservation Division (OCD). This discharge plan was required and submitted pursuant to Water Quality Control Commission (WQCC) regulations and was approved for a period of five years. The approval will expire on September 18, 1990.

If your facility continues to have effluent or leachate discharges and you wish to continue discharging, please submit your application for renewal of plan approval as quickly as possible. The OCD is reviewing discharge plan submittals and renewals carefully and the review time can often extend for several months. Please indicate whether you made, or intend to make, any changes in your discharge system, and if so, include an application for plan amendment with your application for renewal. To assist you in preparation of your renewal application, I have enclosed a copy of the OCD's guidelines for preparation of ground water discharge plans at natural gas processing plants. These guidelines are presently being revised to include berming of tanks, curbing and paving of process areas susceptible to leaks or spills and the disposition of any solid wastes. Please include these items in your renewal application.

If you no longer have such discharges and discharge plan renewal is not needed, please notify this office.

PLANT SITE

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

NEW MEXICO
(EDDY COUNTY)
CARLSBAD QUADRANGLE
15-MINUTE SERIES

Topography by Max J. Gleissner, T. T. Ranney, M. C. McClellan, C. E. Walker, R. E. Isto, R. E. Mann, N. B. Wright, and Pecos River Survey

Surveyed in 1935 and 1939

Red tint indicates areas in which only landmark buildings are shown

ROAD CLASSIFICATION

Heavy duty — 4 LANE | 6 LANE
Medium duty — 4 LANE | 6 LANE
Light duty
Unimproved dirt
U.S. Route
State Route

UTM GRID AND 1971 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

Revisions shown in purple compiled from aerial photographs taken 1971. This information not field checked. Purple tint indicates extension of urban areas.

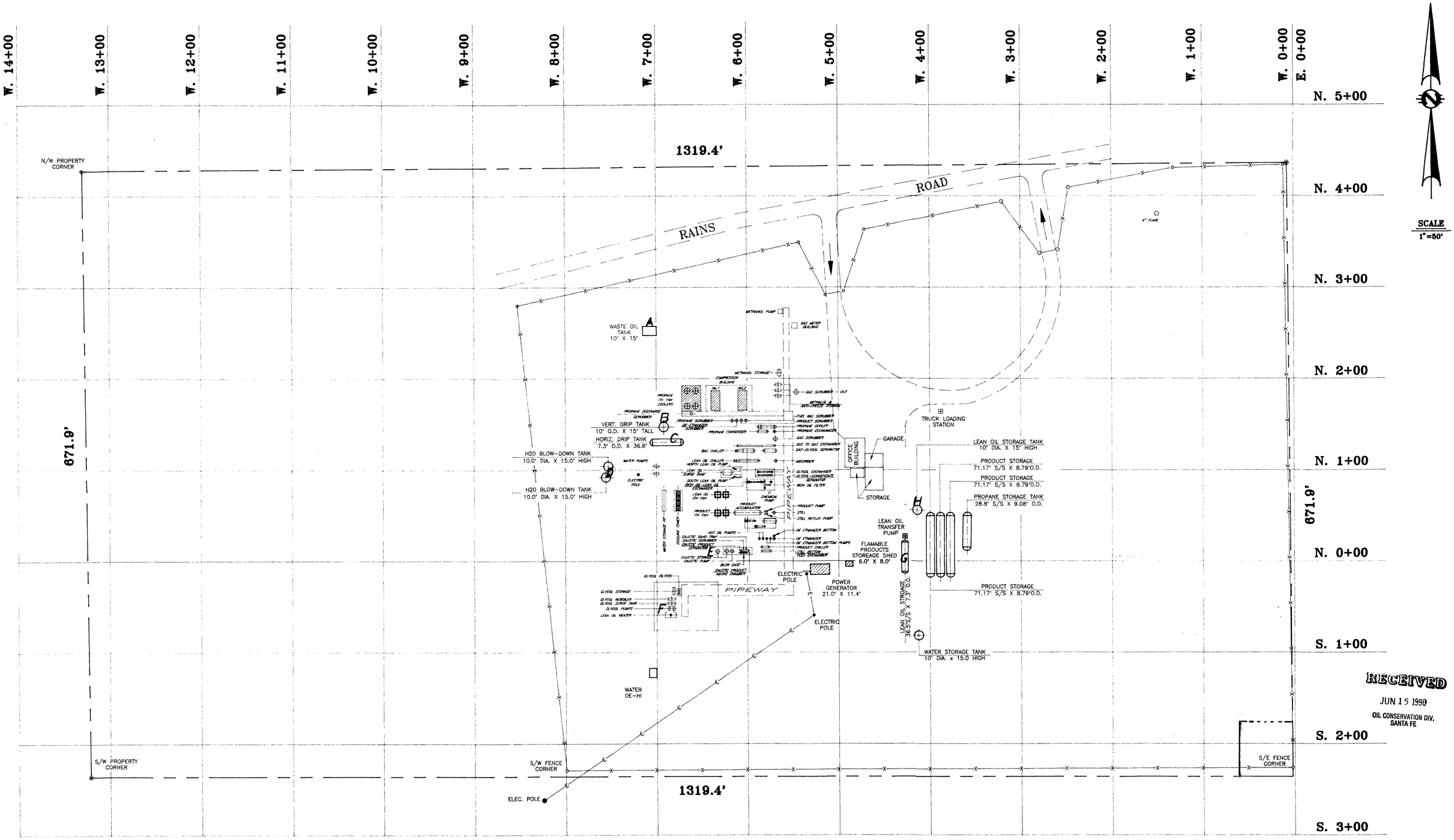
SCALE 1:62500

Contour interval 10 feet
Datum is mean sea level

FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225 OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

Polyconic projection. 1927 North American datum
5000 yard grid based on U. S. zone system, E
10000 foot grid based on New Mexico (East) rectangular coordinate system
1000-meter Universal Transverse Mercator grid ticks, zone 13, shown in blue

CARLSBAD, N. MEX.
N3215—W10400/15
1939
PHOTOREVISED 1971
AMS 5148 I—SERIES V781



SCALE 1" = 50'

RECEIVED
JUN 15 1990
OIL CONSERVATION DIV.
SANTA FE

NOTE: ALL FACILITIES INDICATED BY SLANTED LETTERING INDICATED FACILITIES NOT SURVEYED BUT WAS TRACED FROM A PREVIOUS DRAWING. ALL FACILITIES INDICATED BY UPRIGHT LETTERING WAS SURVEYED IN REFERENCE TO THE EXISTING PROPERTY CORNERS

I HEREBY CERTIFY THAT THIS PLAT WAS MADE FROM NOTES TAKEN IN THE FIELD IN A BONA FIDE SURVEY MADE UNDER MY SUPERVISION, AND THAT THE SAME IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

JOHN W. WEST, N.M. P.E. & L.S. No. 676
TEXAS R.P.S. No. 1138

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR NO. 676 NEW MEXICO JOHN W. WEST

GAS COMPANY OF NEW MEXICO

TOPOGRAPHIC STUDY

EXISTING AND NEW STRUCTURES WITHIN THE AVALON GASOLINE PLANT LOCATED IN SECTION 9 TOWNSHIP 21 SOUTH, RANGE 27 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO

JOHN WEST ENGINEERING CO.
CONSULTANTS
HOBBS NEW MEXICO

Surveyed By T. ASEL	Drawn By S.STANFIELD	Last Rev. Date	Drawing Number
Date Begin 4-10-1990	Date 4-17-1990	Disk	
Date End 4-10-1990	Checked By	Sheet 1 of 1	E-2481-2
Project Number: 90-04-021	File Name: GCNMAGP		

W. 8+00

W. 7+00

W. 6+00

W. 5+00

W. 4+00

W. 3+00

N. 2+00

N. 1+00

N. 0+00

S. 1+00

SCALE
1" = 20'

WASTE OIL TANK
10' X 15'
A

METHANOL PUMP

GAS METER BUILDING

METHANOL STORAGE

COMPRESSOR BUILDING

No. 1

NO. 2

GAS SCRUBBER - OUT

PROPANE FIN FAN COOLERS

METHALOL & ANTI-FREEZE STORAGE

PROPANE DISCHARGE SCRUBBER

FUEL GAS SCRUBBER

PROPANE SCRUBBER

PRODUCT SCRUBBER

DE-ETHANIZER SCRUBBER

PROPANE COOLER

PROPANE ECONOMIZER

VERT. DRIP TANK
10' O.D. X 15' TALL
B

PROPANE CONDENSER

GAS SCRUBBER

HORIZ. DRIP TANK
7.3' O.D. X 36.6'
C

GAS TO GAS EXCHANGER

GAS-GLYCOL SEPARATOR

GAS CHILLER

OFFICE BUILDING

GARAGE

H20 BLOW-DOWN TANK
10.0' DIA. X 15.0' HIGH
D

WATER PUMPS

LEAN OIL CHILLER

NORTH LEAN OIL PUMP

ABSORBER

LEAN OIL SURGE TANK

GLYCOL EXCHANGER

GLYCOL-CONDENSATE SEPARATOR

ELECTRIC POLE

SOUTH LEAN OIL PUMP

RICH OIL FILTER

RICH OIL-LEAN OIL EXCHANGER

CHEMICAL PUMP

LEAN OIL FIN FAN

PRODUCT PUMP

PRODUCT ACCUMULATOR

PRODUCT FIN FAN

STILL

STILL REFLUX PUMP

WATER STORAGE PIT

COOLING TOWER

HOT OIL PUMPS

DE ETHANIZER BOTTOM

CAUSTIC SAND TRAP

CAUSTIC SCRUBBER

DE ETHANIZER

CAUSTIC PRODUCT SEPARATOR

DE ETHANIZER BOTTOM PUMPS

PRODUCT CHILLER

STILL BOTTOM FEED EXCHANGER

CAUSTIC STORAGE

CAUSTIC PUMP

BLOW CASE

CAUSTIC PRODUCT MIXING CHAMBER

GLYCOL FILTERS

ELECTRIC POLE

POWER GENERATOR
21.0' X 11.4'

PIPEWAY

GLYCOL STORAGE

GLYCOL REBOILER

GLYCOL SURGE TANK

GLYCOL PUMPS

LEAN OIL HEATER

ELECTRIC POLE

WATER
DE-HI

NOTE: ALL FACILITIES INDICATED BY SLANTED LETTERING INDICATED FACILITIES NOT SURVEYED BUT WAS TRACED FROM A PREVIOUS DRAWING. ALL FACILITIES INDICATED BY UPRIGHT LETTERING WAS SURVEYED IN REFERENCE TO THE EXISTING PROPERTY CORNERS

TRUCK LOADING STATION

LEAN OIL STORAGE TANK
10' DIA. X 15' HIGH

PRODUCT STORAGE
71.17' S/S X 8.79'O.D.

PRODUCT STORAGE
71.17' S/S X 8.79'O.D.

PROPANE STORAGE TANK
28.8' S/S X 9.08' O.D.

H

LEAN OIL TRANSFER PUMP

G

LEAN OIL STROAGE
36.5'S/S X 7.3' O.D.

PRODUCT STORAGE
71.17' S/S X 8.79'O.D.

FLAMABLE PRODUCTS STOREAGE SHED
6.0' X 8.0'

WATER STORAGE TANK
10' DIA. X 15.0 HIGH

I HEREBY CERTIFY THAT THIS PLAT WAS MADE FROM NOTES TAKEN IN THE FIELD IN A BONA FIDE SURVEY MADE UNDER MY SUPERVISION, AND THAT THE SAME IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

JOHN W. WEST, N.M. P.E. & L.S. No. 676
TEXAS R.P.S. No. 1138

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR NO. 676 NEW MEXICO JOHN W. WEST

RECEIVED
JUN 15 1990
OIL CONSERVATION DIV.
SANTA FE

GAS COMPANY OF NEW MEXICO

TOPOGRAPHIC STUDY

EXISTING AND NEW STRUCTURES WITHIN THE AVALON GASOLINE PLANT LOCATED IN SECTION 9 TOWNSHIP 21 SOUTH, RANGE 27 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO

JOHN WEST ENGINEERING CO.
CONSULTANTS
HOBBS NEW MEXICO

Surveyed By T. ASEL	Drawn By S.STANFIELD	Last Rev. Date	Drawing Number
Date Begin 4-10-1990	Date 4-19-1990	Disk	E-2481-2
Date End 4-10-1990	Checked By	Sheet 2 of 2	
Project Number: 90-04-021	File Name: GCNMAGPA		

NOTE

WATER SAMPLE ANALYSIS HAVE NOT BEEN RECEIVED AT THE TIME THIS APPLICATION WAS MAILED. YOU SHOULD EXPECT THE ANALYSIS BY OCTOBER 12, 1984. THEY WILL BE MAILED AS SOON AS THEY ARE RECEIVED BY GAS COMPANY OF NEW MEXICO.

CONTROLS FOR ENVIRONMENTAL POLLUTION, INC.

SAMPLING INSTRUCTIONS FOR

GAS COMPANY OF NEW MEXICO (GCNM)

The following samples from each sampling point (with appropriate preservatives) are needed to properly analyze for Section 3-103, A B and C (WQCC-81-2) as per telephone conversation with John Jones of (GCNM) on September 11, 1984.

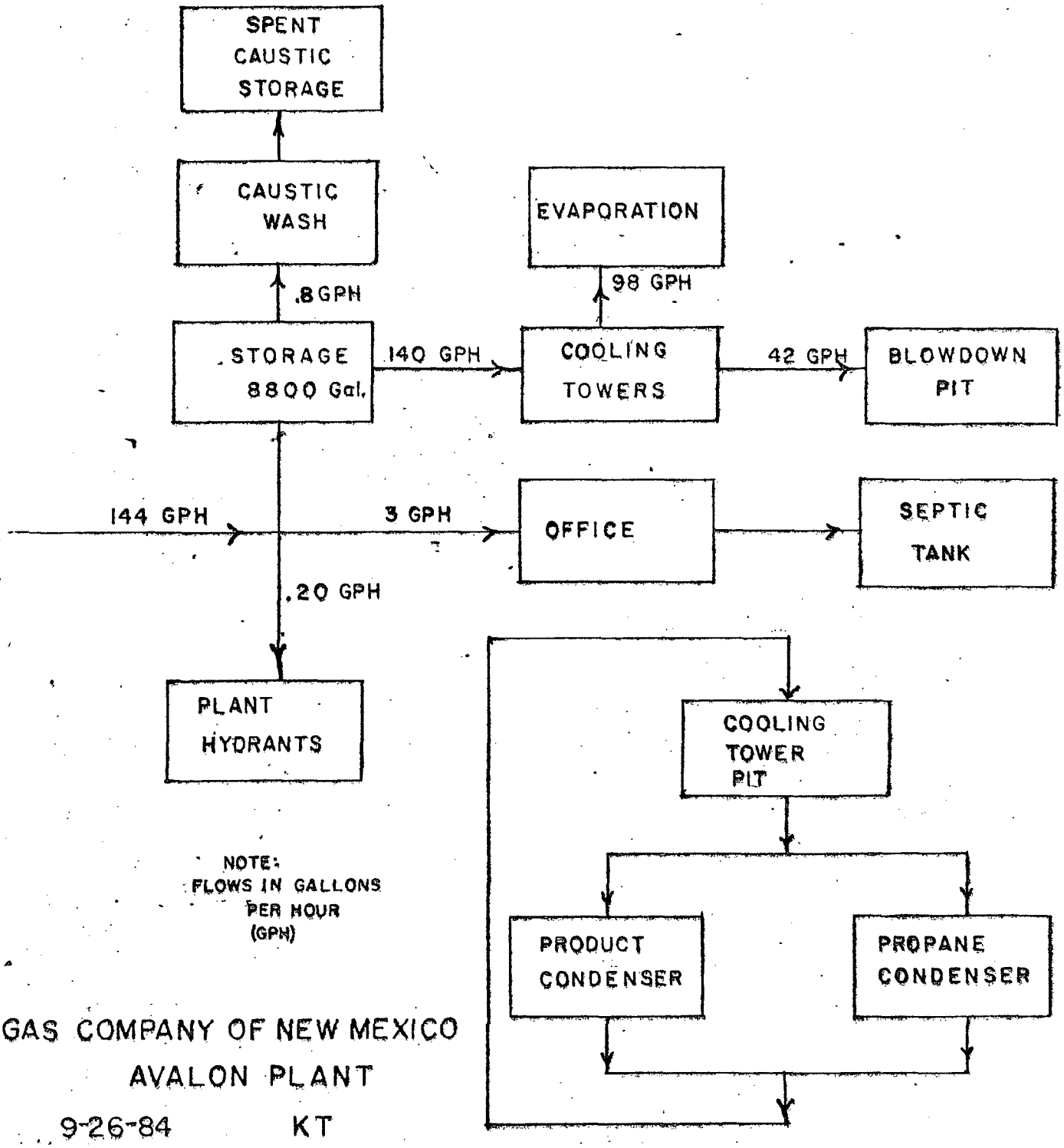
Sample Container	Preservative
1 gallon plastic cubitainer/Sampling Site	10 mls nitric acid (nitric acid (HNO_3)
1 gallon plastic cubitainer/Sampling Site	No Preservative
1, 4 oz. plastic bottle/Sampling Site	1 ml sulfuric acid (H_2SO_4)
2, 32 oz. glass bottle/Sampling Site	Add to each bottle, 1 ml sulfuric acid and 1 gram cupric sulfate

* Place all samples in an ice chest and keep at $4^{o}C$

Please label all bottles with sample I. D. & preservative (if any) used.

WATER FLOW SCHEMATIC

FIGURE A



NOTE:
FLOWS IN GALLONS PER HOUR (GPH)

GAS COMPANY OF NEW MEXICO

AVALON PLANT

9-26-84 KT

Unichem International, Inc.
P. O. Box 1149
Hobbs, New Mexico 88240

General information:

Springs Unit Salt Water Disposal Well

Location:

Unit Letter I, 1650' from the South line and 754' from the east line; Section 27, Township 20 South, Range 26 East.

Bone Springs Formation

Elevation 3221' GL

Converted plugged and abandoned well to Salt Water Disposal Service as authorized by New Mexico Oil Conservation Commission Order No. SWD-86

Proceedure:

Drill out cement plugs, cut off 13 3/8 & 8 5/8 casing. Insert casing nipple and 8 5/8 head. Drilled out to 4580', ran tubing to bottom. Ran Guiberson type AF tension packer on 85 joints of 2 3/8 OD EUE 8rt 4.70# J-55 tubing with PA-600 plastic coating. Bottom of packer set at 2661'. Completed conversion 12-12-68.

Administrative

(4) That the State Engineer has designated, pursuant to Section 65-3-11 (15), N.M.S.A., 1953 Compilation, all underground water in the State of New Mexico containing 10,000 parts per million or less of dissolved solids as fresh water supplies to be afforded reasonable protection against contamination; except that said designation does not include any water for which there is no present or reasonably foreseeable beneficial use that would be impaired by contamination.

(5) That the applicant, Unichem International, Inc., seeks as an exception to the provisions to the aforesaid Order (3) to permit the commercial disposal of produced brine into several unlined surface pits (natural salt lakes) located in Section 2, Township 23 South, Range 29 East, NMPM, Eddy County, New Mexico.

(6) That the applicant proposes to dispose of up to 2000 barrels of salt water daily at company facilities located in the NW/4 of said Section 2, such salt water being hauled by Unichem or Unichem subsidiary trucks only.

(7) That there appears to be no shallow fresh water in the vicinity of the subject pits for which a present or reasonably foreseeable beneficial use is or will be made that would be impaired by contamination from the subject pits.

(8) That the area of the salt lakes is sufficient to provide for evaporation in excess of the volume of salt water proposed for disposal (up to 2000 barrels of water per day).

(9) That the disposal facility should consist of skim tanks, surge tanks, aeration tanks, skim oil storage tanks and a header pit all being of sufficient size and capacity to prevent the movement of any oil or solids onto or into any of the salt lakes affected by such disposal.

(10) That if the applicant fails to prevent the movement of such oils or solids onto or into any of said salt lakes, the Director of the Division should be empowered to administratively suspend or rescind the authority for use of such lake for salt water disposal.

(11) That this application should be approved.

IT IS THEREFORE ORDERED:

(1) That the applicant, Unichem International, Inc., is hereby granted an exception to Order (3) of Division Order No. R-3221, as amended, to dispose of up to 2000 barrels of salt water per day collected by its or its subsidiaries' trucks

in a commercial salt water disposal facility located in the NW/4 of Section 2, Township 23 South, Range 29 East, NMPM, Eddy County, New Mexico.

(2) That prior to disposal of any water at said facility, the applicant shall install skim tanks, surge tanks, aeration tanks, and skim oil storage tanks and shall construct a header pit all of combined size and capacity sufficient to prevent the movement of any oil or solids from the facility onto or into any natural salt lake or ground surface which may be affected by the disposal operation.

(3) That upon completion of such installation and construction the applicant shall notify the supervisor of the Division's district office at Artesia in order that the Division may inspect said facility.

(4) That the Director of the Division may by administrative order suspend or rescind such authority whenever it reasonably appears to the Director that such suspension or rescission would serve to protect fresh water supplies from contamination or if the applicant should permit the movement of oil or solids onto the ground surface or any natural salt lake as prohibited by Order No. (2) above.

(5) The applicant shall file a monthly report of disposal volumes on Form C-120-A in accordance with Division Rule 1120.

(6) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

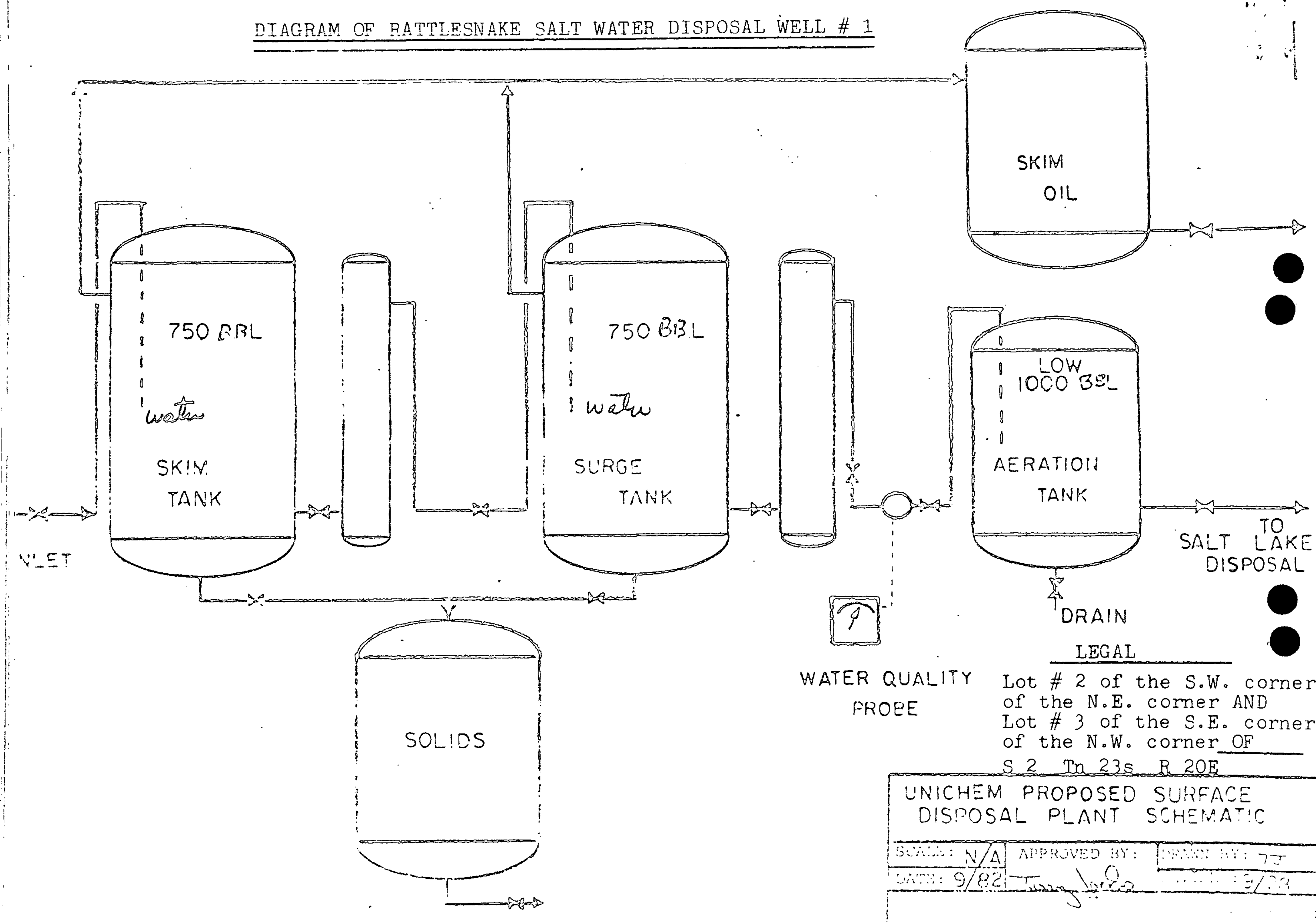
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

JOE D. RAMEY
Director

S E A L
fd/

DIAGRAM OF RATTLESNAKE SALT WATER DISPOSAL WELL # 1



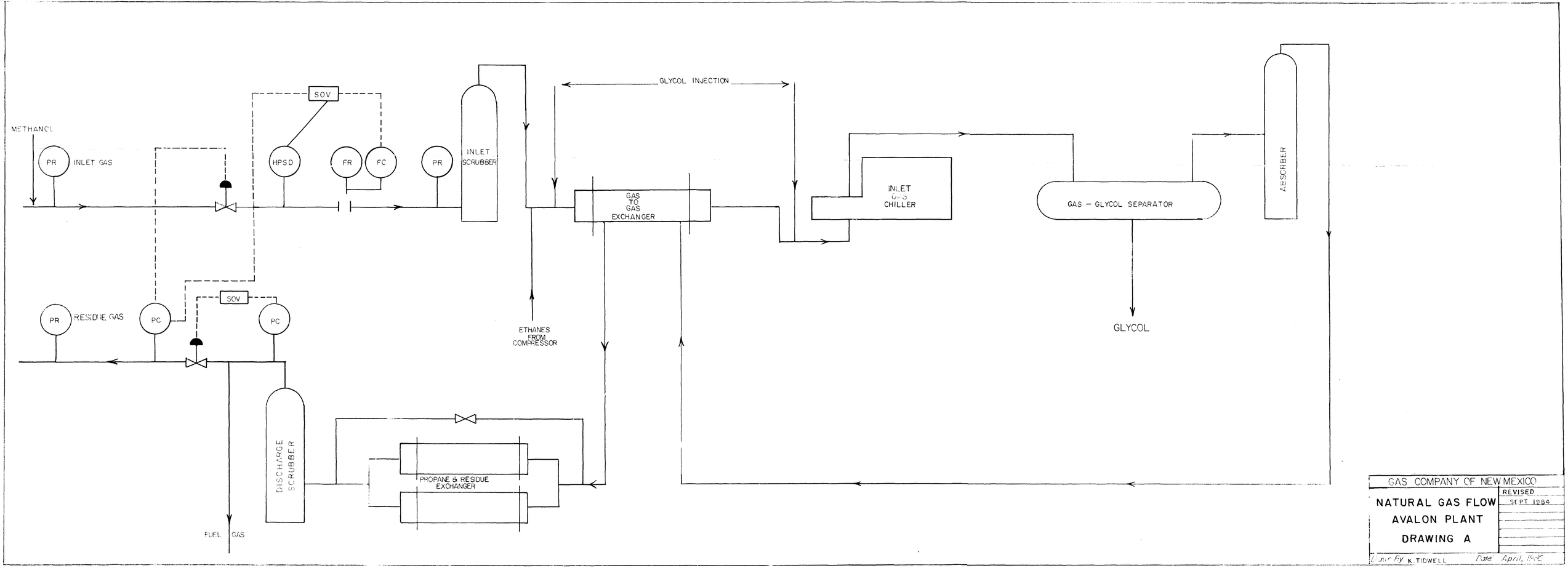
LEGAL

Lot # 2 of the S.W. corner of the N.E. corner AND Lot # 3 of the S.E. corner of the N.W. corner OF S 2 Tn 23s R 20E

UNICHEM PROPOSED SURFACE DISPOSAL PLANT SCHEMATIC

SCALE: N/A	APPROVED BY:	DRAWN BY: TJ
DATE: 9/82	[signature]	9/82

EXHIBIT 1-BRANCH

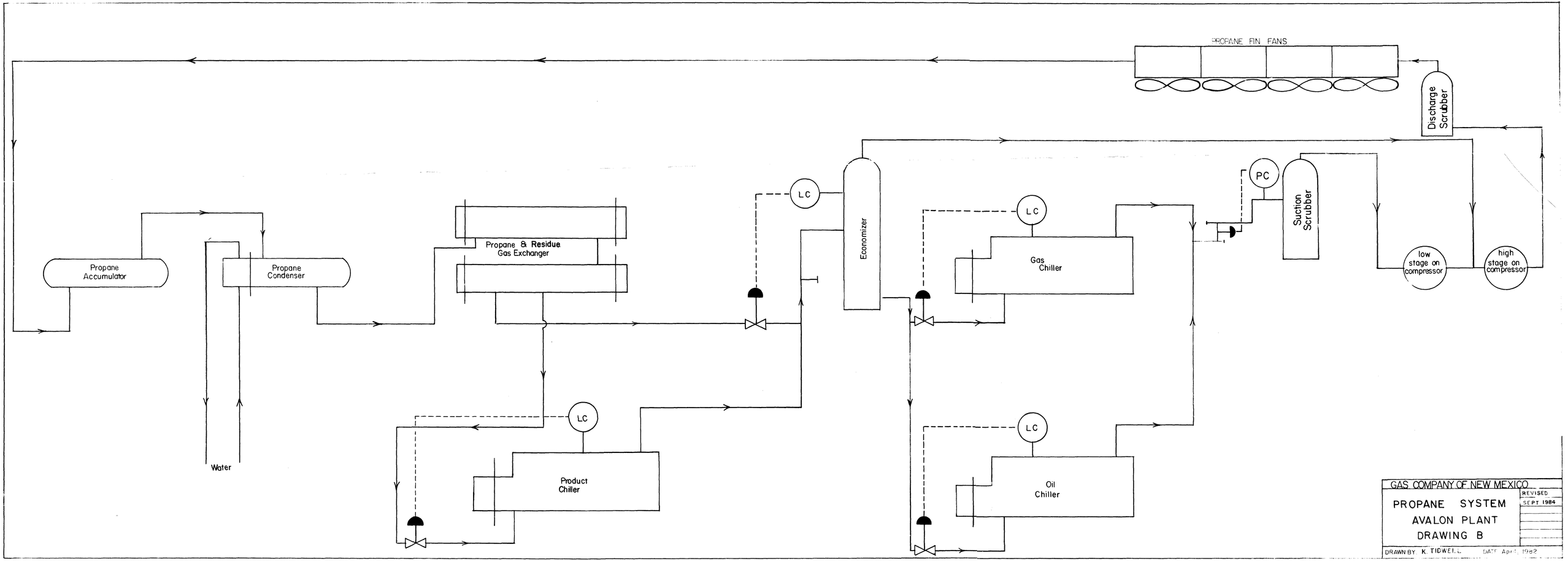


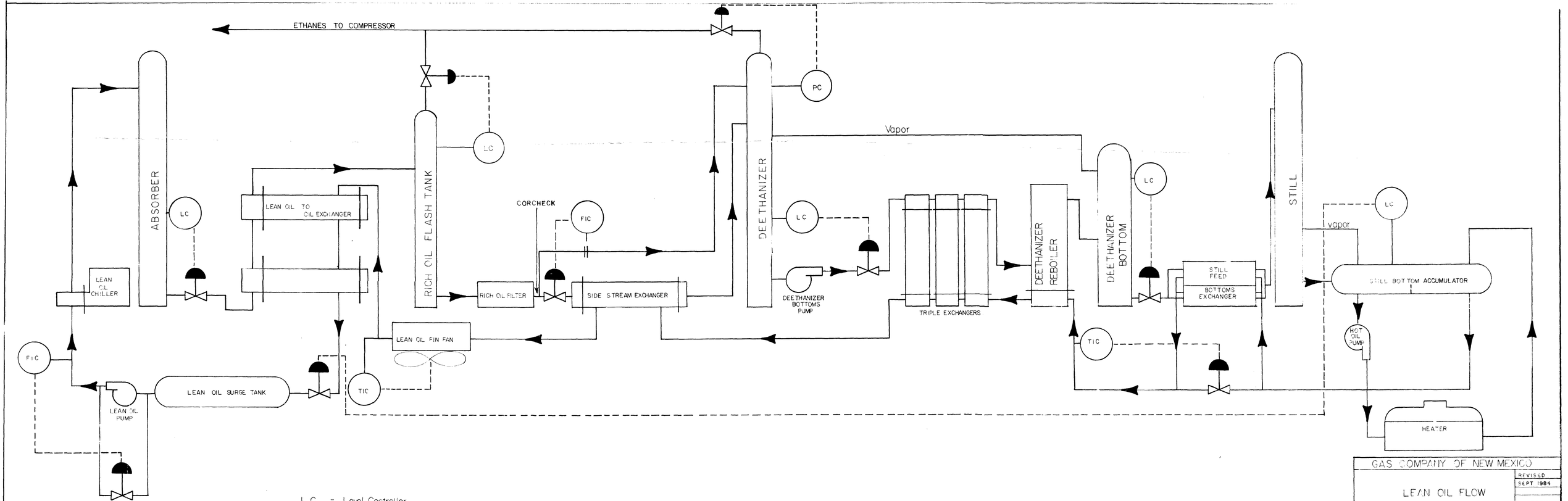
GAS COMPANY OF NEW MEXICO

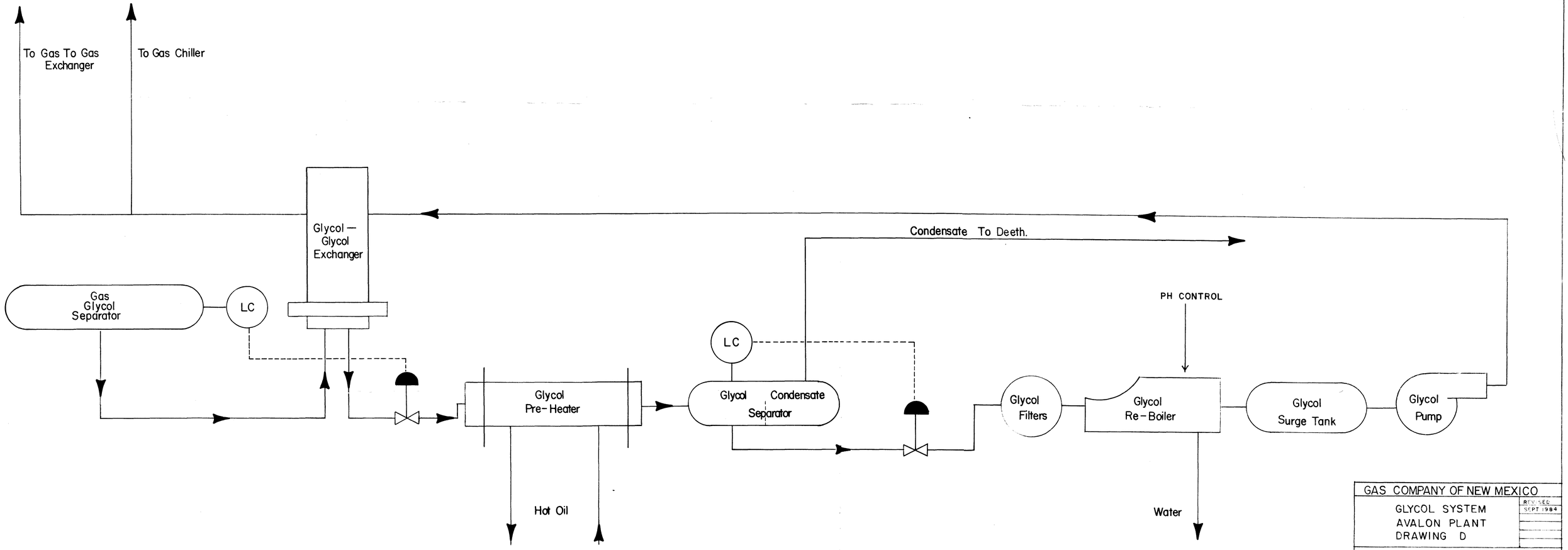
NATURAL GAS FLOW
AVALON PLANT
DRAWING A

REVISED
SEPT 1984

Drawn by K. TIDWELL Date April, 1982


PROPANE FIN FANS
Discharge Scrubber
Propane Accumulator
Propane Condenser
Water
Propane & Residue Gas Exchanger
LC
Economizer
LC
Gas Chiller
PC
Suction Scrubber
low stage on compressor
high stage on compressor
LC
Product Chiller
LC
Oil Chiller
GAS COMPANY OF NEW MEXICO
PROPANE SYSTEM
AVALON PLANT
DRAWING B
REVISED
SEPT 1984
DRAWN BY K. TIDWELL
DATE April 1982


ETHANES TO COMPRESSOR
ABSORBER
LC
LEAN OIL CHILLER
LEAN OIL TO OIL EXCHANGER
RICH OIL FLASH TANK
LC
CORCHECK
FIC
RICH OIL FILTER
SIDE STREAM EXCHANGER
DEETHANIZER
PC
LC
Vapor
DEETHANIZER BOTTOMS PUMP
TRIPLE EXCHANGERS
DEETHANIZER REBOILER
DEETHANIZER BOTTOM
LC
STILL
STILL FEED
BOTTOMS EXCHANGER
LC
vapor
STILL BOTTOM ACCUMULATOR
HOT OIL PUMP
HEATER
LEAN OIL FIN FAN
TIC
TIC
FIC
LEAN OIL SURGE TANK
LEAN OIL PUMP
L.C. - Level Controller
T.I.C. - Temperature Indicator Controller
F.I.C. - Flow Indicator
GAS COMPANY OF NEW MEXICO
REVISED
SEPT 1984
LEAN OIL FLOW
AVALON PLANT
DRAWING 3
Drawn By: K. TIDWELL
Date Drawn: April 13, 1982

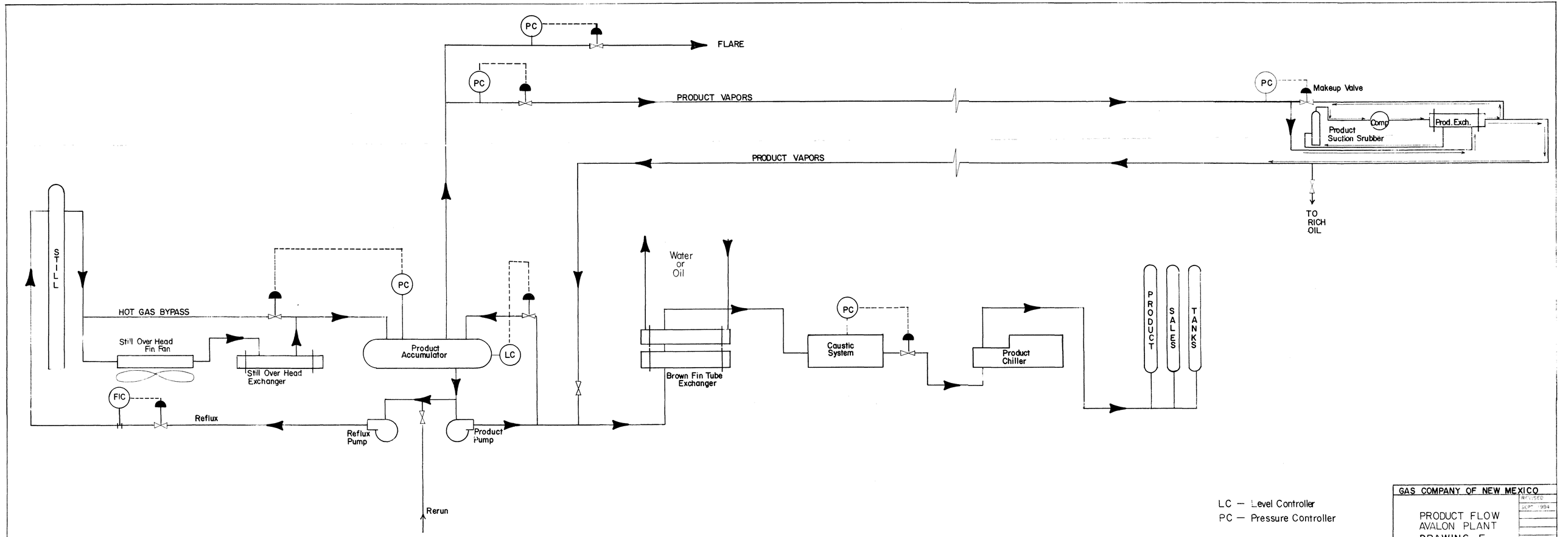


GAS COMPANY OF NEW MEXICO

GLYCOL SYSTEM
AVALON PLANT
DRAWING D

REVISED SEPT 1984

DRAWN BY: K TIDWELL DATE: APRIL, 1982


PC
FLARE
PC
PRODUCT VAPORS
PC
Makeup Valve
Comp
Prod. Exch.
Product
Suction Srubber
PRODUCT VAPORS
TO
RICH
OIL
STILL
HOT GAS BYPASS
Still Over Head
Fin Fan
Still Over Head
Exchanger
PC
Product
Accumulator
LC
FIC
Reflux
Reflux
Pump
Product
Pump
Rerun
Water
or
Oil
Brown Fin Tube
Exchanger
PC
Caustic
System
Product
Chiller
PRODUCT
SALES
TANKS
LC — Level Controller
PC — Pressure Controller
GAS COMPANY OF NEW MEXICO
PRODUCT FLOW
AVALON PLANT
DRAWING E
REVISED
SEPT 1984
DRWN. J. K. TIDWELL 2ND APRIL 1982

BELOW GROUND FIBERGLASS TANK 375 GALLONS

DEHY CONDENSATE

4" WRAPPED PIPE

HEATER

GLYCOL PUMPS

GLYCOL SURGE REBOILER

STORAGE

FILTER

SPENT CAUSTIC 8800 GALLONS

SPENT CAUSTIC STORAGE

1" WRAPPED PIPE

CAUSTIC STORAGE

CAUSTIC BATH

BLOWDOWN PIT

4" PVC

COOLING TOWER PIT

COOLING TOWERS

DRIP TANK

WASTE OIL TANK 11,000 GALLONS

WASTE OIL STORAGE

4" PVC

FIN FANS

PRODUCT

LEAN OIL

FIN FANS

E-8 EXCHANGER PRODUCT EXCHANGER

LEAN OIL SURGE

OIL CHILLER

GAS CHILLER

COMPRESSOR #2

BUILDING

#1

FLARE PIT

STILL BOTTOM FEED EXCH.

PRODUCT CHILLER

HOT OIL DEETH PUMPS

DEETH.

DEETH. BOTTOMS

STILL ACCUM.

REFLUX

PRODUCT ACCUMULATOR

PRODUCT

STILL

OIL COOLER

R.O. FLASH

GLYCOL/ CONDENSATE SEPARATOR

GLYCOL GAS SEPARATOR

GAS TO GAS EXCH.

C3 COOLER

RS

DS

PS

FGS

C3

ABSORBER

SCRUBBER

ECON

AMBRITOL

METHANOL

METER HOUSE

ESD

ESD

ELECTRICAL STARTER RACK

AUX. A. C. GEN.

OFFICE ESD

SHOP

SEPTIC 1200 gal. LEACH LINE

LOAD RACK

LEAN OIL 6 x 10 2100 gal.

LEAN OIL PUMP

LEAN OIL

PRODUCTION STORAGE #1

#2

#3

PROPANE

PROPANE

RAWMAKE PUMPS

PROPANE PUMP

2" PVC

SPENT CAUSTIC STORAGE

BELOW GROUND FIBERGLASS TANK FOR CAUSTIC CARRYOVER 250 GALLONS

GAS COMPANY OF NEW MEXICO

AVALON PLANT

PLOT PLAN

REVISED

SEPT, 1984

DRAWN BY K. TIDWELL | OCT, 1981

Please note that all gas plants, refineries and compressor stations in excess of 25 years of age will be required to submit plans for, or the results of, an underground drainline testing program as a requirement for discharge plan renewal.

If you have any questions, please do not hesitate to contact Roger Anderson at (505) 827-5884.

Sincerely,

David G. Boyer, Hydrogeologist
Environmental Bureau Chief

DGB/sl

Enclosure

cc: OCD Artesia Field Office

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal	Time	Date
	0952	2-18-86

Originating Party	Other Parties
Jon W. Jones - Gas Co of N.M	R. Anderson - OCD

Subject: Requirments and design criteria for below ground concrete tank to replace fiberglass tanks already in place

Discussion: Tank is to be holding location for spent caustic & Glycol reboiler condensate prior to injection. Discussed leak detection, lining of inside surface & vapor barrier at joints. Sent Guidelines for below grade tanks.

Conclusions or Agreements: Just in investigation stage. will submit required applications prior to installation

Distribution

Signed R. Anderson

GAS COMPANY OF NEW MEXICO
PERMIAN PIPELINE DISTRICT

December 12, 1985

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Energy and Minerals Department
Oil Conservation Division
State Land Office Bldg
310 Old Santa Fe Trail Room 206
Santa Fe, NM 87501

Attention: Mr. R. L. Stamets

RE: Avalon Plant Discharge Plan

Dear Mr. Stamets:

This is to notify you the earthen pit has been covered and mounded.

Pursuant to your letter of September 18, 1985, this now concludes our work on the discharge plan.

Should you have any questions, I may be reached at (505)887-1490.

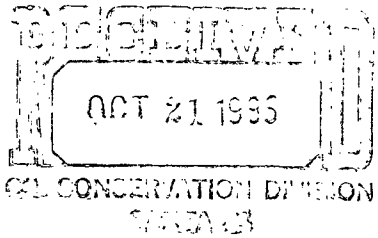
Sincerely,

GAS COMPANY OF NEW MEXICO

Jon W. Jones
Manager Operations and Engineering

cc: T. Morse
D. Pickel
D. Davis
G. Mische
B. Bogan
Avalon Discharge Plan file
c. file

GAS COMPANY OF NEW MEXICO
PERMIAN PIPELINE DISTRICT



October 18, 1985

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Energy and Minerals Department
Oil Conservation Division
State Land Office Bldg.
310 Old Santa Fe Trail Room 206
Santa Fe, NM 87501

Attention: Mr. R. L. Stamets

RE: Avalon Plant Discharge Plan

Dear Mr. Stamets:

This is to notify you that the cooling tower blowdown was routed to the storage tanks on October 15, 1985.

The earthen pit will be covered up and mounded in approximately two months or when it dries up which ever occurs first.

Should you have any questions, I may be reached at (505) 887-1490.

Sincerely,

Jon W. Jones
Senior Staff Engineer

cc: Mike Lambert
Bob Corliss
Gary Mische
Bob Bogan
Avalon Discharge Plan File
Correspondence file

311 Moore Drive, Carlsbad, New Mexico 88220

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

October 2, 1985

CERTIFIED MAIL
RETURN RECIEPT REQUESTED

Gas Company of New Mexico
Attn: Mr. Jon W. Jones
311 Moore Drive
Carlsbad, New Mexico 88220

Dear Mr. Jones:

On September 18, 1985, an approval letter for the Gas Company of New Mexico's Avalon gas processing plant discharge plan was sent to you. Please be advised that there is an error concerning the deadline for closure of the unlined pit. Pit closure shall be completed by January 3, 1986, not January 3, 1985, as stated in the letter. We regret the error.

Sincerely,

Philip L. Baca
Environmental Engineer

PLB/et

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

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

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission regulations, the following discharge plan has been submitted for approval to the Director of the Oil Conservation Division, P.O. Box 2088, State Land Office Building, Santa Fe New Mexico 87501 (505) 827-5800.

Gas Company of New Mexico, Avalon Gas Processing Plant (SE/4 Section 9, Township 21 South, Range 27 East, NMPM, Eddy County, New Mexico), J. Jones, Authorized Agent, 311 Moore Drive, Carlsbad, New Mexico 88220, proposes to modify its existing facility by eliminating and closing an existing unlined evaporation pond, and disposing of approximately 1,000 gallons per day of cooling tower blowdown water into two steel above ground storage tanks with a total combined capacity of approximately 17,000 gallons. The water will be periodically transported to OCD approved waste disposal facilities. Liquid waste from other process vessels is currently stored in tanks and periodically transported to approved disposal and/or treating facilities. The cooling tower blowdown water has a total dissolved solids concentration of approximately 2600 mg/1. The groundwater most likely to be affected in the plant vicinity is at a depth of approximately 80 feet with a total dissolved solids of approximately 1100 mg/1.

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 New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 10th day of July, 1985.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

R. L. STAMETS
Director

S E A L

GAS COMPANY OF NEW MEXICO
PERMIAN PIPELINE DISTRICT

July 3, 1985

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Energy and Minerals Department
Oil Conservation Division
State Land Office Bldg.
310 Old Santa Fe Trail Room 206
Santa Fe, New Mexico 87501

Attention: Mr. R. L. Stamets

RE: Avalon Plant Discharge Plan

Dear Mr. Stamets:

Pursuant to your letter dated January 16, 1985, the following plan is submitted concerning the operation of the cooling tower blowdown pit.

We will install two (2) two hundred ten (210) barrel storage tanks to contain the cooling tower blowdown. The tanks will be connected and have a total capacity of seventeen thousand six hundred forty (17,640) gallons. A three quarter (3/4) inch PVC line will be installed to carry the discharge to the tanks. The tanks will be installed above ground and set on gravel beds.

The discharge will be removed by tanker trucks and disposed into injection and/or brine recovery facilities as outlined in the discharge plan.

The project will be completed within four weeks after the discharge plan has been approved.

Should you have questions or require additional information, I may be reached at 505 887-1490.

Sincerely yours,

Jon W. Jones

Jon W. Jones
Senior Staff Engineer

cc: Mike Lambert
Bob Corliss
Gary Mische
Bob Bogan
Avalon Discharge Plan file
Correspondence file

JWJ/mj

311 Moore Drive, Carlsbad, New Mexico 88220

GAS COMPANY OF NEW MEXICO
PERMIAN PIPELINE DISTRICT

May 22, 1985

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Energy and Minerals Department
Oil Conservation Division
State Land Office Bldg.
310 Old Santa Fe Trail Room 206
Santa Fe, New Mexico 87501

Attention: Mr. R. L. Stamets

RE: Avalon Plant Discharge Plan

Dear Mr. Stamets:

Pursuant to your letter dated January 16, 1985, the following progress report is submitted concerning the cooling tower blowdown discharge.

We have reviewed the four alternatives outlined in my letter of March 20, 1985 and find that alternative 2 appears to be the best solution.

I will, in the next two weeks, be making recommendations to our corporate management concerning this alternative. I would anticipate their response within two to three weeks. At this stage I see no problems making the July 8, 1985 deadline concerning how Gas Company of New Mexico plans to operate the cooling tower blowdown system.

Should you have questions or require additional information, I may be reached at 505 887-1490.

Sincerely yours,

Jon W Jones

Jon W. Jones
Senior Staff Engineer

cc: Mike Lambert
Bob Corliss
Gary Mische
Bob Bogan
Avalon Discharge Plan
Correspondence file

JWJ/mj

311 Moore Drive, Carlsbad, New Mexico 88220

GAS COMPANY OF NEW MEXICO
PERMIAN PIPELINE DISTRICT

March 20, 1985

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Energy and Minerals Department
Oil Conservation Division
State Land Office Bldg.
310 Old Santa Fe Trail Room 206
Santa Fe, New Mexico 87501

ATTENTION: Mr. R. L. Stamets

RE: Avalon Plant Discharge Plan

Dear Mr. Stamets,

Pursuant to your letter dated January 16, 1985, the following progress report is submitted concerning the cooling town blow-down discharge.

Information is presently being gathered on the following four alternatives:

1. Continued operation as present but proving that ground water standards are not being exceeded by the discharge.

2. Containing the discharge and having it removed to an approved injection well and or brine recovery system.

3. Install a lined evaporation pond.

4. Have the discharge injected into the waste heat generated by the lean oil heater. The discharge would be turned into steam vapor.

As of this date no alternative has emerged as the best solution.

311 Moore Drive, Carlsbad, New Mexico 88220

Should you have questions or require additional information, I may be reached at 505-887-1490.

Sincerely yours,

Jon W. Jones
Senior Staff Engineer

cc: Mike Lambert
Gary Mische
Bob Corliss
Bob Bogan
Avalon Discharge Plan
file

JWJ/mj

STATE OF NEW MEXICO

OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☑ Telephone ☐ Personal

Time: 10 am

Date: 2/25/85

Originating Party	Other Parties
P. BACA – OCD	J. JONES – Gas Co. of N.M.

Subject: Water analysis for Avalon Gas Plant (Rec'd by OCD 2/25/85

Discussion: Questioned him about sample #2. In particular, I asked if the organic analysis was from the oil phase, the water phase, or an average of the two. He didn't know. I also asked him if he thought it was unusual to have the analysis of the cooling tower blowdown to be similar to that for the glycol dehydrator with respect to organics. He didn't know if it was unusual.

Conclusions or Agreements

Mr. Jones will find out about the analysis for sample #2.

Distribution

Signed: P. L. Baca

ISION

FEB 25 1985

RECEIVED

GAS COMPANY OF NEW MEXICO
PERMIAN PIPELINE DISTRICT

February 21, 1985

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Energy and Minerals Department
Oil Conservation Division
State Land Office Bldg.
310 Old Santa Fe Trail Room 206
Santa Fe, New Mexico 87501

Attention: Mr. R. L. Stamets

RE: Avalon Plant Discharge Plan

Gentlemen:

Enclosed are the analysis for the various samples requested in a letter, dated December 5, 1984, from Mr. David Boyer. The analysis are provided to answer question number seven (7) of that letter.

Three of the samples are for discharges we are currently having removed and injected into an injection well operated by Unichem International, Inc. The fourth sample was cooling tower blow-down and was only analysized for the toxics since it has already been analysized for section 3-103 section A, B and C previously.

The method of sampling is as follows:

1. Sample number 1 is Spent Caustic. This discharge is contained in a 210 barrel (8820 gallon) tank. The sample was taken from a valve located one (1) foot off the tank bottom. This is the same valve used to drain the tank when the contents are sent off site for injection.

2. Sample number 2 is the used crankcase oil, ambitrol and wash water. This discharge is contained in a 210 barrel (8820 gallon) tank. Since the oil seperates from the ambitrol and wash water part of the sample was obtained from a valve located near the bottom of the tank. The oil was obtained through a vent cap on top of the tank. The tank was full at the time of sampling whereby the oil level was near the top.

3. Sample number 3 is the glycol dehydrator condensate. This discharge is contained in a fiberglass tank. The samples were dipped out using the sample bottles.

4. Sample number 4 is the cooling tower blowdown. The sample was collected directly from the blowdown location which is a valve and tubing connected on the discharge of the cooling tower pumps.

In all cases the sample bottle was rinsed out with the sample before the sample bottle was filled.

You will note on Sample Number 2 the analysis was done on the water portion and oil portion seperately. They need to be combined if you need that result. We do not know how much of each constituent is in the tank at the time of disposal.

Should you have any questions on the analysis, I may be reached at 505-887-1490.

Sincerely yours,

Jon W. Jones
Senior Staff Engineer

Enclosures

cc: Mike Lambert w/o
Bob Corliss w/a
Gary Mische w/o
Bob Bogan w/a
Avalon Discharge Plan w/a
Correspondence file w/o

JWJ/mj

Controls for Environmental Pollution, Inc.

February 5, 1985

Due to the nature of the samples, we analyzed fractions of each separately which gave us the differing detection limits. In the case of the crankcase oil and water sample we are reporting values for both. The ratio of oil to water for that sample was 40 mls oil to 60 mls water if you need to combine them.

1925 Rosina • Santa Fe, New Mexico 87502 • (505) 982-9841

Controls for Environmental Pollution, Inc.
P.O. BOX 5351 • Santa Fe, New Mexico 87502
IN STATE 505/982-9841
OUT OF STATE 800/545-2188

AGE 1 CEP, Inc. REPORT LAB # 85-01-151

ECEIVED: 01/09/85 02/05/85 13:17:59

REPORT TO: Gas Company of New Mexico
311 Moore Drive
Carlsbad, NM 88220

ATTEN: John Jones

CLIENT: GAS CO NM SAMPLES: 4
COMPANY: Gas Company of New Mexico
FACILITY: 311 Moore Drive
Carlsbad, NM 88220

WORK ID: Water Quality and Organics
TAKEN:
TRANS: UPS
TYPE: Liquid
P. O. #:
INVOICE: under separate cover

PREPARED BY: Controls for Environmental Pollution, Inc.
1925 Rosina Street
Santa Fe, NM 87502

ATTEN:
PHONE: (505) 982-9841

CERTIFIED BY

CONTACT GAIL

SAMPLE IDENTIFICATION

01	1 Spent Caustic
02	2 Crnkcse. Oil, Amb. & W. W.
03	3 Glucol Dehydrator Con.
04	4 Cooling Tower Blowdown

CEP, Inc. TEST CODES and NAMES used on this report

AL 1	Aluminum
AS 1	Arsenic
BA 1	Barium
BENZ 1	Benzene
B 1	Boron
CD 1	Cadmium
CL 1	Chloride
CN 1	Cyanide
CO 1	Cobalt
CR 1	Chromium
CU 1	Copper
FE 1	Iron
F 1	Fluoride
MN 1	Manganese
MO 1	Molybdenum
M XYLE	M Xylene
NI 1	Nickel
NO3 1	Nitrate, Nitrogen (as N)
O XYLE	O Xylene
PB 1	Lead
PHEN 1	Phenol
PH 1	pH
P XYLE	P Xylene
SE 1	Selenium
SO4 W	Sulfate
TDS 1	Total Dissolved Solids
TOL 1	Toluene
ZN 1	Zinc

Controls for Environmental Pollution, Inc.
P.O. BOX 5351 • Santa Fe, New Mexico 87502
IN STATE 505/982-9841
OUT OF STATE 800/545-2188

REPORT OF ANALYSIS

LAB # 85-01-151

SAMPLE IDENTIFICATION	DATE COLLECTED	TYPE OF ANALYSIS	mg/liter	
1 Spent Caustic	not specified	Benzene	5.3	(ug/liter)
		M Xylene	<2	(ug/liter)
		O Xylene	<2	(ug/liter)
		P Xylene	<2	(ug/liter)
		Toluene	<2	(ug/liter)
		Phenols	1.42	
		Chloride	37500	
		Cyanide	<0.1	
		Fluoride	12.5	
		Nitrogen, Nitrate (as N)	<0.1	
		pH	11.41	(units)
		Sulfate	15240	
		Solids, Total Dissolved	319000	
		Aluminum	5.0	
		Arsenic	0.06	
		Barium	0.2	
		Boron	0.7	
		Cadmium	0.122	
		Cobalt	<0.02	
		Chromium	0.08	
		Copper	0.77	
		Iron	48	
		Manganese	0.36	
		Molybdenum	0.02	
		Nickel	<0.2	
		Lead	0.13	
		Selenium	0.07	
		Zinc	0.3	

Controls for Environmental Pollution, Inc.
P.O. BOX 5351 • Santa Fe, New Mexico 87502
IN STATE 505/982-9841
OUT OF STATE 800/545-2188

REPORT OF ANALYSIS

LAB # 85-01-151

SAMPLE IDENTIFICATION	DATE COLLECTED	TYPE OF ANALYSIS	mg/liter	
2 Crnkcse. Oil, Amb. & W. W.	not specified	Benzene	5.4	(ug/liter)
		M Xylene	<2	(ug/liter)
		O Xylene	<2	(ug/liter)
		P Xylene	2.7	(ug/liter)
		Toluene	<2	(ug/liter)
		Phenols	0.05	
		Chloride	30	
		Cyanide	<0.1	
		Fluoride	0.6	
		Nitrogen, Nitrate (as N)	0.9	
		pH	7.46	(units)
		Sulfate	20	
		Solids, Total Dissolved	630	
(water)		Aluminum	<0.2	
		Arsenic	<0.02	
		Barium	<0.2	
		Boron	34.9	
		Cadmium	0.004	
		Cobalt	<0.02	
		Chromium	0.04	
		Copper	0.01	
		Iron	8.42	
		Manganese	0.40	
		Molybdenum	<0.02	
		Nickel	<0.2	
		Lead	0.2	
		Selenium	<0.02	
		Zinc	0.2	
(oil)		Aluminum	<10	
		Arsenic	<1	
		Barium	<10	
		Boron	<10	
		Cadmium	0.5	
		Cobalt	<1	
		Chromium	<1	
		Copper	3	
		Iron	9	
		Manganese	<1	
		Molybdenum	2	

Controls for Environmental Pollution, Inc.
P.O. BOX 5351 • Santa Fe, New Mexico 87502
IN STATE 505/982-9841
OUT OF STATE 800/545-2188

REPORT OF ANALYSIS

LAB # 85-01-151

SAMPLE IDENTIFICATION	DATE COLLECTED	TYPE OF ANALYSIS	mg/liter
2 Crnkcse. Oil, Amb. & W. W.	(Con't)	Nickel	<10
		Lead	13
		Selenium	<1
		Zinc	20

Controls for Environmental Pollution, Inc.
P.O. BOX 5351 • Santa Fe, New Mexico 87502
IN STATE 505/982-9841
OUT OF STATE 800/545-2188

REPORT OF ANALYSIS

LAB # 85-01-151

SAMPLE IDENTIFICATION	DATE COLLECTED	TYPE OF ANALYSIS	mg/liter	
3 Glycol Dehydrator Con.	not specified	Benzene	5.1	(ug/liter)
		M Xylene	<2	(ug/liter)
		O Xylene	<2	(ug/liter)
		P Xylene	<2	(ug/liter)
		Toluene	<2	(ug/liter)
		Phenols	0.02	
		Chloride	12	
		Cyanide	<0.1	
		Fluoride	0.7	
		Nitrogen, Nitrate (as N)	3.0	
		pH	7.62	(units)
		Sulfate	54	
		Solids, Total Dissolved	390	
		Aluminum	<0.2	
		Arsenic	<0.02	
		Barium	<0.2	
		Boron	<0.2	
		Cadmium	<0.002	
		Cobalt	<0.02	
		Chromium	<0.02	
		Copper	<0.02	
		Iron	5.26	
		Manganese	0.53	
		Molybdenum	<0.02	
		Nickel	<0.2	
		Lead	<0.02	
		Selenium	<0.02	
		Zinc	<0.2	

Controls for Environmental Pollution, Inc.
P.O. BOX 5351 • Santa Fe, New Mexico 87502
IN STATE 505/982-9841
OUT OF STATE 800/545-2188

REPORT OF ANALYSIS

LAB # 85-01-151

SAMPLE IDENTIFICATION	DATE COLLECTED	TYPE OF ANALYSIS	mg/liter	
4 Cooling Tower Blowdown	not specified	Benzene	4.8	(ug/liter)
		M Xylene	<2	(ug/liter)
		O Xylene	<2	(ug/liter)
		P Xylene	<2	(ug/liter)
		Toluene	<2	(ug/liter)

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
(505) 827-5800

January 16, 1985

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Gas Company of New Mexico
Permian District
311 Moore Drive
Carlsbad, NM 88220

Attention: Mr. Jon W. Jones

Dear Mr. Jones:

We have received your letted dated January 2, 1985, containing some of the additional information requested by the OCD with respect to the Gas Company of New Mexico Avalon Plant discharge plan. By your letter we understand that the additional water samples requested were obtained the week of January 7th. Your letter also indicates that six months are needed to assess the alternatives available to you with respect to your unlined blowdown pit.

Pursuant to Section 3-106.A. of the New Mexico Water Quality Control Commission Regulations and for good cause shown, Gas Company of New Mexico is hereby granted an extension until September 30, 1985, to operate the Avalon Gas Plant without an approved discharge plan with the following provisions:

1) A report should be submitted every sixty (60) days detailing the progress made with respect to your assessment of the alternatives available to you in reference to your blowdown pit as outlined in your letter of January 2, 1985. Submittal dates for these reports shall not be later than March 22, 1985, and May 21, 1985.

2) A report outlining the method of blowdown pit operation chosen by Gas Co. of New Mexico for the Avalon Plant shall be submitted not later than July 8, 1985. If the planned mode of operation will require new construction, drill-

ing (e.g. injection well), or modification to the existing pit, a schedule with the anticipated completion date shall be included. It should be noted that if the blowdown pit is to be lined, the proposed design shall be submitted to the OCD for approval prior to installation.

If you have any questions on this extension or the discharge plan process, please feel free to contact Phil Baca or Dave Boyer at (505) 827-5812.

Sincerely,

R. L. STAMETS
Director

RLS/PB/dp

cc: OCD-Artesia District Office

P 505 905 817

RECEIPT FOR CERTIFIED MAIL

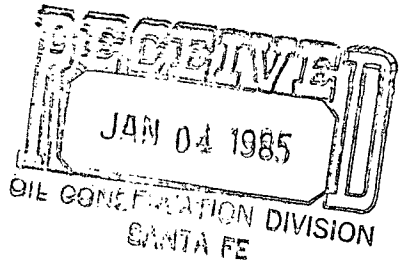
NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to	Gas Co. of NM
Street and No.	311 Moore Drive
P.O., State and ZIP Code	Carlsbad, NM 88220
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	
Return Receipt Showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date	

PS Form 3800, Feb. 1982

GAS COMPANY OF NEW MEXICO
PERMIAN PIPELINE DISTRICT



January 2, 1985

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Energy and Minerals Department
Oil Conservation Division
State Land Office Bldg.
310 Old Santa Fe Trail
Room 206
Santa Fe. New Mexico 87501

Attention: Mr. David G. Boyer

Dear Mr. Boyer:

In response to your letter dated December 5. 1984 all questions except numbers seven (7) and 12 regarding our discharge plan will be answered at this time.

Regarding the statement that Gas Company of New Mexico (GCNM) has not responded to the April 7, 1981 letter is incorrect. I have enclosed copies of all correspondence between GCNM and the OCD concerning the discharge plan. You will note that GCNM filed a discharge plan in November 1981. It wasn't until March 1984 that the OCD responded to that plan.

Pertaining to question number seven (7), samples will be taken the week of January 7, 1985. Based on previous analysis, the turn around time for these analysis will be between 30 to 45 days.

Regarding question number 12 the legal description on the nearest active water well was incorrect. The correct description should have read:

NE 1/4 SW 1/4, Section 3
Township 21 South, Range 27 East NMP.

The well mentioned in your letter located in the SW1/4 SW1/4, Section 9, Township 21 South, Range 27 East NMP has been abandoned and capped by the operator due to vandelism on the windmill.

The following answers are submitted in the same order as the question:

1. The methanol is injected at 2 gallons per minute. Concentration is 100%. This is done only when repairs are being made to the glycol system. This occurs approximately 2 to 3 times a year for 4 to 8 hours each time. The methanol remains in the product. It is stored in an above ground storage tank which is located on a stand.

2. Injection rate is one quart per day. It is not seperated from the stream. Description sheet attached for Corchek 1686.

3. The caustic (NaOH) is stored in an above ground steel tank. Capacity is 210 barrel (8820 gallons).

4. This discharge from the discharge scrubber in the propane flow is dumped manually into a 5 gallon bucket. This bucket is dumped into the 11,000 gallon drip tank. This tank is described in the discharge plan in Section II, Plant Process, Section A Sub 6, Natural Gas Condensate. The daily volume is approximately 1 pint.

5. Rich oil and glycol filters plus oil filters from the compressors are picked up by a local sanitation service, T-N-T Disposal. They are hauled to the local county land fill.

6. Material Safety Data Sheet is attached for Ambitrol.

8. Both underground tanks are fiberglass. The contents are not corrosive to fiberglass. Both tanks are empied as needed and the condition of the sides and bottom are observed each time. The contents are sent to the injection well for disposal.

9. In the event of any tank failure a local trucking contractor would be called to remove the spill. All tanks are observed daily. Any sign of leakage would be fixed immediately.

   The disposal holding tanks are sized to hold a years supply of discharge.

   The injection well would have to be down for over a year at which time additional tanks would be installed.

10. On October 22, 1984 an analysis of the glycol was received. The pH was 4.5, therefore a program was re-initiated whereby DEA is driped into the glycol surge tank. The DEA is stored in five gallon plastic buckets.

11. The cooling tower blowdown pit is an unlined pit having the following dimensions:

21 feet square by 5 foot 3 inches deep

The cooling tower pit is a rectangle structure made of concrete. This is used as a pit or sump for the cooling water pumps. It has the following dimensions:

6'-9" X 23'-11" X 3'-9" deep

There are no monitor wells and chromates have not been used to my knowledge.

In summary the analysis will be available by February 20, 1985. This will answer question number seven (7).

In regard to question number 12 an engineering economic analysis is needed to determine which is the best solution for the cooling tower blowdown. As I see it we can:

1. Install a lined evaporation pond.

2. Shipment to an injection well.

3. Demonstrate that the groundwater standards are not being exceeded by the discharge.

In consideration of the above alternatives I hereby request an extension of six (6) months to continue operating the Avalon Plant without an approved discharge plan.

Should you have any questions regarding this letter or the request for extension, you may contact me at 885-8082 or 887-1490.

Sincerely,

Jon W. Jones

Jon W. Jones
Senior Staff Engineer

Enclosures

cc: Gary Mische w/o
Bob Corliss w/o
Correspondence file w/o
Avalon Plant Discharge Plan w/a

JWJ/mj

M A T E R I A L S A F E T Y D A T A S H E E T PAGE: 1

DOW CHEMICAL U.S.A. MIDLAND MICHIGAN 48640 EMERGENCY PHONE: 517-636 4400

EFFECTIVE DATE: 10 SEP 80 PRODUCT CODE: 07671

PRODUCT NAME: AMBITROL (R) NTC ANTIFREEZE MSD: 0554

INGREDIENTS (TYPICAL VALUES-NOT SPECIFICATIONS)	: % :
PROPYLENE GLYCOL INDUSTRIAL	: 95.4 :
INHIBITORS	: 2.1 :
WATER	: 2.5 :
DYE	: :

SECTION 1 PHYSICAL DATA

BOILING POINT: 320F, 160C : SOL. IN WATER: COMP. MISCIBLE
VAP PRESS: 0.22 MMHG @ 20C : SP. GRAVITY: 1.055 @ 60/60F, 16C
VAP DENSITY (AIR=1): 2.62 : % VOLATILE BY VOL: NOT APPLICABLE
APPEARANCE AND ODOR: BLUE LIQUID

SECTION 2 FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 215F, 102C : FLAMMABLE LIMITS (STP IN AIR)
METHOD USED: CLEVELAND OPEN CUP : LFL: NOT DETER. UFL: NOT DETER.
EXTINGUISHING MEDIA: WATER FOG, ALCOHOL FOAM, CO2, AND DRY CHEMICAL.
SPECIAL FIRE FIGHTING EQUIPMENT AND HAZARDS: NONE.

SECTION 3 REACTIVITY DATA

STABILITY: ----
INCOMPATIBILITY: OXIDIZING MATERIAL
HAZARDOUS DECOMPOSITION PRODUCTS: ----
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

SECTION 4 SPILL,LEAK,AND DISPOSAL PROCEDURES

ACTION TO TAKE FOR SPILLS (USE APPROPRIATE SAFETY EQUIPMENT): SMALL SPILLS:
COVER WITH ABSORBENT MATERIAL, SCAN UP AND SWEEP INTO A DRUM.
LARGE SPILLS: DIKE AROUND SPILL AND PUMP INTO SUITABLE CONTAINERS.
DISPOSAL METHOD: REMOVE OR BURN IN PROPER INCINERATOR IN ACCORDANCE
WITH LOCAL, STATE, AND FEDERAL REGULATIONS.

SECTION 5 HEALTH HAZARD DATA

(CONTINUED ON PAGE 2)

EFFECTIVE DATE: 10 SEP 80 PRODUCT CODE: 07671
PRODUCT (CONT'D): AMBITROL (R) NTC ANTIFREEZE MSD: 0554

SECTION 5 HEALTH HAZARD DATA (CONTINUED)

INGESTION: LOW SINGLE DOSE ORAL TOXICITY. LD50 RATS IS GREATER THAN 10 G/KG.
EYE CONTACT: UP TO MINOR IRRITATION BUT NO CORNEAL INJURY.
SKIN CONTACT: PROLONGED OR REPEATED EXPOSURE MAY CAUSE AT MOST ONLY MINOR IRRITATION.
SKIN ABSORPTION: NOT LIKELY TO BE ABSORBED IN TOXIC AMOUNTS. VERY LOW IN TOXICITY BY THIS ROUTE.
INHALATION: DOW INDUSTRIAL HYGIENE GUIDE 10 MG/M3 AEROSOL, 400 PPM VAPOR PROPYLENE GLYCOL. CONSIDERED TO BE VERY LOW IN HAZARD BY INHALATION.
EFFECTS OF OVEREXPOSURE: ----

SECTION 6 FIRST AID--NOTE TO PHYSICIAN

FIRST AID PROCEDURES:

EYES: IRRIGATION OF THE EYE IMMEDIATELY WITH WATER FOR FIVE MINUTES IS GOOD SAFETY PRACTICE. CONSULT MEDICAL.
SKIN: GOOD PERSONAL HYGIENE.
INHALATION: PAINO EFFECT EXPECTED.
INGESTION: LOW IN TOXICITY. INDUCE VOMITING IF LARGE AMOUNTS ARE INGESTED.
NOTE TO PHYSICIAN: HUMAN EFFECTS NOT ESTABLISHED. PROBABLY WOULD PRODUCE NO MORE THAN MILD ILLNESS WITH SPONTANEOUS RECOVERY.

SECTION 7 SPECIAL HANDLING INFORMATION

VENTILATION: RECOMMEND CONTROL OF PROPYLENE GLYCOL TO SUGGESTED GUIDES.
RESPIRATORY PROTECTION: NONE NORMALLY NEEDED.
PROTECTIVE CLOTHING: NONE REQUIRED.
EYE PROTECTION: NOT NORMALLY REQUIRED. IF NECESSARY, SAFETY GLASSES WITHOUT SIDE SHIELDS.

SECTION 8 SPECIAL PRECAUTIONS AND ADDITIONAL INFORMATION

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: PRACTICE REASONABLE CARE AND CAUTION.

ADDITIONAL INFORMATION: OF SEP 80 REVISIONS OF 05 JUN 78 -- SECTION 5 AND 7.

LAST PAGE
(R) INDICATES A REGISTERED OR TRADEMARK NAME OF THE DOW CHEMICAL COMPANY

C O R C H E K 1 6 8 6 Analytical Corrosion Control

A.C.C.O., Inc.

915/362-5751 / 3040 LAKEVIEW / ODESSA, TEXAS 79762

A. C. C. O.'S
HIGH TEMPERATURE FILMING AMINE CORROSION INHIBITOR

Performance

CORCHEK 1686 is a filming amine corrosion inhibitor which effectively controls corrosion due to H_2S, CO_2, mineral and organic acids. Since it is non volatile it will not be carried over with vapors. Because of its detergent and corrosion inhibition properties, it reduces deposits due to corrosion by-products, thereby prolonging equipment life. It is also effective against corrosion due to pH and high temperature.

Physical Properties

Form	Amber liquid
Specific gravity @ 60°F	0.940 (7.65 lbs./gal.)
Flash point	185°F
Pour point	Below 0°F
Viscosity @ 60°F	37 cps
Solubility	Water dispersible, oil soluble

Contains no heavy metals or organic chlorine compounds.

Regulation

CORCHEK 1686 should be fed continuously, but certain applications will permit batch feeding. Initial dosages of 15-20 ppm can often be reduced to less than 5 ppm using a corrosion test method to determine the most effective dosage. CORCHEK 1686 can be diluted with most hydro carbons for easy feeding. CORCHEK 1686 can be fed in water dispersions of the chemical pot is agitated. When used as as anti-foulant dosage in the range of 45-30 ppm should be maintained.

Handling Instructions

CORCHEK 1686 does not have dangerous properties. Reasonable precautions should be taken, however, to avoid repeated or prolonged skin contact. Wash exposed body with soap and water. DO NOT TAKE INTERNALLY.

Packaging and Delivery

CORCHEK 1686 packaged in 55 gallon steel drums weighing approximately 420 pounds and will be shipped from our Odessa Plant within 7 days after receipt of your purchase order. Bulk deliveries are available.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

December 5, 1984

TONEY ANAYA
GOVERNOR

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

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Gas Company of New Mexico
Permian District
311 Moore Drive
Carlsbad, New Mexico 88220

Attention: Mr. Jon W. Jones

Dear Mr. Jones:

The Oil Conservation Division has received your discharge plan for the Gas Co. of New Mexico Avalon Plant. Your excellent description of the plant processes and effluent sources is greatly appreciated. To continue further with the review process, the following information is requested:

1. As referenced in Drawing A of your discharge plan, methanol is introduced to the gas stream. At what rate and concentration is it introduced? Does it remain in the product or is it regenerated or disposed of? If disposed of, to what effluent stream is it delivered to? How is the methanol supply stored?

2. Drawing C indicates that Corcheck is injected in the rich oil line upon exiting the rich oil filter. What is the injection rate? Is it separated from the stream later on and disposed of? If so, what effluent stream is it disposed to? Provide a chemical description or safety sheet (if available) for Corcheck.

3. How is the caustic supply stored?

4. The discharge scrubber in the propane flow

process diagram is dumped manually. To where is this discharge dumped? If dumped to an effluent stream, what is the composition and average daily volume of this dumped fluid.

5. Is any solid waste generated (e.g. rich oil and glycol filters)? If so, where and how is the waste disposed of?

6. The engine cooling waters are treated with Ambritol. What is Ambritol's chemical composition? Send a safety sheet if available.

7. The water analysis for the tower blowdown pit should also include analysis for benzene, toluene, and para-, meta-, and ortho- xylenes. A chemical analysis of the effluents sent to the injection well is requested. The chemical analysis should include major cations and anions and analysis for WQCC parameters listed in Section 3-103 except for radioactivity, silver, uranium, mercury, and chlorinated hydrocarbons. Be sure to describe briefly the sampling method used.

8. How would a leak in the underground tanks be detected?

9. Do you have a contingency plan in the event of a tank leak or long-term injection well shut-down?

10. What is used for pH control in the glycol reboiler? In what quantities and where is this chemical stored?

11. Your plot plan shows both a cooling tower pit and a blowdown pit. The blowdown pit is described as being unlined. Provide the dimensions of both pits and liner information for the cooling tower pit. Are there any monitor wells? Were chromates ever used as treatment chemicals in the cooling towers?

12. Your discharge plan indicates that the nearest well is located in the NE/4 SW/4, Section 3, Township 20 South, Range 28 East and is about 1 ¼ miles away from the plant. However, when

mapped that location is about seven miles east and seven miles north of the plant. The New Mexico State Bureau of Mines and Mineral Resources Ground-Water Report No. 3, "Geology and Ground-Water Resources of Eddy County, New Mexico", shows a well in the SW/4 SW/4, Section 9, Township 21 South, Range 27 East, less than one mile from the plant in the same section. The depth to water was listed as 81 feet in 1950 and the water bearing sediments are listed as being alluvium. An analysis of the water showed 1090 mg/l TDS (vs. 2632 mg/l in your discharge) and lower values of sulfate, chloride, fluoride and nitrogen than in your discharge (copies enclosed). Since your discharge water is of poorer quality than the ground water in the area, you will not be allowed to continue discharging to the unlined blowdown pit unless you can demonstrate that the discharge will not cause ground water standards to be exceeded at a place of present or foreseeable future use of the water. Such a demonstration would need to include a detailed hydrogeological study of the area (eg. ground water availability and movement, geology, water quality, vadose zone interactions, etc.), and your plans for sampling and monitoring both the effluent and ground water (via likely use of monitoring wells) for the lifetime of the plant and possibly longer (see Section 3-107 of the WQCC Regulations for what may be required). Since your discharge is relatively small, you may wish to investigate some other method of disposal including a lined evaporation pond, or shipment to an injection well.

By letter dated April 7, 1981, the Avalon Plant was required by the Oil Conservation Division to submit a discharge plan for approval. WQCC Regulation 3-106 A. provides that after notification a person may continue to discharge without an approved plan for only 240 days unless the Director for good cause allows a longer time. No permission to continue the discharge without an approved plan has been requested by Gas Company, nor has OCD given permission to continue the discharge without an approved plan. Therefore, within 30 days after receipt of this letter, and based on the information within this letter (especially Item No. 12), Gas Company

should provide an estimate of the time needed to complete discharge plan submittals, and, giving good cause, request the necessary extension of time to operate without an approved plan.

If you have any questions regarding this letter or the discharge plan process, please contact either myself or Philip Baca at 827-5812.

Sincerely,

DAVID G. BOYER,
Hydrologist

cc: R. L. Stamets
Hobbs OCD office

P 505 905 771

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to	Gas Co. of N.M.
Street and No.	311 Moore Drive
P.O., State and ZIP Code	Carlsbad, N.M. 88220
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	
Return Receipt Showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date	

PS Form 3800, Feb. 1982

GAS COMPANY OF NEW MEXICO
PERMIAN PIPELINE DISTRICT

November 13, 1984

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

RE: Gas Company of New Mexico Discharge Plant
for the Avalon Plant.

Gentlemen:

Enclosed are the sample analysis pertaining to the above referenced discharge plan.

Please advise if additional information or data is required.

Sincerely,

Jon W. Jones

Jon W. Jones
Senior Staff Engineer

JWJ/mj

Enclosures

311 Moore Drive, Carlsbad, New Mexico 88220

Controls for Environmental Pollution, Inc.
P.O. BOX 5259 • Santa Fe, New Mexico 87502
LOCAL 505/982-9841
OUT OF STATE 800/545-0139

PAGE 1 CEP, Inc. REPORT LAB # 84-09-176

RECEIVED: 09/14/84 11/06/84 16:34:33

REPORT TO: Gas Company of New Mexico
311 Moore Drive
Carlsbad, NM 88220

ATTEN: John Jones

CLIENT: GAS CO NM SAMPLES: 3
COMPANY: Gas Company of New Mexico
FACILITY: 311 Moore Drive
Carlsbad, NM 88220

WORK ID: Water Quality and Env.
TAKEN:
TRANS: UPS
TYPE: Water
P.O. #:
INVOICE: under separate cover

PREPARED BY: Controls for Environmental Pollution, Inc.
1925 Rosina Street
Santa Fe, NM 87502

ATTEN:
PHONE: (505) 982-9841

CERTIFIED BY

CONTACT: GAIL

SAMPLE IDENTIFICATION

01 Cooling Tower Blow Down
02 Plant Feed
03 Well Water

CEP, Inc. TEST CODES and NAMES used on this report

AG 1	Silver
AL 1	Aluminum
AS 1	Arsenic
BA 1	Barium
B 1	Boron
CD 1	Cadmium
CL 1	Chloride
CN 1	Cyanide
CO 1	Cobalt
CR 1	Chromium
CU 1	Copper
FE 1	Iron
FU 1	Total Uranium
F 1	Fluoride
HG 1	Mercury
MN 1	Manganese
MO 1	Molybdenum
NI 1	Nickel
NO3 1	Nitrate, Nitrogen (as N)
PB 1	Lead
PHEN 1	Phenol
PH 1	pH
RA226W	Radium-226
RA228W	Radium-228
SE 1	Selenium
SO4 W	Sulfate
TDS 1	Total Dissolved Solids
ZN 1	Zinc

Centers for Environmental Pollution, Inc.
P.O. BOX 5051 • Santa Fe, New Mexico 87502
IN STATE 505/982-9841
OUT OF STATE 800/545-3188

REPORT OF ANALYSIS

LAB # 84-08-171

SAMPLE IDENTIFICATION	DATE COLLECTED	TYPE OF ANALYSIS	mg/liter	
Cooling Tower Blow Down	not specified	Silver	<0.01	
		Aluminum	0.1	
		Arsenic	<0.01	
		Barium	0.4	
		Cadmium	<0.001	
		Cobalt	<0.01	
		Chromium	<0.01	
		Copper	0.005	
		Iron	0.07	
		Total Uranium	0.003	
		Mercury	<0.0004	
		Manganese	0.45	
		Molybdenum	<0.01	
		Nickel	0.01	
		Lead	<0.01	
		Selenium	<0.01	
		Zinc	3.7	
		Boron	0.5	
		Chloride	420	
		Cyanide	<0.1	
		Fluoride	4.2	
		pH	7.29	(units)
		Radium-226	<0.6	(pCi/liter)
		Radium-228	<1	(pCi/liter)
		Sulfate	920	
		Solids, Total Dissolved	2632	
		Nitrogen, Nitrate (as N)	28.0	
		Phenols	<0.001	

Controls for Environmental Pollution, Inc.
P.O. BOX 5351 • Santa Fe, New Mexico 87502
IN STATE 505/[illegible]
OUT OF STATE 800/[illegible]

REPORT OF ANALYSIS

LAB # 84-09-176

SAMPLE IDENTIFICATION	DATE COLLECTED	TYPE OF ANALYSIS	mg/liter	
Plant Feed	not specified	Silver	<0.01	
		Aluminum	0.6	
		Arsenic	<0.01	
		Barium	0.1	
		Cadmium	<0.001	
		Cobalt	<0.01	
		Chromium	<0.01	
		Copper	0.001	
		Iron	0.10	
		Total Uranium	0.003	
		Mercury	<0.0004	
		Manganese	0.001	
		Molybdenum	<0.01	
		Nickel	<0.1	
		Lead	<0.01	
		Selenium	<0.01	
		Zinc	0.5	
		Boron	0.1	
		Chloride	60	
		Cyanide	<0.1	
		Fluoride	0.78	
		pH	7.92	(units)
		Radium-226	<0.6	(pCi/liter)
		Radium-228	<1	(pCi/liter)
		Sulfate	41	
		Solids, Total Dissolved	392	
		Nitrogen, Nitrate (as N)	3.0	
		Phenols	<0.001	

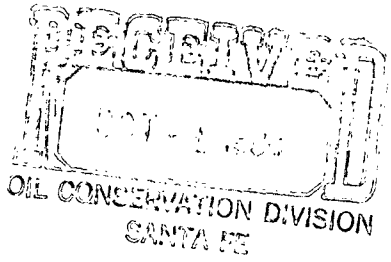
Controls for Environmental Pollution, Inc.
P.O. BOX 8351 • Santa Fe, New Mexico 87502
IN STATE 505/982-9841
OUT OF STATE 800/545-2168

REPORT OF ANALYSIS

LAB # 84-09-176

SAMPLE IDENTIFICATION	DATE COLLECTED	TYPE OF ANALYSIS	mg/liter	
Well Water	not specified	Silver	<0.01	
		Aluminum	0.6	
		Arsenic	<0.01	
		Barium	<0.1	
		Cadmium	<0.001	
		Cobalt	<0.01	
		Chromium	<0.01	
		Copper	0.001	
		Iron	0.82	
		Total Uranium	0.013*	
		Mercury	<0.0004	
		Manganese	0.16	
		Molybdenum	0.02	
		Nickel	<0.1	
		Lead	<0.01	
		Selenium	<0.01	
		Zinc	0.1	
		Boron	0.4	
		Chloride	240	
		Cyanide	<0.1	
		Fluoride	2.0	
		pH	7.59	(units)
		Radium-226	<0.6	(pCi/liter)
		Radium-228	<1	(pCi/liter)
		Sulfate	1620	
		Solids, Total Dissolved	3326	
		Nitrogen, Nitrate (as N)	5.0	
		Phenols	<0.001	

GAS COMPANY OF NEW MEXICO
PERMIAN PIPELINE DISTRICT



September 28, 1994

Joe D. Ramey, Director
State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Dear Mr. Ramey:

Enclosed please find an application for the discharge plan for the Avalon Plant. I have also attached a copy of your letter outlining inadequacies in a plan previously submitted.

Please note the water sample analysis are not in the plan. These analysis have not been received by my office. They should be available in 1 week to ten days and will be forwarded to your office as soon as received.

Should you have any questions, please call.

Sincerely,

Jon W. Jones

Jon W. Jones
Senior Staff Engineer

In Brown Folder - P.B.

JWJ/mg

Attachments

GAS COMPANY OF NEW MEXICO

AVALON PLANT

WASTE WATER DISCHARGE PLAN

Submitted to:

New Mexico Oil Conservation Division

Santa Fe, New Mexico

Submitted by:

Gas Company of New Mexico

Permian District

311 Moore Drive

Carlsbad, New Mexico

September 25, 1984

CONTENTS

DISCHARGE PLAN APPLICATION FOR NATURAL GAS PLANTS

I GENERAL INFORMATION

A. Name of Discharger

Gas Company of New Mexico, Avalon Plant
311 Moore Drive
Carlsbad, New Mexico 88220
505-885-6082

B. Local Representative

Jon W. Jones
311 Moore Drive
Carlsbad, New Mexico 88220
505-885-6082

C. Location of Discharge

The Avalon Plant is located approximately five and one half (5.5) miles north north east of Carlsbad, Eddy County, New Mexico. The plant has the following legal description:

The north one-half of the northwest one quarter of the southeast one-quarter (N/2, NW/4, SE/4) of Section 9, Township 21 South, Range 27 East, N.M.P.M., consisting of approximately 20 acres, more or less.

D. Type of Natural Gas Operation

The Avalon Plant utilizes a refrigerated lean oil absorption process to remove hydrocarbons (ethanes, propanes, butanes, pentanes and hexanes) from natural gas. Plant design capacity is 30 MMCFD.

The plant processes can best be described by reviewing the process flow diagrams (located in the Appendix) and the description of each flow. Basically there are two main flows, Natural Gas Flow and the end result flow or Product Flow. The process requires three additional flows propane, lean oil and glycol. Each is described below:

Natural Gas Flow	Flow Diagram A
Product Flow	Flow Diagram E
Lea Oil Flow	Flow Diagram C
Propane Flow	Flow Diagram B
Glycol Flow	Flow Diagram D

NATURAL GAS FLOW

The gas that feeds the Avalon Plant comes from Gas Company of New Mexico Permian District's Gathering and Transmission System.

Inlet Valve - The operation of the inlet valve is hard to follow on the flow sheet. Perhaps a description will help. The controller on this valve looks at pressure down stream of the plant, as the pressure drops this valve opens to let more gas through the plant. Normally, this valve is wide open, however, if down stream pressure gets too high, this valve will start to close. The air supply to the pressure controller is fed through a high flow controller, closing the inlet valve. The solenoid is operated with two switches. One of these is the high pressure shut down. If Plant pressure exceeds 598 psi, this switch will deactivate the solenoid, shuting off the air supply to the inlet valve controller. Also operation of the plant emergency shut down switch will deactivate the solenoid valve.

Inlet Scrubber - The inlet scrubber has a high level switch on it that will sound an alarm.

Gas to Gas Exchanger - When inlet gas leaves the scrubber, it goes to the gas to gas exchanger. Ethanes from the de-ethanizer, and rich oil flash drum are pushed with the compressor into this line. Also glycol is injected into the gas going into the gas to gas exchanger. The glycol is used to absorb moisture which helps prevent freezing in the gas to gas exchanger, because the gas is cooled with gas leaving the absorber.

Inlet Chiller - After the gas leaves the gas to gas exchanger it goes to the inlet gas chiller. Here it is cooled down more in the chiller. Additional glycol is injected into the gas stream to prevent freezing.

Gas-Glycol Separator - The volume of the gas sweeps the glycol into the gas glycol separator. A valve is tied into the two lines off of low points in the gas lines immediately after the two cooling exchangers. This valve is opened when gas volume is not sufficient to push the glycol into the separator.

Absorber - When the cold gas leaves the gas glycol separator, it goes into the bottom of the absorber. It then goes up the absorber through the cold oil coming down the absorber. The colder the oil and gas the better the transfer of product from the gas to the oil.

Propane-Residue Exchanger - When the gas leaves the top of the absorber, it goes back through the gas to gas exchanger to help cool inlet gas. It then goes to the propane residue exchanger. Generally this exchanger is bypassed with the gas, because the propane is already cooler than the gas. When the exchanger is used, the bypass is generally not closed all the way, because this restricts gas flow.

Discharger scrubber - After leaving the propane residue exchanger, the gas goes through the discharge scrubber. If oil accumulates in this vessel, it is manually dumped into the rich oil flash vessel.

Discharge Valve - This valve is used to hold back pressure on the plant. If plant pressure gets too low, it closes to hold in gas pressure. Generally absorber pressure is monitored to set the discharge valve controller. After the gas leaves the discharge valve, it goes back into the transmission system.

PRODUCT FLOW

Product Accumulator - When product leaves the still it goes through the still over head Fin Fan and then through the still over head exchanger. This cooling helps to condence the hot vapors into liquid which are deposited in the product accumulator. A hot gas bypass controller is used to by pass the cooling in order to maintain enough pressure on the accumulator to keep the compressor stage from starving.

Compressor - The compressor pulls the vapors off the accumulator that have not condensed into liquid and pushes them into either the rich oil stream or back into the product stream going to storage. A control valve at the accumulator maintains accumulator pressure. If this pressure gets too low the valve will close, starving the compressor. That is the reason for the hot gas bypass controller. Before the vapors get to the compressor they go through the product exchanger and then into the suction scrubber. The suction scrubber has a high level switch that will shut down the compressor if the scrubber fills up with product liquid. This vessel is dumped manually and should be checked several times each shift. After the scrubber, the vapors are compressed and pushed back through the product exchanger to either the oil or product stream. A makeup valve is used to control proper suction pressure to the compressor. If suction pressure falls too low, this valve will open, dumping some of the higher pressure off of the discharge back into the suction side of the compressor. This valve is not large enough to hold up suction pressure on the compressor if the accumulator pressure drops. Its primary job is to smooth out any pressure swings from the accumulator.

Reflux Pump - The Reflux pump pushes some of the product out of the accumulator back into the top of the still. This product goes onto several trays that are above the oil entry into this vessel. The amount of product traveling down these top trays controls the temperature of the hot product vapors coming up out of the top of the still. This action also helps to hold any vapors from the oil in the still.

Product Pump - This pump pushes product in two directions. One of the streams is used to maintain a level in the accumulator. As the level drops a valve opens to let some of the liquid product go back into the accumulator. The rest of the product is pumped through the brown Fin tube exchanger where it is either heated up or cooled in order to maintain a proper temperture when it goes through the caustic system.

Caustic System - The temperature of the product comp through the caustic system determines the heat of the caustic solution. This temperature should be held somewhere between 70 and 80 degrees F. by manually adjusting the temperature of the brown fin tube. A pressure controlling valve is used to hold the pressure on the caustic system. This is to keep the product from flashing in the

caustic and carrying caustic into the storage tanks. Product is pumped through caustic in this vessel to remove impurities in the product.

Storage - When the product leaves the caustic system, it goes through the product chiller where it is cooled and then is stored in the product tanks, for shipping.

LEAN OIL FLOW

Lean Oil Chiller - cools oil going to absorber generally the oil temperature should be as low as possible.

Absorber - contacts cool oil going down with cool gas going up to the oil captures product from the Gas. The higher the absorber pressure the better the transfer of product to oil, however, the absorber is rated at 556 psi maximum and was rated in 1945, therefore, this pressure should probably be run at least 15 psi below maximum.

Rich Oil to Oil Exchanger - the oil leaving the absorber goes through this exchanger to heat it up, also the hot oil coming back from the still is cooled to prepare it for re-entry into the absorber. The Lean Oil Fin Fan has a controller on it that helps to control the temperature of the oil going into the oil to oil exchanger. This in turn varies the temperature of the oil going to the rich oil flash tank.

Rich Oil Flash Tank - After the oil has been heated up in the oil to oil exchanger it goes to the rich oil flash tank where the pressure is dropped. This released some of the light vapors out of the oil and they go out of the top of the Rich Oil Flash into a line coming from the top of the deethanizer going to the compressor. The level is controlled on this vessel with a valve in the vapor line. As the level rises in this vessel it closes the valve in the vapor line creating a gas pocket in the Rich Oil Flash that forces the oil back down.

Rich Oil Filter - Filters out some of the particles in the oil.

Side Stream Exchanger - A flow controller controls the amount of oil going to the top of the Deethanizer by opening or closing a valve going to the side stream exchanger. By varying the flow to the top of the deethanizer, the flow is changed going through this side stream exchanger, where it is heated up. at the same time cooling the oil coming back from the still.

Deethanizer - At the deethanizer the oil that goes into the upper section acts as a reflux to help hold in the heavier components of the Gases that are coming out the top as vapors to the compressor. This stream starts down the Deethanizer and meets the warmer stream coming in the side of the deethanizer and continues on down to the bottom of the deethanizer. The temperature of the vapors off the top of the deethanizer are partially controlled by the amount of oil that goes through the side stream exchanger. The deethanizer pressure is controlled by a valve in the vapor line off the top of the deethanizer.

The oil is pumped off of the deethanizer through two more exchangers (where it is heated up more) to the deethanizer bottom. The reason it is pumped is because there is a vapor line from the deethanizer bottom into the deethanizer, therefore, both vessels run at the same pressure.

Deethanizer bottom - When the oil that has been heated up more reaches this vessel it releases hot vapors that go through the vapor line into the deethanizer and go up the deethanizer helping to strip the oil that is coming down. The oil leaving the deethanizer bottom goes to the still feed bottom exchanger where it is heated up more and then goes into the upper section of the still.

Still - The oil goes down the still and into the still bottom accumulator. It is then pumped to the heater where it is heated up and returned to the other side of the still bottom accumulator. There is a baffel in the accumulator that separates these two streams. The baffel is open at the top so the hot vapors from the oil that has been heated up can go back up the still to help strip product out of the oil that is coming down. Still pressure should run between 155 and 160 psi and is controlled with a valve in the product vapor line.

Still Feed Bottom Exchanger - After the oil leaves the accumulator it goes through the still feed bottom exchanger. A temperature controller looks at oil temperature down stream of this exchanger and controls a valve that bypasses oil around this exchanger. Varying the temperature on this exchanger effects Deethanizer bottom temperature because the more oil that bypasses the still feed bottom exchanger the hotter that oil is. This in turn affects the temperature of the deethanizer reboiler exchanger.

Lean Oil Surge Tank - After the oil leaves the deethanizer reboiler and goes through two more exchangers and the Fin Fan Cooling down at each point - through the oil to oil exchanger into the lean oil surge tank. From here it is pumped back through the lean oil chiller. The lean oil flow is controlled with a controller at the lean oil chiller.

PROPANE FLOW

Propane Accumulator - After propane vapors have been compressed in compressor, and cooled in fin fans, liquid and vapors go to the accumulator. From the accumulator they go to the condenser.

Propane Condenser - Propane goes through this exchanger and is cooled with water to further condense vapors into liquid.

Propane-Residue Exchanger - Propane goes through this exchanger and is cooled further with the cool gas from the absorber. However, this exchanger is not used unless the propane is hotter than gas from the absorber. This cooling is accomplished by partially closing the bypass valve on the gas stream that bypasses the propane exchanger.

Product Chiller - Liquid propane is tapped at the propane exchanger and goes to the product chiller with vapors going to the economizer.

Economizer - The level in the economizer is controlled with a valve upstream of the economizer. As the level drops in this vessel, the valve is opened up to pull more liquid from the propane gas exchanger. Vapors that accumulate in the economizer are pulled off and taken back to the compressor where they are run back through the high stage on compressor. The economizer has a high level switch on it that will trip down the compressor if the liquid level gets too high in this vessel. Liquid propane goes from here to the chillers.

Gas and Oil Chillers - When the propane reaches the chillers the pressure is dropped on it by pulling propane vapors off the top of the chillers. This flashing action of going from liquid to vapors causes the chillers to cool down.

Suction Scrubber - When the vapors leave the chillers they go to the suction scrubber. This scrubber has a switch on it that will shut the compressor down if it fills up with liquid. A good indication of this is frost on the bottom of the chiller and frost on the (Bull Horns). If this happens, the liquid can be warmed up and flashed off by cracking hot vapors off of the discharge side of the compressor back into the scrubber. This line is not shown.

Compressor - Vapors are pulled off of the top of the scrubber and run through the low stage cylinder. They then join the vapors from the economizer and are compressed through the high stage cylinder. The suction stage should be held to 8-10 psi in order to have good flashing action in the chillers. This is controlled by starting and stopping propane Fin Fans and cooling tower fans.

Discharge Scrubber - After the vapors are compressed, they go to the discharge scrubber. The level should be checked in this vessel once a day. It is pumped manually.

GLYCOL FLOW

Gas-Glycol Separator - When gas glycol mixture goes into this vessel, the glycol falls out and settles in the bottom. Pressure then pushes it to the glycol glycol separator.

Glycol Glycol Exchanger - Here the glycol leaving the separator is warmed up, while the glycol going to injection is cooled down. It then goes through the separator level control valve into the glycol preheater.

Glycol Preheater - Here the glycol is heated up to approximately 130 degrees F. by manually operating a valve in the hot oil line. The valve is not shown. Then it goes to the glycol condensate separator.

Glycol Condensate Separator - In this vessel the pressure is dropped so the condensate that is mixed in with the glycol can separate and go out the top of the glycol condensate separator into the oil stream that is goin to the deethanizer. There is a baffel in this vessel that extends part of the way up. It hold the glycol in one section of this vessel so it can settle to the bottom. A level controller looks at the interface of these two liquid levels and controls glycol level.

Glycol Filters - When the glycol leaves the glycol concersate separator, it goes through the glycol filters to remove particle imourities.

Glycol Reboiler - After leaving the glycol filters, the glycol goes to the glycol reboiler where it is heated up to 320 degrees, and the pressure is dropped to atmosphere. The water that has been captured is released as steam and some condensate in this process.

Glycol Surge tank - When the glycol leaves the reboiler it goes into the glycol surge tank where it is held to be pumped back to the injection heads in the two gas cooling exchangers.

E. Affirmation

"I hereby certify that I am familiar with the information contained in and submitted with this application and that such information is true, accurate, and complete to the best of my knowledge and belief."

Jon W. Jones
Signature

September 28, 1984
Date

Jon W. Jones

Senior Staff Engineer

II PLANT PROCESS

A. Sources and Quantities of Effluent and Process Fluids.

1. Engine Cooling Waters

The plant utilizes two 550 horsepower compressors. The compressor engines are cooled by a closed loop (radiator) system. Ambitrol is used in the radiators for corrosion control. The compressors and engines are situated on a concrete pad surrounded by a raised curb. Any leakage is routed to the drain which is connected to a 11,000 gallon tank located northwest of the compressor building. Approximately 180 gallons of coolant (50% ambitrol - 50% water) is drained to this tank annually.

2. Cooling Tower

The plant uses four Delta cooling towers. Each tower is 79 inches in diameter and 79 inches in height with a capacity of 50 tons each. These cooling towers are used to cool both the product and propane system. The cooling water is treated with sulfuric acid (74PPM) and corrshek A (300PPM) for PH and scale control respectively. Approximately 4560 GPD of make up water is used and approximately 1000 GPD of cooling tower blowdown is directed to an earthen pit.

3. Separators (produced water)

As part of the process natural gas is contacted with ethylene glycol to absorb moisture (water) from the natural gas. The glycol stream is regenerated to remove this water. Approximately 2 BPD are routed from the glycol reboiler to a 375 gallon fiberglass tank.

4. Sewage

The sanitary waste water is handled by a septic tank. The plant is staffed by two people during the day shift and two people during the evening and night shifts. Based on water usage data found in "Design Manual - Onsite Wastewater Treatment and Disposal Systems", USEPA 625/1-80-012, October 1980, Table 4-2, page 54, sanitary water usage is 32 gallons/person/day. With one third day occupancy per person, the total usage is estimated at 42 gallons per day. Since the sanitary waste stream is not commingled with other streams, the sanitary waste discharge is exempt from the discharge plan review under section 3-105 Part B of the WQCC regulations.

5. Product Treating

A caustic wash is used to remove hydrogen sulfide and or Methyl and ethyl mercaptans from the product stream. Equal volumes of product and recirculated caustic are mixed and discharged into a caustic settling tank. This caustic system is a non-regenerative batch process. Cleaning up the product gradually uses up (spends) the caustic. The used (spent) caustic is stored in a 210 barrel (8820 gallons) tank. Caustic use amounts to approximately 5000 gallons of 50 percent caustic in water annually. The spent caustic is removed by Rowland Trucking for disposal in an injection well.

6. Natural Gas Condensate (Drip)

The incoming stream of natural gas has quantities of condensate commonly refered to as drip or natural gasolines. This condensate is predominately naptha and is removed and stored in the drip tank. This condensate is removed from the plant by Tec True Trucking Company. It is sent to local refineries for additional processing.

7. Other - Used Engine Oils

The used engine oils are disposed in the same manner as engine cooling waters discussed earlier. Approximately 1200 gallons of oil are drained to the holding tank and removed from the plant by Rowland Trucking for disposal in an injection well.

B. Quality Characteristics

The cooling tower blowdown is the only effluent being discharged directly upon the ground. All other effluents are contained and disposed in an injection well therefore only the cooling tower blowdown was analysed per Section 3-103 Parts A, B and C of the WQCC regulations.

The cooling tower blowdown was a grab sample. The sample was sent to Controls For Environmental Pollution, Santa Fe, New Mexico. The sample was preserved per instructions from the above firm.

C. Transfer and Storage of Effluents and Process Fluids

See figure A and the Plot Plan for the water and wastewater flow schematics respectively.

D. Spill/Leak Prevention and Housekeeping Procedures

Areas within the plant where leakage has historically occured such as level sight glasses, valves, lean oil pumps have containers underneath to contain any spills. These containers are dumped into the 11,000 gallon drip oil storage tank. The compressor building is curbed and has drains to the waste oil tank.

The caustic bath area currently has a gutter but does not contain a curb. Future modifications are discussed later in this report.

All effluent except cooling tower blowdown are contained in tanks. Above ground tanks are carbon steel and are monitored for leakage daily. Two below ground tanks for glycol reboiler condensate and spent caustic at the product tanks are fiberglass. Quantities in these tanks are observed daily. The glycol reboiler condensate amounts to 2 GPD which evaporates. The spent caustic is removed with the main spent caustic material.

In the event the disposal injection well is closed for any reason the effluent containment tanks are large enough to hold a years supply from the plant.

All but two lines going to the effluent storage tanks are PVC plastic to guard against corrosion. The other line is wrapped steel.

The OCD will be notified on an annual basis the total wastewater volume injected and any occurrence of leakage in the containment vessels.

III EFFLUENT DISPOSAL

A. Existing Operations

1. On-Site Facilities

The area around the caustic wash system has a gutter system with the drain going to the flare pit. This area is washed down monthly with an estimated flow of 80 gallons per month going to the flare pit.

During the annual plant shutdown (April 1985) the above drain system will be redesigned. The design will include a sump and sump pump to move this effluent to the spent caustic storage tank.

The cooling tower blowdown is routed to an earthen pit. This flow is approximately 1000 GPD.

2. Off-Site Disposal

Waste oils and spent caustic are removed from the plant by Rowland Trucking. These effluents are injected into a class II injected well operated by Unichem International, Inc. P.O. Box 1149, Hobbs, New Mexico. See Appendix for additional data on injection wells.

After caustic washing the product some spent caustic is carried over to the product storage tanks. This caustic is drained off the product tanks into a fiberglass tank located in the southwest part of the plant. This spent caustic is removed by vaccum truck with the other spent caustic material.

The glycol reboiler condensate is routed to a fiberglass storage tank located in the northwest part of the plant. The condensate flow rate is 2 BPD which evaporates.

All solid wastes are removed weekly from the plant by a private contractor.

C. Proposed Modifications

The only proposed modifications will be the caustic wash drain system.

IV SITE CHARACTERISTICS

A. Hydrologic Features

There are no bodies of water within one mile of the plant. The closest (1-1/4 miles) is a domestic stock well located in the NE 1/4 SW 1/4, Section 4, Township 20 South, Range 28 East NMP.

An analysis of the water from the above domestic stock was analysized by Controls for Environmental Pollution - Santa Fe, New Mexico.

B. Geologic Description of Discharge Site

The plant is located in the Glaciran Hills. This area has sedimentary surficial deposits of alluvium of stream and valley sector.

C. Flooding Protection

The plant is located approximately 2-3/4 miles east of Lake Avalon and is approximately 70 feet higher in elevation. The topography of the plant is such that runoff would be towards the northeast.

V ADDITIONAL INFORMATION

In additional to the analysis of the cooling tower blowdown and the above mentioned domestic stock well, a third sample, plant feed water, was analysized. These analysis were conducted by Controls for Environmental Pollution, Inc., 1925 Rosina Street, Santa Fe, New Mexico 87502. See Appendix for preservatives in each sample.

The Plant feed water is supplied by the City of Carlsbad.

A P P E N D I X

Unichem International, Inc.
P. O. Box 1149
Hobbs, New Mexico 88240

General information:

Springs Unit Salt Water Disposal Well

Location:

Unit Letter I, 1650' from the South line and 754' from the east line; Section 27, Township 20 South, Range 26 East.

Bone Springs Formation

Elevation 3221' GL

Converted plugged and abandoned well to Salt Water Disposal Service as authorized by New Mexico Oil Conservation Commission Order No. SWD-86

Proceedure:

Drill out cement plugs, cut off 13 3/8 & 8 5/8 casing. Insert casing nipple and 8 5/8 head. Drilled out to 4580', ran tubing to bottom. Ran Guiberson type AF tension packer on 85 joints of 2 3/8 OD EUE 8rt 4.70# J-55 tubing with PA-600 plastic coating. Bottom of packer set at 2661'. Completed conversion 12-12-68.

Administrative #
instead of R.#
R#

(4) That the State Engineer has designated, pursuant to Section 65-3-11 (15), N.M.S.A., 1953 Compilation, all underground water in the State of New Mexico containing 10,000 parts per million or less of dissolved solids as fresh water supplies to be afforded reasonable protection against contamination; except that said designation does not include any water for which there is no present or reasonably foreseeable beneficial use that would be impaired by contamination.

(5) That the applicant, Unichem International, Inc., seeks as an exception to the provisions to the aforesaid Order (3) to permit the commercial disposal of produced brine into several unlined surface pits (natural salt lakes) located in Section 2, Township 23 South, Range 29 East, NMPM, Eddy County, New Mexico.

(6) That the applicant proposes to dispose of up to 2000 barrels of salt water daily at company facilities located in the NW/4 of said Section 2, such salt water being hauled by Unichem or Unichem subsidiary trucks only.

(7) That there appears to be no shallow fresh water in the vicinity of the subject pits for which a present or reasonably foreseeable beneficial use is or will be made that would be impaired by contamination from the subject pits.

(8) That the area of the salt lakes is sufficient to provide for evaporation in excess of the volume of salt water proposed for disposal (up to 2000 barrels of water per day).

(9) That the disposal facility should consist of skim tanks, surge tanks, aeration tanks, skim oil storage tanks and a header pit all being of sufficient size and capacity to prevent the movement of any oil or solids onto or into any of the salt lakes affected by such disposal.

(10) That if the applicant fails to prevent the movement of such oils or solids onto or into any of said salt lakes, the Director of the Division should be empowered to administratively suspend or rescind the authority for use of such lake for salt water disposal.

(11) That this application should be approved.

IT IS THEREFORE ORDERED:

(1) That the applicant, Unichem International, Inc., is hereby granted an exception to Order (3) of Division Order No. R-3221, as amended, to dispose of up to 2000 barrels of salt water per day collected by its or its subsidiaries' trucks

in a commercial salt water disposal facility located in the NW/4 of Section 2, Township 23 South, Range 29 East, NMPM, Eddy County, New Mexico.

(2) That prior to disposal of any water at said facility, the applicant shall install skim tanks, surge tanks, aeration tanks, and skim oil storage tanks and shall construct a header pit all of combined size and capacity sufficient to prevent the movement of any oil or solids from the facility onto or into any natural salt lake or ground surface which may be affected by the disposal operation.

(3) That upon completion of such installation and construction the applicant shall notify the supervisor of the Division's district office at Artesia in order that the Division may inspect said facility.

(4) That the Director of the Division may by administrative order suspend or rescind such authority whenever it reasonably appears to the Director that such suspension or rescission would serve to protect fresh water supplies from contamination or if the applicant should permit the movement of oil or solids onto the ground surface or any natural salt lake as prohibited by Order No. (2) above.

(5) The applicant shall file a monthly report of disposal volumes on Form C-120-A in accordance with Division Rule 1120.

(6) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

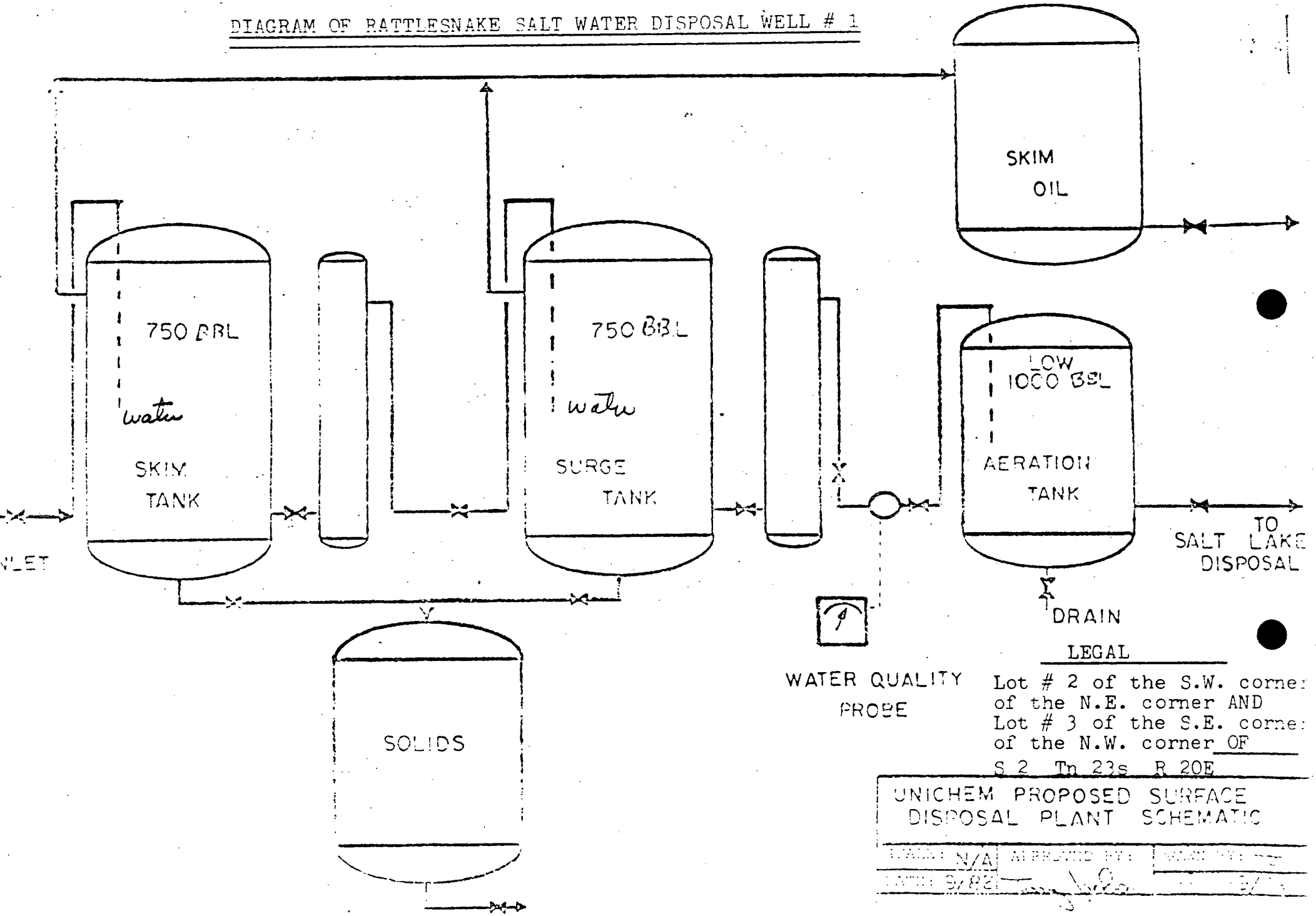
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

JOE D. RAMEY
Director

S E A L
fd/

DIAGRAM OF RATTLESNAKE SALT WATER DISPOSAL WELL # 1



LEGAL

Lot # 2 of the S.W. corner of the N.E. corner AND Lot # 3 of the S.E. corner of the N.W. corner OF S 2 Tn 23s R 20E

UNICHEM PROPOSED SURFACE DISPOSAL PLANT SCHEMATIC

SCALE N/A | APPROVED BY: | DRAWN BY:

DATE 9/82

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

TONEY ANAYA
GOVERNOR

September 14, 1984

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

Mr. John Jones
Gas Company of New Mexico
311 Moore Drive
Carlsbad, New Mexico 88220

Re: Gas Company of New Mexico
Avalon Gas Plant

Dear Mr. Jones:

Enclosed as you requested is a copy of the New Mexico Water Quality Control Commission Regulations.

Part 3 of the regulations controls discharges onto or below the surface of the ground that may impact ground water. If the discharge may move directly or indirectly into ground water, the person causing or allowing the discharge must have an approved discharge plan unless specifically exempted by the regulations.

Also enclosed are draft guidelines for preparation of ground water discharge plans at natural gas processing plants. At this point they should be used as a guide to the type of information OCD desires to be included in a discharge plan. Final guidelines will not be ready before late fall.

Since I will be out of the office until October 24, I will not be able to act on any application or be available to answer questions until after that date.

Sincerely,

D. G. BOYER
Hydrogeologist

DGB/fd

cc: Artesia Field Office

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

August 14, 1985

ERRATA

The attached public notice was not sent to persons who had requested to be notified of the filing of a discharge plan with the Director of the Oil Conservation Division. The public notice was published in mid-July as required in state newspapers, and affected governmental bodies were notified.

Because notification had not been given to those persons requesting it, the 30-day public comment period will remain open until September 16, 1985.

DAVID G. BOYER
Environmental Bureau Chief

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

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

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission regulations, the following discharge plan has been submitted for approval to the Director of the Oil Conservation Division, P.O. Box 2088, State Land Office Building, Santa Fe New Mexico 87501 (505) 827-5800.

Gas Company of New Mexico, Avalon Gas Processing Plant (SE/4 Section 9, Township 21 South, Range 27 East, NMPM, Eddy County, New Mexico), J. Jones, Authorized Agent, 311 Moore Drive, Carlsbad, New Mexico 88220, proposes to modify its existing facility by eliminating and closing an existing unlined evaporation pond, and disposing of approximately 1,000 gallons per day of cooling tower blowdown water into two steel above ground storage tanks with a total combined capacity of approximately 17,000 gallons. The water will be periodically transported to OCD approved waste disposal facilities. Liquid waste from other process vessels is currently stored in tanks and periodically transported to approved disposal and/or treating facilities. The cooling tower blowdown water has a total dissolved solids concentration of approximately 2600 mg/l. The groundwater most likely to be affected in the plant vicinity is at a depth of approximately 80 feet with a total dissolved solids of approximately 1100 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 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 New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 10th day of July, 1985.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

R. L. STAMETS
Director

S E A L

GAS COMPANY OF NEW MEXICO
PERMIAN PIPELINE DISTRICT

10 May 1984

Mr. Joe D. Ramey, Director
Energy and Minerals Department
Oil Conservation Division
P.O. Box 2088
Santa Fe, N.M. 87501

Dear Mr. Ramey,

Enclosed is El Paso Natural Gas Company's Discharge Plan and the correspondence file on Gas Company of New Mexico. Both of these items will aid me in preparing our discharge plan.

It would also be very beneficial if you could send me a copy of the New Mexico Water Quality Control Commission Regulations.

Again thank you for the use of the material.

Yours very truly,

Jon W. Jones

Jon W. Jones
Senior Staff Engineer

Enclosures (2)

JWJ/mj

cc: file

311 Moore Drive, Carlsbad, New Mexico 88220

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

TONEY ANAYA
GOVERNOR

March 9, 1984

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

Mr. James G. Townsend
Gas Company of New Mexico
311 Moore Drive
Carlsbad, New Mexico 88220

Dear Mr. Townsend:

I have reviewed your proposed discharge plan for your Avalon Processing Plant and find the plan inadequate in the following:

1. Description of plant process.
2. Description of all chemicals used in the process.
3. Geological and hydrological description of the ground water in the area with source of water to plant and an analysis of the ground water for quality background.
4. Drawing of plant drainage system if present.
5. Description and drawing of disposal system (tank and lines to tank) and statement of where final disposal will be.
6. Disposition of solid wastes generated at the plant and disposition of same.
7. Monthly or yearly volume of each waste water stream (waste water, caustic, oil pit).
8. Description of what is used in engine jackets and disposition of same.
9. Flooding potential.

Please submit this information by October 1, 1984, and when these areas have been satisfactorily addressed, your discharge plan can be approved.

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

GAS COMPANY OF NEW MEXICO
PERMIAN PIPELINE DISTRICT

November 17, 1981

Mr. Oscar Simpson
State of New Mexico
Department of Energy & Minerals
Oil Conservation Division
P. O. Box 2008
Santa Fe, New Mexico 87501

Dear Mr. Simpson:

Responding to your request for a plan that outlines our efforts to control the effluent discharge from our Avalon Processing Plant, we submit the following material.

Attached is a schematic representing the process plant, the plant facilities, and our effluent discharge facilities. Those facilities shown on the plan in red ink are those that we propose to install to move the effluent from the three sources, the caustic bath, the water cooling towers, and the building that houses the compressors, to a common holding tank via a four-inch plastic gathering line. As outlined in previous conversations, the quantity of effluent from these three sources amounts to approximately 600 gallons per month. We propose to pipe these three sources of effluent to a common location where it will be held awaiting further disposal. This common storage point will be a 210 barrel tank. This tank is of standard oilfield construction, being 10 ft. in diameter, 15 ft. tall, 3/16" steel walls, 1/4" steel top and bottom, with appropriate safety stairs, venting, and unloading facilities.

We have contacted a local trucking firm and find that we have access to a certified disposal well which is the Spring Unit Disposal, Unit Letter I. This well is located 1650 ft. FSL, 754 ft. FEL, Section 28, Township 20 South, Range 26 East.

By using the trucking firm we will be able to maintain records showing those dates that we have had effluent removed and have copies of the bills of lading for those quantities of effluent which the firm has moved to the certified disposal well.

Provisions have been made, pending your approval, to implement this plan so we may be in compliance with the laws of the State of New Mexico.

311 Moore Drive, Carlsbad, New Mexico 88220

Thank you very much for your help and consideration. We anticipate hearing from you soon.

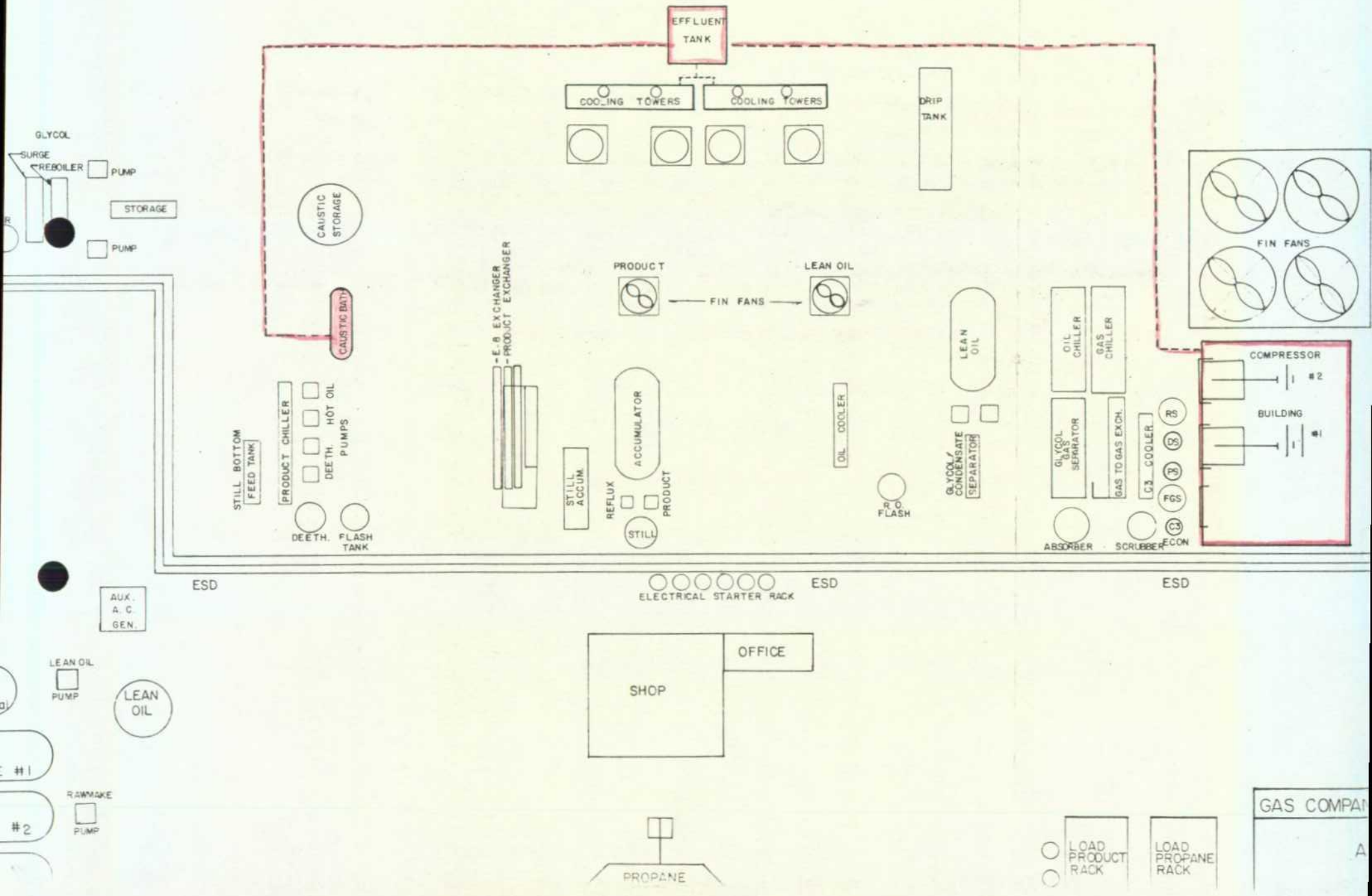
Very truly yours,

James Townsend mh

James G. Townsend
Plant Supervisor

JGT:mh
Enc.

cc: Graham E. Evans - Dallas
David J. Davis - Carlsbad


EFFLUENT TANK
COOLING TOWERS
COOLING TOWERS
DRIP TANK
GLYCOL
SURGE
REBOILER
PUMP
STORAGE
PUMP
CAUSTIC STORAGE
CAUSTIC BATH
E-B EXCHANGER
PRODUCT EXCHANGER
PRODUCT
FIN FANS
LEAN OIL
FIN FANS
LEAN OIL
OIL CHILLER
GAS CHILLER
COMPRESSOR
#2
BUILDING
#1
STILL BOTTOM
FEED TANK
PRODUCT CHILLER
DEETH. HOT OIL PUMPS
DEETH.
FLASH TANK
STILL ACCUM.
ACCUMULATOR
REFLUX
PRODUCT
STILL
OIL COOLER
R.O. FLASH
GLYCOL/ CONDENSATE SEPARATOR
GLYCOL GAS SEPARATOR
GAS TO GAS EXCH.
C3 COOLER
RS
DS
DS
FGS
C3 ECON
ABSORBER
SCRUBBER
ESD
ESD
ESD
ELECTRICAL STARTER RACK
AUX. A. C. GEN.
LEAN OIL
PUMP
LEAN OIL
OFFICE
SHOP
#1
RAWMAKE
#2
PUMP
PROPANE
LOAD PRODUCT RACK
LOAD PROPANE RACK
GAS COMPA

October 28, 1981

Gas Company of New Mexico
311 Moore Drive
Carlsbad, NM 88220

ATTENTION: David J. Davis

RE: Discharge Plan for
Avalon Plant

Dear Sir:

Pursuant to your letter of October 27, 1981, requesting an extension of time for the Avalon Plant Discharge Plan, the Oil Conservation Division hereby grants your extension. The Avalon Discharge Plan due date is extended to December 28, 1981.

If you have any questions on this matter, please call met at (505) 827-2534.

Sincerely,

Oscar A. Simpson, III
Water Resource Specialist

OAS/dp

GAS COMPANY OF NEW MEXICO

DAVID J. DAVIS, P.E.
DISTRICT VICE PRESIDENT

October 27, 1981

Mr. Oscar Simpson
Department of Energy & Minerals
Oil Conservation Division
P. O. Box 2008
Santa Fe, New Mexico 87501

Dear Mr. Simpson:

Pursuant to our conversation of October 26, 1981, I hereby request a thirty-day extension on behalf of our company. This will allow us to properly prepare a waste discharge plan for the Avalon Processing Plant facilities and be in compliance with the laws of the State of New Mexico.

Thank you very much for your help and consideration. I am looking forward to hearing from you soon.

Very truly yours,

David J. Davis

David J. Davis
District Vice President

DJD:mh

cc: Graham E. Evans - Dallas
James G. Townsend - Carlsbad

311 Moore Drive, Carlsbad, New Mexico 88220 505/885-3667

GAS COMPANY OF NEW MEXICO

Rec. Oct 22 '81 1981

RECEIVED
MAY 14 1984
CONSERVATION DIVISION
SANTA FE

DAVID J. DAVIS, P.E.
DISTRICT VICE PRESIDENT

October 13, 1981

Mr. Oscar A. Simpson
Water Resources Specialist
Energy & Minerals Department
P. O. Box 2008
Santa Fe, New Mexico 87501

Re: Discharge Plan for Avalon Plant

Dear Mr. Simpson:

Enclosed is a chemical analysis of waste water, caustic and oil effluent from the Avalon Plant. As you can see, the standards set in Section 3-103 are met except with regard to chloride, iron and TDS.

In lieu of preparing a complete discharge plant, Gas Company of New Mexico requests that it be permitted to install concrete holding receptacles for the caustic and oil effluent for collection and disposal in an approved manner.

Very truly yours,

David J. Davis

David J. Davis
District Vice President

DJD:mh
Att.

cc: Walter F. Bohls
Graham E. Evans
James G. Townsend

MOBILE ANALYTICAL LABORATORIES
& SOLAR ENERGY TESTING
P.O. BOX 6771
ODESSA, TEXAS 79762
PHONE 337-4744

SEPTEMBER 23, 1981

MR. ED JOHNSON
A.C.C.O., INC.
3040 LAKEVIEW DRIVE
ODESSA, TEXAS 79762

MR. ED JOHNSON:

THE FOLLOWING ARE THE RESULTS OF THE TESTS ON THE SAMPLES RECEIVED 9-16-81, LAB NO. 1179-1181:

	WASTE WATER-#109015 LAB NO. 1179	CAUSTIC-#109016 LAB NO. 1180	OIL PIT-#109014 LAB NO. 1181
METALS			
.05 AG	<.05 MG/L	<.05 MG/L	<.05 MG/L
5.0 AL	<5.0 MG/L	<5.0 MG/L	<5.0 MG/L
.01 AS	<0.1 MG/L	<0.1 MG/L	<0.1 MG/L
CR	<.05 MG/L	<.05 MG/L	<.05 MG/L
.05 CU	<1.0 MG/L	<1.0 MG/L	<1.0 MG/L
1.0 FE	<1.0 MG/L	1.8 MG/L X	3.1 MG/L X
1.2 NI	<0.2 MG/L	<0.2 MG/L	<0.2 MG/L
10.0 ZN	<10 MG/L	<10 MG/L	<10 MG/L
CATIONS			
NA	175 MG/L		1139 MG/L
CA	200 MG/L		76 MG/L
MG	34 MG/L		27 MG/L
	409		
ANIONS			
250 CL	284 MG/L	284 MG/L X	1846 MG/L X
600 SO4	500 MG/L	30 PPM	130 MG/L
HCO3	122 MG/L	SPECIFIC CONDUCTANCE	24 MG/L
	906		

.75(B) .05(CO) 1.0(MO)

1.0 BA
.01 Cd
.2 CN
1.6 F
.05 Pb
.002 Hg
10.0 N
.05 SE
.2 Ag

13 missing Elements
no toxic pollutants

Phenols

MOBILE ANALYTICAL LABORATORIES
& SOLAR ENERGY TESTING
P.O. BOX 6771
ODESSA, TEXAS 79762
PHONE 337-4744

SEPTEMBER 23, 1981

		WASTE WATER-#109015 LAB NO. 1179	CAUSTIC-#109016 LAB NO. 1180	OIL PIT-#109014 LAB NO. 1181
1000	TDS	1315 MG/L X	275,025 MG/L X	3262 MG/L X
6-9	PH	6.5	12.9 X	4.9 X
	SP.GRAV.	1.0013		1.0013
1.0	IRON	1.0 MG/L	2.0 MG/L X	3.2 MG/L X
	H2S	0		0
	CO2	5 MG/L		88 MG/L
	P-ALK.	0		0
	M-ALK.	100 MG/L		20 MG/L
	TOTAL HARDNESS	640 MG/L		300 MG/L

WE APPRECIATE THE OPPORTUNITY TO WORK WITH YOU ON THESE TESTS. IF YOU HAVE ANY QUESTIONS OR REQUIRE ANY FURTHER INFORMATION, PLEASE FEEL FREE TO CONTACT ME AT ANY TIME.

SINCERELY,

Walter Reid

WALTER REID
WR/BS

GAS COMPANY OF NEW MEXICO
PERMIAN PIPELINE DISTRICT

September 17, 1981

State of New Mexico
Energy & Minerals Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Attention: Oscar A. Simpson, Water Resources Specialist

Gentlemen:

As per our conversation yesterday, I would like to submit application for an additional 60 day extension as to our expected reply to you on analysis of effluents (caustic solution and oil effluent) from our Avalon Gasoline Plant.

As you must be well aware, those analyses are quite complex and time consuming to lab technicians that have the ability and equipment to properly conduct the required chemical analysis.

We plan to fully submit the analysis and a water disposal plan as required as soon as possible.

If you have any questions, please feel free to contact me at any time.

Respectfully,

James G. Townsend
Plant Supervisor

JGT:mh

311 Moore Drive, Carlsbad, New Mexico 88220

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

August 19, 1981

Gas Company of New Mexico
First International Building
Dallas, Texas 75270

Attention: Graham E. Evans
David J. Davis

Re: Discharge Plans for
Avalon Plant

Gentlemen:

Pursuant to the letters of July 20, 1981 by Mr. Evans and Mr. Davis acting on behalf of Gas Company of New Mexico, the Oil Conservation Division finds that Gas Company of New Mexico does not qualify for an exemption from the Discharge Plan requirements under the provisions of Section 3-105 (A).

The Oil Conservation Division denied your request on the grounds that no chemical analysis was submitted of the caustic solution or the oil effluent from the Avalon Plant. Testimony by David J. Davis is inadequate and not applicable in this case. The discharge of a caustic solution into a flare pit and oil effluent into an open pit is considered waste water effluent; which directly or indirectly may move into the ground water table in the plant area.

The Oil Conservation Division requests that Gas Company of New Mexico submit a chemical analysis of the caustic solution and oil effluent of Avalon Plant and should be tested for those elements as listed in Section 3-103 (A, B, and C) of Part 3 Water Quality Control. Also under Section 3-106 "Application for Discharge Plan Approval" and Section 3-105 (A) under the revised "Water Quality Control Commission Regulations" WQCC 81-2 which supersedes WQCC 77-1 and amendments thereof, Gas Company of New Mexico must consider "toxic pollutants" as defined and listed in Part I (X), pages 4, 5, and 6. If Gas Company of New Mexico persists on exemption to the Discharge Plan under Section 3-105, then chemical analysis for toxic pollutants must be submitted in conjunction with chemical analysis for elements listed in Section 3-103.

Enclosed is a copy of the revised Water Quality Control Commission Regulations WQCC 81-2. A 30 day extension will be granted to Gas Company of New Mexico to reply and submit the required chemical analysis. Collection preserving and analysis of the waste water effluent shall be done in accordance with Section 3-107 (B) of the WQCC. If evidence reveals that collection, preserving, and analysis of the waste water effluent was inproperly done the process shall be completely redone. Written documentation of some manner should be coordinated with this analysis request.

If you have any questions on this manner please call me at 505-827-2534.

Sincerely,

Oscar A. Simpson III

OSCAR A. SIMPSON
Water Resources Specialist

OAS/jc

GAS COMPANY OF NEW MEXICO

August 3, 1981

David J. Davis
Gas Company of New Mexico
311 Moore Drive
Carlsbad, New Mexico 88220

Re: Petition for Exemption from
Water Quality Control Regulations at Avalon Plant.

Dear Dave:

Attached is a copy of the Petition and Affidavit prepared for the exemption from the Water Quality Control Commission Regulations pursuant to Section 3-105 thereof for the Avalon Plant.

Please sign the Petititon and Affidavit and have them notarized before forwarding to the Oil Conservation Division of the Energy and Minerals Department. No filing fee applies to this Petition.

Sincerely,

Graham

Graham Evans

GE/bwl

Attachment

cc: Walter F. Bohls

BEFORE THE OIL CONSERVATION DIVISION
ENERGY AND MINERALS DEPARTMENT
OF THE STATE OF NEW MEXICO
July 20, 1981

In the Matter of Gas Company)
Of New Mexico Petition)
for Exemption from)
Water Quality Control)
Commission Regulations)

To the Director of the Oil Conservation Division:

COMES NOW, Gas Company of New Mexico, First International Building, Dallas, Texas 75270 ("Company"), and petitions the Oil Conservation Division, Energy and Minerals Department of the State of New Mexico as follows:

I.

Gas Company of New Mexico requests exemption from the filing of a Discharge Plan, as required by Section 3-104 of the Water Quality Control Commission Regulations, WQCC 77-1, Amendment No. 2 May 27, 1980, ("Regulations") for the Company's Avalon Plant, located in Carlsbad, New Mexico ("Plant").

II.

No waste water effluent is discharged from said plant. The discharge from the Plant consists of not more than 1,700 gallons of caustic solution and not more than 750 gallons of oil effluent from engines and compressors annually. The caustic solution is deposited into a flare pit and burned off. The oil effluent drains into an open pit and is later removed by vacuum truck to a certified disposal well.

III.

The Company is entitled to an exemption from the Discharge Plan requirements of Section 3-104 of the Regulations under the provisions of Section 3-105(A) since the discharge from the plant conforms to the numerical standards listed in Section 3-103 of the regulations.

IV.

The Company, by affidavit attached hereto and incorporated herein by reference for all purposes, attests that there is no waste water effluent discharged from the plant and the effluent or leachate existing at the Plant conforms to all the listed numerical standards of Section 3-103 and has a total nitrogen concentration of 10mg/l or less.

V.

For the reasons above stated, Gas Company requests the exemption from filing a Discharge Plan provided for in Section 3-105(A) of the regulations.

Respectfully submitted,

GAS COMPANY OF NEW MEXICO

By Graham E. Evans

GRAHAM E. EVANS
Attorney for Petitioner
1800 First International Bldg.
Dallas, Texas

AFFIDAVIT

I.

I, David J. Davis, District Vice President-Transmission for the Gas Company of New Mexico and a certified professional engineer, being first duly sworn, state that I have read and understand the maximum allowable contaminant concentration levels for ground water as listed in Section 3-103 of the Water Quality Control Commission Regulations, WQCC 77-1, Amendment No.1, May 27, 1980.

II.

I further state that I have personal knowledge of the effluent disposal system at Gas Company of New Mexico's Avalon Plant in Carlsad, New Mexico, and that there is no waste water effluent and that the oil and caustic solution discharged at the Plant do not exeed any of the maximum allowable contaminant concentration levels specified in Section 3-103 of the Regulations. The caustic solution is burned off and the waste oil is removed and disposed of in a certified disposal area.

IN WITNESS WHEREOF, I hereto set my hand.

David J. Davis

David J. Davis
GAS COMPANY OF NEW MEXICO
311 Moore Drive
Carlsbad, New Mexico 88220

STATE OF New Mexico)
)
COUNTY OF Eddy)

On this 6th day of August, 19 81, before me personally appeared David J. Davis to me known to be the person(s) described in and who executed the foregoing instrument and acknowledged that he executed the same as his free act and deed.

IN WITNESS WHEREOF, I have set my hand and seal of office on this 6th day of August, 19 81.

Margaret M. Harper
Notary Public in and for
Eddy County, New Mexico

My Commission Expires:

8/16/83

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

July 15, 1981

Gas Company of New Mexico
311 Moore Drive
Carlsbad, New Mexico 88220

Attention: David J. Davis

Reason: Discharge Plan GCM's
Avalon Plant

Gentlemen:

In response to your letter of July 8, 1981, the Oil Conservation Division feels that your request to be exempted from the Discharge Plan requirement under Section 3-105 (A) of the Water Quality Control Comission Regulations is invalid.

In order to be exempted you must submit a chemical analysis of your combined waste water effluent which conforms to all the listed numerical standards of Section 3-103 (A, B, C) and has a total nitrogen concentration of 10 mg/l or less.

If you have any questions on this matter or need additional clarification please call me at 505 827-2534.

Sincerely,

OSCAR O. SIMPSON III
Water Resources Specialist

OS/og

GAS COMPANY OF NEW MEXICO

July 8, 1981

Mr. Joe P. Ramey
Division Director
Oil Conservation Division
P. O. Box 2088
Santa Fe, NM 87501

Re: Discharge Plan, GCNM's Avalon Plant

Dear Mr. Ramey:

Your letter of April 7, 1981, requesting a Discharge Plan for GCNM's Avalon Plant has been received. The only discharge from the Avalon Plant consists of not more than 1,700 gallons of caustic solution annually which is discharged into a flare pit and approximately 750 gallons of motor oil annually which is discharged into a pit. The motor oil is subsequently picked up by a vacuum truck for disposal in a certified well.

Under these facts, we believe the Avalon Plant is entitled to exemption from the Discharge Plan requirement under Section 3-105(A) of your regulations. I would appreciate your advising me whether it would be necessary to file a journal request for exemption.

Very truly yours,

David J. Davis

DJD:scj

Carlsbad office
505 885 8082
Mr. Meiere
311 more River
88220

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

June 8, 1981

AVALON PLANT ?

Southern Union Company
First International Building
Dallas, Texas 75270

Attention: Mike Morrissey

Gentlemen:

In response to our telephone conversation of June 8, 1981, I am enclosing a copy of the Water Quality Control Commission Regulations, and the Specification for the Design and Construction of Lined Evaporation Pits.

The discharge plan should be comprehensive and specific and should cover all discharge of effluent and storage thereof at the plant site or adjacent to the plant site.

The discharge plan should be prepared in accordance with Part 3 of the Regulations and within the time frame of Section 3-106A of the regulations unless an extension of time is sought and approved.

If there are any questions on this matter, please do not hesitate to call me at 505-827-2533.

Sincerely,

OSCAR A. SIMPSON
Water Resource Specialist

OSog

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

Oscar

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

April 7, 1981

Mr. Dave Davis
Gas Company of New Mexico
311 Moore Drive
Carlsbad, New Mexico 88220

Re: Request for Discharge Plans

Dear Mr. Davis:

Under provisions of the regulations of the Water Quality Control Commission you are hereby notified that the filing of discharge plans for Gas Company's Avalon Plant (9-21S-27E) is required. Discharge plans are defined in Section 1-101.1 of the regulations and a copy of the regulations is enclosed for your convenience.

These plans should cover all discharge of effluent at the plant sites or adjacent to the plant sites. Section 3-106A. of the regulations requires submittal of the discharge plans within 120 days of receipt of this notice unless an extension of this time period is sought and approved.

The discharge plans should be prepared in accordance with Part 3 of the Regulations. Due to a recent court decision references to "toxic pollutants" may be ignored.

If there are any questions on this matter, please do not hesitate to call me or Oscar Simpson at 827-3260. Mr. Simpson has been assigned responsibility for review of all discharge plans.

Very truly yours, Due August 7 ± 1981

JOE D. RAMEY
Division Director

JDR/OS/og

cc: Oil Conservation Division - Hobbs